

Woolfold Trading Estate – Drainage Strategy

November 2025



Introduction to the plot, and surrounding premises

Woolfold Trading Estate is a long-standing group of industrial buildings, dating back to the late 19th Century on the site of the former Woolfold Dye Works, and is in part owned by the clients for this project. Besides a block of buildings to the East side of the estate closer to its main entrance, the existing building sitting parallel to the new builds are also within the same ownership. This statement, including relevant calculations, has been produced to illustrate the existing drainage arrangements, including relevant site photos along the estate, and the provision as existing and proposed for both the waste connection and the outfall to the previously open culvert, Walshaw Brook. The drainage strategy provided, including relevant levels utilising a set on site datum is to support the discharge of condition 3 of the full planning permission ref: 68995.

Justification for retention of surface water outflow to existing watercourse

Attached to the relevant variation of conditions application submitted, and supplementary to this document is the general drainage layout plans, indicating location of waste run to existing mains sewer, along with the existing run for the hardstanding storage yard, plus separate elevation and section illustrating levels related to the existing adjacent units, the current arrangement for surface water discharge and cover level to the covered culvert, previously open (Walshaw Brook). Also attached is the design model for the Culvert design, including relevant sizes and numerous datums surrounding the plot (for reference the access point and newly diverted culvert are shown in full on the supplied Surface Water Discharge Plan.

Existing Plot

Currently, the plot to which the development of 4 units is approved, has most recently been used for storage including for vehicles. The plot is fully non permeable hard standing, with the

outfall of the surface water connecting into the surface water drainage system to the adjacent units. As existing, the units that back onto the application plot has split the surface water and foul drainage discharge as per hierarchy requirements, avoiding surface water discharge into the public sewer.

Existing plot area – 853m² or 0.0853 Hectares

Hardstanding area to existing plot – 853m² (all discharging into existing gullies with connection direct to Walshaw Brook with 225mm diameter surface water pipe laid to fall)

Approved Plot

42.4 % of the plot is to be taken up by the building, whilst areas of non-permeable ground or structures remain as existing (total plot). The approval includes for 4 number light industrial units with a total floor area of 362m², all installed onto the current hardstanding area trying to maintain the existing slab as much as possible (see section for build and falls). The lowest datum to the plot is 103.12 and is 500mm lower than the top of slab to units, see plans and section illustrating datum, levels and falls.

The surface water run and waste run are fully separated into separate systems, waste connecting into the run to the units behind, in same ownership as the client. The justification for the surface water connecting directly into the large culvert illustrates that the falls to the site, the split drains and main connection to culvert plus the calculated general worst-case outfall negate the need to hold any surface water on site.

Covered watercourse / culvert

A 1500mm Diameter Aquaspira System has been installed to Walshaw Brook to allow for approved development to take place above that consists of 2 number dwelling. The system includes for access points already have the required pipe at the sufficient invert level (helped by the nature of the site) connected to the Culvert. The invert level of the Culvert is a minimum of 1900mm below the natural ground level at the sites closest point to the access point allowing for sufficient falls even to the cover level of the Aquaspira System.

Relevant Calculations for outfall

Using the Wallingford Procedure the general workings for the outfall of surface water for the site are as follows:-

Area = 0.0853 Hectare

Permeability = 1 (full hardstanding)

General Maximum outfall = 50mm (bearing in mind that the outfall levels for the plot are near identically halved due to the front surface water drain taking all forward car parking area, and the rear surface water drain taking the rainwater discharge from the roof above).

$2.78 \times 0.0853 \times 1 \times 50 = 11.86$ litres / second.

Based on 4 – 15 litres / second, 2 number 100mm diameter pipes as outlined above and illustrated on the plans are utilised, meeting at a 150mm diameter pipe with connection to the implemented access point, including for relevant falls in compliance with the approved document. Please see drainage plans attached, and including the Surface Water Discharge Plan.

Appendix



Hardstanding to a run of existing South facing units, most of which are in part or fully connected to the existing combined system with no known additional provision for any alternative discharge of the surface water outfall.





Full Hardstanding to storage yard utilising the separate surface water system to the units in view, connected to the previous brook, now covered culvert.



Photo of plot main entrance illustrating the maximum 1:48 approx fall across the site meaning a fall of around 340mm from the front of the plot to the rear of the plot (location of the units).