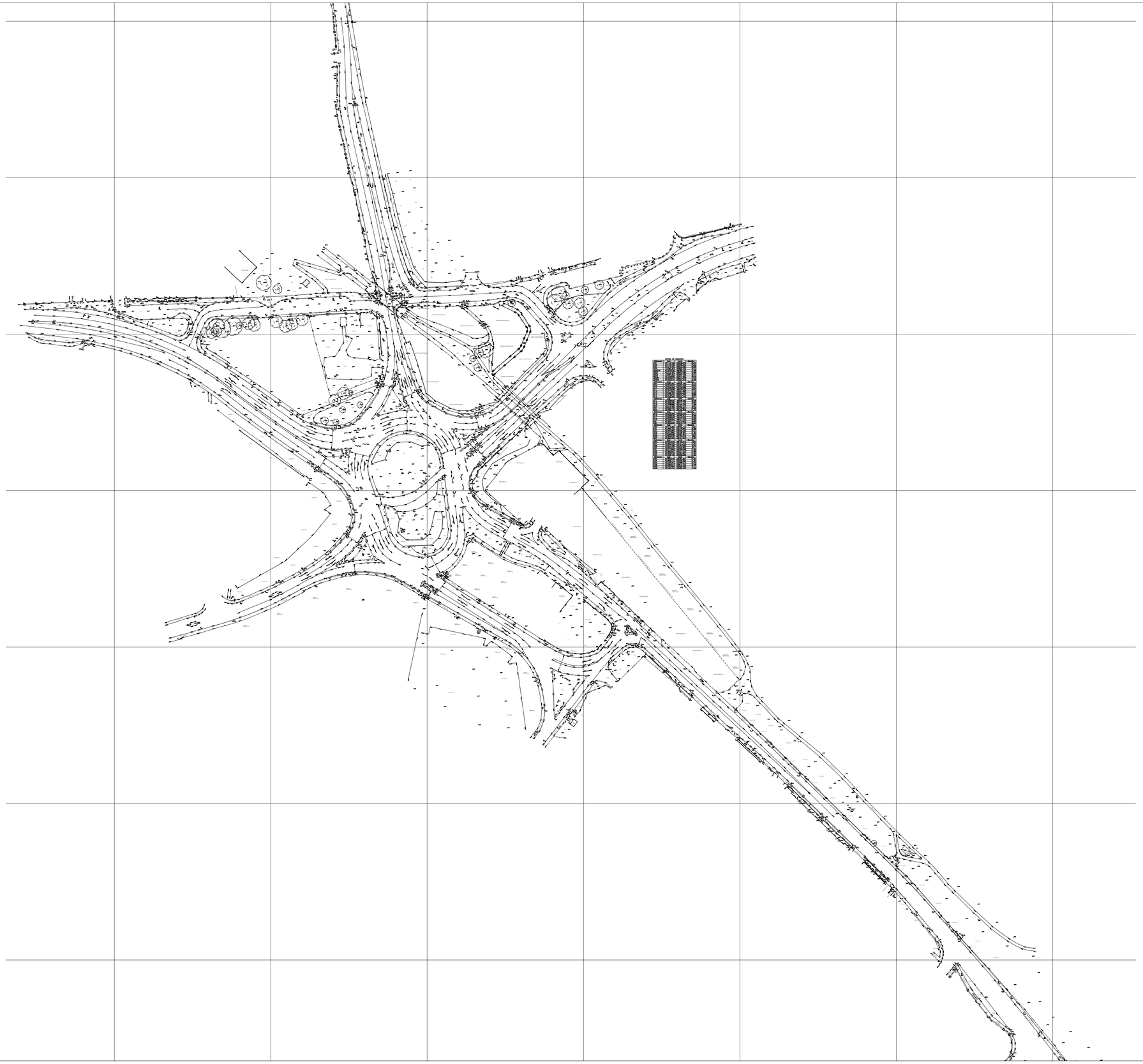
Appendix C

TOPOGRAPHICAL SURVEY

Confidential



N

Abbreviation & Symbol Key.

B	Bollard	RSC	Rolled Steel Column
BB	Belisha Beacon	RSJ	Rolled Steel Joist
BT	British Telecom Cover	RWP	Rain Water Pipe
BM	Bench Mark	SC	Stop Cock
CL	Cover Level	SP	Sign Post
DK	Drop Kerb	STP	Stand Pipe
EL	Electricity Cover	SV	Stop Valve
EP	Electricity Pole	SVP	Soil Vent Pipe
FH	Fire Hydrant	SWG	Storm Water Gully
FFP	Flagged Footpath	SW	Storm water
G	Gully	TFP	Tarmac Footpath
GM	Gas Meter	TL	Traffic Light
GV	Gas Valve	TP	Telegraph Pole
IC	Inspection Cover	UTL	Unable To Lift
IL	Invert Level	VP	Vent Pipe
LB	Letter Box	WM	Water Meter
LP	Lamp Post	WP	Waste Pipe
MB	Multi Bole		
MH	Man Hole	Fences & Walls	
Mkr	Marker Post	Ret	Retaining Wall
MS	Mile Stone	B/W	Barbed Wire
CATV	Cable Telecommunications	C/B	Close Boarded
NB	Notice Board	C/I	Corrugated Iron
NFI	No Further Information	C/L	Chain Link
OSBM	Ordnance Survey BM	C/P	Chestnut Paling
P	Post	I/R	Iron Railing
PB	Post Box	Lat	Lattice
RE	Rodding Eye	P/C	Post & Chain
RL	RootLine	P/R	Post & Rail
RS	Road Sign	P/W	Post & Wire
SS	Street Name Sign		
N/S	Non Slip Paving	Trees	
		0.25/10/10/Syc	
		Diameter/Height/Spread/Species	

General

Details or services hidden or obscured by vegetation, debris or vehicles at survey dates may be omitted. Hedge & Vegetation details are outline

Control & Datum Information

Grid - Station SH29 Coordinates are OS GPS RTK
All other Stations are relative to this in Plane Grid Projection and Grid North

Datum - Station SH29 datum is OS GPS RTK
All other Stations are relative to this in Plane Grid Projection

Grid @ 100.0m to cover Site

Boundaries treatments shown do not indicate Legal ownership

Revision	Description	By	Date

Surv.	Drawn	Date	Chkd	Date	Appr'd	Date
SH,GH	SH,GH	8/3/21	SH			

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Client.

BMBC

Title. SITE PLAN

Site. Stairfoot Roundabout
Stairfoot
Barnsley

HH SURVEYS LTD
41 Brampton Crescent
Wombwell
Barnsley
Yorkshire S73 0SZ
T: 01226 734099 , E: stephen@hhsurveys.co.uk
Web: hh-surveys.com

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Dwg No. BMB/535/SP

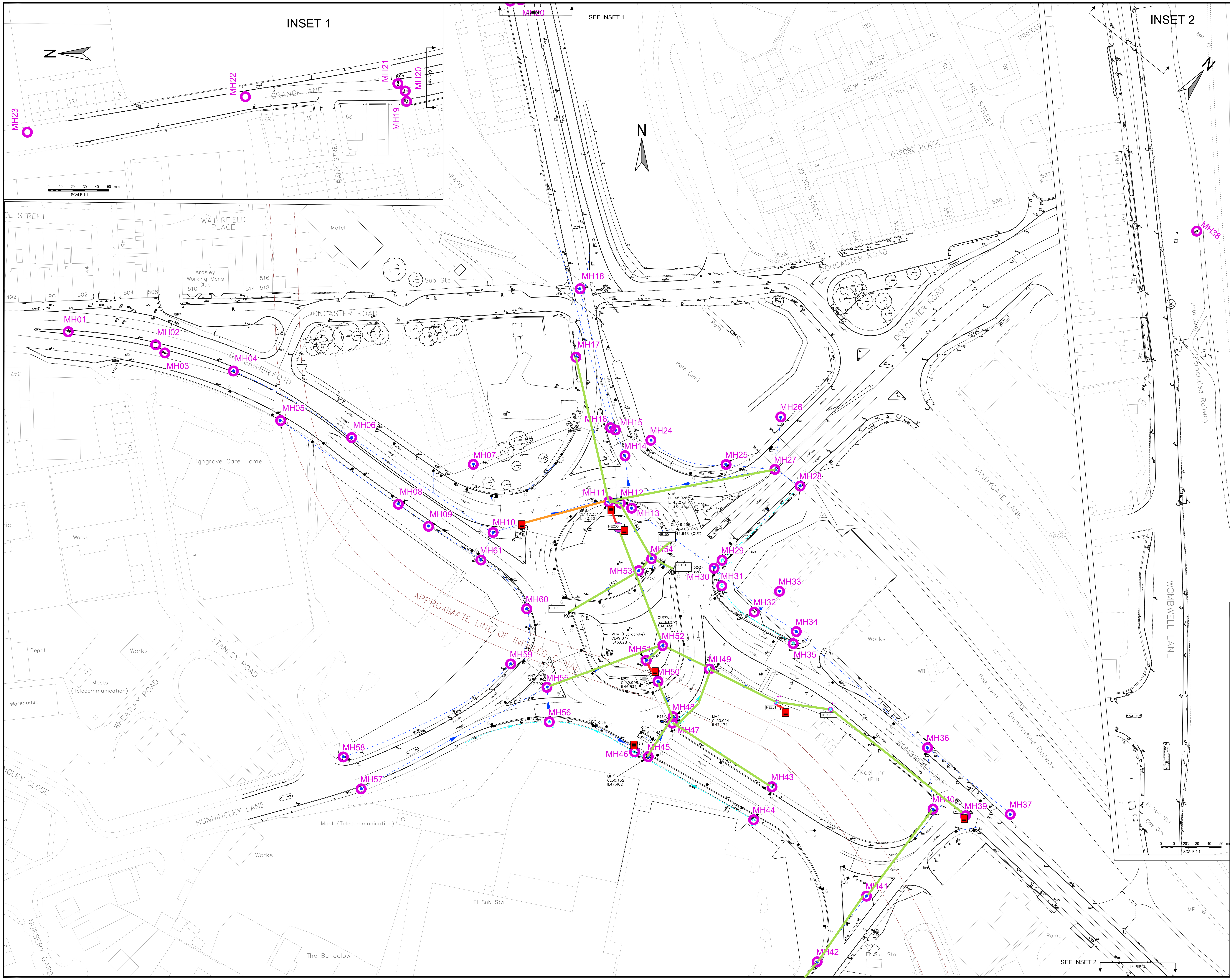
Sheet No.

SCALE	1/1250	REV.	

Appendix D

DRAINAGE SURVEY DRAWINGS AND SEWER PLANS

Confidential



INSET 1
INSET 2
SEE INSET 1
SEE INSET 2
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GRANGE LANE
BANK STREET
SCALE 1:1
MH01
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MH60
MH61
DONCASTER ROAD
WATERFIELD PLACE
Motel
Sub Sta
Ardsley Working Mens Club
Highgrove Care Home
NEW STREET
OXFORD STREET
OXFORD PLACE
HILL STREET
PINFOLD
SANDYGATE LANE
WOMBWELL LANE
STANLEY ROAD
WHEATLEY ROAD
HUNNINGLEY LANE
NURSERY GARD
APPROXIMATE LINE OF INFILLED CANAL
Works
Depot
Masts (Telecommunication)
Warehouse
Mast (Telecommunication)
El Sub Sta
The Bungalow
Keel Inn (PH)
Dismantled Railway
Path (um)
Gas Gov
Ramp

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Rev.	By	Amendments	Date
P1	ICG	FIRST ISSUE	25.03.21
P2	ICG	MH REFERENCES REVISED	17.05.21

BARNSLEY
Metropolitan Borough Council

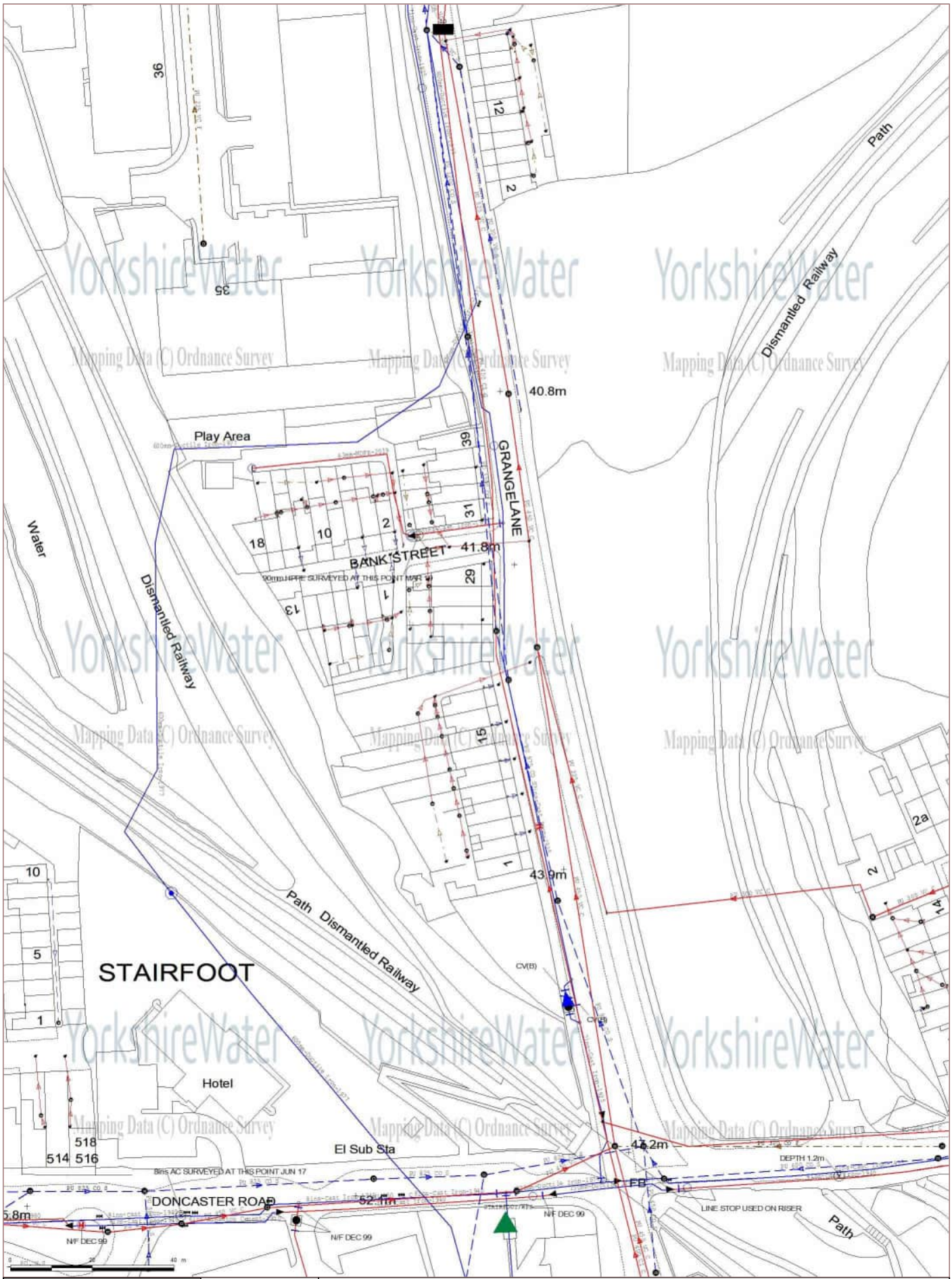
Project
BRT

Drawing title
STAIRFOOT ROUNDABOUT EXISTING MANHOLE LOCATIONS

Scale	Drawn	Checked	Date
1:500	ICG		25.03.21

Drawing No.	Revision	File
DR-SK-003	P2	FILE

David Shepherd Service Director Place Directorate
Regeneration & Culture (Business Unit 4)
P.O. Box 609, Barnsley.
S70 9FH
Tel. (01226) 770770 Fax. (01226) 772222



Yorkshire Water
PO Box 500
Halifax Road
Bradford BD6 2LZ

Originator: CAMPBELLE Centre: 437238 , 405752 Scale 1:1250 Date Requested: 15th September 2023

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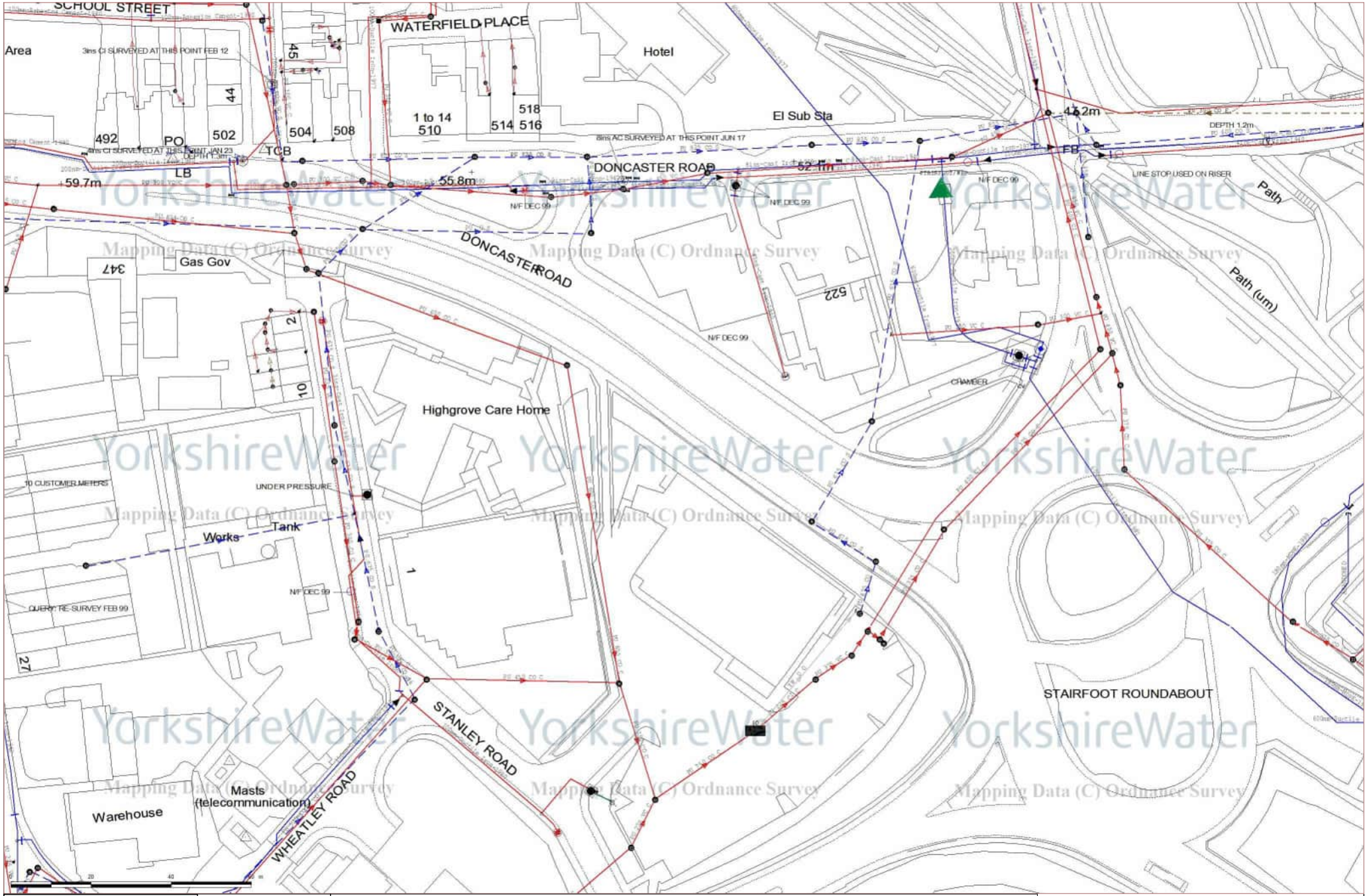

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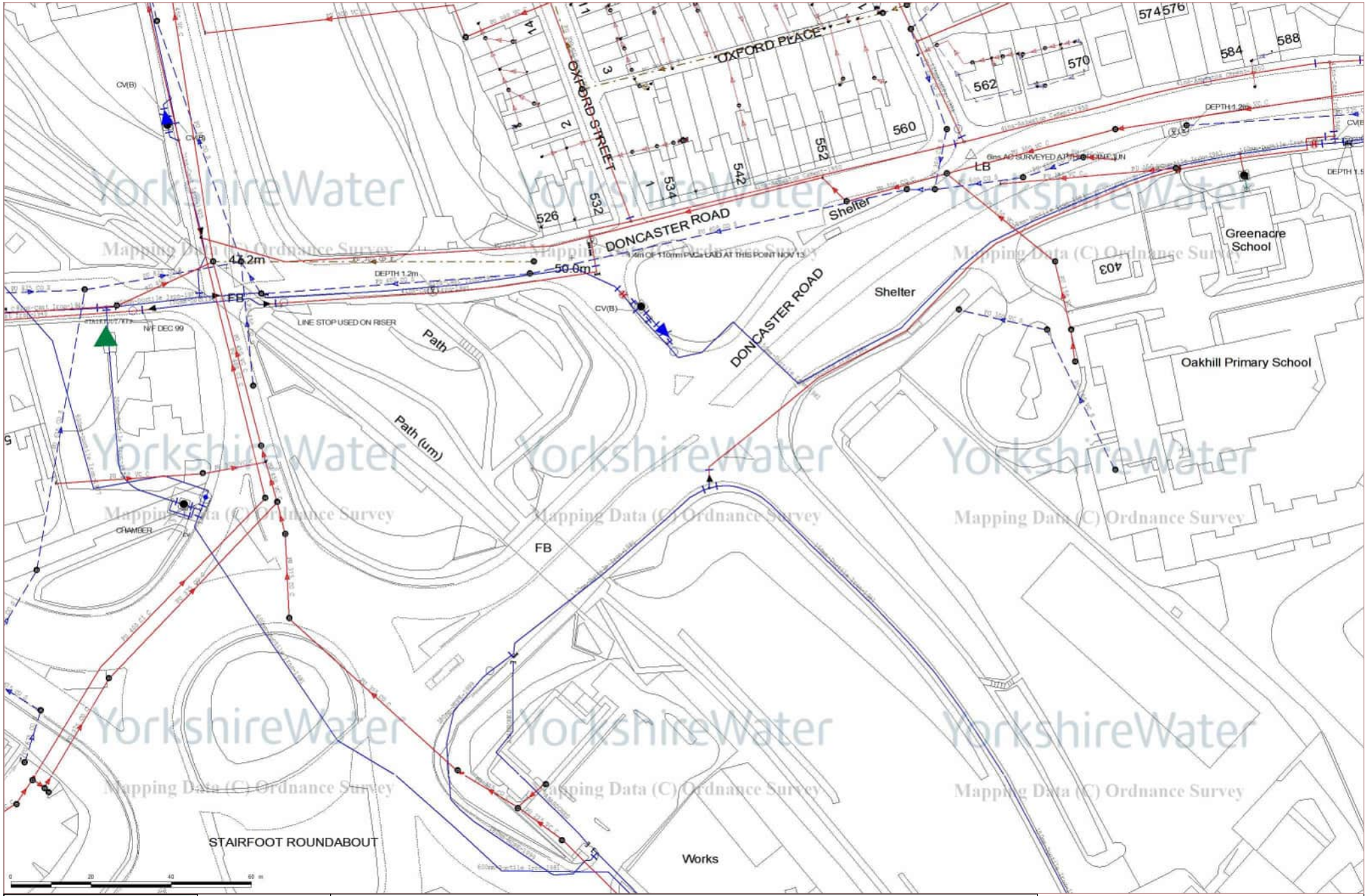

YorkshireWater	Yorkshire Water PO Box 500 Halifax Road Bradford BD6 2LZ	Originator: CAMPBELLE	Centre: 437390 , 405582	Scale 1:1250	Date Requested: 15th September 2023
		This plan is furnished as a general guide only and no warranty as to its correctness is given or implied. This plan must not be relied upon in the event of excavations or other works made in the vicinity of public sewers. No house or property connection is shown.			
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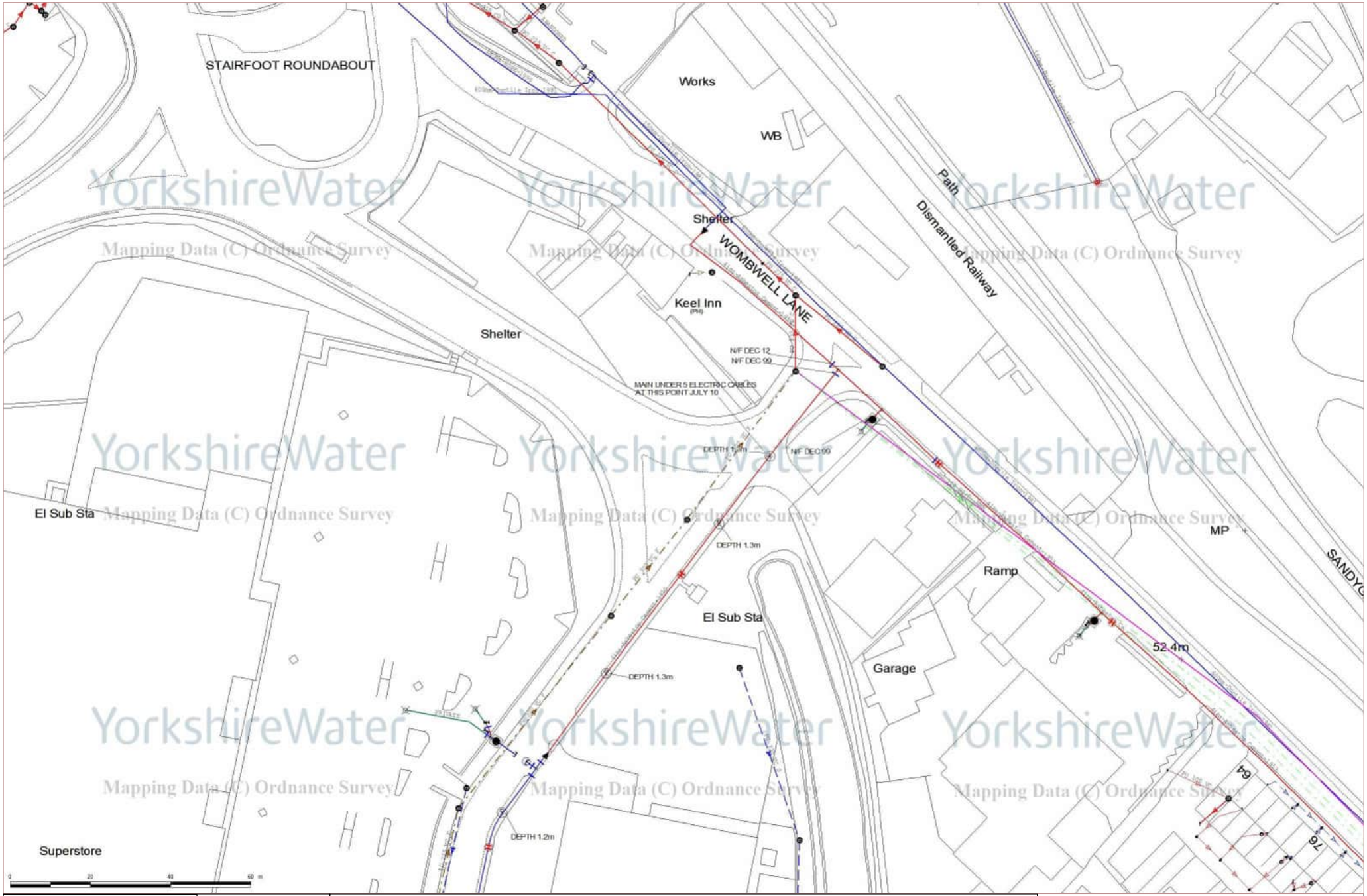

YorkshireWater Mapping Data (C) Ordnance Survey

Yorkshire Water
PO Box 500
Halifax Road
Bradford BD6 2LZ

Originator: CAMPBELLE Centre: 437390 , 405388 Scale 1:1250 Date Requested: 15th September 2023

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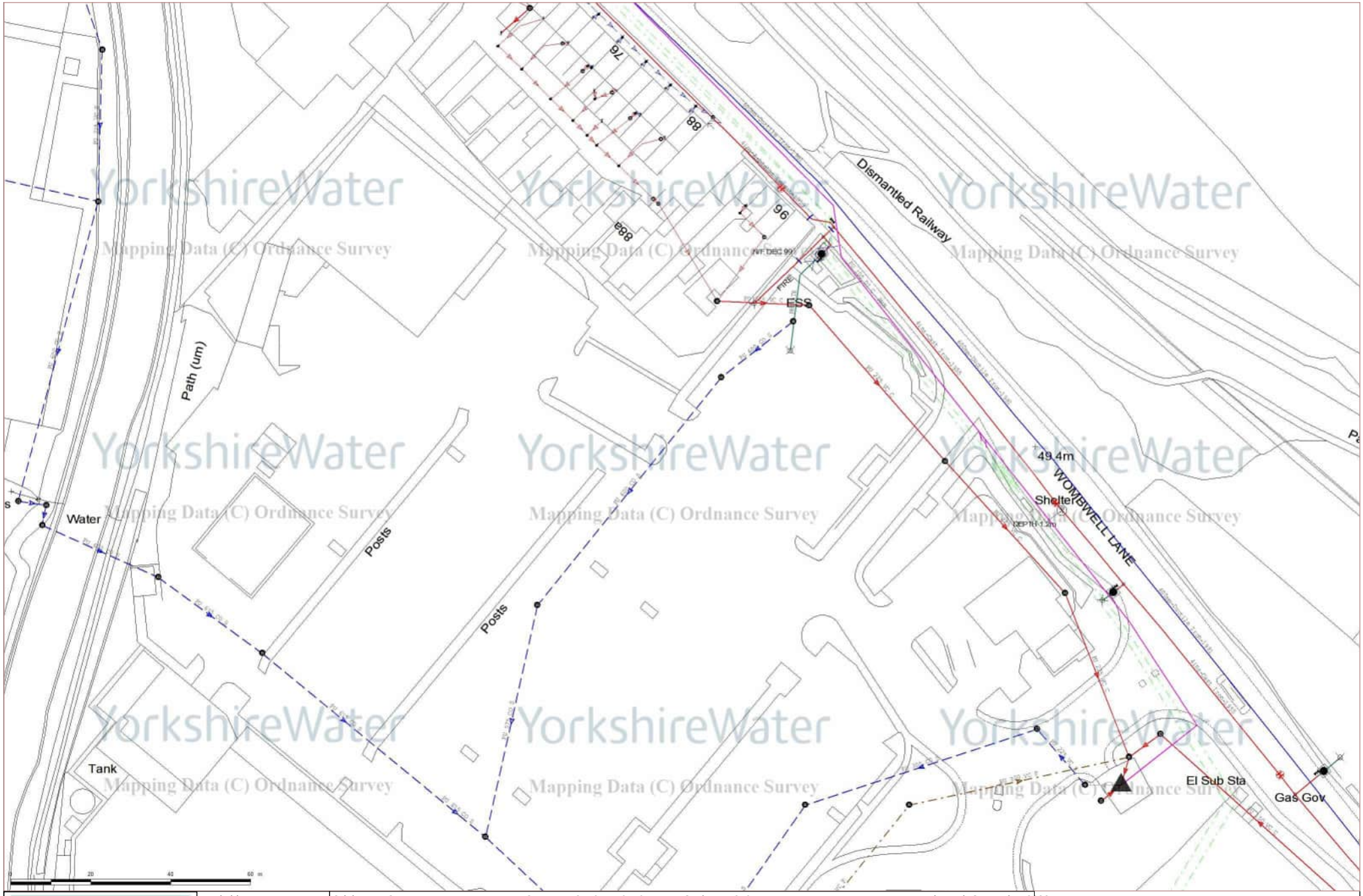

Yorkshire Water
PO Box 500
Halifax Road
Bradford BD6 2LZ

Originator: CAMPBELLE Centre: 437564 , 405191 Scale 1:1250 Date Requested: 15th September 2023

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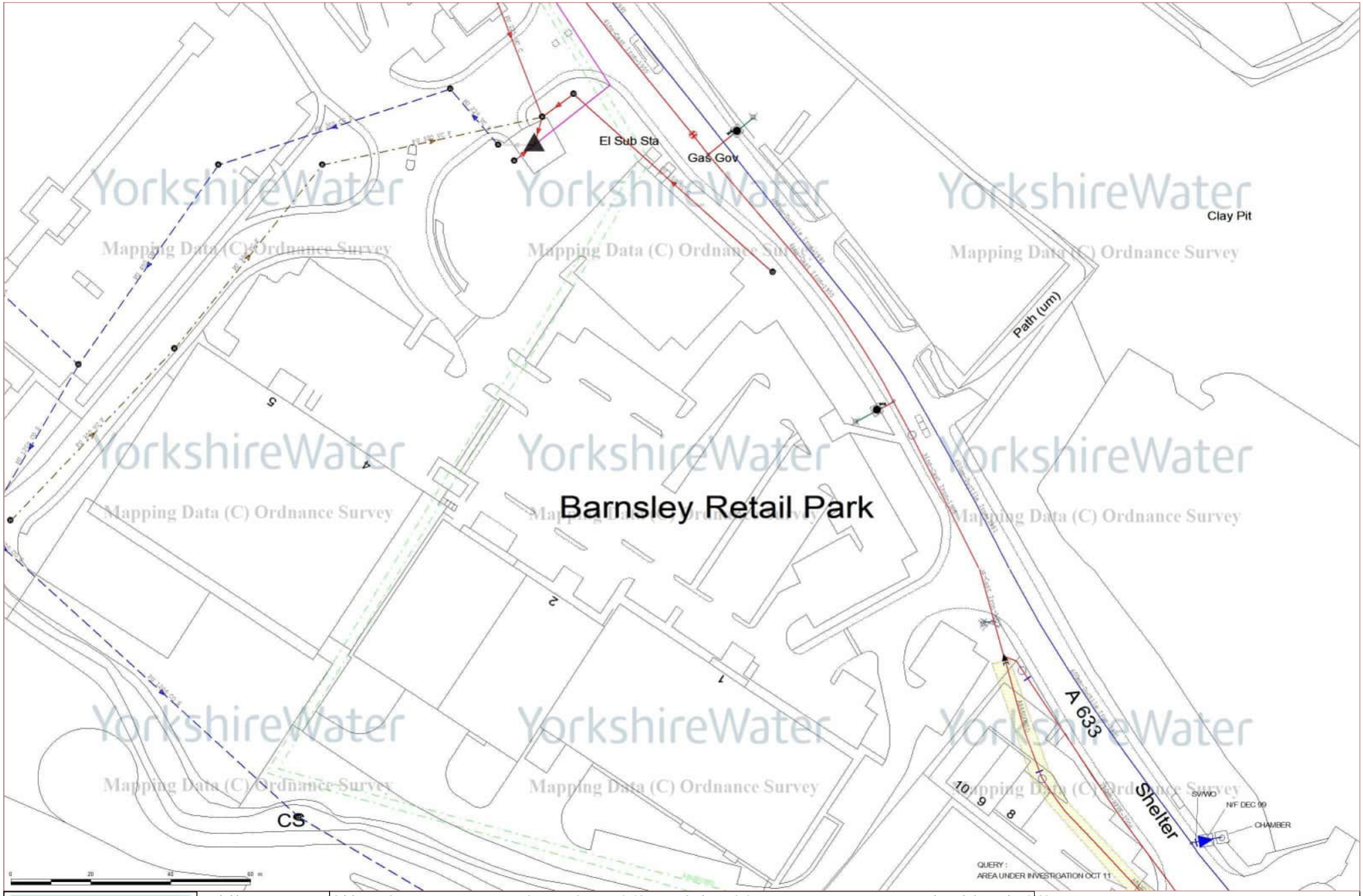

YorkshireWater	Yorkshire Water PO Box 500 Halifax Road Bradford BD6 2LZ	Originator: CAMPBELLE	Centre: 437711 , 405031	Scale 1:1250	Date Requested: 15th September 2023
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Appendix E

CONSULTATION RESPONSES

CONFIDENTIAL

Appendix F

FLOOD MAP PACK

Confidential

FLOOD MAP PACK

Overview

Site Information

PROJECT
701115952

SITE
Stairfoot Roundabout

CLIENT
Barnsley Metropolitan Borough Council

EASTINGS, NORTHINGS
437346, 405443

SITE AREA
9.75 hectares

WSP CONTACT
BC

Pages

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Site Location

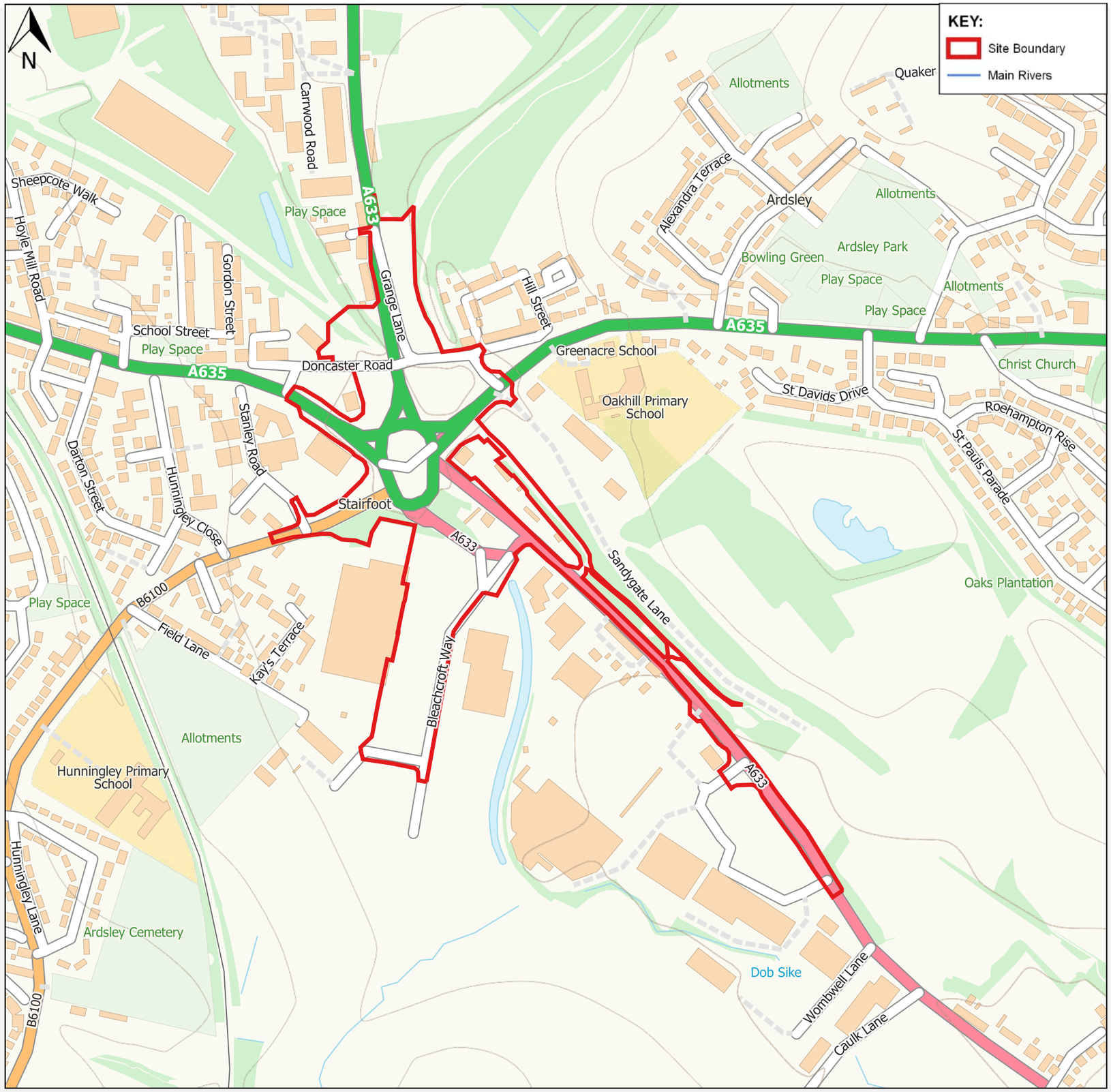
2

CLOSEST MAIN RIVER

River Dearne

DISTANCE BETWEEN SITE AND CLOSEST MAIN RIVER

424.1m



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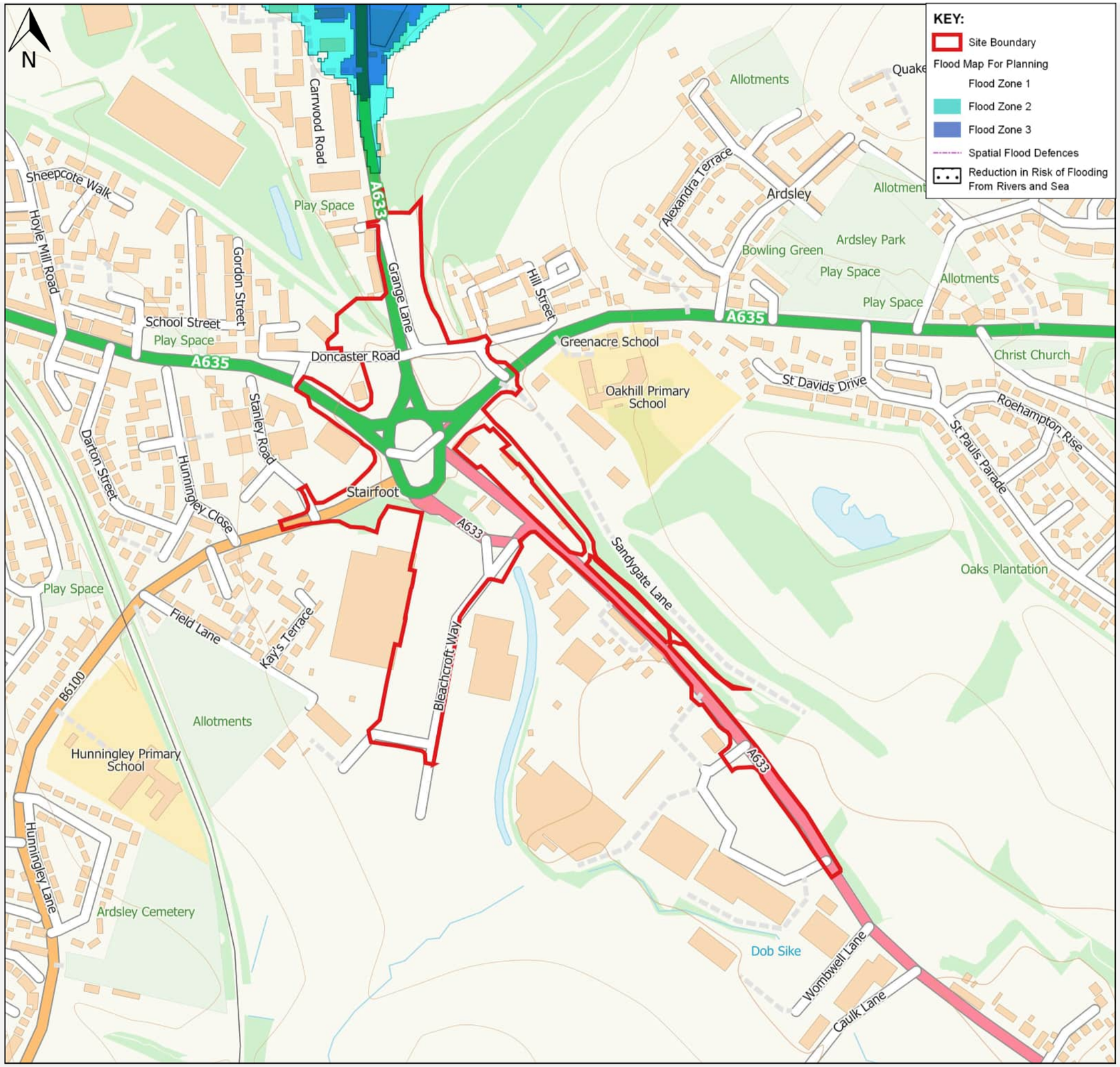
Flood Map for Planning

Flood zone maps are modelled using local and national river and sea data. This information provides an indication of the likelihood of flooding and is intended for planning use only.

- **Flood Zone 1 -** Land having a less than 1 in 1,000 annual probability (0.1% AEP) of river or sea flooding - all land outside Zones 2 and 3).
- **Flood Zone 2 -** Land having between a 1 in 100 and 1 in 1,000 annual probability (0.1% - 1.0% AEP) of river flooding; or land having between a 1 in 200 and 1 in 1,000 annual probability (0.1% - 0.5% AEP) of sea flooding.
- **Flood Zone 3 -** Land having a 1 in 100 or greater annual probability (>1.0% AEP) of river flooding; or Land having a 1 in 200 or greater annual probability (>0.5% AEP) of sea flooding.

Reduction in Risk of Flooding from Rivers and Sea due to Defences -Reduction in Risk of Flooding from Rivers and Sea due to Defences is a spatial dataset that indicates where areas have reduced flood risk from rivers and sea due to the presence of flood defences. The dataset has been created to help initiate conversations about the impact our flood defences have on the risk of flooding from the rivers and sea,and as a prompt to find out more about the flood defences in a particular area of interest. It does not replace any local, more detailed information.



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Risk of Flooding from Rivers and Sea

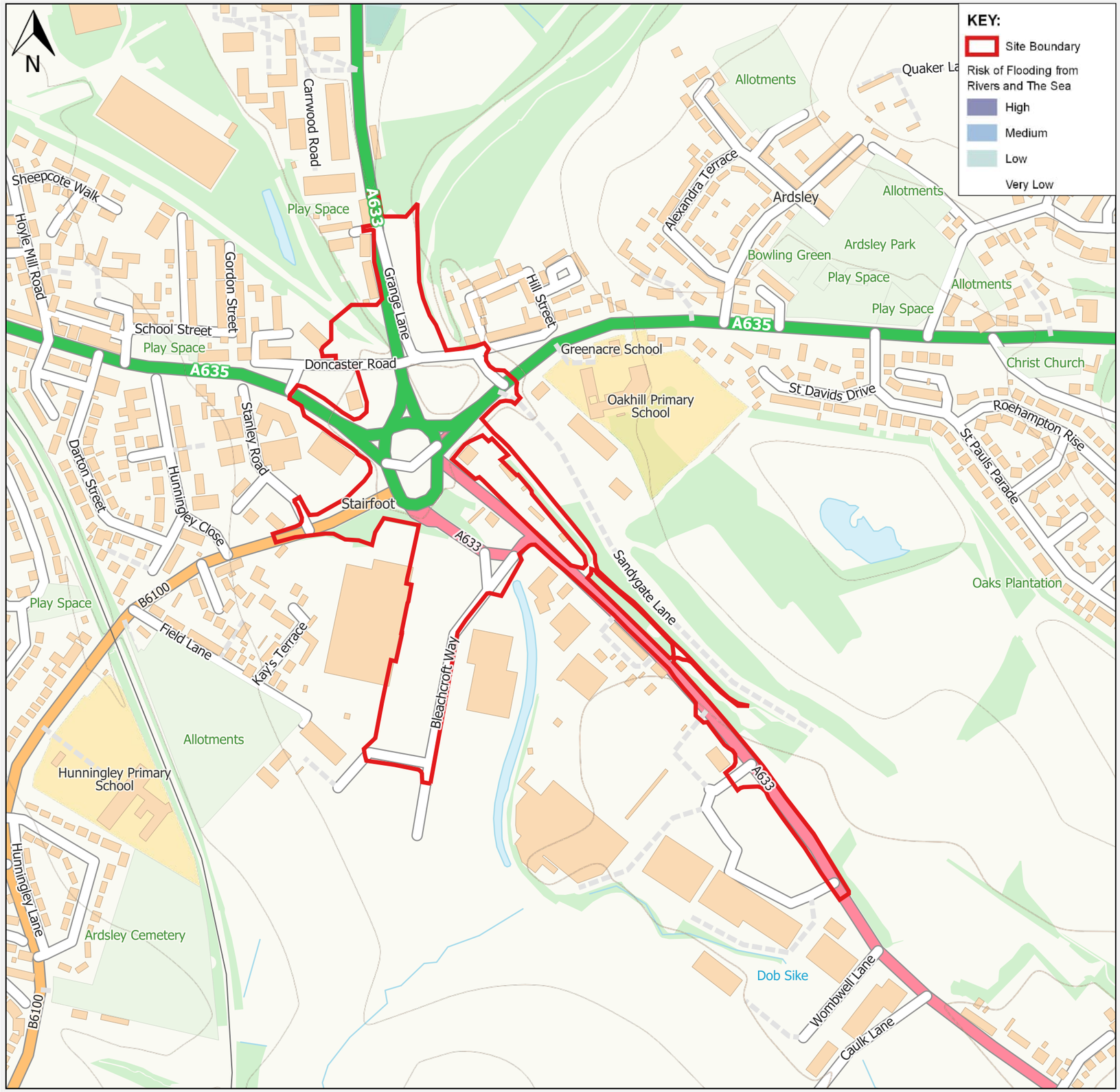
This map takes into account the effect of any flood defences in the area. These defences reduce but do not completely stop the chance of flooding as they can be overtopped, or fail.

High Risk - Land having a 1 in 30 or greater annual probability (>3.3% AEP) of flooding from rivers or the sea.

Medium Risk - Land having between a 1 in 30 and a 1 in 100 annual probability (1.0% - 3.3%) of flooding from rivers or the sea.

Low Risk - Land having between a 1 in 100 and a 1 in 1000 annual probability (0.1% - 1.0%) of flooding from rivers or the sea.

Very Low Risk - Land having a less than 1 in 1,000 annual probability (0.1% AEP) of flooding from rivers or the sea.



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Risk of Flooding from Surface Water

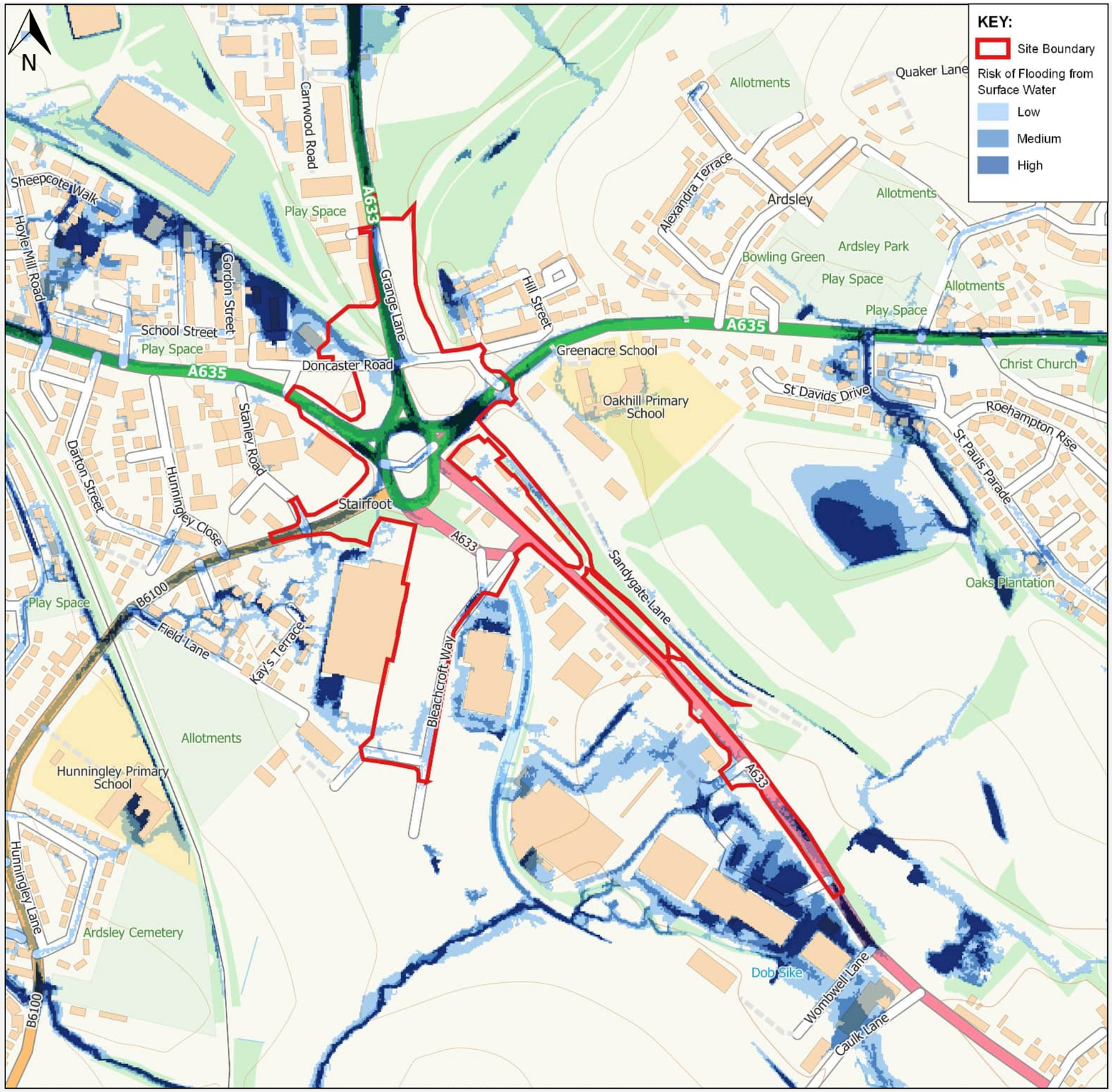
Flooding from surface water is difficult to predict as rainfall location and volume are difficult to forecast. In addition, local features can greatly affect the chance and severity of flooding.

High Risk - Land having a 1 in 30 or greater annual probability (>3.3% AEP) of flooding from surface water.

Medium Risk - Land having between a 1 in 30 and a 1 in 100 annual probability (1.0% - 3.3%) of flooding from surface water.

Low Risk - Land having between a 1 in 100 and a 1 in 1000 annual probability (0.1% - 1.0%) of flooding from surface water.

Very Low Risk - Land having a less than 1 in 1,000 annual probability (0.1% AEP) of flooding from surface water.



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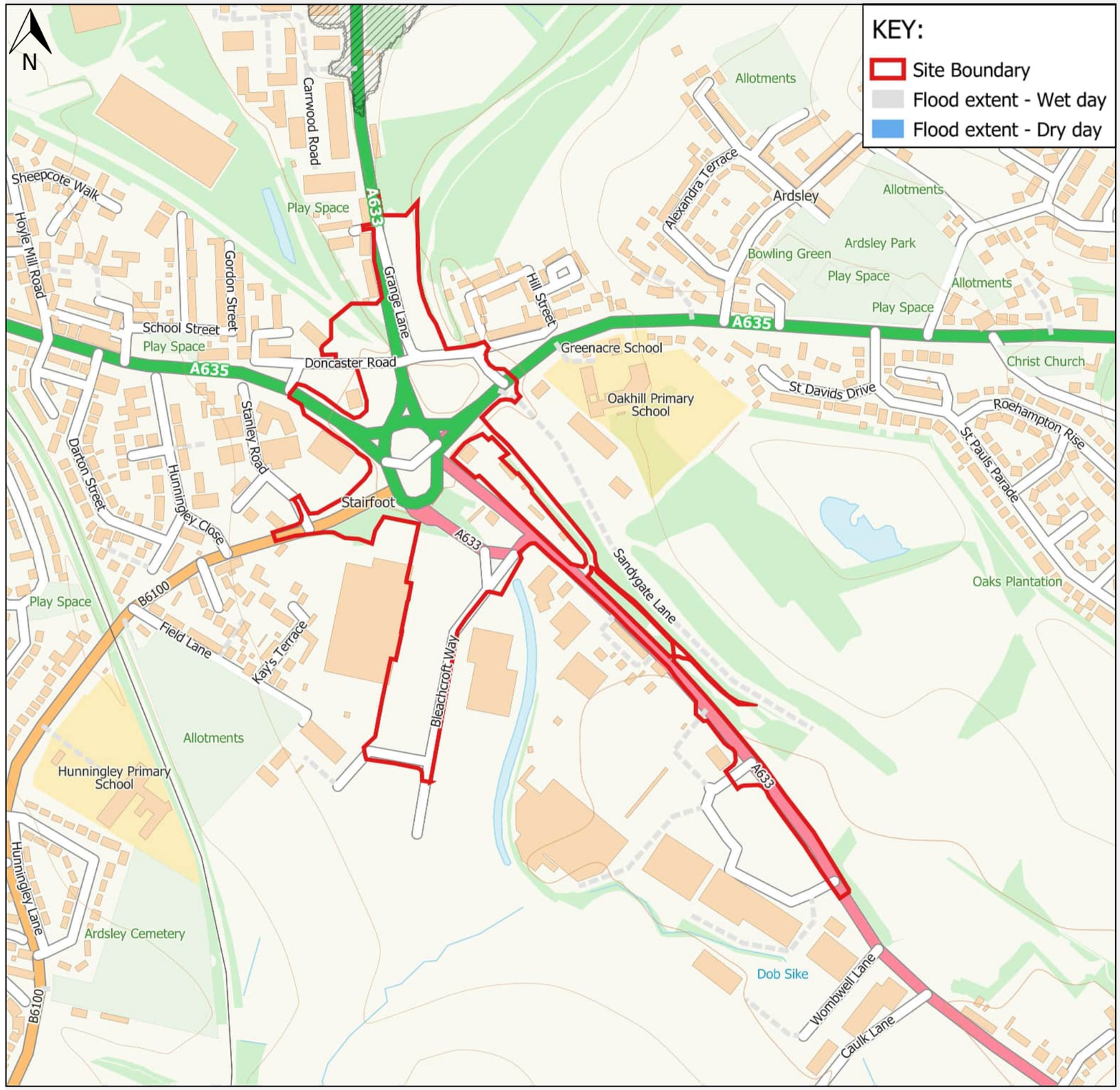
Risk of Flooding from Reservoirs

The Risk of Flooding from Reservoirs (wet day) layer shows the individual flood extents for all large raised reservoirs in the event that they were to fail and release the water held on a "wet day" when local rivers had already overflowed their banks.

It represents a prediction of a credible worst-case scenario, however it's unlikely that any actual flood would be this large. The data gives no indication of likelihood or probability of reservoir flooding.

The Risk of Flooding from Reservoirs (dry day) shows flood extents for all large raised reservoirs in the event that they were to fail and release the water held on a "dry day" when local rivers are at normal levels.

These national datasets are "indicative" not "definitive". Definitive information can only be provided by individual local authorities and you should refer directly to their information for all purposes that require the most up to date and complete dataset.



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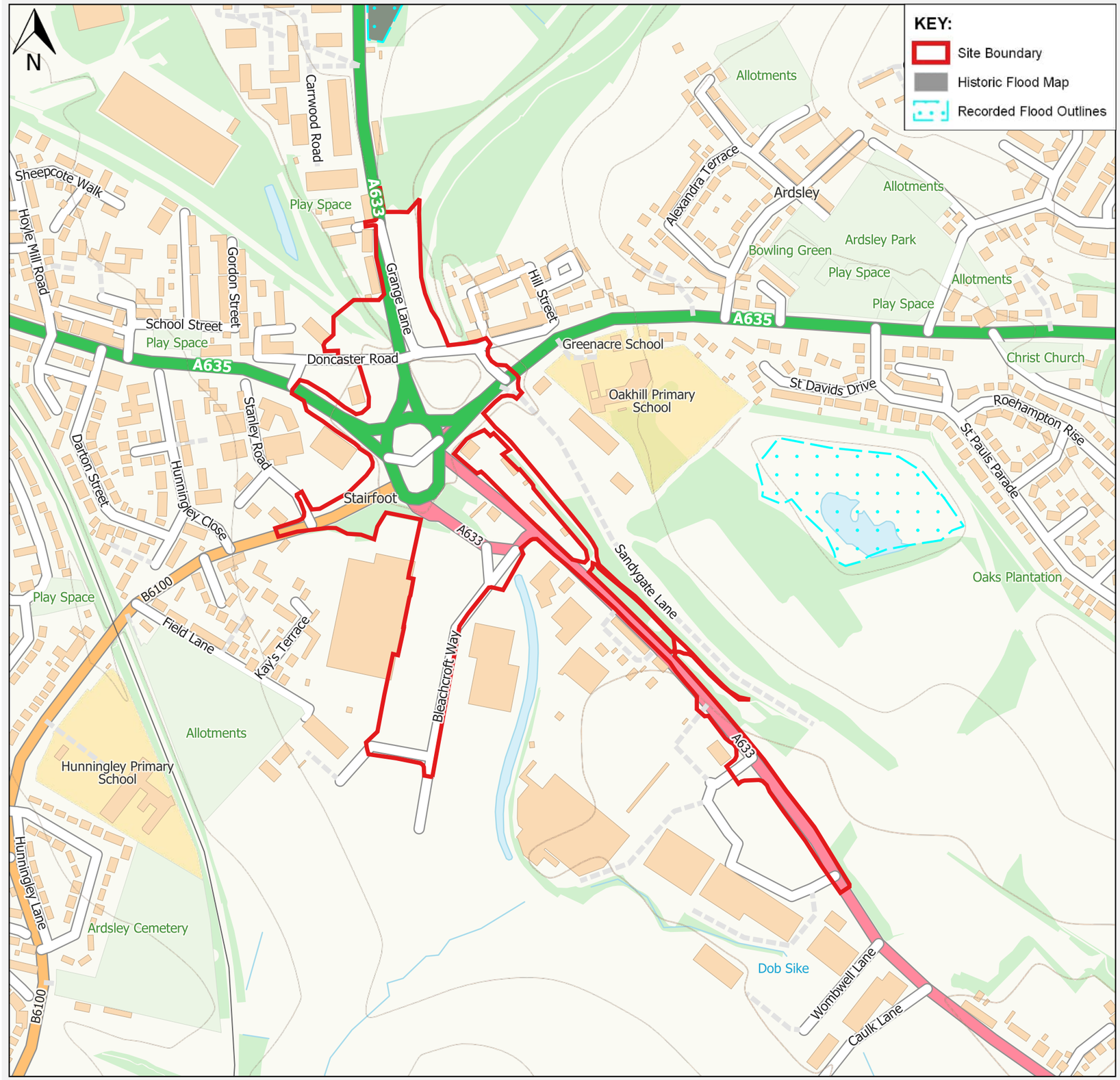
Previous Flooding

RECORDED FLOOD OUTLINES
Recorded Flood Outlines shows all records of historic flooding from rivers, the sea, groundwater and surface water. The absence of coverage by Recorded Flood Outlines for an area does not mean that the area has never flooded, only that there are currently no records of flooding in this area. It is also possible that the pattern of flooding in this area has changed and that this area would now flood or not flood under different circumstances. The Recorded Flood Outlines take into account the presence of defences, structures, and other infrastructure where they existed at the time of flooding. It includes flood extents that may have been affected by overtopping, breaches or blockages. Any flood extents shown do not necessarily indicate that properties were flooded internally.

HISTORIC FLOOD MAP
The Historic Flooding shows the maximum extent of individual Recorded Flood Outlines from river, the sea and groundwater springs that meet a set criteria. It shows areas of land that has previously been subject to flooding. This excludes flooding from surface water, except in areas where it is impossible to determine whether the source is fluvial or surface water, but the dominant source is fluvial. If an area is not covered by the Historic Flood Map it does not mean that the area has never flooded, only that the EA do not currently have records of flooding in this area that meet the criteria for inclusion. It is also possible that the pattern of flooding in this area has changed and that this area would now flood or not flood under different circumstances. Outlines that don't meet these criteria are stored in the Recorded Flood Outlines dataset. The Historic Flood Map takes into account the presence of defences, structures, and other infrastructure where they existed at the time of flooding. It will include flood extents that may have been affected by overtopping, breaches or blockages. Flooding is shown to the land and does not necessarily indicate that properties were flooded internally.

If an area is not covered by these layers, it does not mean that the area has never flooded, only that there are not currently records of flooding in the area.



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Flood Alert and Warning Areas

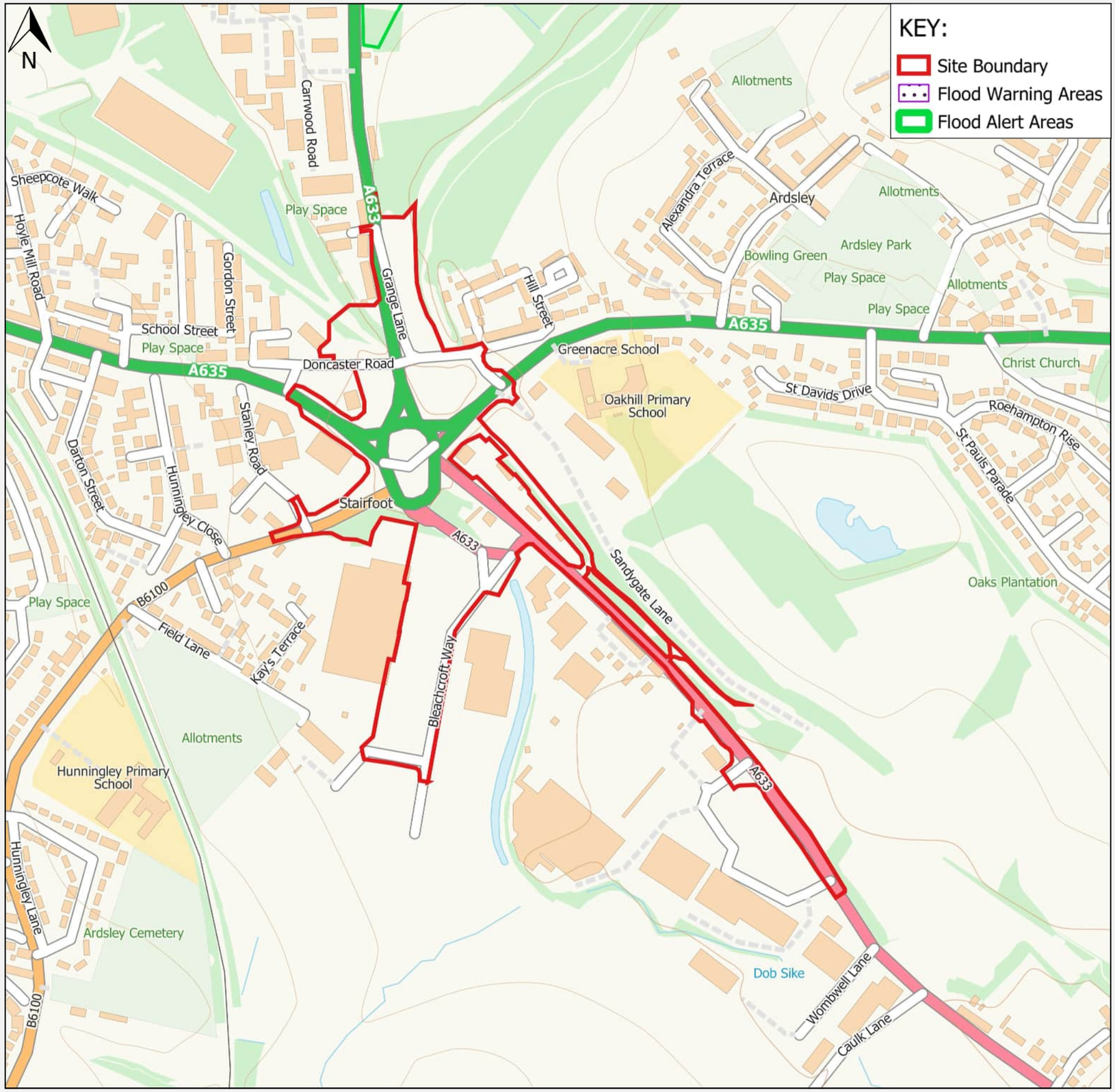
FLOOD ALERT AREAS

Flood Alert Areas are areas where it is possible for flooding to occur from rivers, sea and in some location's groundwater. A single Flood Alert Area may cover the floodplain within the Flood Warning Service Limit of multiple catchments of similar characteristics containing a number of Flood Warning Areas. A Flood Alert Area may also match that of a corresponding Flood Warning Area and warn for the possibility of flooding in that area. In some coastal locations a Flood Alert may be issued for spray or overtopping and be defined by a stretch of coastline. Practical and administrative factors may also influence the exact extent of a Flood Alert Area. A Flood Alert is issued to warn people of the possibility of flooding and encourage them to be alert stay vigilant and make early / low impact preparations for flooding. Flood Alerts are issued earlier than Flood Warnings to provide advance notice of the possibility of flooding and may be issued when there is less confidence that flooding will occur in a Food Warning Area.

FLOOD WARNING AREAS

Flood Warning Areas are areas where flooding is expected to occur and where a Flood Warning Service is provided. Areas generally contain properties that are expected to flood from rivers or the sea and in some areas, from groundwater. Specifically, Flood Warning Areas define locations within the Flood Warning Service Limit that represent a discrete community at risk of flooding. The purpose of Flood Warnings is to alert people that flooding is expected, and they should take action to protect themselves and their property. Flood Warnings are issued when flooding is expected to occur, Severe Flood Warnings are issued to similar areas when there is a danger to life or widespread disruption is expected.

If an area is not covered by these layers, it does not mean that the area has never flooded, only that there are not currently records of flooding in the area.



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Source Protection Zones & Borehole Records

Source Protection Zones
Source Protection Zones (SPZs) are defined around large and public potable groundwater abstraction sites. The purpose of SPZs is to provide additional protection to safeguard drinking water quality through constraining the proximity of an activity that may impact upon a drinking water abstraction.

The following subdivisions are defined within SPZs:

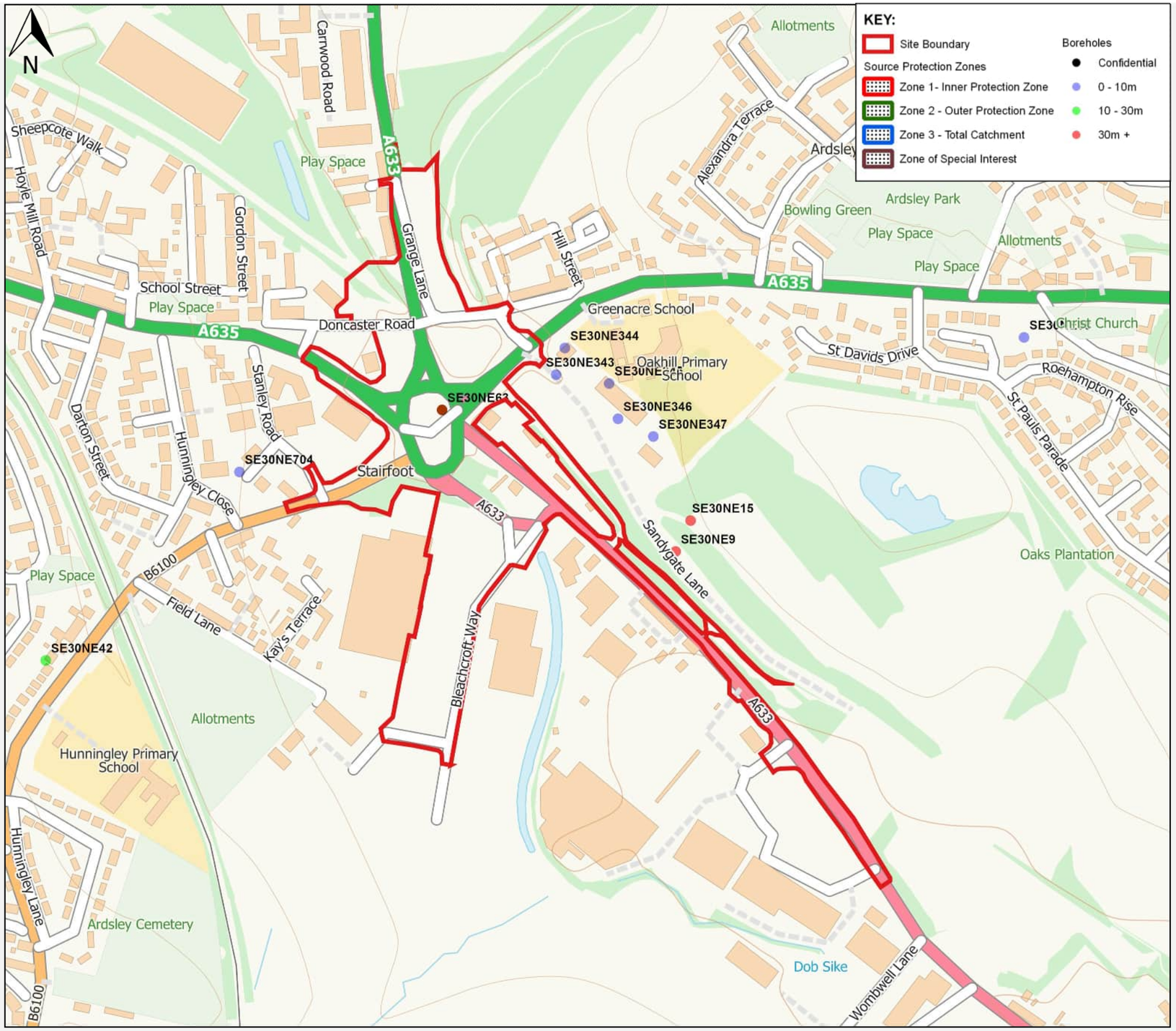
Zone 1: (Inner Protection Zone) - This zone is defined by a travel time of 50-days or less from any point within the zone at, or below, the water table. Additionally, the zone has as a minimum a 50-metre radius. It is based principally on biological decay criteria and is designed to protect against the transmission of toxic chemicals and water-borne disease.

Zone 2: (Outer Protection Zone) - This zone is defined by the 400-day travel time from a point below the water table. Additionally this zone has a minimum radius of 250 or 500 metres, depending on the size of the abstraction. The travel time is derived from consideration of the minimum time required to provide delay, dilution and attenuation of slowly degrading pollutants
.

Zone 3: (Total catchment) - This zone is defined as the total area needed to support the abstraction or discharge from the protected groundwater source.

Zone 4, or 'Zone of Special Interest' is occasionally defined for some groundwater sources. These zones highlight areas (mainly on non-aquifers) where known local conditions mean that potentially polluting activities could impact on a groundwater source, even though the area is outside the normal catchment of that source.

Borehole Records
Borehole records are made available from the British Geological Survey. Boreholes range from one to several thousand metres deep. Borehole records are produced from a geologist's or surveyor's observations of the rock core extracted from the ground and typically include locality and lithological descriptions with depth and thickness. Geophysical logs may also be noted from on-site measurements.



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London
WC2A 1AF

Flood Map Pack | wsp.com

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Manchester
M15 4RP

wsp.com

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