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Proposed Underground Drainage Statement

Development at

115 Westfield Lane, Wyke

Project: 19-740

Issue Status	Final	Initial & date	Rev A	Initial & date	Rev B	Initial & date
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PROPOSED DEVELOPMENT AT 115 WESTFIELD LANE, WYKE

Existing site and proposed development

The proposal involves the demolition of the existing masonry building and the construction of 15 residential dwellings together with associated parking and access road. Site access for the new development is to remain from Westfield Lane.



Site location

The site is located approx 9.0 Kilometres to the south of Bradford town centre, with Westfield Lane along the northern boundary. The remaining boundary is formed by surrounding residential properties.

The site is generally a rectangular shape covering an approximate area of 6700m² with the site topography generally sloping down from north to south towards the adjacent field.

Historical maps show the site and a majority of the surrounding area to be open fields up until around 1890. Westfield Road is shown along the northern site boundary.

From around the early 1900's a new tramway line is showing to run just south of the site leading to Drake pit works to the east. The mapping also shows a spring to the south of the tramway flowing away towards Bailiff Bridge which appears to discharge into the Clifton Beck.

A building was constructed on site around 1930 which was labelled as Fieldhead, with a new access road from Westfield Lane. By 1970, there are a significant number of residential properties shown adjacent to the site. A row of residential terrace properties have been constructed along the boundary of the site and Westfield Lane.

The site currently has a masonry wall along Westfield Lane with a drystone wall along the residential properties on either side.

EXISTING INFORMATION

From the information received including topography of the site, and site observations, it is most likely that the previous building was discharging into the public sewer running adjacent to Westfield Lane. This would appear to be the most suitable location for discharging the foul drainage. Further investigation of this sewer will be required with depth and invert to be confirmed. The actual point of discharge of the foul drainage is to be agreed with Yorkshire Water following the onsite investigations.

FOUL DRAINAGE

It is proposed that the foul drainage is collected into separate systems on site and then discharged via a single connection into the existing combined public sewer that is located along Westfield Lane subject to agreement with Yorkshire Water. The topography of the site should allow the foul drainage to flow under gravity into the adjacent sewer system, however if the drain is found to be shallow, then a pumped discharge may be required for the proposed properties located lower down on the site. The initial correspondence from Yorkshire Water proposed a maximum peak pumped discharge limit of 6.0 l/sec for the foul water from the site if required.

SURFACE WATER DRAINAGE

Requirement H3 of the Building Regulations 2000 states that the preferred hierarchy for disposal of surface water is infiltration then watercourse then sewer. Consideration must therefore be given to the use of infiltration methods as a means of disposal of surface water run-off from the development.

A preliminary assessment of the surround area indicated that the ground conditions are generally brown stiff clay overlaid by some made ground.

It is therefore likely that disposal of surface water by means of infiltration would be unsuitable for surface water to discharge via soakaways located adjacent to the proposed buildings. This would therefore require further site investigations to establish the ground conditions. A soil percolation test is required (in accordance with BRE365) to establish the infiltration rate of the soil. If following the site investigation, soakaways are deemed to be unsuitable, then the surface water should be collected from the roof and hardstanding areas into suitable onsite attenuation (estimated at 130m³ for 1in100 plus 30% climate allowance) with a limited discharge into the adjacent watercourse. The nearest watercourse is located approximately 120m to the west of the site and appears to eventually discharge into Clifton Beck near Bailiff Bridge.

SUMMARY

The site should be investigated for utilising SUDs as a means of disposing surface water from the site. As per the agreement with Kirklees LLFA representative Alex Fraser, it is proposed to carry out site soil percolation testing which will form part of the pre site commencement conditions. This will indicate the suitability of soakaways on site. If SUDs are deemed to be unsuitable following testing, then site attenuation storage will be provided with a discharge limit to greenfield runoff rate of 5.0 l/sec/ha into the adjacent watercourse to the approval of Yorkshire Water/Local Authority.

The new site foul system will be collected into a final manhole before connecting into the existing sewer located along Westfield Lane or alternative discharge location to be agreed with Yorkshire Water.

APPENDIX - A

TIMESCALE AND MAINTENANCE OF WORKS

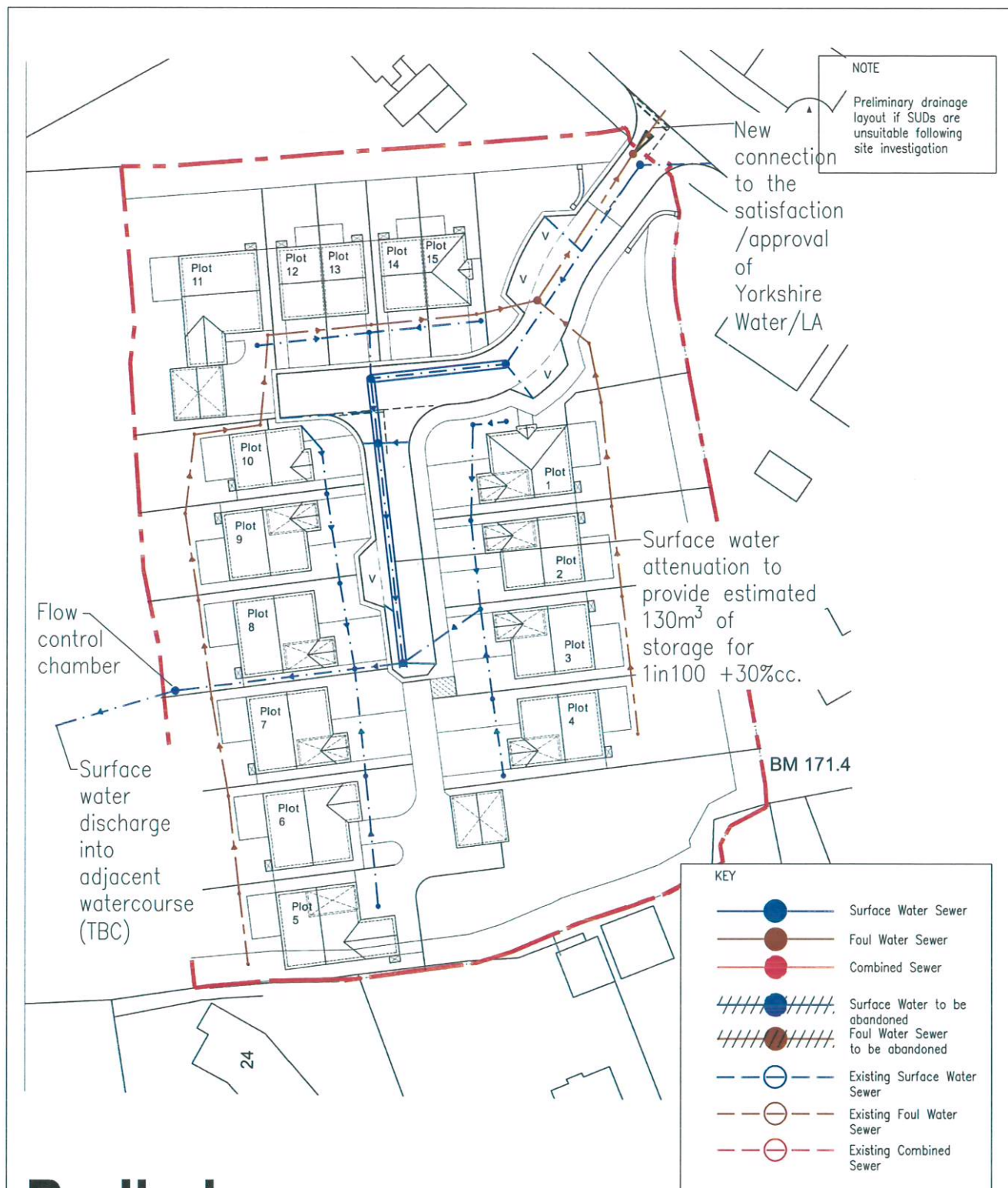
All drainage works will be completed prior to first occupation and there will be no adoption of any of the drainage works within the site. The owner of the properties will be responsible for the long term maintenance of all drains with a management company in place to maintain the surface water network within the site. Details of the management company will be confirmed in due course.

Maintenance of the attenuation to be carried out in accordance with manufacturer's recommendations together with the below schedule for all site drainage:

Category	Action	Frequency
Regular	General removal of litter and debris	Monthly maintenance or as required.
	Cleaning of gullies, drainage channel rainwater guttering to remove debris and silt build up.	Every 6 months, after autumn leaf fall or as necessary
	Cleaning of manholes to remove debris and silt build up	Annually after autumn leaf fall or as necessary
	Inspection of all access chambers, inspection chambers, manholes and attenuation units to identify and make good any defects as necessary.	Annually or as required
	Removal of silt build up from sump chamber upstream from attenuation storage.	Annually or as required.
	Check ventilation system on the attenuation is clear possibly with rods through access chambers	Annually or as required.
Corrective	Clear blockages in rainwater downpipes and branch connections.	As required
	Clear blockages in gully outlets, drainage channel sump units and branch connections.	As required
	Clear blockages in attenuation storage units by jetting through access chambers on the attenuation or upstream/downstream manholes	As required

APPENDIX - B

PROPOSED LAYOUT



Preliminary

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Job Title
Land at 115 Westfield Lane
, Wyke

Drawing Title
Proposed Site Layout

Mark	Date	Made by	Revision	Job No.	Drawing No.
				19-740	SK-D01
	14.02.20				Revision B
		Initials IAP			Scale SK-D01