Drainage Assessment



PROJECT TITLE

Demolition & Change of use from Factory & Warehouse to Residential Housing Scheme at Wembley Works, Hemingfield Road, Wombwell, Barnsley S73 0LY

JOB NUMBER

1992

CLIENT

Resource Medical (UK) Ltd

DATE

June 2020

Prepared By:

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1. Existing site

1.1 Brownfield site comprising of large brick built factory over 3 floors, with warehousing and associated car parking and direct access from Hemingfield Road

1.2 Site and building are currently vacant, after previously being used for various business uses including pharmacy supplies, MOT garage, bespoke vehicle engineers and Food producers. However these have now relocated and the site now un-used.

1.3 Site slopes away from from the highway to the East, down to the rear boundary, towards the existing railway line

1.4 Opposite the site are residential dwellings to the West and small commercial / industrial units to the north. The area is predominantly residential housing on all sides, with only two smaller sites of commercial / industrial land in the area.

1.5 The site is not located in a conservation area, nor is it listed. It is located within the settlement boundary of the town and outside green belt or protected areas as shown on the Barnsley 2019 UDP Maps and part of the urban fabric.

2. Surface Water

2.1 The application is for outline planning permission with all matters reserved and looks to establish whether the scale and nature of the proposed development would be acceptable to the local planning authority, before a fully detailed proposal is put forward.

2.2 The proposal is to provide 17No residential properties of varying styles and sizes, including affordable / first time buyers / help to buy

2.3 The proposals provide a mixture of housing including larger semi detached and smaller 3 storey town houses to reflect local need.

2.4 The existing site consists of large areas of hard standing and the building footprint fills most of the site. This results in a high rate of surface water run-off and minimal areas for ground soak-aways. It is assumed the existing surface water discharges into the existing sewers.

2.5 The change of use to housing will result in large areas of landscaping and gardens, which will reduce surface water run off by approx 70% of surface water and lower the water surge into the

existing sewers network and offering much improvement over the existing situation

2.6 Permeable surfaces will be installed around buildings, with driveways drained into aco channels and discharged into the existing sewers.

2.7 Therefore surface water run off will be far lower than it is currently which will result in a reduction of discharge into the existing sewers

2.8 An option to provide soakaways would further reduce the discharge into the existing network, but this would be dependant on location, size and testing of ground suitability accordingly to ascertain viability.

3. Foul Drains

3.1 The new development will increase the foul water discharge into the existing network due to the increase in residential dwellings, with a min 2No toilets each. However since the existing combined sewer is only serving existing properties on the opposite side of the highway the increase should not have any detrimental effect on the existing sewer network.

3.2 Furthermore with the reduction in surface water run off it should result in a balanced discharge into the combined sewer (run off vs foul) and result in a discharge rate not too dissimilar to what it is currently.

4. Flood risk

4.1 In accordance with the PPG25 document and the classification of this particular site as within Flood zone 1, areas with little or no potential risk of flooding (annual probability less than 0.1%), it is recommend that the site is suitable for the proposed residential development in terms of surface water run off and discharge into existing sewers.

4.2 The big reduction in hard surfaces will reduce the amount of surface water run off dramatically and be a big improvement to the current situation.

5. Conclusion

5.1 It is concluded that the change of use to residential should have no adverse impact on the existing sewer network. However should approval be granted it would be expected that detailed drainage design and calculations would be provided via planning condition, attached to the approval notice.

Attached reports to follow include:

Yorkshire water map
EA Flood risk report

YORKSHIRE WATER
PROTECTION OF MAINS AND SERVICES

1. The position of Yorkshire Water Services Ltd (YWS) apparatus shown on the existing mains record drawing(s) indicates the ***general*** position and nature of our apparatus and the accuracy of this information cannot be guaranteed. Any damage to YWS apparatus as a result of your works may have serious consequences and you will be held responsible for all costs incurred. Prior to commencing major works, the exact location of apparatus must be determined on site, if necessary by excavating trial holes. The actual position of such apparatus and that of service pipes which have not been indicated must be established on site by contacting the Customer Helpline on 0845 124 24 24 for both water and sewerage.

2. The public sewer and water network is lawfully retained in its existing position and the sewerage and water undertaker is entitled to have it remain so without any disturbance. The provisions of section 159 of the Water Industry Act 1991 provides that the undertaker may "inspect, maintain, adjust, repair or alter" the network. Those rights are given to enable the undertaker to perform its statutory duties. Any development of the land or any other action that unacceptably hindered the exercise of those rights would be unlawful. The provisions contained in Section 185 of the Water Industry Act 1991 state that where it is reasonable to do so, a person may require the water supply undertaker to alter or remove a pipe where it is necessary to enable that person to carry out a proposed change of use of the land. The provisions contained in Section 185 also require the person making the request to pay the full cost of carrying out the necessary works.

3. Ground levels over existing YWS apparatus are to be maintained. Sewers in highways will ***generally*** be laid to give 1200mm of cover from finished ground level working to kerb races, other permanent identification of the limits of the road or to an agreed line and level. Substantial increases or decreases to this 1200mm depth of cover will result in the sewer being re-laid at your expense. Water mains and services will ***generally*** be laid with a minimum of 750mm depth of cover however some mains and services usually those installed over 50 years ago may have less ground cover.

4. If surface levels are to be decreased / increased significantly the effects on existing water supply apparatus will be carefully considered and if any alterations are necessary, the costs of the alterations will be recharged to you in full. Outlets on fire hydrants must be no more than 300mm below the new levels and all surface boxes must be adjusted as part of the scheme.

5. To enable future repair works to be carried out without hindrance; any pipe, cable, duct, etc. installed parallel to a water main or service pipe should not be installed directly over or within 300mm of a water main or service pipe or 1000mm of a waste water asset. Where a pipe, cable, duct, etc. crosses a main or service it should preferably cross perpendicular or at an angle of no less than 45o and with a minimum clearance of 150mm. These requirements apply to activities within an existing highway and are relevant to the installation of pipes, cables, ducts, etc. up to and including 250mm in diameter *(see illustration below)*. Necessary protection measures for installations greater than 250mm in diameter and/or in private land will need to be agreed on an individual basis. Installations within a new development site must comply with the National Joint Utilities Group publication Volume 2: NJUG Guidelines On The Positioning Of Underground Utilities Apparatus For New Development Sites.

6. All excavation works near to YW apparatus should be by hand digging only.

7. Backfilling with a suitable material to a minimum 300mm above YW apparatus is required.

8. Adequate support must be provided where any works pass under YW apparatus.

9. Jointing chambers, lighting columns and other structures must be installed in such a way that future repair or maintenance works to YW apparatus will not be hindered.

10. Apparatus such as; railings, sign posts, etc. must not be placed in such a way that they prevent access to or full operation of controlling valves, hydrants or similar apparatus. YWS surface boxes must not be covered or buried. Any adjustment, alteration or replacement of manhole covers must be agreed on site prior to the commencement of the works with a YWS Inspector who may be contacted via our Call Centre on 0845 124 24 24.

11. Explosives shall not be used within 100 metres of any Yorkshire Water Services apparatus or installations.

12. Vibrating plant should not be used directly over any apparatus. Movement or operation by vehicles or heavy plant is not to be permitted in the immediate vicinity of YWS plant or apparatus unless there has been prior consultation and, if necessary, adequate protection provided without cost to YWS.

13. ***Under no circumstances*** should thrust boring or similar trenchless techniques commence until the actual position of the Company's mains/services along the proposed route have been confirmed by trial holes.

14. Any alterations to the highway should be notified following the procedures outlined in the New Road and Street Works Act 1991 Code of Practice; Measures Necessary Where Apparatus Is Affected By Major Works (Diversionary Works).

15. You will be held responsible for any damage or loss to YWS apparatus during and after completion of work, caused by yourselves, your servant or agent. Any damage caused or observed to YWS plant or apparatus should be immediately reported to YWS. Should YW incur any costs as a result of non-compliance with the above, all costs will be rechargeable in full.

16. You should ensure that nothing is done on the site to prejudice the safety or operation of YWS employees, plant or apparatus.

17. In accordance with the New Roads and Street Works Act 1991, Chapter 22, Part 3, Section 80. The location of any identified YW asset "*which is not marked, or is wrongly marked, on the records made available*" should be communicated back to Yorkshire Water. The location of the apparatus should be identified on copies of the supplied plans which should be returned to Yorkshire Water (Asset Records Team) with photographic supporting evidence where possible.

18. The Government has decided that responsibility for private sewers serving two or more properties and lateral drains (the section of pipe beyond the boundary of a single property, connecting it to the public sewer) will be transferred to the water companies on Oct 1 2011.

Private pumping stations will also transfer during the period 1 October 2011 – 1 Oct 2016. Records of these assets may not yet be shown on the existing mains record drawing(s). If you encounter any of these assets you must inform Yorkshire Water Services Ltd (YWS).

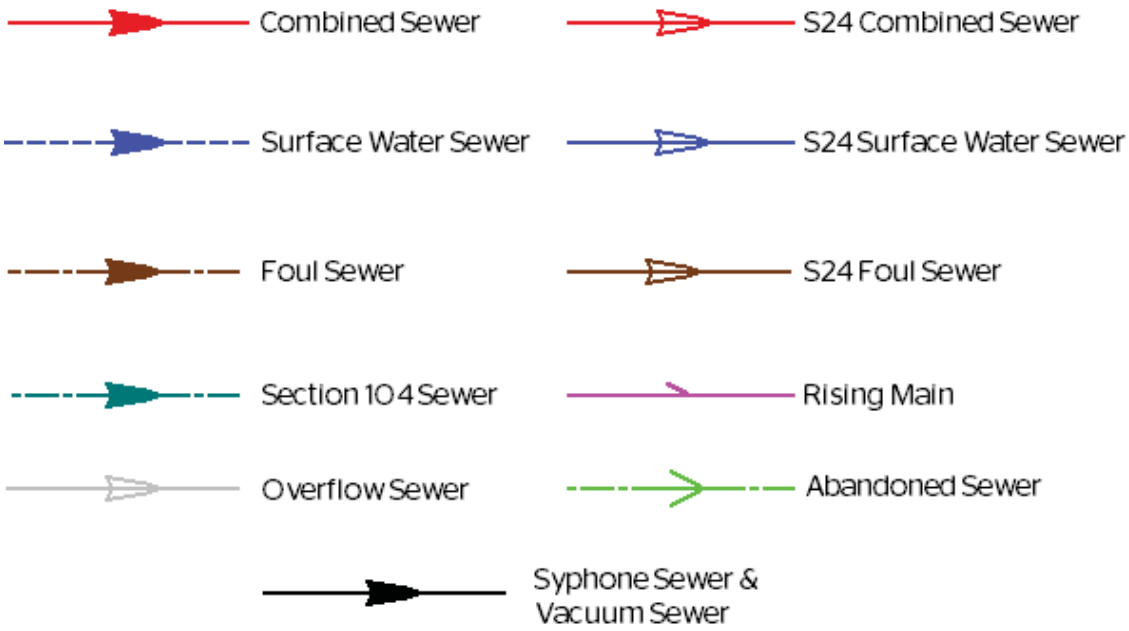
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20. This information is for guidance only and the position and depth of any YW apparatus is approximate only. Likewise, the nature and condition of any YW apparatus cannot be guaranteed. YW has no responsibility for recording the locations of privately owned apparatus. As of 1 October 2011, there may be some lateral drains and/or public sewers which are not documented on YW records but may still be present. For the avoidance of doubt, this information is not a substitute for appropriate professional and/or legal advice. YW accepts no responsibility for any inaccuracy or omissions in this information. The actual position of YW apparatus must be determined on site by excavating trail holes by hand. YW requires a minimum of two working days' written notice of the intention to excavate any trial holes before any excavation can be undertaken. If there are any queries in this respect please contact Yorkshire Water on 0845 124 24 24.

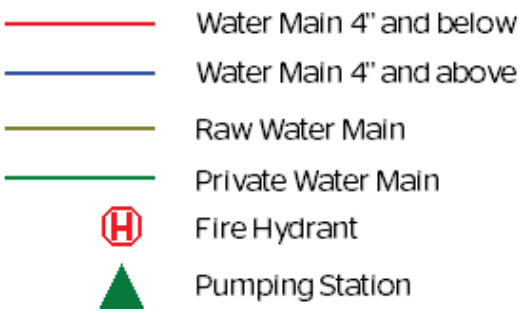
Property Identfier



Sewer Legend



Water Legend



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Public Clean Water Network 18/05/2020 12:28:40 OS Grid Coordinates: 438821 : 402035 Map Name : SE3802SE garsidet

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Public Waste Water Network 18/05/2020 12:28:56 OS Grid Coordinates: 438821 : 402035 Map Name : SE3802SE garsidet

Flood map for planning

Your reference	Location (easting/northing)	Created
1992	**438968/402194**	**5 Jun 2020 16:45**

Your selected location is in flood zone 1, an area with a low probability of flooding.

This means:

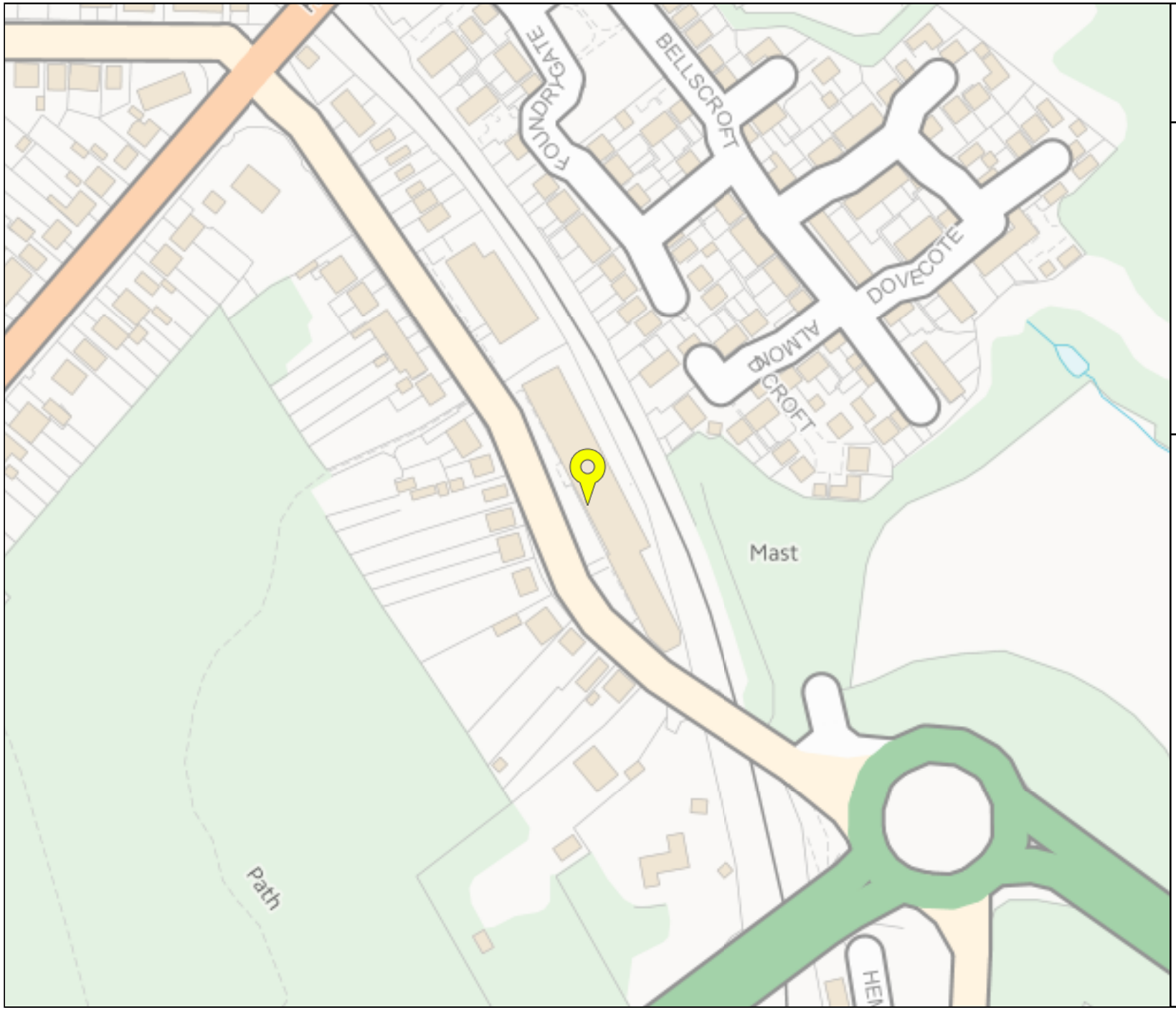
- you don't need to do a flood risk assessment if your development is smaller than 1 hectare and not affected by other sources of flooding
- you may need to do a flood risk assessment if your development is larger than 1 hectare or affected by other sources of flooding or in an area with critical drainage problems

Notes

The flood map for planning shows river and sea flooding data only. It doesn't include other sources of flooding. It is for use in development planning and flood risk assessments.

This information relates to the selected location and is not specific to any property within it. The map is updated regularly and is correct at the time of printing.

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https://www.nationalarchives.gov.uk/doc/open-government-licence/version/3/



Environment Agency

Flood map for planning

Your reference
1992

Location (easting/northing)
438968/402194

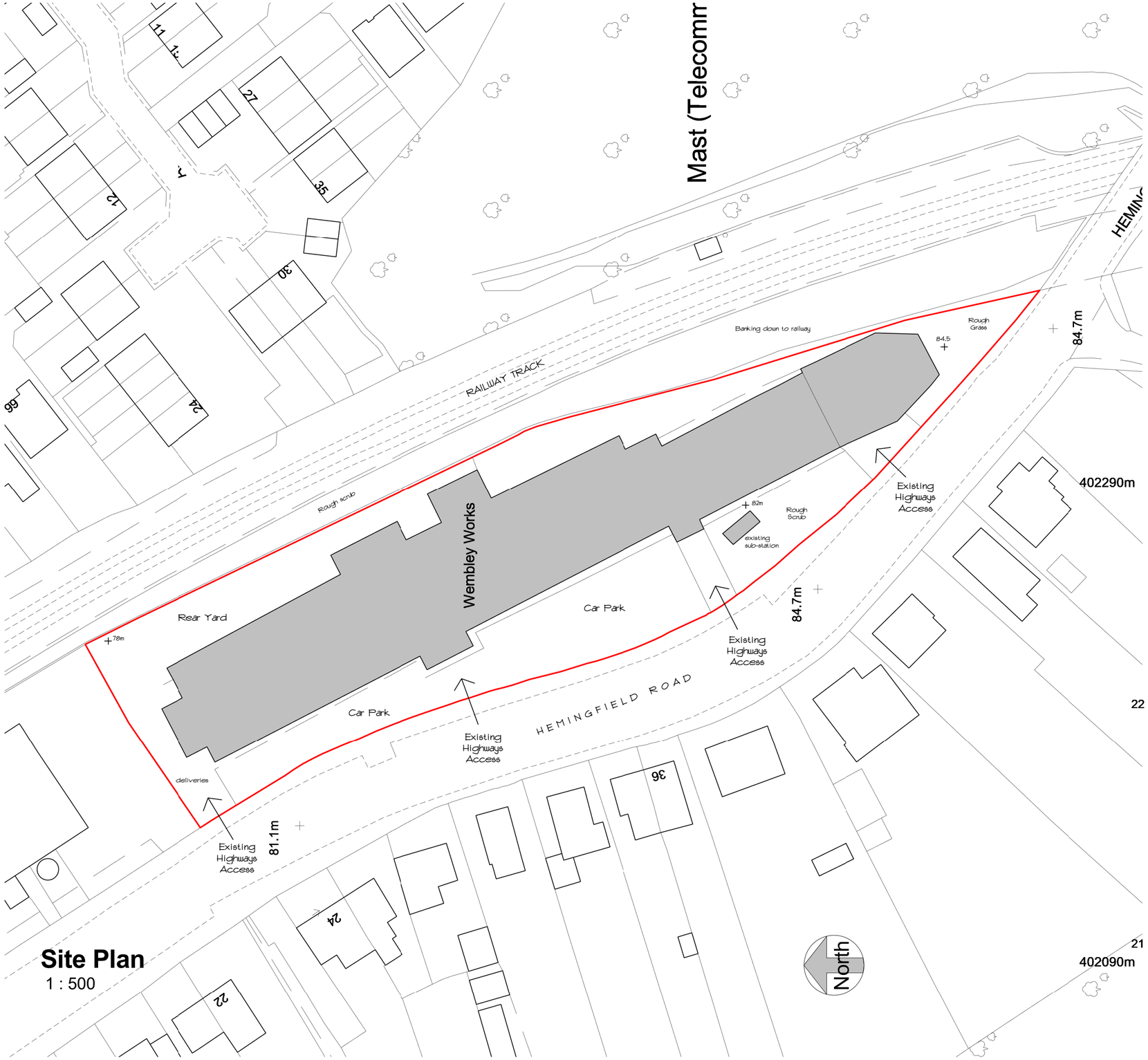
Scale
1:2500

Created
5 Jun 2020 16:45

- Selected point
- Flood zone 3
- Flood zone 3: areas benefitting from flood defences
- Flood zone 2
- Flood zone 1
- Flood defence
- Main river
- Flood storage area

0 20 40 60m

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Site Plan
1 : 500

0	SCALE 1:50	5m
0	SCALE 1:100	10m
0	SCALE 1:200	20m
0	SCALE 1:500	50m
0	SCALE 1:1250	125m

IMPORTANT NOTES

ALL MEASUREMENTS MUST BE CHECKED ON-SITE PRIOR TO COMMENCEMENT OF ANY WORKS.

MEASUREMENTS TO BE USED AS A GUIDE ONLY. PROPOSALS SUBJECT TO FULL TOPOGRAPHICAL SITE SURVEY TO ASCERTAIN CORRECT SITE LEVELS & EXACT BUILDING LOCATIONS, ETC.

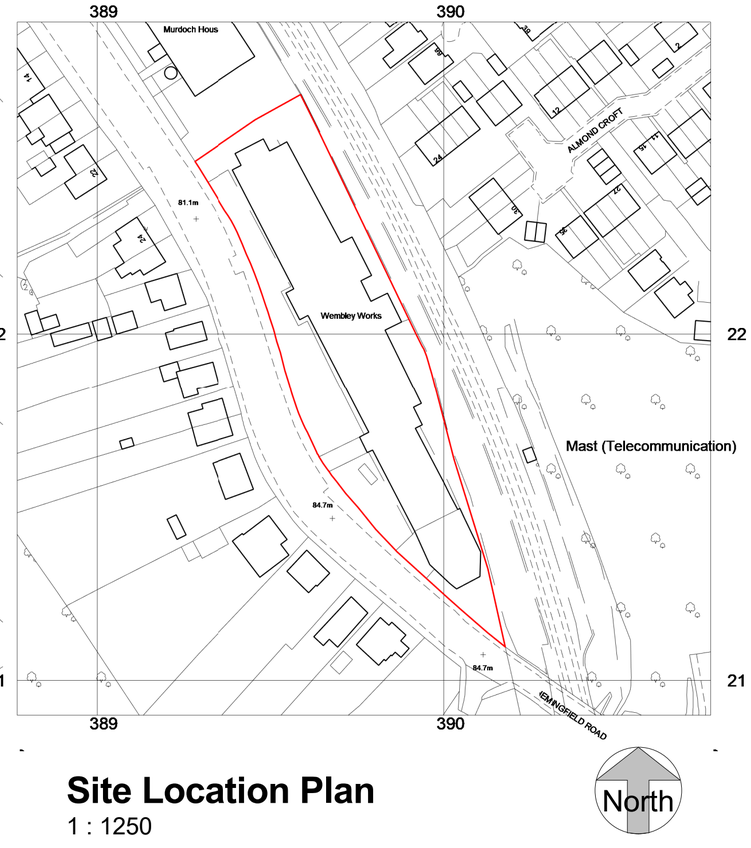
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DRAWING TO BE USED FOR OUTLINE PLANNING PURPOSES ONLY



Site Location Plan
1 : 1250

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project
Residential Development, Wembley Works, Hemingfield Road,
Barnsley S73 0LY

title
Site Plans - As Existing

client
Akrams Group

GENERAL

DO NOT SCALE FROM THIS DRAWING.
ALL DIMENSIONS ARE TO BE CHECKED ON SITE AND CONFIRMED TO AUTHOR.
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rev	date	dr	app	notes

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date: MAR 2020	path: G:\work docs\Architectural Jobs\1992 - Akram, Wombwell\Arch\Existing\1992 existing.rvt	
status: PLANNING		
job no: 1992	dwg no: A(00)-01	rev: -

FEASIBILITY PLANS



OVERALL SITE AREA
5000sqm / 0.5hA
(approx)

NOTE A

Existing sub-station to be removed / relocated subject to agreements with northern power grid & following survey to confirm existing use (eg if supply is for demolished factory only or if supply feeds other surrounding properties)

TBC by Developer / Builder prior to commencement of any works

North

Site Plan
1 : 500

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0	SCALE 1:50	5m
0	SCALE 1:100	10m
0	SCALE 1:200	20m
0	SCALE 1:500	50m
0	SCALE 1:1250	125m

PROPOSED ACCOMMODATION SPECIFICATION

17No. DWELLING IN TOTAL

CONSISTING OF

11No. 2 / 3 BED SEMI DETACHED & TERRACED TOWNHOUSE PROPERTIES OVER 3 STOREY SOME WITH GARAGES (MARKED WITH 'G')

6No. 4 / 5 BED SEMI DETACHED 2.5 / 3 STOREY HOUSES WITH GARAGES (MARKED WITH 'G')

BOUNDARY WITH RAILWAY LINE TO INCLUDE 2.5M HIGH ACOUSTIC FENCE & EVERGREEN PLANTING (LAUREL OR SIMILAR)

CONTRASTING TARMAC & BLOCK SETS TO NEW ROADS & DRIVEWAYS

LANDSCAPING TBC BY LANDSCAPE ARCHITECT

HIGHWAYS DESIGN, LEVELS & DRAINAGE BY APPOINTED HIGHWAYS ENGINEER



Site Location Plan
1 : 1250

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title
Site Plan - As Proposed

client
Akrams Group

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