

Project_

**16 Totnes Road
Manchester, M21 8XF**

Title_

Flood Risk Assessment

Project No_

1017

Date_

February 2024

Revision_

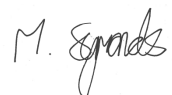
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Author: Mark Symonds

Date: 27th February 2024

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Contents	Page
1. Introduction	2
2. National and Local Guidance and Policies	3
3. Site Setting and Description	4
4. Sources of Flooding	5
5. Sourced Data	6
6. Probability of Flooding	8
7. Flood Risk and Vulnerability	9
8. The Sequential and Exception Test	12
9. Surface Water Management	12
10. Flood Risk Assessment Conclusion / Summary	13

Figures

Figure 1 – EA Flood Zone Map	6
Figure 2 – EA Fluvial Flood Probability Map	6
Figure 3 – EA Pluvial Flood Probability Map	6
Figure 4 – Reservoir Flood Map	7

Appendices

Appendix A	-	Existing Plans
Appendix B	-	Proposed Plans
Appendix C	-	Landmark Envirocheck Flood Map Data

1. Introduction

This flood risk assessment has been prepared by Flo Consult UK Ltd, on behalf of Mr Iqbal Singh Toor, for alterations of 16 Totnes Road, Chorlton, Manchester, M21 8XF (hereafter referred to as 'the Site').

This report provides a detailed overview of the proposed development and an assessment of it in relation to the flood risk, and how the proposals have been developed in relation to current flood map data and current planning policy and requirements, including:

- National Planning Policy Framework (NPPF), December 2023, Paragraphs 159-169;
- National Planning Practice Guidance (NPPG) ('Flood Risk and Coastal Change' section), released in March 2014 and updated in August 2022;
- Environment Agency and Department for Environment, Food and Rural Affairs guidance;
- Environment Agency and JBA Consulting via Landmark Envirocheck data service.

And local policies including:

- Manchester City, Salford City and Trafford Councils Level 1 SFRA (May 2010);
- Manchester City, Salford City and Trafford Councils Level 2 SFRA (March 2011);
- Manchester City Council – Local Flood Risk Management Strategy (March 2014).
- Manchester Local Development Framework – Core Strategy Development Plan (July 2012) – Pursuant to Policy EN 14 and Policy DM1.

Manchester City Council need to be satisfied that the proposed development design principles will address the risk of flooding to the Site, and that the proposals will not in turn increase the risk of flooding to neighbouring land and property.

This FRA has therefore been prepared to identify and evaluate the various possible sources of flood risk, to which the Site might be subjected to, and identify any mitigation; protection; or compensation measures deemed necessary or feasible, including design requirements to promote the use of sustainable drainage systems (SuDS).

2. National and Local Guidance and Policies

2.1. National Planning Policy Framework (NPPF) and National Planning Practice Guidance

The NPPF (December 2023) sets out the Government's planning policies for England and how these should be applied. It provides a framework within which locally prepared plans for housing and other development can be produced. This document is used to form this surface water management report, with particular attention to Paragraphs 159 to 169.

NPPF Paragraphs 159 to 169 provide guidance for planning and flood risk, where are plans should apply a sequential, risk-based approach to the location of development taking into account current and future impacts of climate change; to ensure that flood risk is not increased elsewhere due to the development; and to incorporate sustainable drainage systems.

2.2. Flood and Water Management Act

The Flood and Water Management Act takes forward some of the proposals from three previous strategy documents published by the UK Government - Future Water (2008), Making Space for Water (2008) and the UK Government's response to the Sir Michael Pitt's Review of the summer 2007 floods. In doing so it gives the EA a strategic overview role for flood risk, and gives local authorities responsibility for preparing and putting in place strategies for managing flood risk from groundwater, surface water and ordinary watercourses in their areas.

2.3. Manchester Local Development Framework – Core Strategy Development Plan

Policy EN 14 (Flood Risk), states:

- *'In line with the risk-based sequential approach contained within PPS25, development should be directed away from sites at the greatest risk of flooding, and towards sites with little or no risk of flooding; this should take account of all sources of flooding identified in the Manchester-Salford-Trafford Strategic Flood Risk Assessment (SFRA). In addition to the requirements for site-specific Flood Risk Assessments (FRAs) set out in PPS25, an appropriate FRA will also be required for all development proposals, including changes of use, on sites greater than 0.5ha within Critical Drainage Areas (CDAs) and Canal Hazard Zones identified in the SFRA.*
- *All new development should minimise surface water run-off, including through Sustainable Drainage Systems (SUDS) and the appropriate use of Green Infrastructure. Developers should have regard to the surface water run-off rates in the SFRA User Guide. In CDAs, evidence to justify the surface water run-off approach / rates will be required.*
- *The City of Manchester contains many sections of rivers which are culverted or 'hidden'; where these are indicated in the SFRA beneath the proposed development site, further investigation will be required and the development proposal should take this into account; where feasible and appropriate development should seek to open up culverted/hidden rivers to reduce the associated flood risk and danger of collapse, taking advantage of opportunities to enhance biodiversity and Green Infrastructure'.*

3. Site Setting and Description

3.1. Site Location

The Site is in residential area of Chorlton, is approximately 300m south-east of Chorlton train station, and is bound by railway lines to the north-east, residential gardens and dwelling leading to Sidbury Road to the south-east, an attached dwelling to the south-west, and Totnes Road to the north-west.

The address of the Site is 16 Totnes Road, Chorlton, Manchester, M21 8XF, with the co-ordinates to the centre of the of the Site being E: 382200, N: 393730.

3.2. The Site – Pre-Development State

As detailed on the plans in Appendix A, the Site, in a pre-development state consists of a semi-detached house over 4-floors (basement to second floor), with access to the front and rear, and no direct access from ground level to the basement.

3.3. The Site – Post Development State

The plan showing the Site in a post development state as shown in Appendix B.

As stated by Manchester City Council, the proposed development is the *‘Conversion of basement, installation of rear dormer and creation of a lightwell to the front to provide additional living accommodation together with elevational alterations’*.

No new access routes are to be formed from the external ground areas directly to the basement with alterations at basement level being internal and the creation of a lightwell only. All access routes to the basement are via an internal staircase. No extensions at ground floor level are proposed.

3.4. The Site and Surrounding Area Topography

The Site is relatively flat, with slight falls to the north (towards Totnes Road). Totnes Road falls towards the railway lines (north-west direction), which are lower than the Site and channelled by retaining walls.

3.5. Waterbodies / Rivers

There are no waterbodies or rivers within the direct vicinity of the Site, with the nearest being Chorlton Brook, approximately 350m to the south.

3.6. Reservoirs / Canals / Artificial Waterbodies

There are no known reservoirs, canals or artificial waterbodies within the direct vicinity of the Site, with the nearest being the Manchester Ship Canal, approximately 5km to the north, and Audenshaw Reservoir, approximately 10 km to the east.

3.7. On-Site Drainage and Public Sewers

The nearest public sewer to the Site is believed to be in Totnes Road (north-west)

3.8. Ground Conditions

On-site ground investigations have not taken place due to the nature of the development (alterations with no extension). However, the ground conditions for the Site can be determined via the British Geological Survey (BGS) website, where it identifies the site have superficial deposits of Glaciofluvial Sheet Deposits (Devensian) over a bedrock geology of Wilmslow Sandstone Formation (Sandstone).

4. Sources of Flooding

In accordance with the NPPF, flood risk must be assessed for all sources of flooding and development of the site should be carried out in such a way as to mitigate any potential flood risk to both the site and third parties and their property. This section identifies all possible sources of flooding.

4.1. Fluvial Flooding

Fluvial flooding results from watercourses / rivers surcharging and flooding the surrounding areas.

4.2. Coastal Flooding

Coastal flooding results from high tides from the sea.

4.3. Pluvial Flooding

'Pluvial' flooding is that which results from rainfall generated overland flow before the run-off enters any watercourse, drain or sewer. It is more often linked to high intensity rainfall events (typically in excess of 30mm per hour). However, it can also result from lower intensity rainfall or melting snow where the ground is saturated, frozen, developed or has low permeability. This results in overland flow and ponding in depressions in the topography. In urban areas 'pluvial' flows are likely to follow the routes of highways and other surface connectivity to low spots where flooding can occur. In some cases, it can deviate from this route into adjacent developments via dropped kerbs (either for access to driveways or disability access).

4.4. Groundwater Flooding

Groundwater flooding is caused by the emergence of water from sub-surface permeable strata. Fluctuations in the groundwater table can cause flooding should the table rise above the existing ground level. Groundwater flooding events tend to have long durations, lasting days or weeks.

4.5. Flooding from Drains and Sewers

Flooding from drains and sewers is caused when the capacity of the drains and sewers is exceeded, and will result in flooding from the manholes.

4.6. Canals, Reservoirs and Other Artificial Sources

Flooding from canals, reservoirs and artificial sources is caused when the capacity of the sources is exceeded, or if there is an infrastructure failure.

5. Sourced Data

Data from the Environment Agency and other parties are to be studied to establish which sources of flooding are at the Site.

5.1. Environment Agency Flood Maps for Planning

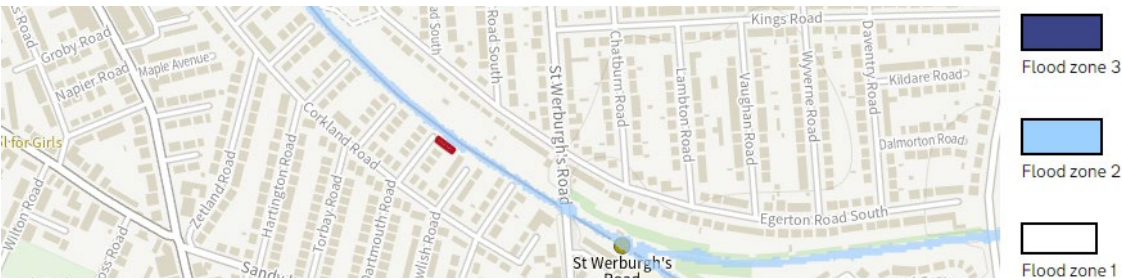


Figure 1 – EA Flood Zone Map

The Environment Agency (EA) fluvial flood map shown in Figure 1, indicates that all the Site is in in Flood Zone 1 – low probability (land having less than 1 in 1,000 annual probability of river or sea flooding). The railway lines to the north-east of the Stie are shown to be in Flood Zone 2, as they are at lower depth and channelled by retaining walls.

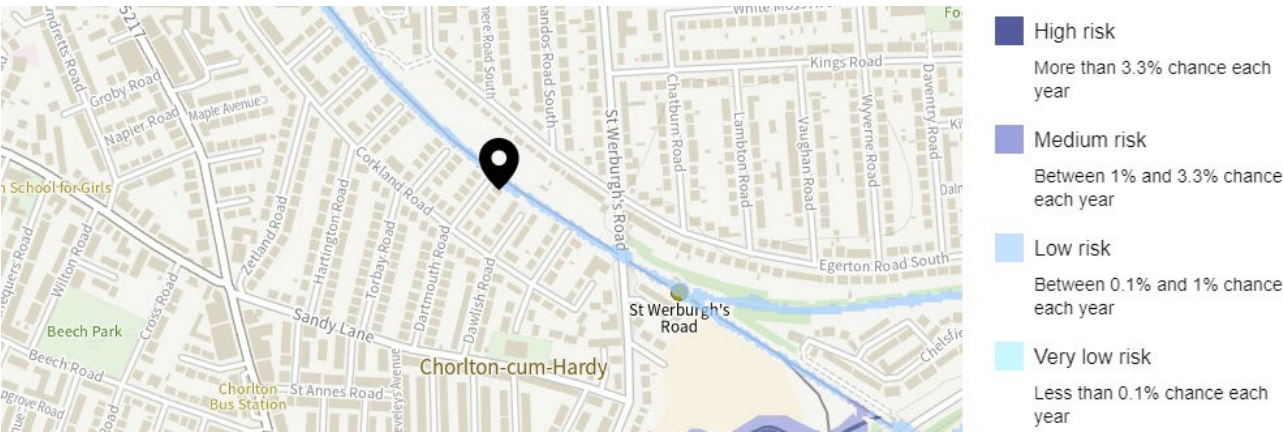


Figure 2 – EA Fluvial Flood Probability Map

The EA fluvial flood map shown in Figure 2, indicates that all the Site has a better than very low probability of fluvial flooding. The nearest flooding is at the railway lines to the north-east of the Stie, which is shown to have a low to medium probability of fluvial flooding, as they are at lower depth and channelled by retaining walls.

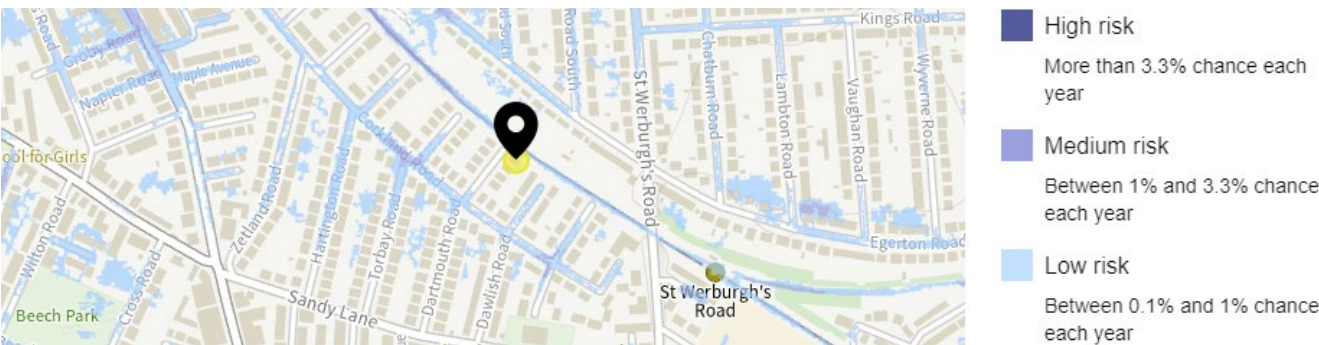


Figure 3 – EA Pluvial Flood Probability Map

The EA pluvial flood map shown in Figure 3, identifies that there is a very low probability of pluvial flooding at the Site. The nearest pluvial flooding is at the railway lines to the north-east of the Stie which is shown to have a low probability of fluvial flooding, as they are at lower depth and channelled by retaining walls.

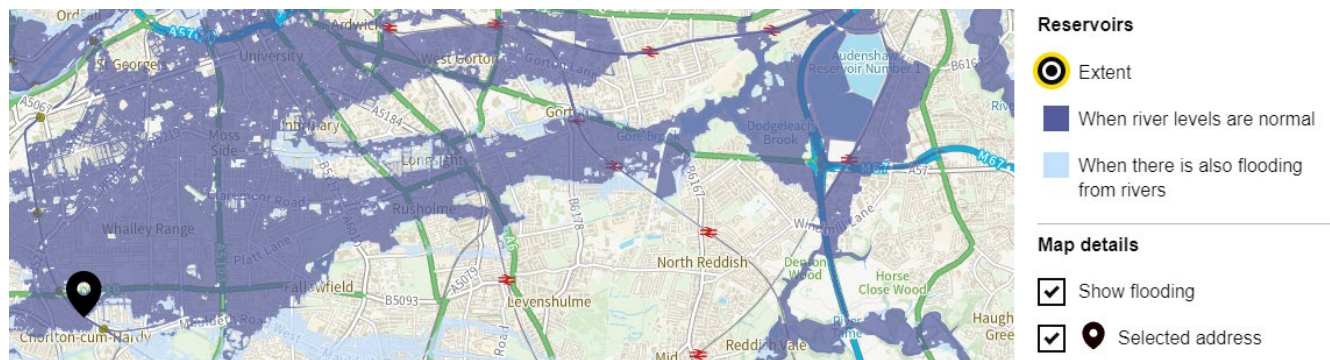


Figure 4 – Reservoir Flood Map

The Extents of Flooding from Reservoirs Map in Figure 4 indicates that the Site will flood in the event of reservoir flooding when the river levels are normal. The map also indicates that the potential source of flooding is from the Audenshaw Reservoir

5.2. Landmark Envirocheck Data Maps

Refer to Appendix C for Landmark Envirocheck flood map data. The data shown on the maps have been sourced from studies by JBA Consulting and the Environment Agency (EA). The summary of each of the maps are as follows:

Flood Data Map

The EA/NRW flood data map also indicates that all the Site is in Flood Zone 1 (low probability of fluvial flooding), with railway lines to the north-east of the Site being in Flood Zone 2, as they are at lower depth and channelled by retaining walls.

Pluvial, Fluvial and Coastal Flooding

The Envirocheck (JBA) 75-year to 1000-year return period flood maps indicate that there is no pluvial, fluvial, or coastal flood depths at the Site.

The maps show that the nearest pluvial and fluvial flooding at the railway line locations between the 200-year and 1000-year return period (as these levels are considerably lower), and pluvial flood depths of up to 0.10m in Totnes Road during the 1000-year return period only.

Surface Water Flood Depths

The Envirocheck (EA/NRW) 30-year to 1000-year return period flood maps indicate that there are no surface water / rainfall flood depths within the Site, with the nearest surface water / rainfall flood depths being at the railway lines for the 1000-year return period only.

Canal Failure

The Envirocheck (JBA) canal failure map indicates that the Site is in the canal flood coverage but will not be in an area of flooding in the event of a canal failure.

Ground Water Flooding

The Envirocheck / BGS flood data map indicates that there is limited potential for groundwater flooding to occur at the Site.

The ESI groundwater flood map indicates that there is a negligible risk of ground water flooding at the Site.

Historic Flood Map

The Envirocheck historic flood map indicates that there has been no flooding from any source within or near the Site.

6. Probability of Flooding

Now that the extents of all sources of flooding are known from the above data, an assessment is to be made of the probability of flooding from each of the sources for the post development site.

6.1. Fluvial Flooding - Probability: Low

The Environment Agency (EA) fluvial flood map shown in Figure 1, indicates that all the Site is in Flood Zone 1 – low probability (land having less than 1 in 1,000 annual probability of river or sea flooding).

The EA fluvial flood map shown in Figure 2, indicates that all the Site has a better than very low probability of fluvial flooding.

The EA/NRW flood data map also indicates that all the Site is in Flood Zone 1 (low probability of fluvial flooding).

The Envirocheck (JBA) 75-year to 1000-year return period flood maps indicate that there are no fluvial flood depths at the Site.

Therefore, as the Site is in Flood Zone 1 and no fluvial flood depths are shown within the Site, the probability of fluvial flooding is deemed to be low.

6.2. Pluvial Flooding - Probability: Low

The EA pluvial flood map shown in Figure 3, identifies that there is a very low probability of pluvial flooding at the Site.

The Envirocheck (JBA) 75-year to 1000-year return period flood maps indicate that there are no pluvial flood depths at the Site.

The Envirocheck (EA/NRW) 30-year to 1000-year return period flood maps indicate that there are no surface water / rainfall flood depths within the Site.

Therefore, the maps / data show no pluvial flood depths within the Site, the probability of pluvial flooding is deemed to be low.

6.3. Canals, Reservoirs and Other Artificial Sources - Probability: Low

The Extents of Flooding from Reservoirs Map in Figure 4 indicates that the Site will flood in the event of reservoir flooding when the river levels are normal. The maps also indicate that the potential source of flooding is from the Audenshaw Reservoir. Audenshaw Reservoir is a main infrastructure asset for the Greater Manchester area, and will be rigorously maintained and managed to ensure that the reservoir does not fail, and no major flooding will occur from it due to the severe consequences to a large area of Greater Manchester.

The Envirocheck (JBA) canal failure map indicates that the Site is in the canal flood coverage but will not be in an area of flooding in the event of a canal failure. Therefore, as the likelihood of the reservoir failure is very low, the probability of flooding from an artificial source is also deemed to be low.

6.4. Groundwater Flooding - Probability: Low

The Envirocheck / BGS flood data map indicates that there is limited potential for groundwater flooding at the Site. The ESI groundwater flood map indicates that there is a negligible risk of ground water flooding at 12 Welbeck.

Therefore, based on the flood maps / data, the probability of groundwater flooding is deemed to be low.

6.5. Flooding from Drains and Sewers - Probability: Low

The nearest public sewer is believed to be in Totnes Road (north-west of the Site). Totnes Road is lower than the Site and the maps / data indicates no history of flooding from the sewer. Therefore, as there is no history of flooding and any potential flood water not flowing towards the Site, the probability of flooding at is deemed to be low.

7. Flood Risk and Vulnerability

The NPPG Paragraphs 077 to 078 set out the flood risk for a site by assessing the flood zones, flood risk vulnerability classification, and flood risk vulnerability and flood zone 'compatibility'.

7.1. Flood Zones

NPPG Paragraph 077, Table 1 indicates that the flood zones are:

Flood Zones	
Flood Zone	Definition
Zone 1 Low Probability	Land having a less than 1 in 1,000 annual probability of river or sea flooding. (Shown as 'clear' on the Flood Map – all land outside Zones 2 and 3)
Zone 2 Medium Probability	Land having between a 1 in 100 and 1 in 1,000 annual probability of river flooding; or Land having between a 1 in 200 and 1 in 1,000 annual probability of sea flooding. (Land shown in light blue on the Flood Map)
Zone 3a High Probability	Land having a 1 in 100 or greater annual probability of river flooding; or Land having a 1 in 200 or greater annual probability of sea flooding. (Land shown in dark blue on the Flood Map)
Zone 3b The Functional Floodplain	<p>This zone comprises land where water from rivers or the sea has to flow or be stored in times of flood. The identification of functional floodplain should take account of local circumstances and not be defined solely on rigid probability parameters. Functional floodplain will normally comprise:</p> <ul style="list-style-type: none"> • land having a 3.3% or greater annual probability of flooding, with any existing flood risk management infrastructure operating effectively; or • land that is designed to flood (such as a flood attenuation scheme), even if it would only flood in more extreme events (such as 0.1% annual probability of flooding). <p>Local planning authorities should identify in their Strategic Flood Risk Assessments areas of functional floodplain and its boundaries accordingly, in agreement with the Environment Agency. (Not separately distinguished from Zone 3a on the Flood Map)</p>

The EA flood map data has identified that the Site is in Flood Zone 1.

7.2. Flood Risk Vulnerability Classification

NPPG Paragraph 077, refers to NPPF Annex 3 where it states the flood risk vulnerability classifications as:

Flood Risk Vulnerability Classification
<p>Essential Infrastructure</p> <p>Essential transport infrastructure (including mass evacuation routes) which should cross the area at risk; Essential utility infrastructure which has to be located in a flood risk area for operational reasons, including electricity generating power stations and grid and primary substations; and water treatment works that need to remain operational in times of flood; Wind turbines.</p>
<p>Highly Vulnerable</p> <p>Police and ambulance stations; fire stations and command centres; telecommunications installations required to be operational during flooding; Emergency dispersal points; Basement dwellings; Caravans, mobile homes and park homes intended for permanent residential use; Installations requiring hazardous substances consent.</p>
<p>More Vulnerable</p> <p>Hospitals; Residential institutions such as residential care homes, children's homes, social services homes, prisons and hostels; Buildings used for dwelling houses, student halls of residence, drinking establishments, nightclubs and hotels; Non-residential uses for health services, nurseries and educational establishments; Landfill* and sites used for waste management facilities for hazardous waste; Sites used for holiday or short-let caravans and camping, subject to a specific warning and evacuation plan.</p>
<p>Less Vulnerable</p> <p>Police, ambulance and fire stations which are not required to be operational during flooding; Buildings used for shops; financial, professional and other services; restaurants, cafes and hot food takeaways; offices; general industry, storage and distribution; non-residential institutions not included in the 'More Vulnerable' class; and assembly and leisure; Land and buildings used for agriculture and forestry; Waste treatment (except landfill* and hazardous waste facilities); Minerals working and processing (except for sand and gravel working); Water treatment works which do not need to remain operational during times of flood.</p>
<p>Water-Compatible Development</p> <p>Flood control infrastructure; Water transmission infrastructure and pumping stations; Sewage transmission infrastructure and pumping stations; Sand and gravel working; Docks, marinas and wharves; Navigation facilities; Ministry of Defence installations; Ship building, repairing and dismantling, dockside fish processing and refrigeration and compatible activities requiring a waterside location; Water-based recreation (excluding sleeping accommodation); Lifeguard and coastguard stations; Amenity open space, nature conservation and biodiversity, outdoor sports and recreation and essential facilities such as changing rooms; Essential ancillary sleeping or residential accommodation for staff required by uses in this category, subject to a specific warning and evacuation plan.</p>

This development is classed as 'Highly Vulnerable' as the development is 'basement dwelling'.

7.3. Flood Risk Vulnerability and Flood Zone ‘Compatibility’

NPPG Paragraph 078 Table 3, gives guidance on flood risk vulnerability compared with flood zone, to determine the compatibility.

NPPF – Flood Risk Vulnerability and Flood Zone ‘Compatibility’					
Flood Zones	Flood Risk Vulnerability Classification				
	Essential Infrastructure	Highly Vulnerable	More Vulnerable	Less Vulnerable	Water Compatible
Zone 1	✓	✓	✓	✓	✓
Zone 2	✓	Exception Test required	✓	✓	✓
Zone 3a †	† Exception Test required	✗	Exception Test required	✓	✓
Zone 3b*	* Exception Test required	✗	✗	✗	✓*

“†” In Flood Zone 3a essential infrastructure should be designed and constructed to remain operational and safe in times of flood.

“*” In Flood Zone 3b (functional floodplain) essential infrastructure that has passed the Exception Test, and water-compatible uses, should be designed and constructed to:

- remain operational and safe for users in times of flood;
- result in no net loss of floodplain storage;
- not impede water flows and not increase flood risk elsewhere.

The Site is classed as ‘Highly Vulnerable’, but as it is in Flood Zone 1, Table 2 of the NPPG states that the development is appropriate with no requirement for an Exception Test.

8. The Sequential and Exception Test

8.1. Sequential and Exception Test Guidance

Paragraph 101 of the NPPG states that: *The aim of the Sequential Test is to steer new development to areas with the lowest probability of flooding. Development should not be allocated or permitted if there are reasonably available sites appropriate for the proposed development in areas with a lower probability of flooding. The Strategic Flood Risk Assessment will provide the basis for applying this test. A sequential approach should be used in areas known to be at risk from any form of flooding.*

Paragraph 102 of the NPPG states that: *If, following application of the Sequential Test, it is not possible, consistent with wider sustainability objectives, for the development to be located in zones with a lower probability of flooding, the Exception Test can be applied if appropriate. For the Exception Test to be passed:*

it must be demonstrated that the development provides wider sustainability benefits to the community that outweigh flood risk, informed by a Strategic Flood Risk Assessment where one has been prepared; and

a site-specific flood risk assessment must demonstrate that the development will be safe for its lifetime taking account of the vulnerability of its users, without increasing flood risk elsewhere, and, where possible, will reduce flood risk overall.

8.2. Sequential and Exception Test

The development has passed the sequential and exception test as although the Site is classed as Highly Vulnerable, it is in Flood Zone 1, and therefore, in accordance Table 2 of the NPPG, the development is appropriate.

There is also a low risk of flooding from all other sources, with flood risk to the basement being mitigated by having no external entrances / access routes directly from the external ground level (internal staircase only). Therefore, the basement will not be inundated with any flood water, with safe egress being to the ground floor during all storm events.

Safe access and egress routes can be made to and from the Site via Totnes Road, as the flood map data identifies pluvial flooding of up to 0.10m during the 1000-year return period only.

9. Surface Water Management

There are no proposed extensions are ground floor level to the Site, with the work being a new dormer at the second floor and alterations to windows, doors and internal areas at the basement and ground floor areas only.

Therefore, the surface water run-off destination via the unchanged rainwater pipes will remain as existing. Subsequently the surface water run-off rates and surface water run-off volumes will not change as part of the development, with the development proposals not increasing the flood risk to neighbouring land or properties.

10. Flood Risk Assessment Conclusion / Summary

Based the assessed flood data for the Site, the probability of flooding from all sources at the Site is deemed to be low.

The Site is classed as 'Highly Vulnerable', but as it is in Flood Zone 1, Table 2 of the NPPG states that the development is appropriate with no requirement for an Exception Test is required.

Safe access and egress routes can be made to and from the Site via Totnes Road, as the flood map data identifies pluvial flooding of up to 0.10m during the 1000-year return period only.

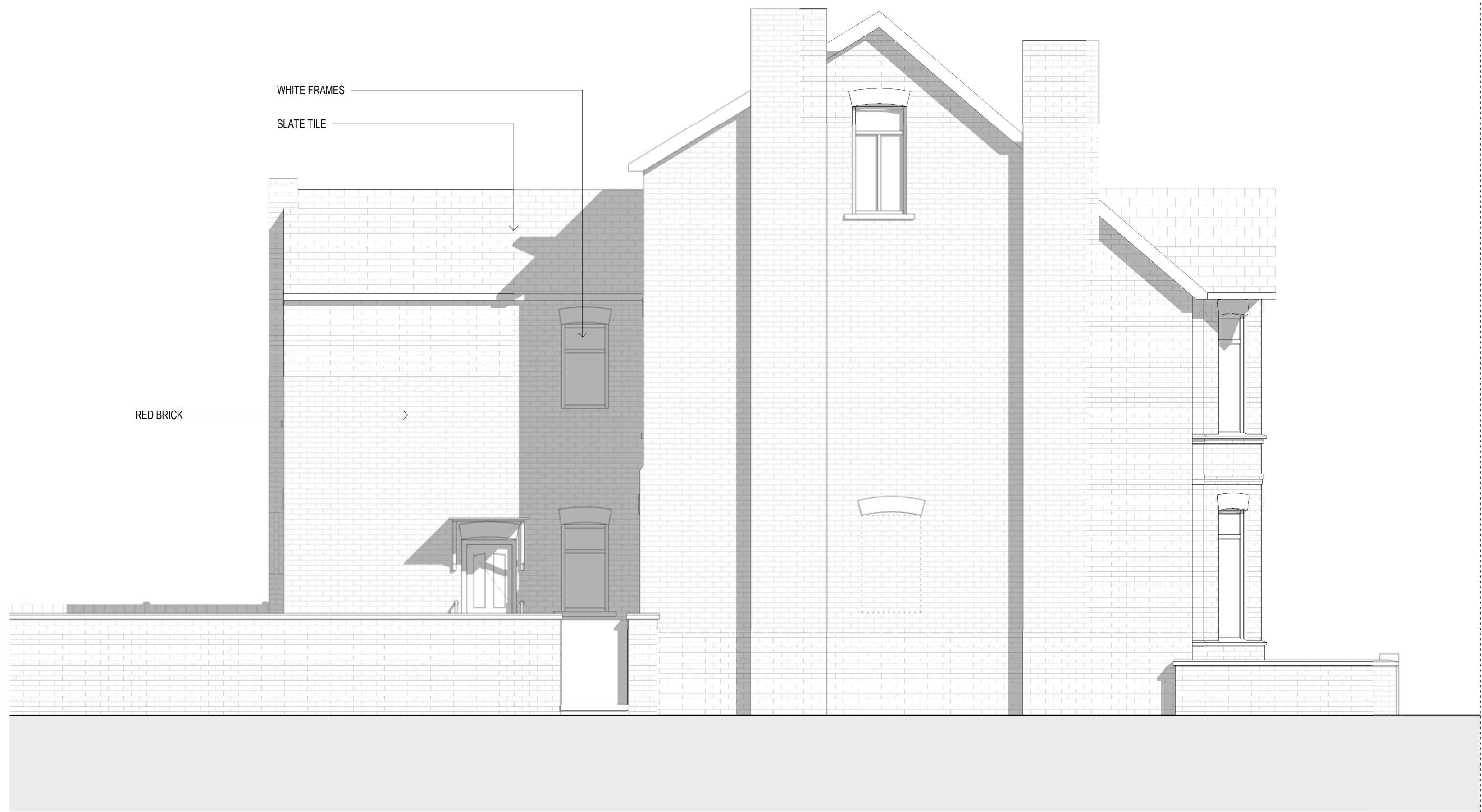
The surface water run-off destination via the unchanged rainwater pipes will remain as existing. Subsequently, the surface water run-off rates and surface water run-off volumes will not change as part of the development, with the development proposals not increasing the flood risk to neighbouring land or properties.

Appendix A
Existing Plans



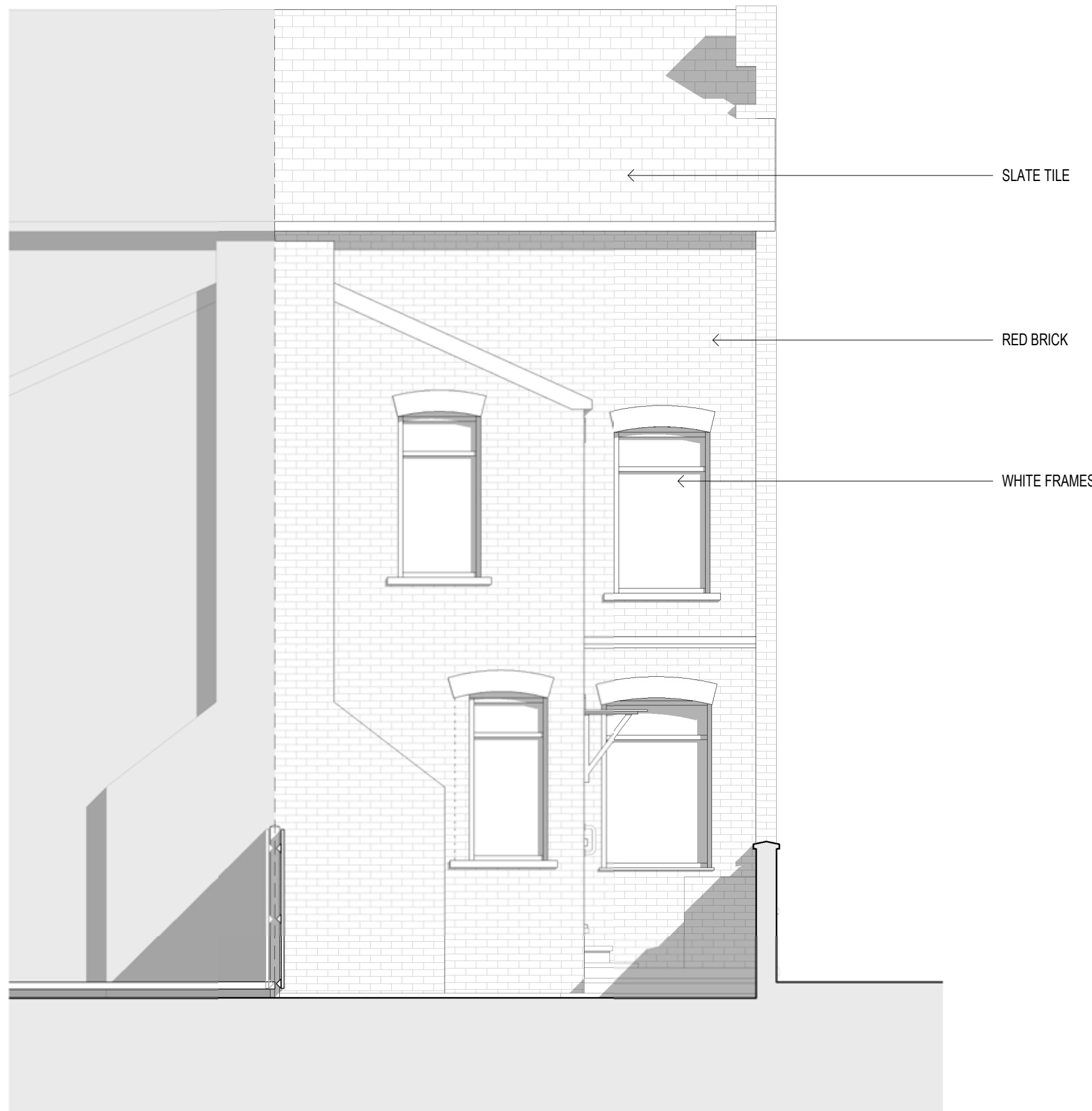
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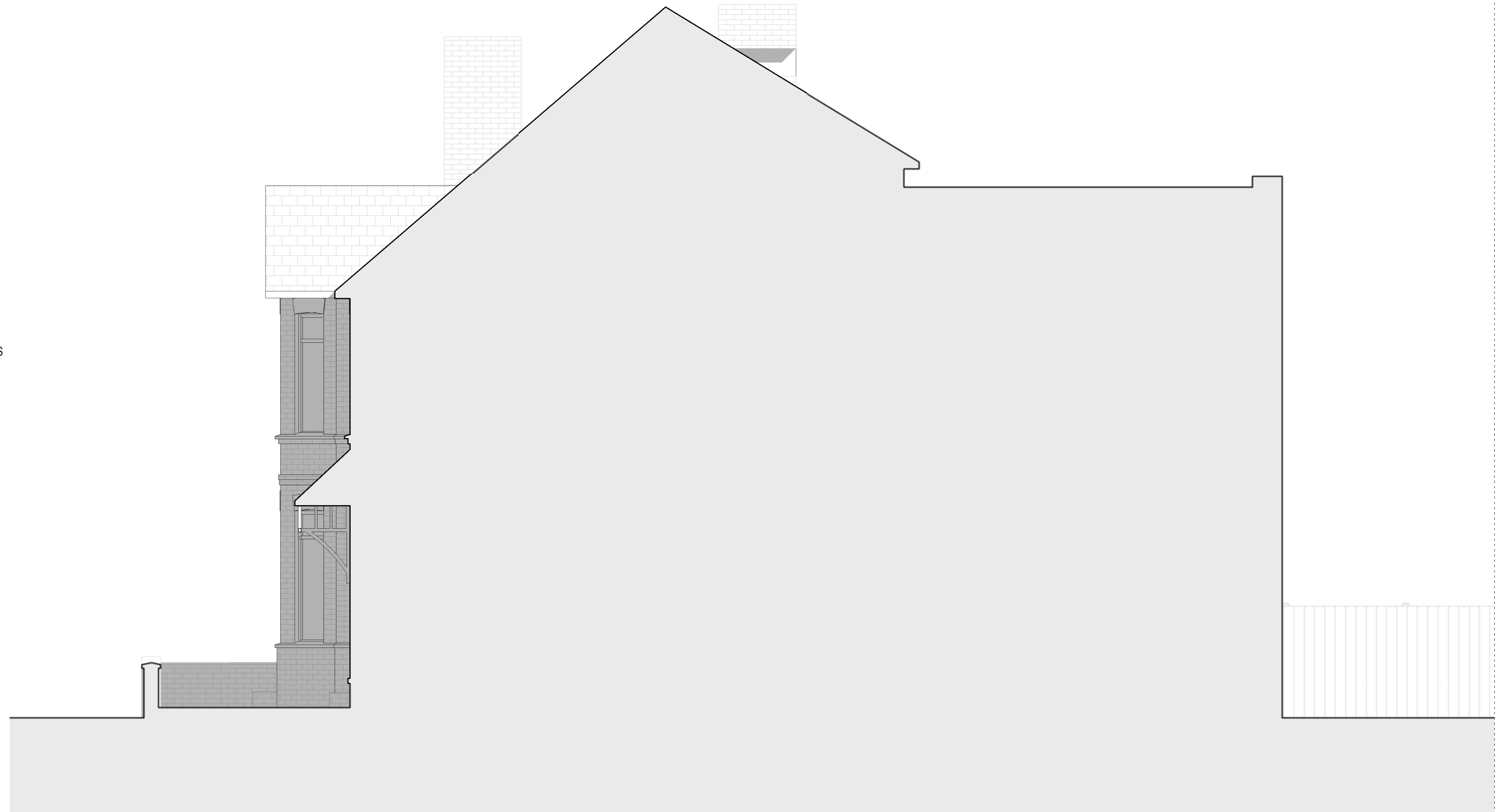
02 EXISTING ELEVATIONS - NORTH-EAST

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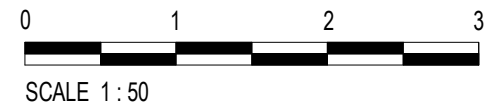
03 EXISTING ELEVATIONS - SOUTH-EAST

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04 EXISTING ELEVATIONS - SOUTH-WEST

1 : 50



Location Plan

North Point

The contractor must verify all dimensions on site before commencing any work or fabrication drawings. If this drawing exceeds the quantities taken in any way GTA North are to be informed before the work is initiated. Only figured dimensions are to be taken from this drawing. Do not scale off this drawing. Drawings are based on Ordnance Survey and / or existing record drawings - design and drawing content is subject to detailed 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. GTA North Limited Copyright. Guy Taylor Associates is a trading name of GTA North Limited.

Drawing Notes:

Rev:	Description:	Revised By:	Issue Date:
P1	PLANNING SUBMISSION	CR	26.09.2023

Project:
16 TOTNES ROAD, CHORLTON,
M21 8XF, MANCHESTER

Drawing Title:
EXISTING ELEVATIONS

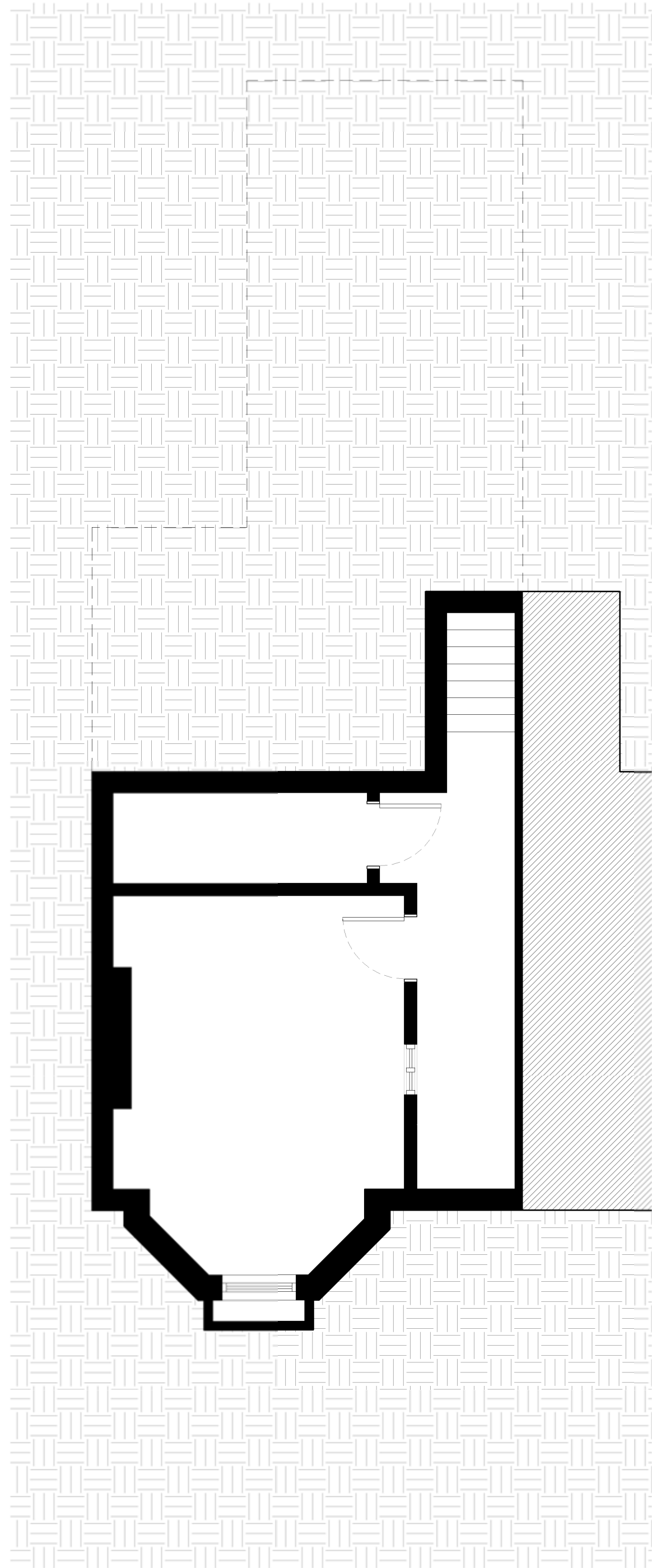
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Original Drawn By: AM	Original Checked by: CR

Drawing Number: 23-0015-10-003	Revision: P1
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Reason For Issue:
PLANNING APPLICATION

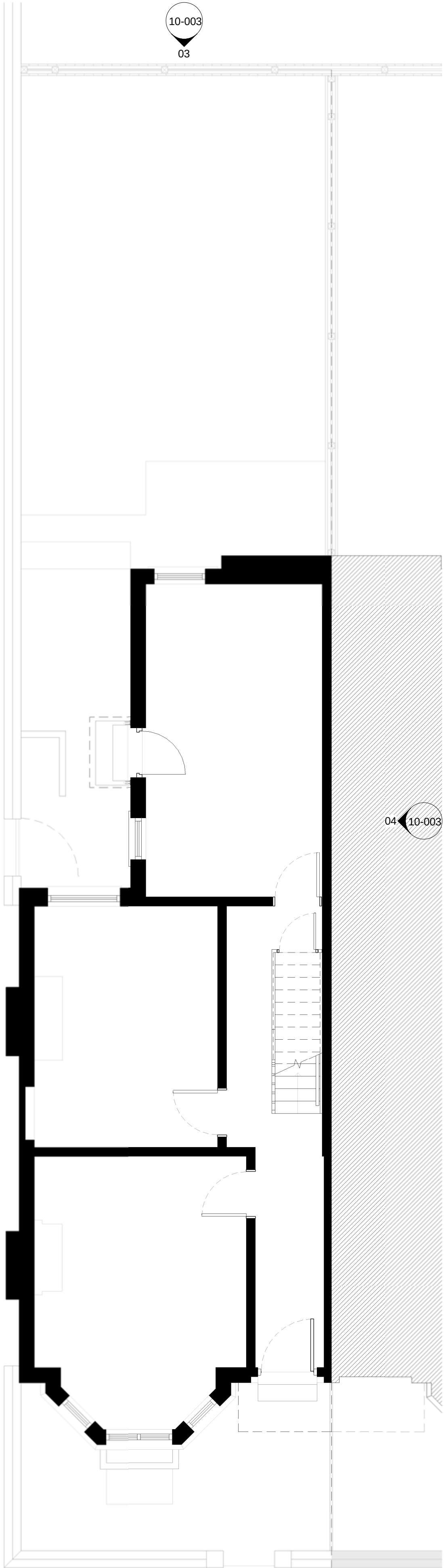


LOCATION PLAN
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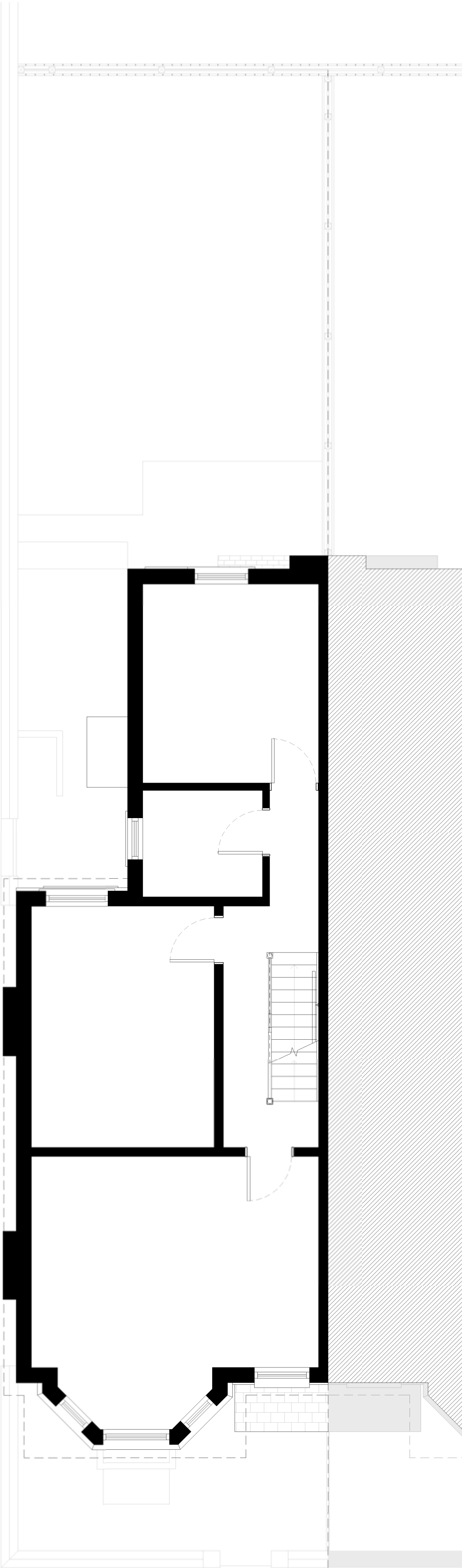
EXISTING FLOOR PLANS - BASEMENT
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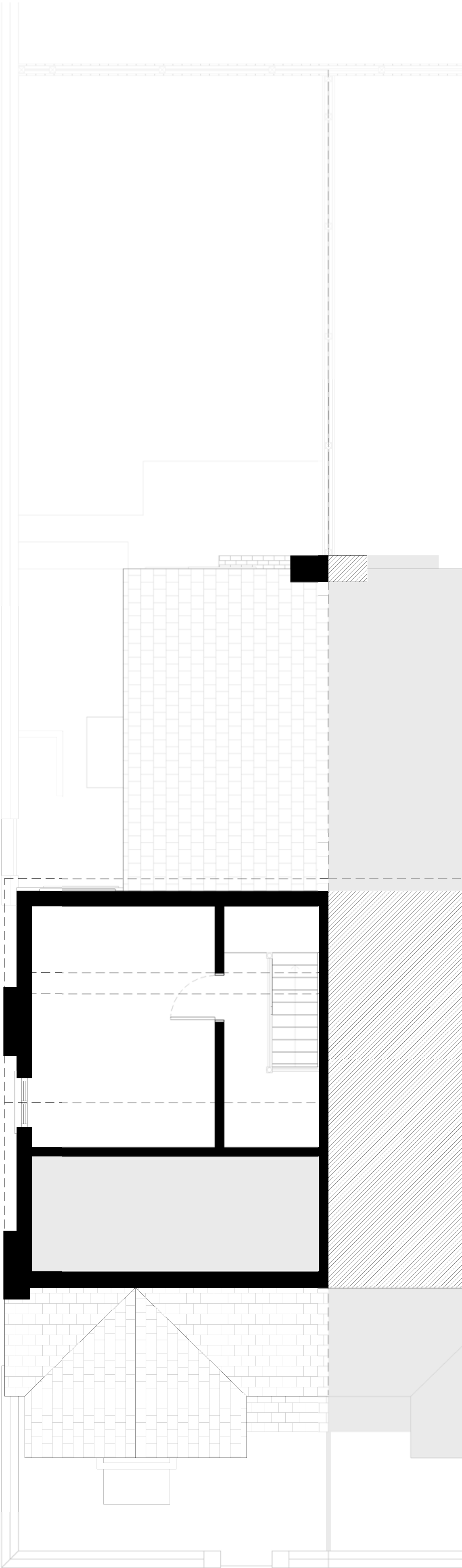


EXISTING FLOOR PLANS - GROUND FLOOR
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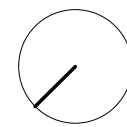
04 10-003



EXISTING FLOOR PLANS - FIRST FLOOR
1 : 50



EXISTING FLOOR PLANS - SECOND FLOOR
1 : 50

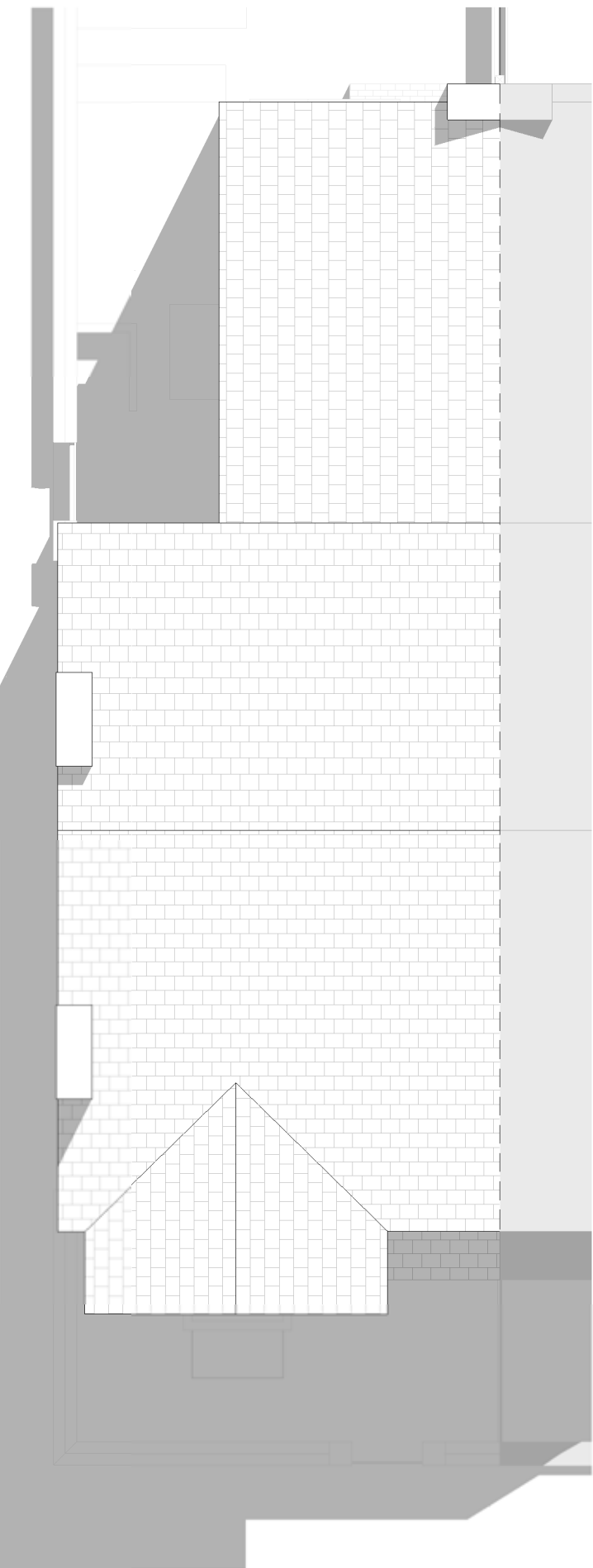


North Point

Location Plan

The contractor must verify all dimensions on site before commencing any work or fabrication drawings. If this drawing exceeds the quantities taken in any way GTA North are to be informed before the work is initiated. Only figured dimensions are to be taken from this drawing. Do not scale off this drawing. Drawings are based on Ordnance Survey and / or existing record drawings - design and drawing content is subject to detailed 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. GTA North Limited Copyright. Guy Taylor Associates is a trading name of GTA North Limited.

Drawing Notes:



EXISTING FLOOR PLANS - ROOF
1 : 75

Rev:	Description:	Revised By:	Issue Date:
P1	PLANNING SUBMISSION	CR	28.09.2023

Project:
16 TOTNES ROAD, CHORLTON,
M21 8XF, MANCHESTER

Drawing Title:
EXISTING FLOOR PLANS

Scale: As indicated@A1 Original Issue Date:

Original Drawn By: AM Original Checked by: CR

Drawing Number: 23-0015-10-002 Revision: P1

Reason For Issue:
PLANNING APPLICATION

Appendix B
Proposed Plans



- KEY
- 01. New central double door
 - 02. New Bathroom
 - 03. New fire escape window and light well
 - 04. Kitchen
 - 05. New living space
 - 06. New utility with stack washer / dryer
 - 07. New basement access stair (open with balustrade)
 - 08. New glazed door
 - 09. Dining area
 - 10. Picture window/ window seat
 - 11. Enlarged family bathroom
 - 12. Master bedroom
 - 13. En-suite
 - 14. Enlarged existing window opening and new window
 - 15. Rooflight projection
 - 16. Technical room
 - 17. New window
 - 18. New steps

PROPOSED FLOOR PLANS - BASEMENT

1 : 50

PROPOSED FLOOR PLANS - GROUND FLOOR

1 : 50

PROPOSED FLOOR PLANS - FIRST FLOOR

1 : 50

PROPOSED FLOOR PLANS - SECOND FLOOR

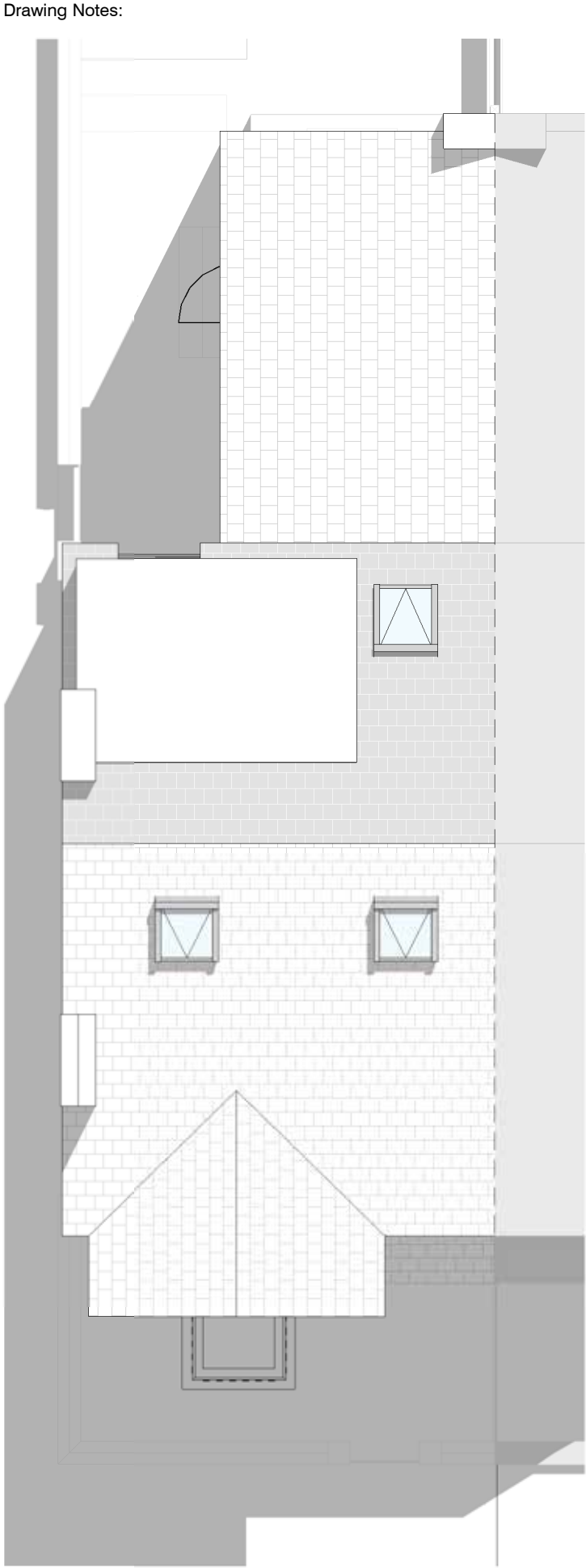
1 : 50



Location Plan

North Point

The contractor must verify all dimensions on site before commencing any work or fabrication drawings. If this drawing exceeds the quantities taken in any way GTA North are to be informed before the work is initiated. Only figured dimensions are to be taken from this drawing. Do not scale off this drawing. Drawings are based on Ordnance Survey and / or existing record drawings - design and drawing content is subject to detailed 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. GTA North Limited Copyright. Guy Taylor Associates is a trading name of GTA North Limited.



PROPOSED FLOOR PLANS - ROOF

1 : 75

Rev:	Description:	Revised By:	Issue Date:
P1	PLANNING SUBMISSION	CR	28.09.2023

Project:

16 TOTNES ROAD, CHORLTON,
M21 8XF, MANCHESTER

Drawing Title:

PROPOSED FLOOR PLANS

Scale: As indicated@A1

Original Issue Date:

Original Drawn By: AM

Original Checked by: CR

Drawing Number:

23-0015-20-001

Revision:

P1

Reason For Issue:

PLANNING APPLICATION

Appendix C
Landmark Envirocheck Flood Map Data

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

General

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

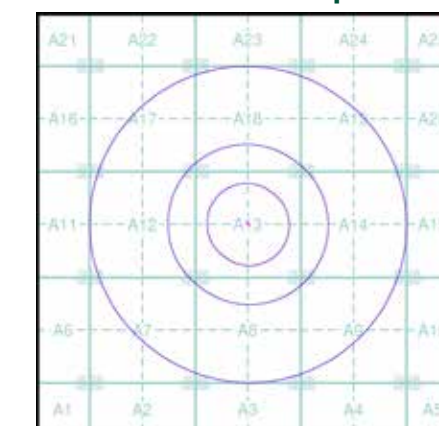
Flood Data

- 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

Contours (height in metres)

- Standard Contour: 105, 100, 95
- Master Contour: 105, 100, 95
- Spot Height: 167.8
- MLW: Mean Low Water
- MHW: Mean High Water

EA/NRW Flood Data Map - Slice A

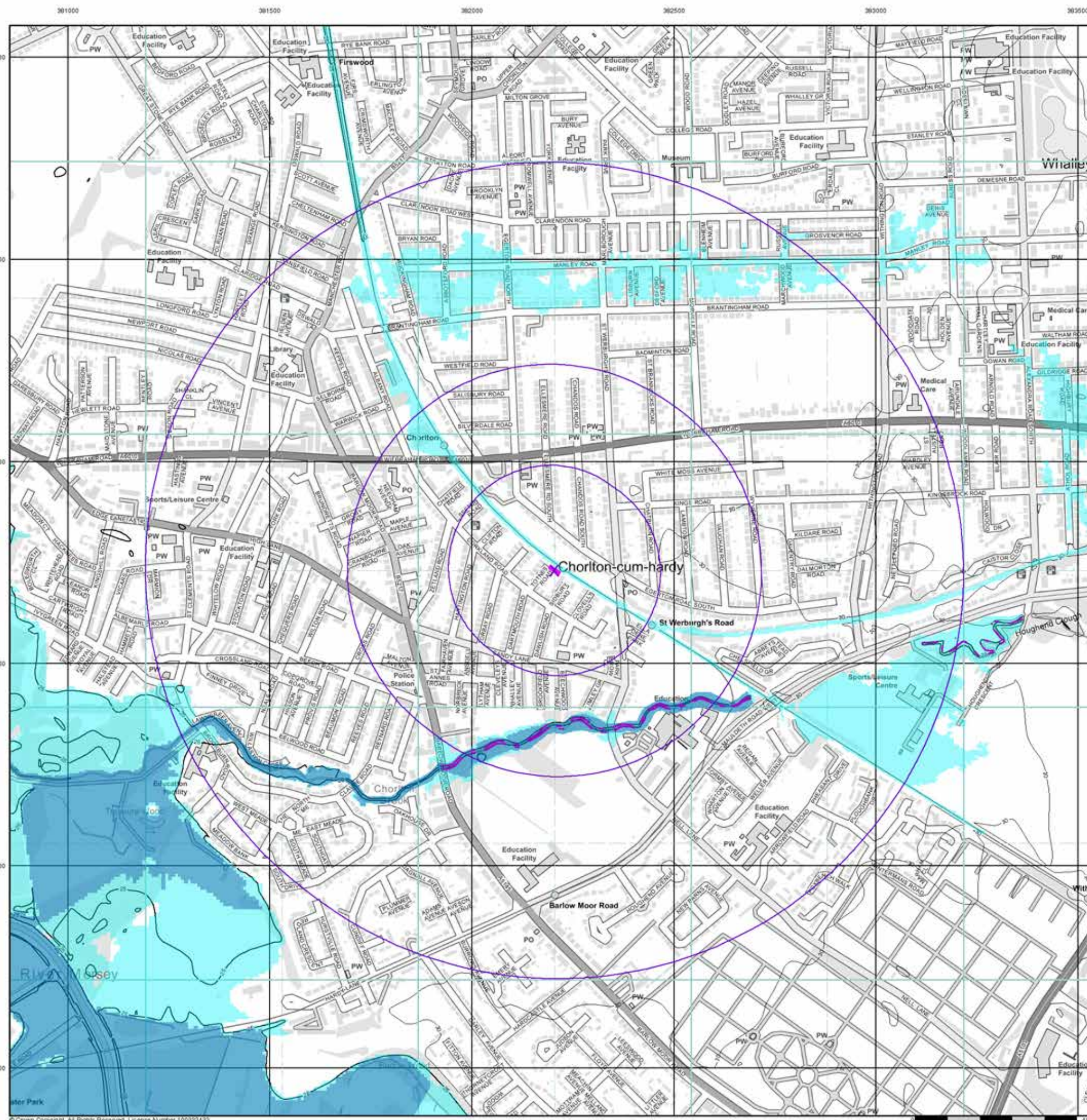


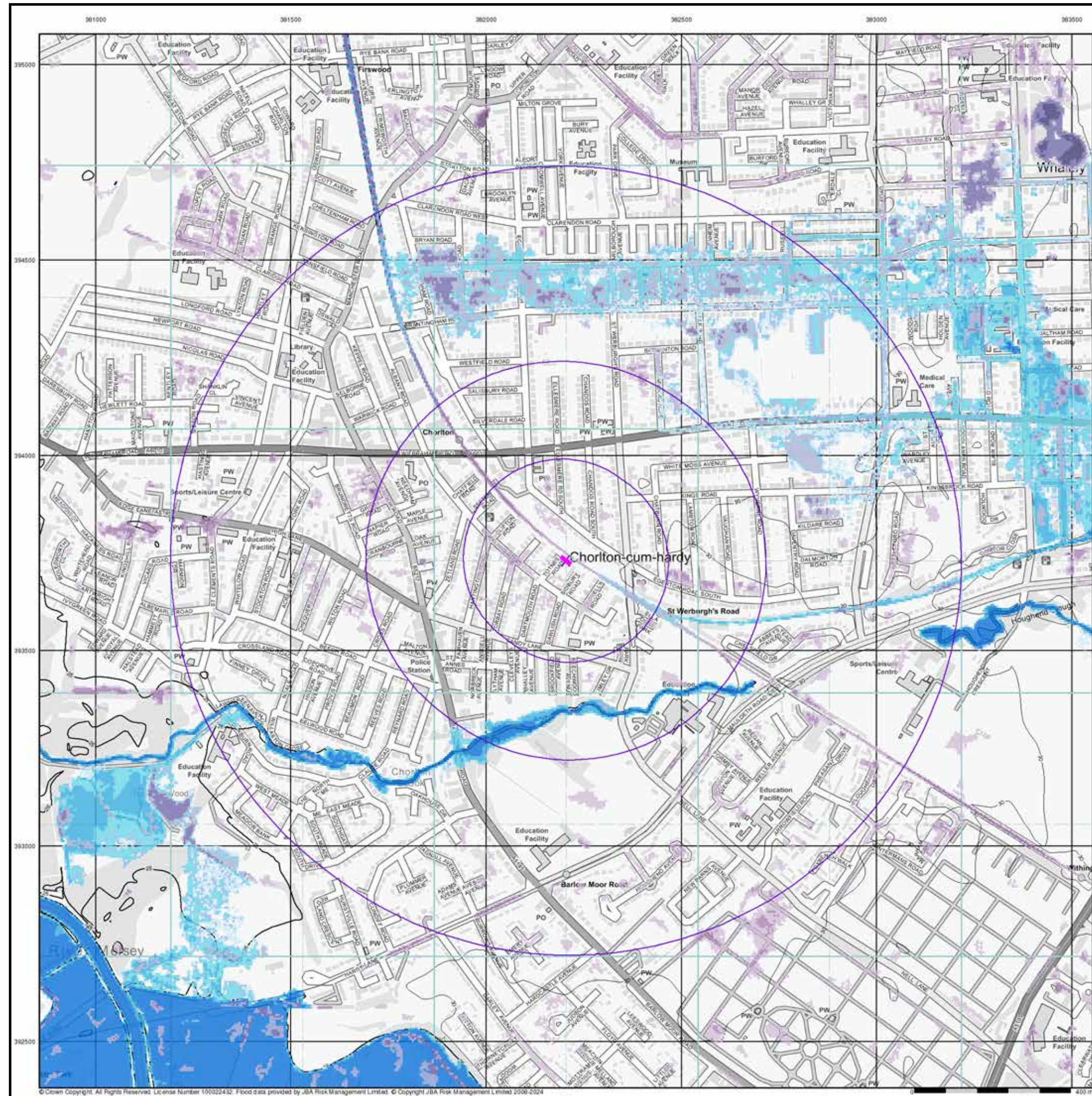
Order Details

Order Number: 336757540_1_1
 Customer Ref: 1017 - 16 Totnes Road
 National Grid Reference: 382200, 393730
 Slice: A
 Site Area (Ha): 0.02
 Search Buffer (m): 1000

Site Details

16, Totnes Road, MANCHESTER, M21 8XF





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JBA 75 Year Return Flood Map (Undefended) (1:10,000)

General

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

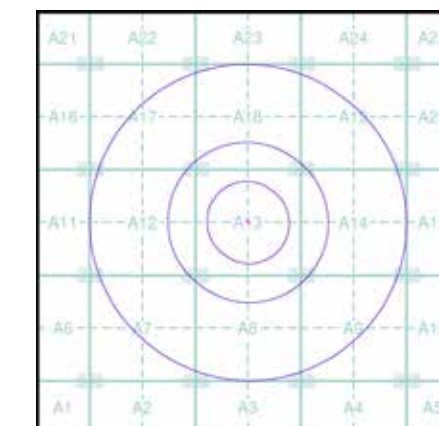
Modelled Flood Depth

Pluvial Depth	Fluvial Depth	Coastal Depth
0.1m	0.01m - 0.05m	0.01m - 0.05m
0.1m - 0.3m	0.05m - 0.1m	0.05m - 0.1m
0.3m - 1m	0.1m - 0.3m	0.1m - 0.3m
>1m	0.3m - 1m	0.3m - 1m
	>1m	>1m

Contours (height in metres)

- Standard Contour: 105, 100, 95
- Master Contour: 105, 100, 95
- Spot Height: 167.8
- MLW: Mean Low Water
- MHW: Mean High Water

JBA 75 Year Return Flood Map (Undefended) - Slice A



Order Details

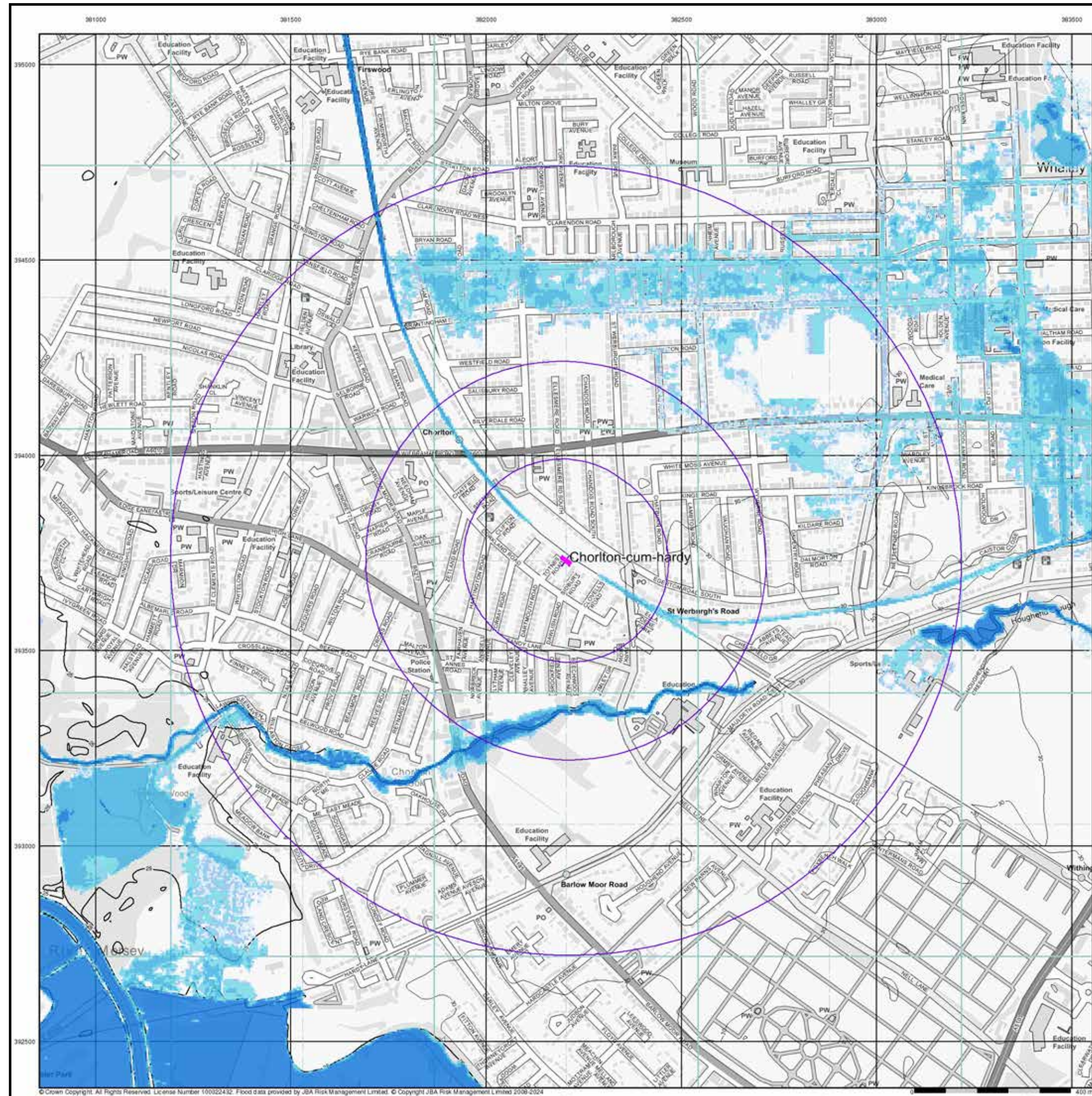
Order Number: 336757540_1_1
Customer Ref: 1017 - 16 Totnes Road
National Grid Reference: 382200, 393730
Slice: A
Site Area (Ha): 0.02
Search Buffer (m): 1000

Site Details

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JBA 100 Year Return Flood Map (Un defended) (1:10,000)

General

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

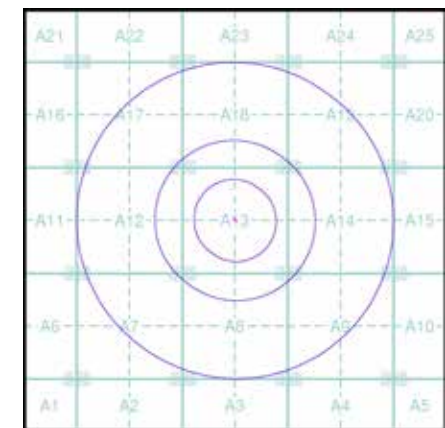
Modelled Flood Depth

Fluvial Depth	Coastal Depth
0.01m - 0.05m	0.01m - 0.05m
0.05m - 0.1m	0.05m - 0.1m
0.1m - 0.3m	0.1m - 0.3m
0.3m - 1m	0.3m - 1m
>1m	>1m

Contours (height in metres)

- Standard Contour: 105, 100, 95
- Master Contour: 105, 100, 95
- Spot Height: 167.8
- MLW: Mean Low Water
- MHW: Mean High Water

JBA 100 Year Return Flood Map (Un defended) - Slice A

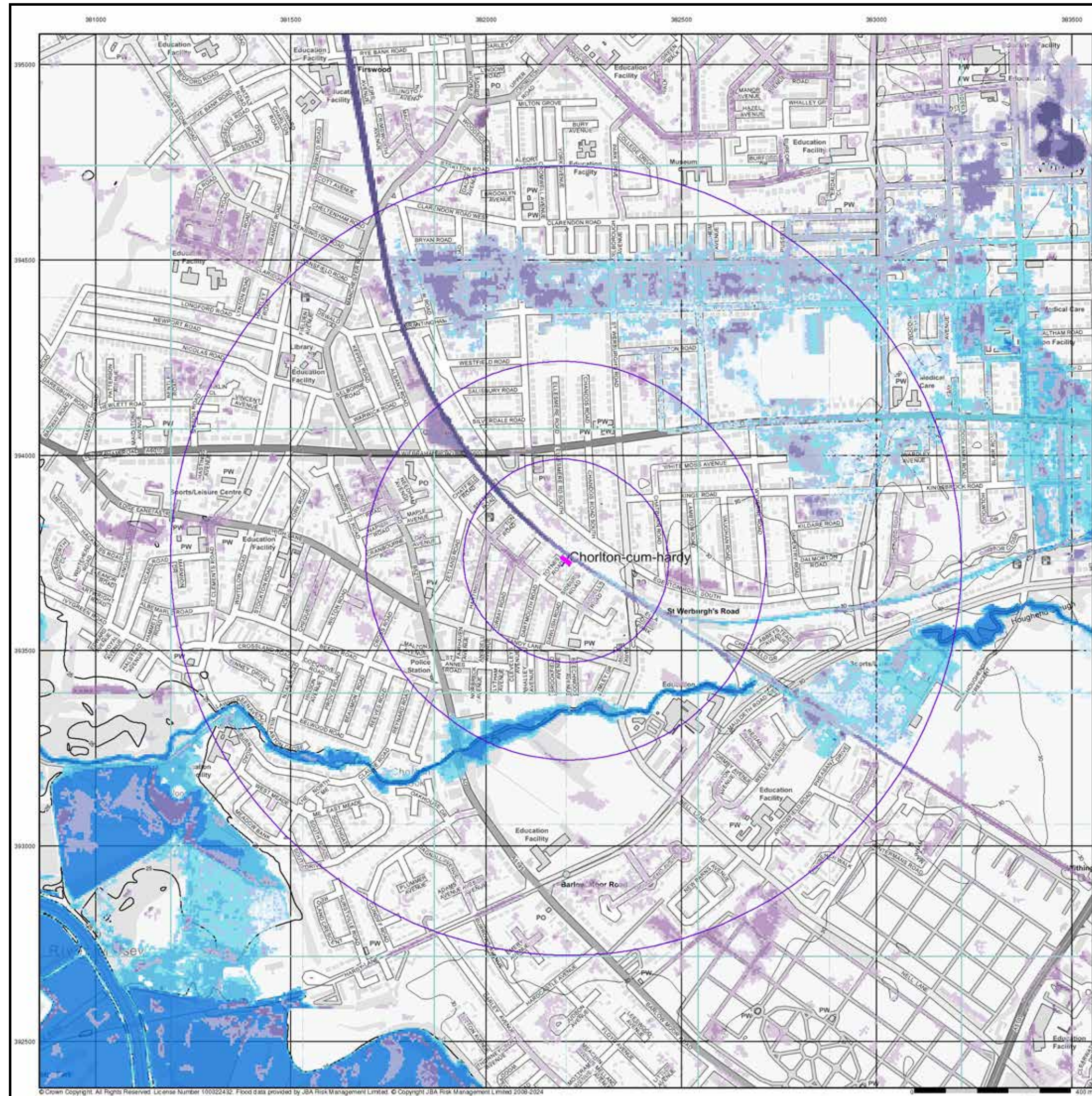


Order Details

Order Number: 336757540_1_1
Customer Ref: 1017 - 16 Totnes Road
National Grid Reference: 382200, 393730
Slice: A
Site Area (Ha): 0.02
Search Buffer (m): 1000

Site Details

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JBA 200 Year Return Flood Map (Un defended) (1:10,000)

General

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

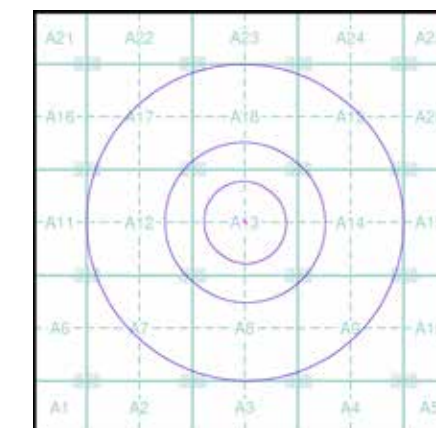
Modelled Flood Depth

Pluvial Depth	Fluvial Depth	Coastal Depth
0.1m	0.01m - 0.05m	0.01m - 0.05m
0.1m - 0.3m	0.05m - 0.1m	0.05m - 0.1m
0.3m - 1m	0.1m - 0.3m	0.1m - 0.3m
>1m	0.3m - 1m	0.3m - 1m
	>1m	>1m

Contours (height in metres)

- Standard Contour 105
- Master Contour 100
- Spot Height 167.8
- MLW Mean Low Water
- MHW Mean High Water

JBA 200 Year Return Flood Map (Un defended) - Slice A

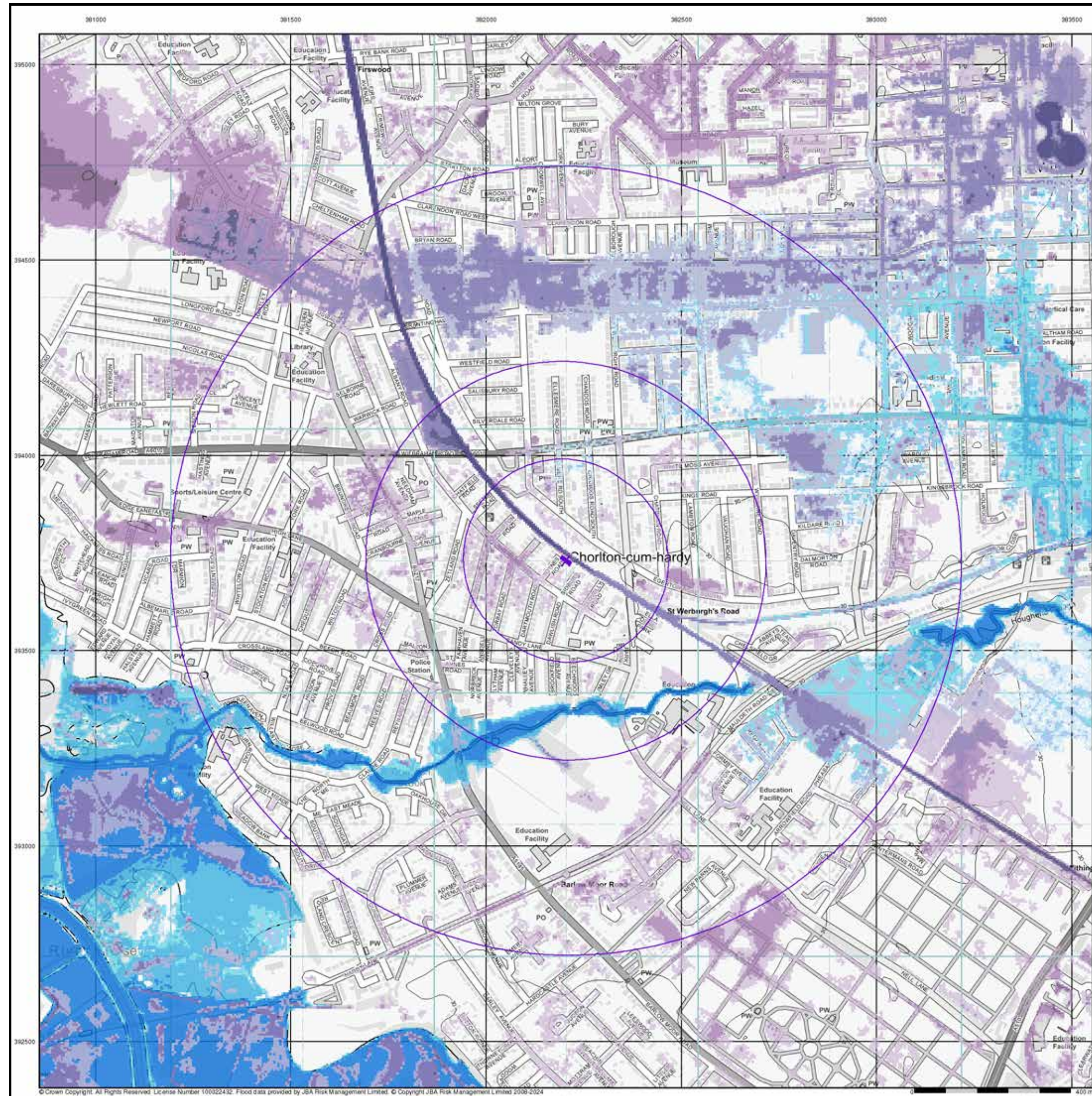


Order Details

Order Number: 336757540_1_1
Customer Ref: 1017 - 16 Totnes Road
National Grid Reference: 382200, 393730
Slice: A
Site Area (Ha): 0.02
Search Buffer (m): 1000

Site Details

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JBA 1000 Year Return Flood Map (Undeferred) (1:10,000)

General

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

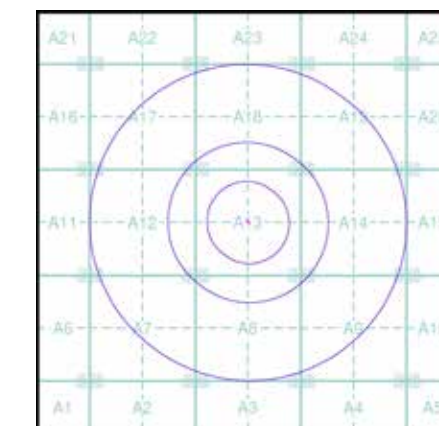
Modelled Flood Depth

Pluvial Depth	Fluvial Depth	Coastal Depth
0.1m	0.01m - 0.05m	0.01m - 0.05m
0.1m - 0.3m	0.05m - 0.1m	0.05m - 0.1m
0.3m - 1m	0.1m - 0.3m	0.1m - 0.3m
>1m	0.3m - 1m	0.3m - 1m
	>1m	>1m

Contours (height in metres)

- Standard Contour: 105, 100, 95
- Master Contour: 105, 100, 95
- Spot Height: 167.8
- MLW: Mean Low Water
- MHW: Mean High Water

JBA 1000 Year Return Flood Map (Undeferred) - Slice A



Order Details

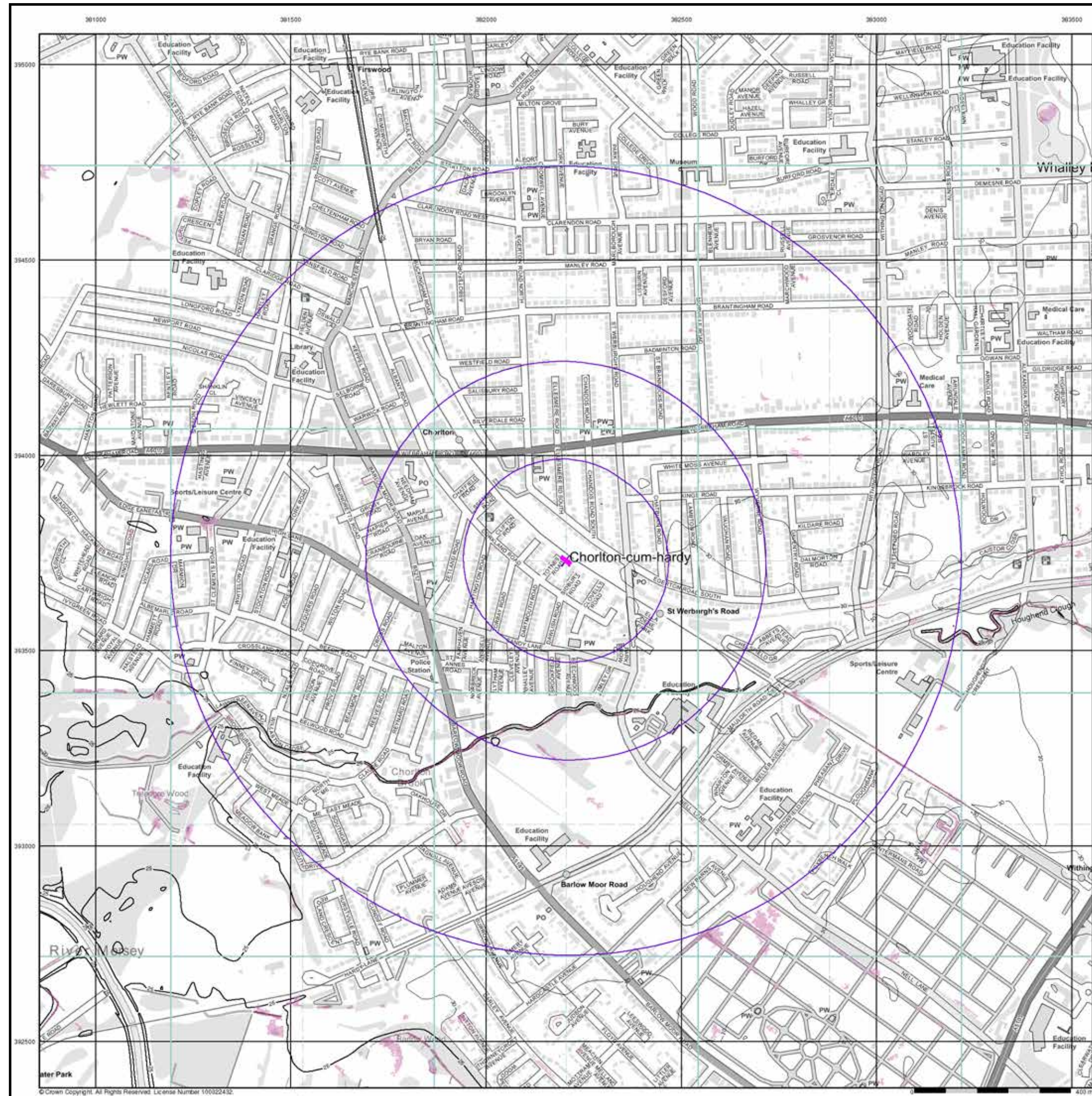
Order Number: 336757540_1_1
Customer Ref: 1017 - 16 Totnes Road
National Grid Reference: 382200, 393730
Slice: A
Site Area (Ha): 0.02
Search Buffer (m): 1000

Site Details

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EA/NRW Surface Water 30 Year Return Depth Map (1:10,000)

General

Specified Site Specified Buffer(s) Bearing Reference Point

Surface Water Depth

0 - 0.15m
0.15 - 0.30m
0.30 - 0.60m
0.60 - 0.90m
0.90 - 1.20m
> 1.20m

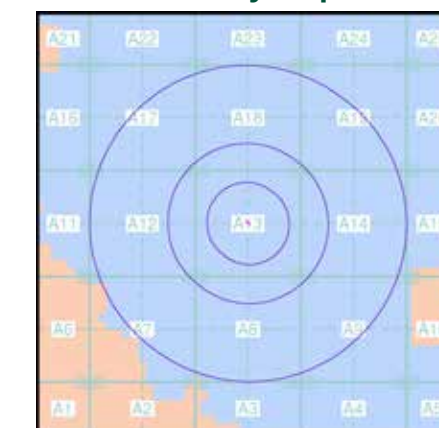
Contours (height in metres)

Standard Contour 105 100 95
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

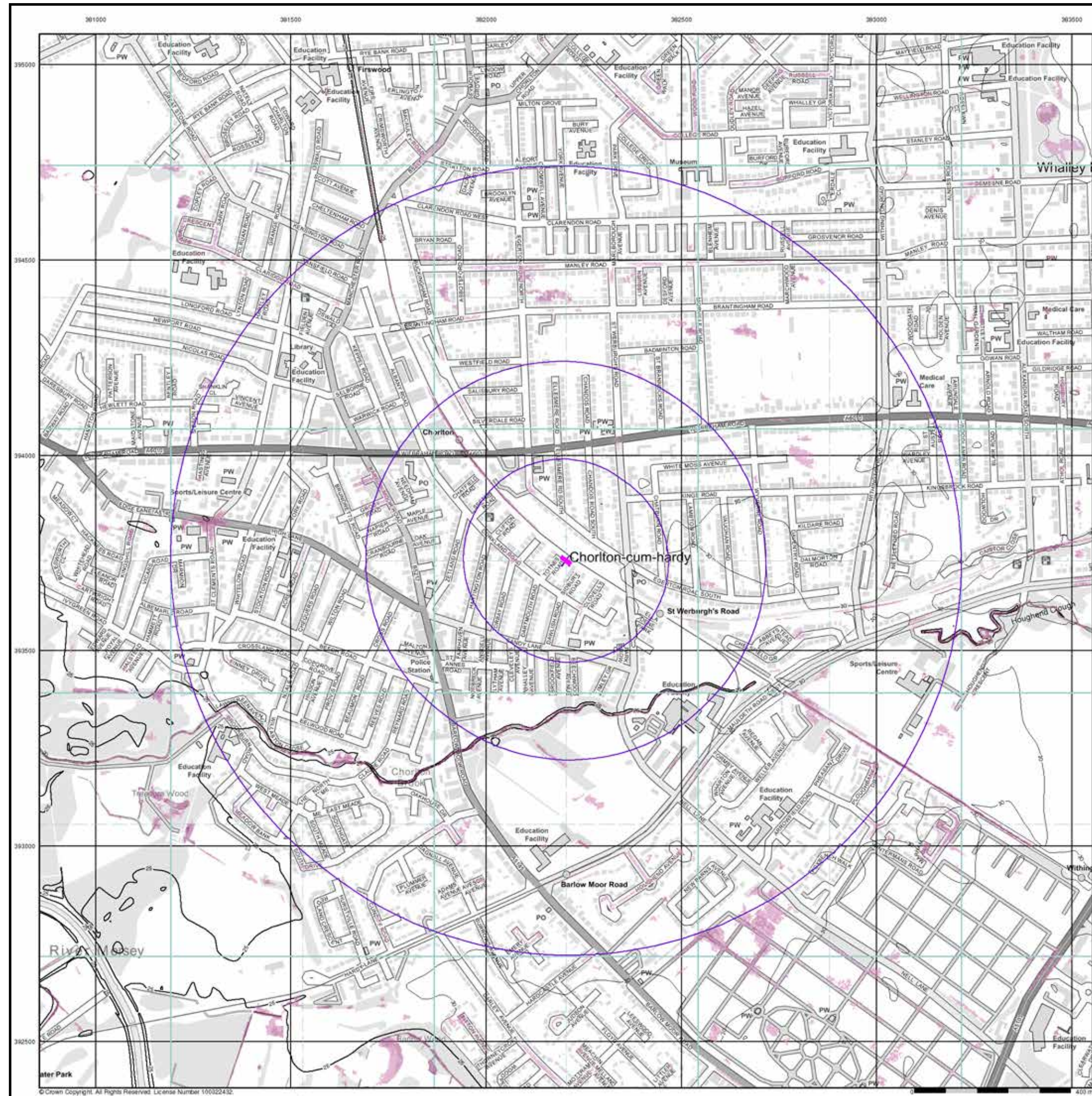
Order Number: 336757540_1_1
Customer Ref: 1017 - 16 Totnes Road
National Grid Reference: 382200, 393730
Slice: A
Site Area (Ha): 0.02
Search Buffer (m): 1000

Site Details

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EA/NRW Surface Water 100 Year Return Depth Map

General
Specified Site Specified Buffer(s) Bearing Reference Point

Surface Water Depth

0 - 0.15m
0.15 - 0.30m
0.30 - 0.60m
0.60 - 0.90m
0.90 - 1.20m
> 1.20m

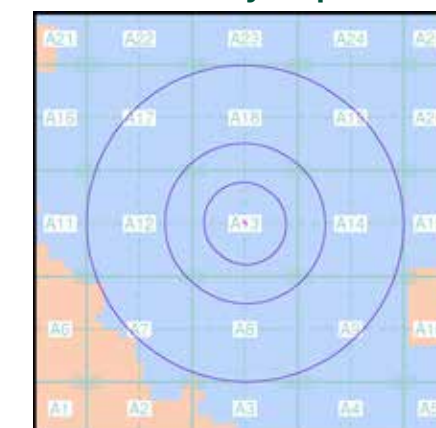
Contours (height in metres)

Standard Contour 105 100 95
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

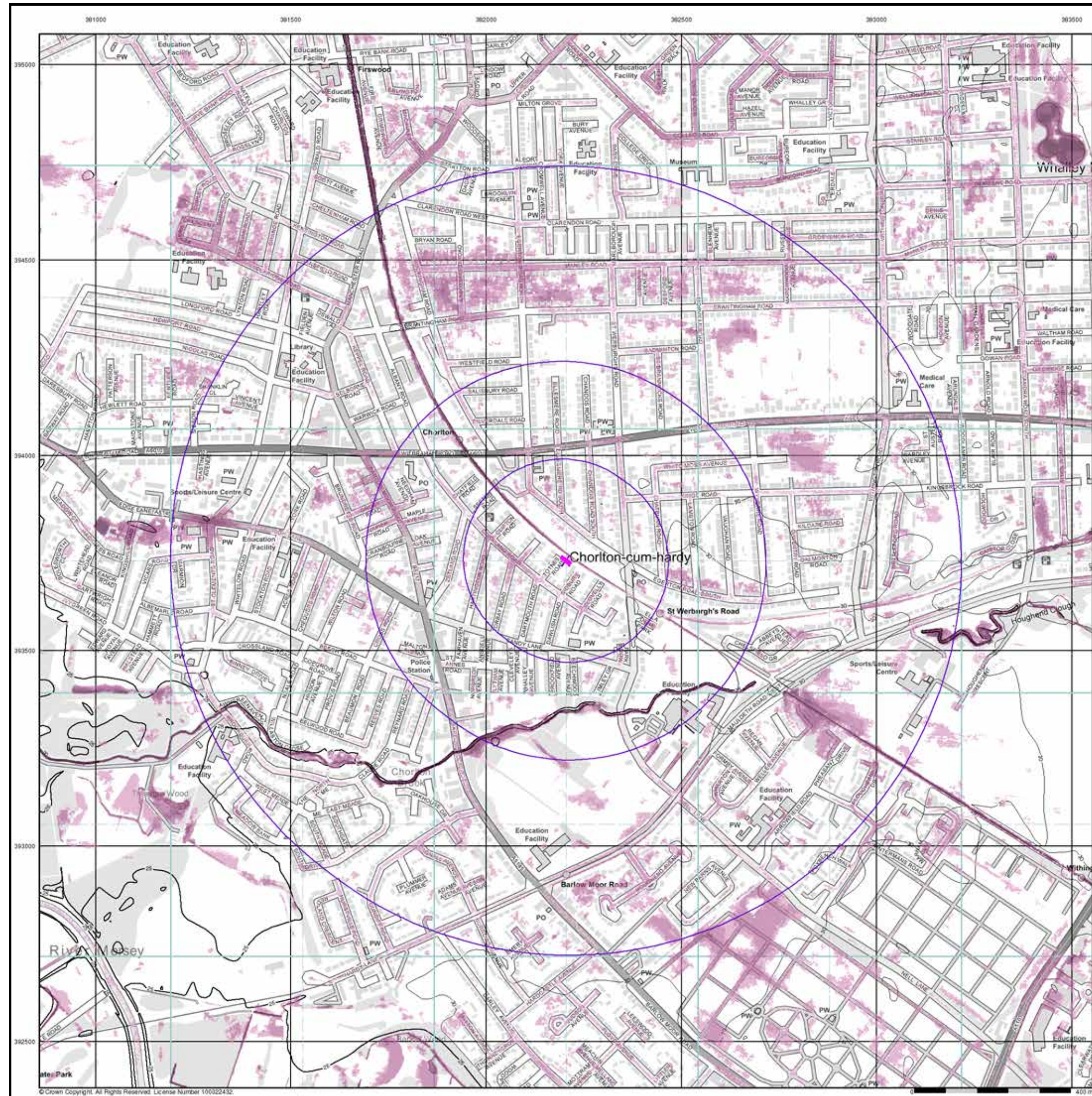
Order Number: 336757540_1_1
Customer Ref: 1017 - 16 Totnes Road
National Grid Reference: 382200, 393730
Slice: A
Site Area (Ha): 0.02
Search Buffer (m): 1000

Site Details

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

General

Specified Site Specified Buffer(s) Bearing Reference Point

Surface Water Depth

0 - 0.15m
0.15 - 0.30m
0.30 - 0.60m
0.60 - 0.90m
0.90 - 1.20m
> 1.20m

Contours (height in metres)

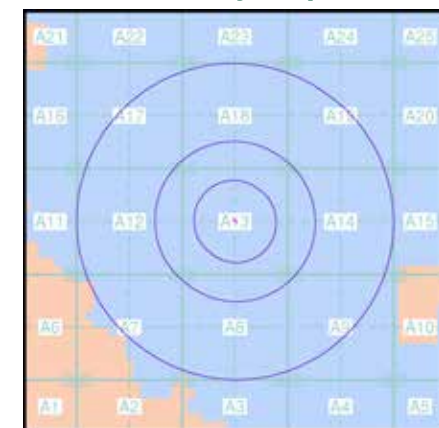
Standard Contour 105 100 95
Master Contour 100 95
Spot Height *167.8
MLW Mean Low Water
MHW Mean High Water

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

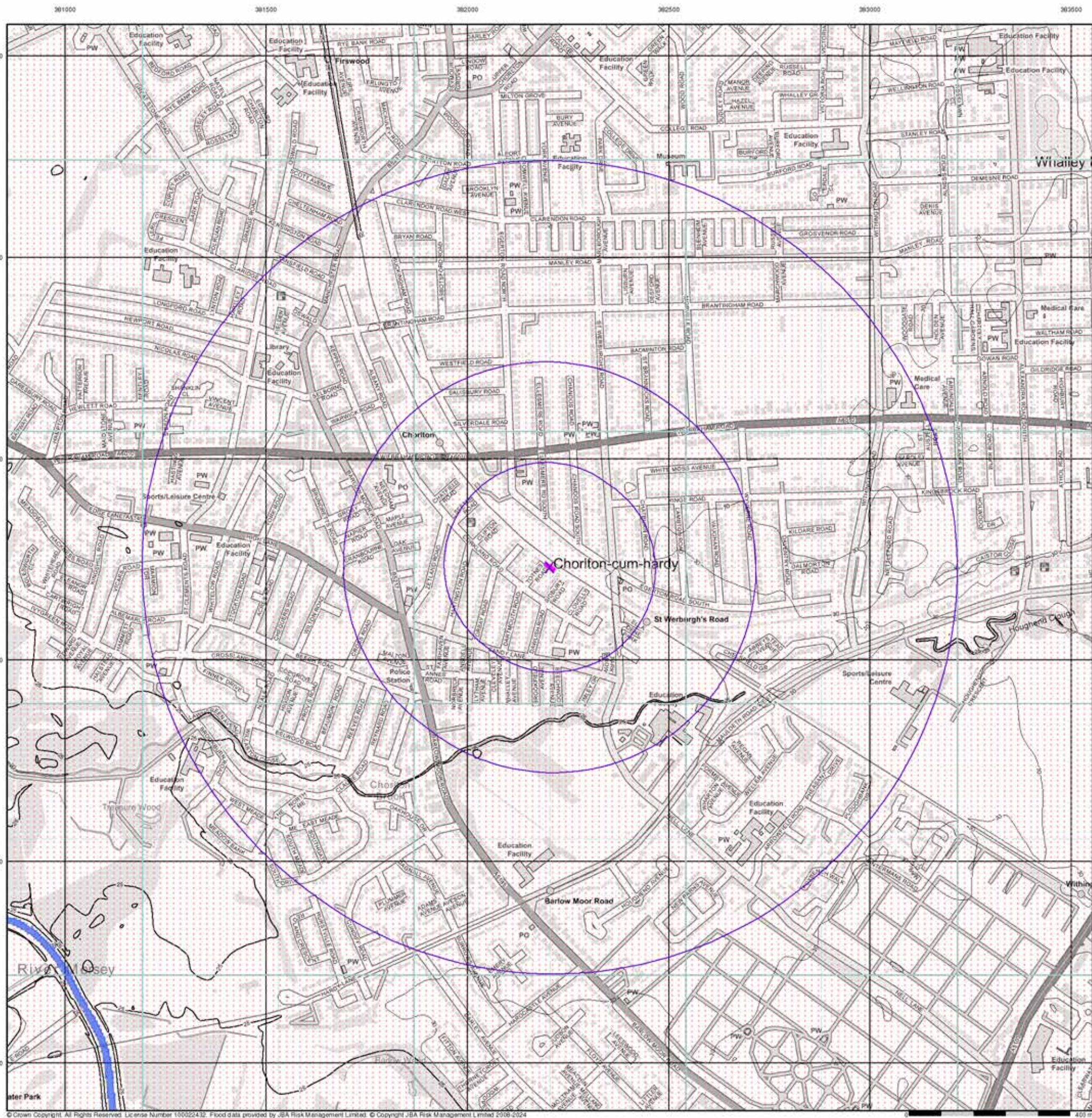


Order Details

Order Number: 336757540_1_1
Customer Ref: 1017 - 16 Totnes Road
National Grid Reference: 382200, 393730
Slice: A
Site Area (Ha): 0.02
Search Buffer (m): 1000

Site Details

16, Totnes Road, MANCHESTER, M21 8XF



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JBA Canal Failure Map (1:10,000)

General

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

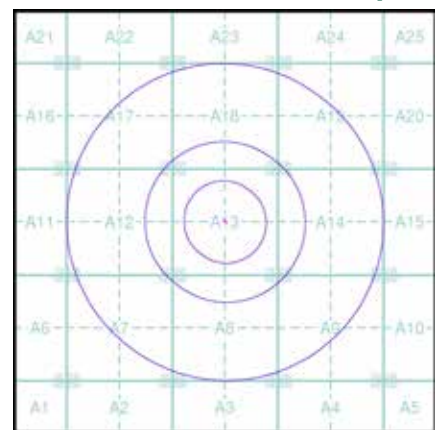
Flood Data

- Canal Failure
- Coverage

Contours (height in metres)

- Standard Contour: 105, 100, 95
- Master Contour: 105, 100, 95
- Spot Height: 167.8
- MLW: Mean Low Water
- MHW: Mean High Water

JBA Canal Failure Flood Map - Slice A



Order Details

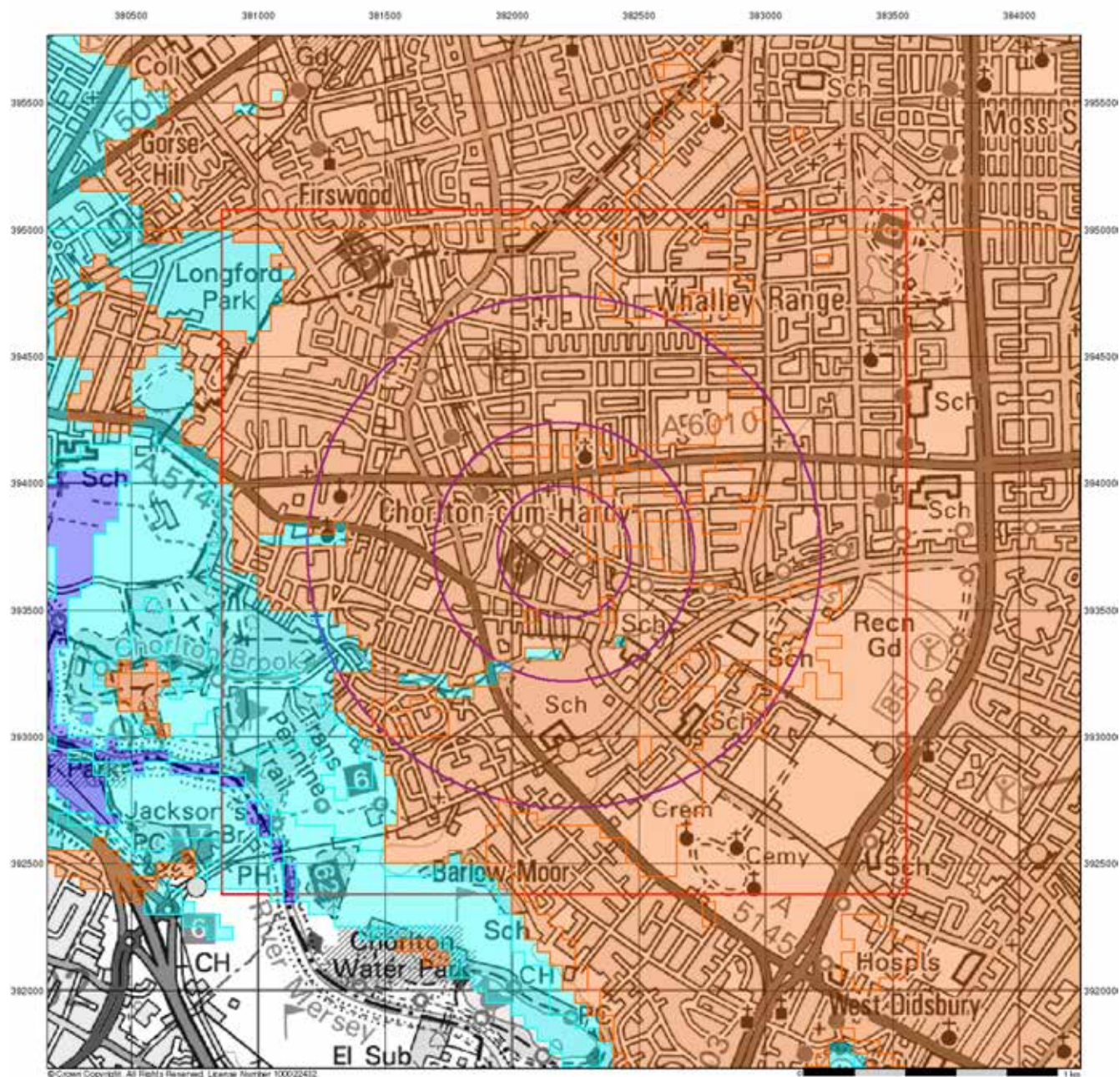
Order Number: 336757540_1_1
 Customer Ref: 1017 - 16 Totnes Road
 National Grid Reference: 382200, 393730
 Slice: A
 Site Area (Ha): 0.02
 Search Buffer (m): 1000

Site Details

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BGS Flood Data (1:50,000)

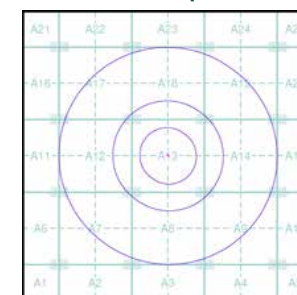
General

- 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



Order Details

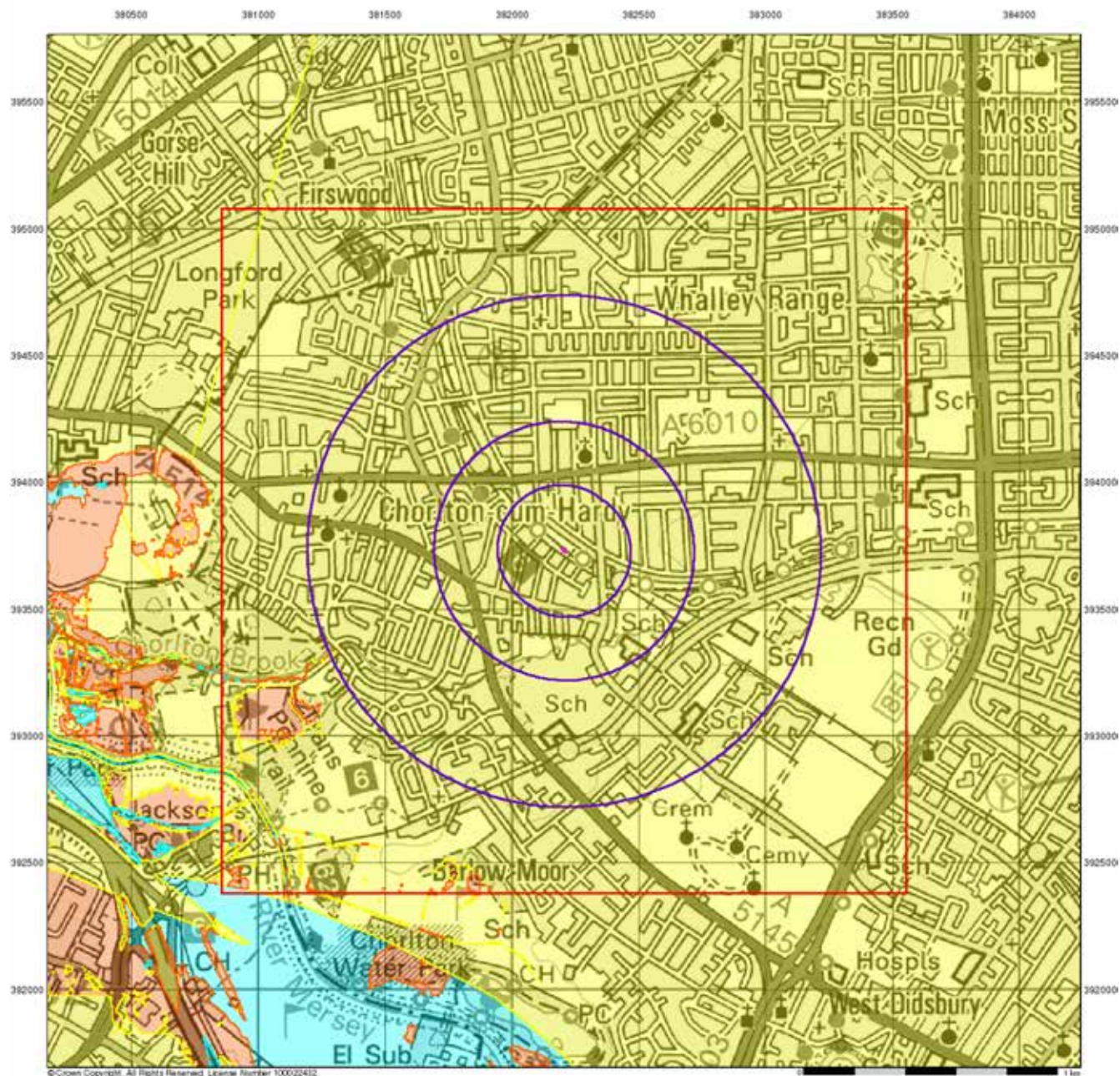
Order Number: 336757540_1_1
 Customer Ref: 1017 - 16 Totnes Road
 National Grid Reference: 382200, 393730
 Slice: A
 Site Area (Ha): 0.02
 Search Buffer (m): 1000

Site Details

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

General

Specified Site Specified Buffer(s) Bearing Reference Point

Slice

GeoSmart Information Groundwater Flooding Risk

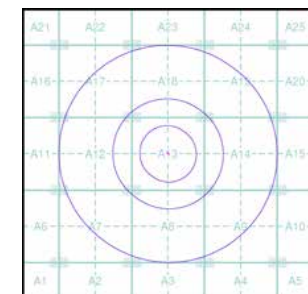
High Risk

Moderate Risk

Low Risk

Negligible Risk

GeoSmart Information Groundwater Flood Map - Slice A



Order Details

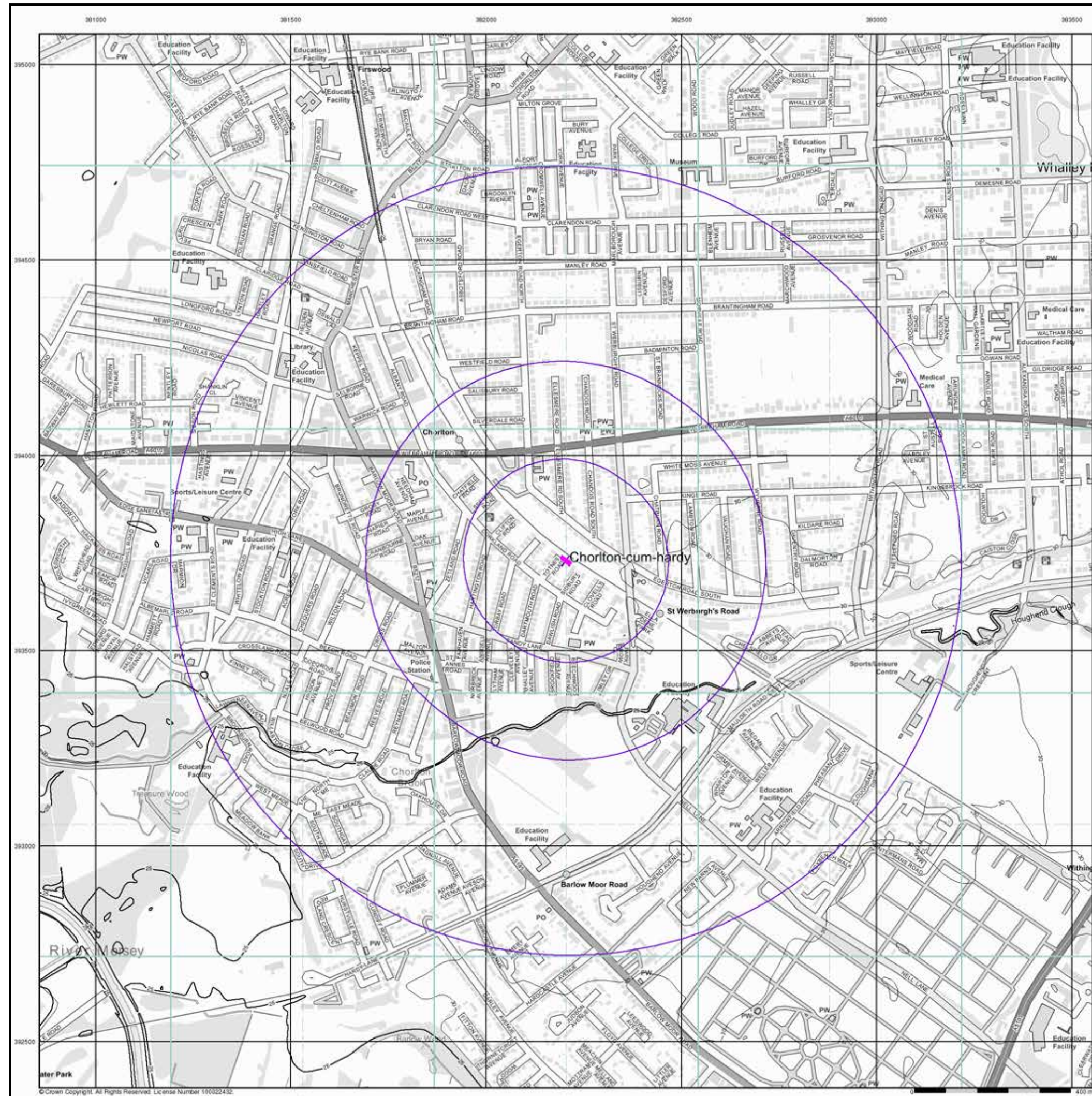
Order Number: 336757540_1_1
Customer Ref: 1017 - 16 Totnes Road
National Grid Reference: 382200, 393730
Slice: A
Site Area (Ha): 0.02
Search Buffer (m): 1000

Site Details

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

General

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

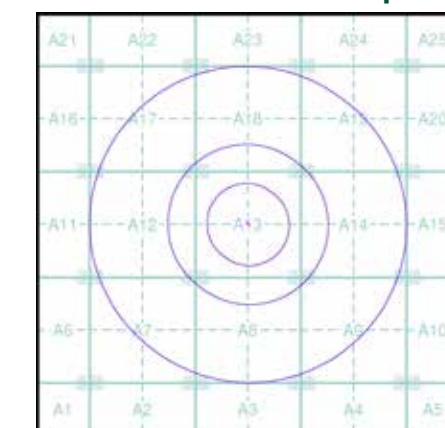
Historic Flood Events Data

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

Contours (height in metres)

- Standard Contour 105 100 95
- Master Contour
- Spot Height 167.8
- MLW Mean Low Water
- MHW Mean High Water

EA/NRW Historic Flood Map - Slice A



Order Details

Order Number: 336757540_1_1
Customer Ref: 1017 - 16 Totnes Road
National Grid Reference: 382200, 393730
Slice: A
Site Area (Ha): 0.02
Search Buffer (m): 1000

Site Details

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