

STEVENSON ASSOCIATES

MILLHOUSE LANE, MILLHOUSE GREEN.

DRAINAGE STATEMENT

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MILLHOUSE LANE, MILLHOUSE GREEN, S36 9NU

INTRODUCTION

- 1 Planning Permission is sought to build a new house on land adjacent to the 'Old Mill' on Millhouse Lane at Millhouse Green near Penistone and this report has been commissioned to determine how the site will be drained and whether the site will be affected by flooding or if the development will cause others to flood.
- 2 This report should be read in conjunction with the design details prepared by M Booth Design and the topographical survey prepared by Survey and Site Services (for explanatory purposes some reduced scale drawings are appended to this report).

THE SITE

- 3 The site lies between Manchester Road (A628) and Millhouse Lane at approximate OS map reference 421800 403100 on the west edge of Millhouse Green.
- 4 The site is approximately 50 metres deep (north to south) and varies in width nominally from around 19m in the north to 50 metres at its widest point and covering 0.2 hectares. There are signs of an earlier use with remains of demolished building and stone filled yard areas but the site is currently unused and is now a little overgrown. It is believed to have been used previously by the adjacent garden centre/nursery.
- 5 The natural ground falls from north to south at around 1 in 25 (4%) and there is a watercourse (Lee Lane Dike) running along its east and southern borders wrapping around the area of the proposed dwelling; this supply of running water being fed through the adjacent mill in earlier times. The water course varies in width, typically between 1.6m and 2 metres, and is around 1.0m to 1.2 metres deep; overall it has a gradient through the site of around 1 in 47.

EXISTING DRAINAGE

- 6 There are no signs of any site specific drainage on site. Rainwater falling on site soaks into the ground or runs off into the watercourse passing through the site.
- 7 Lee Lane Dike enters the site via a culvert from beneath Manchester Road (A628) on the northern boundary. The watercourse drains surface water from fields and moorland northwest of the site for a distance of around 2km. The box culvert beneath Manchester Road appears to be either 1.8m or 2.1 metres wide and 1.0m or 1.2m in height [not measured]. The watercourse drains past the Old Mill and outfalls to the River Don 60 metres further south.
- 8 A public foul water sewer (150mm diameter) passes beneath the site from Manchester Road to Millhouse Lane and it is understood that a foul drain from the adjacent nursery connects to the public sewer within the site.

DESIGN CONSIDERATIONS AND PROPOSALS

- 9 The site will be developed with separate foul and surface water drainage systems.

Surface Water

- 10 It is acknowledged that Requirement H3 of the Building Regulations 2000 specifies a hierarchy for the disposal of surface water, and in brief, this states that consideration should first be given to soakaways and infiltration systems before draining to sewers. In addition, similar guidance is provided by the Environment Agency in "Sustainable Drainage Systems (SuDS) - A Guide to Developers" along with the CIRIA Report C697 "The SuDS Manual" and the government's initiative to tighten control of drainage via 'SuDS through Planning'.
- 11 It is essential that surface water from the proposed development should not drain directly to the watercourse. All paths and hardstanding areas will be constructed using permeable materials and surface water will drain directly into ground at source; it might be necessary to reinstate hard compacted filled areas with clean stone prior to forming these areas. Similarly, when creating garden areas (lawns and planting) it might be necessary to remove localised fill and make good areas using good quality topsoil.
- 12 Surface water from the roof will drain to soakaways between the new dwelling and the watercourse. Soakaways will be constructed in line with BRE Digest 365 and sized for 1 in 30-year storms taking into account climate changes (plus 30% increase in rainfall intensities). Soakaways should have inspection chambers / access points on each end and have a full length distribution pipe between the two.

- 13 Although a soakaway test has not been carried out at this time, local knowledge and a previous test close-by suggest the ground will be suitable, but if necessary a narrow fin drain (preferably proprietary geocomposite units) could be introduced between the soakaways and the watercourse. The soakaways will be a nominal 1 metre deep and with a level base. The indicative layout appended to this report gives an indication of likely soakaway sizes required – providing in total around six cubic metres of storage capacity.
- 14 Should the proposal be granted Planning Approval, permeability tests will be carried out in the location of the proposed soakaways and their sizes calculated accordingly in line with BRE Digest 365 and final details prepared.

Lee Lane Dike

- 15 It will be necessary to cross Lee Lane Dike for access from Millhouse Lane. This will be via a new ornate bridge so as not to impede flows within the watercourse – see indicative section (Appendix 6). (Note: details will need to be agreed with the Environment Agency and a ‘Consent’ will be required).

Foul water

- 16 With regard to the public sewer crossing the site, Yorkshire Water have indicated during initial discussions that, due to its small size, it will be permitted to build-over it in line with Building Regulations’ specifications and but require supervision/inspection.
- 17 Foul water from the new dwelling will drain to the public sewer on site.

Flood Zones

- 18 The site is not within Flood Zones 2 or 3 and is therefore identified as not being at risk to flooding from rivers or sea (less than a 0.1% risk of flooding annually – 1/1000). Local enquiries confirm this but also identify a history of flooding on the adjacent site (Old Mill). This is believed to have been caused by a substandard / inadequate culvert at that property, which is said to have been corrected a few years ago resulting in no flooding since.

CONCLUSION

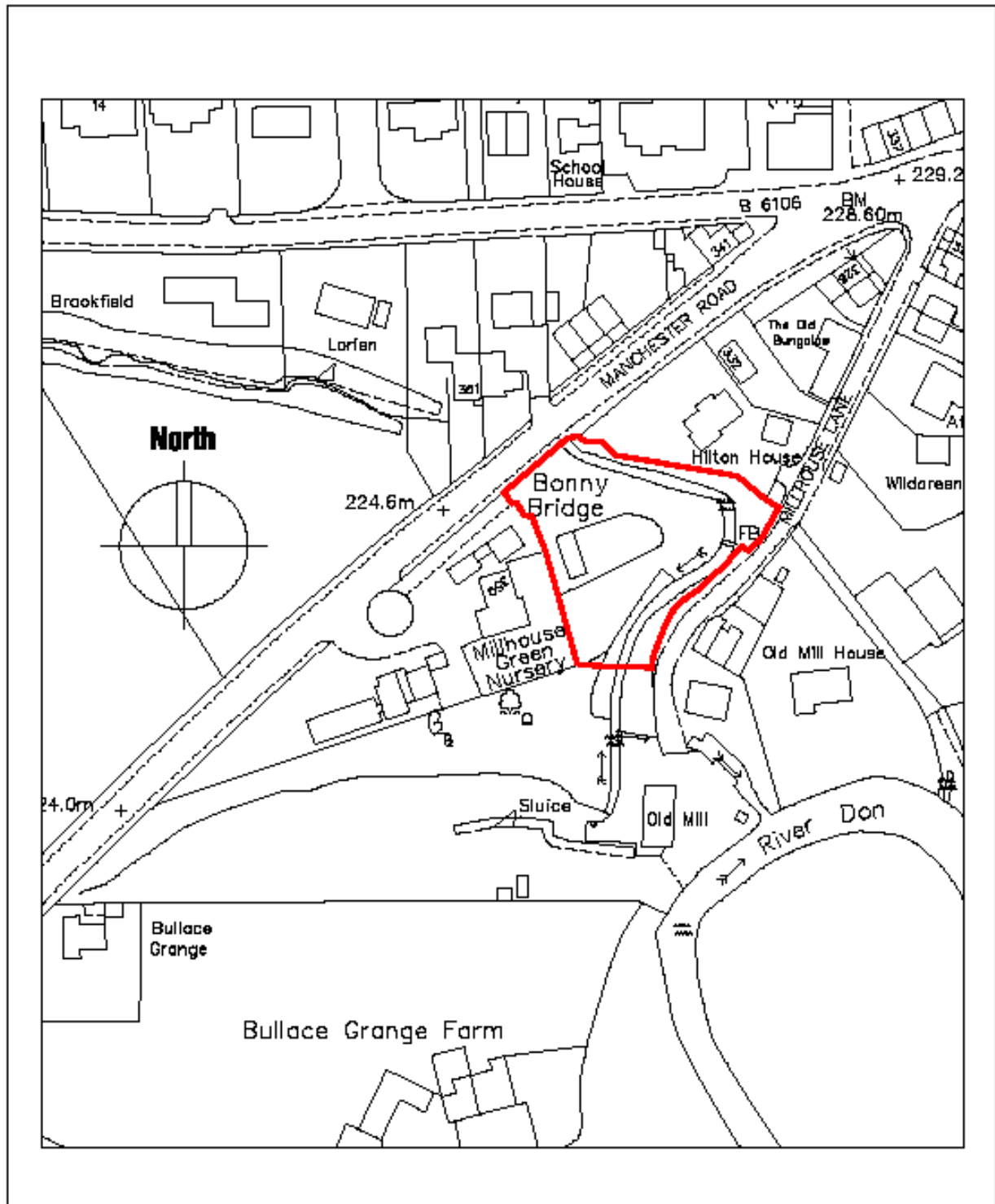
- 19 It is proposed to build a new dwelling off Millhouse Lane in Millhouse Green. Foul water will drain to a public sewer passing through the site and surface water will drain to ground either directly from permeable areas or via soakaways from the roof. Surface water will not drain directly to the watercourse passing through site.
- 20 It will be necessary to bridge across Lee Lane Dike to provide access onto site and this will be a new feature bridge clear of and not affecting the watercourse.
- 21 The site is not in a high risk flood zone and if the site is drained in line with the above measures, flooding should not be exacerbated for others.


M. Stevenson

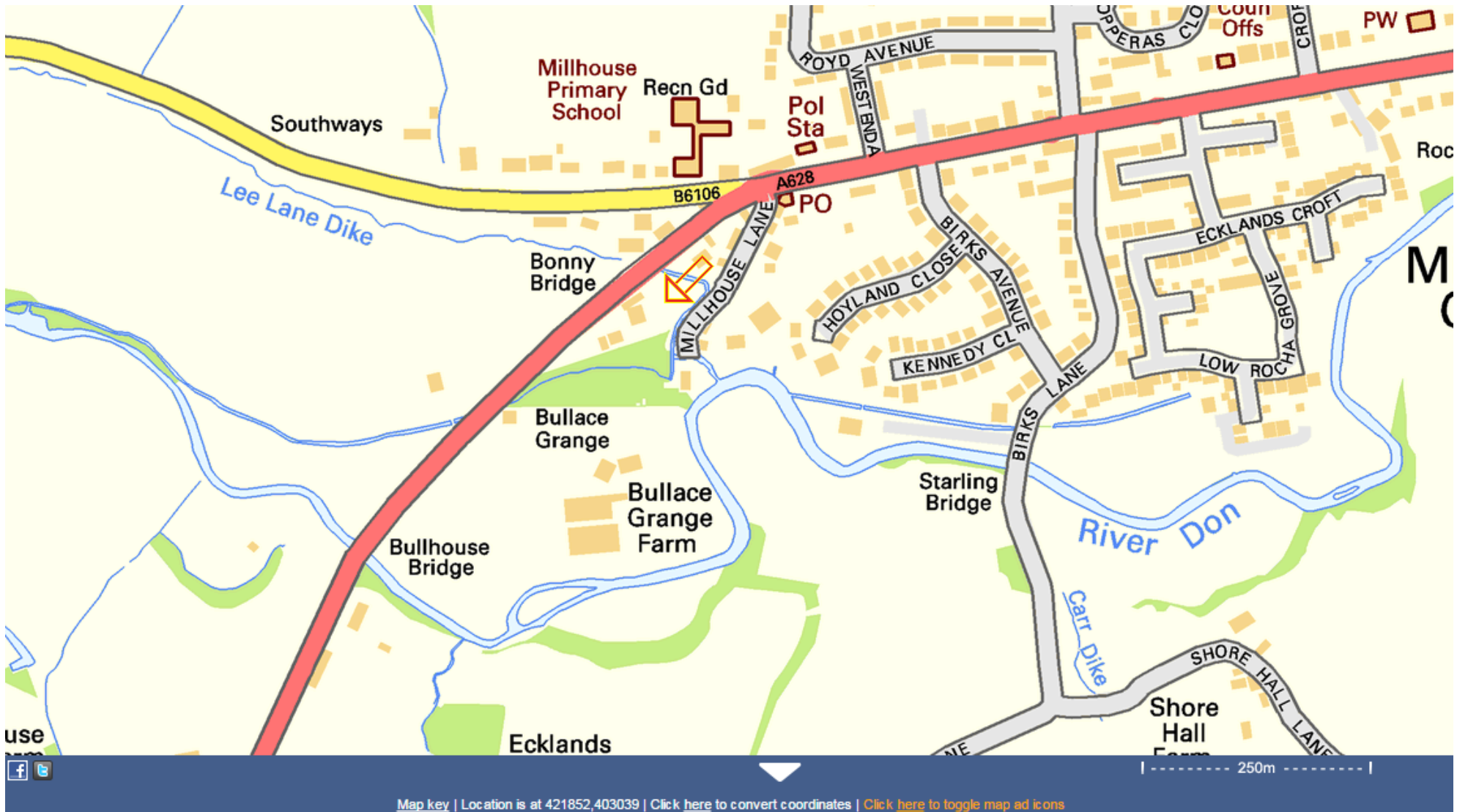
Michael Stevenson

2nd December 2015

APPENDIX 1 – SITE LOCATION



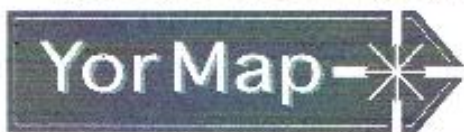
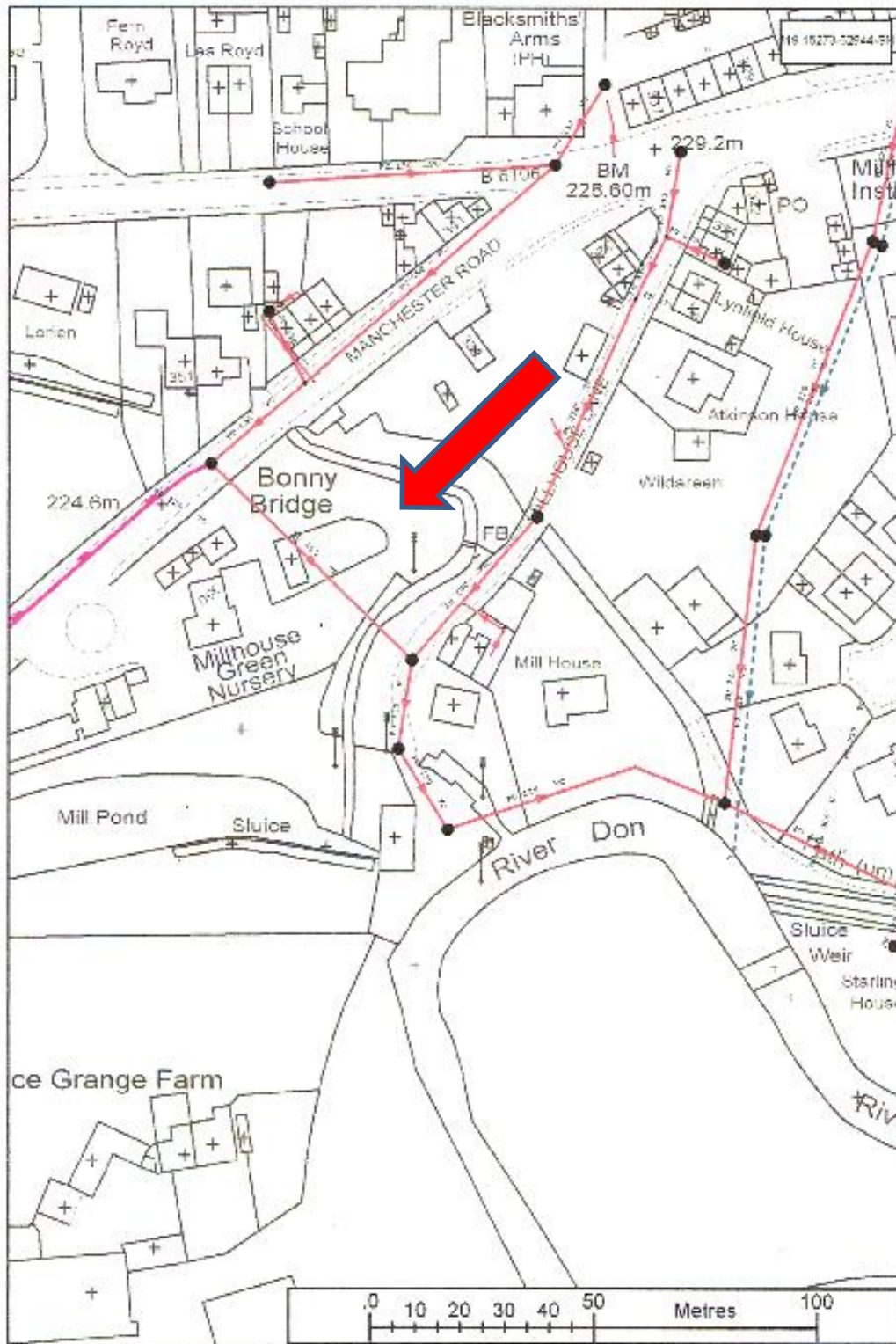
<p>THE OLD MILL MILLHOUSE LANE MILLHOUSE GREEN SHEFFIELD</p> <p>SITE LOCATION PLAN</p>	<p>Scale 1:1250</p>	<p> mboothdesign architectural design and building consultants</p> <p>Patfield House Barnfield Close Barnsley S70 2PL T: 01228 262285 M: 07988 808208 E: mboothdesign@btconnect.com</p>
	<p>Date Aug 2012</p>	
	<p>Ref 12.50</p>	
	<p>Drwg No OS1</p>	



Map key | Location is at 421852,403039 | [Click here to convert coordinates](#) | [Click here to toggle map ad icons](#)

APPENDIX 2 – PUBLIC SEWERS

1250



a part of YorkshireWater

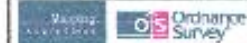
YorMap has centred this plan at UTM Centre Grid Coordinates: 421432 : 409176

15 100 Old Mill Millhouse Cm

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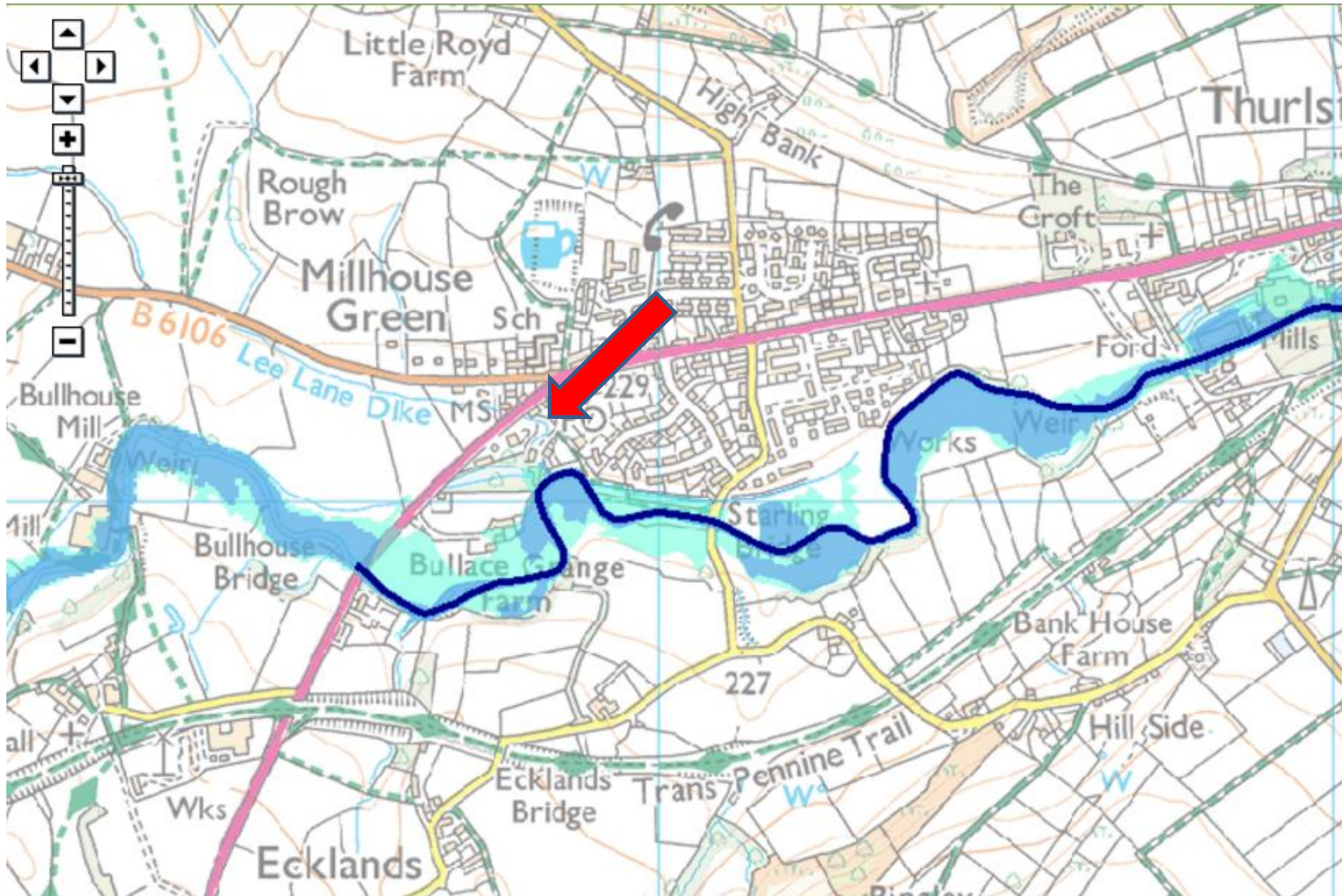
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APPENDIX 3 – FLOOD ZONES

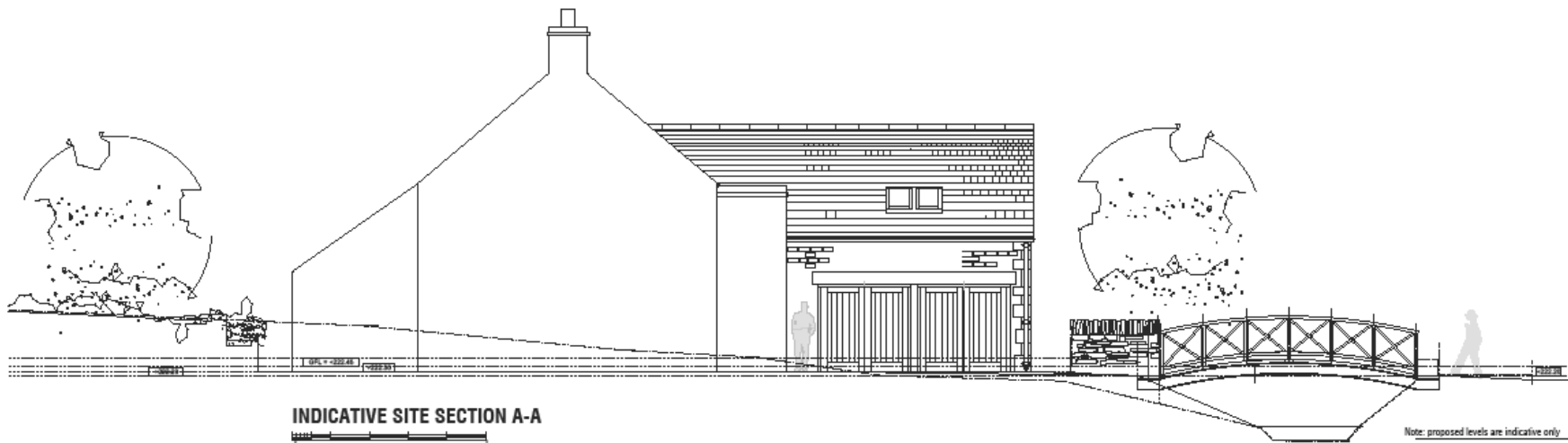


APPENDIX 4 – EXISTING MANCHESTER ROAD CULVERT



APPENDIX 6 – BRIDGE SECTION ACROSS WATERCOURSE

DO NOT SCALE
 All dimensions in Millimetres
 unless specified otherwise and
 subject to verification on site



NEW DWELLING
 MILLHOUSE LANE
 MILLHOUSE GREEN
 PENISTONE

INDICATIVE SITE SECTION A-A
 PLANNING

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