

Document name: 200903-EDGE-XX-XX-CO-C-0001_CONDITION 12 VERIFICATION REPORT[P01]

26 October 2021

Dear 

Re: MITTON ROAD WHALLEY – APPLICATION REF: 3/2021/0076 – CONDITION 12 VERIFICATION REPORT

Further to receipt of the planning conditions for the above-named scheme we provide this document to discharge condition 12 and act as a verification report.

The condition in whole states:

No building hereby permitted shall be occupied until a Verification Report and Operation and Maintenance Plan for the lifetime of the development, pertaining to the surface water drainage system and prepared by a suitably competent person, has been submitted to and approved in writing by the Local Planning Authority.

The Verification Report must demonstrate that the sustainable drainage system has been constructed as per the agreed scheme (or detail any minor variations), and contain information and evidence (including photographs) of details and locations (including national grid reference) of inlets, outlets and control structures; landscape plans; full as built drawings; information pertinent to the installation of those items identified on the critical drainage assets drawing; and, the submission of an final 'operation and maintenance manual' for the sustainable drainage scheme as constructed.

Details of appropriate operational, maintenance and access requirements for each sustainable drainage component are to be provided, with reference to published guidance, through an appropriate Operation and Maintenance Plan for the lifetime of the development as constructed. This shall include arrangements for adoption by an appropriate public body or statutory undertaker, and/or management and maintenance by a Management Company and any means of access for maintenance and easements, where applicable. Thereafter the drainage system shall be retained, managed and maintained in accordance with the approved details.

REASON: To ensure that flood risks from development to the future users of the land and neighbouring land are minimised, together with those risks to controlled waters, property and ecological systems, and to ensure that the development as constructed is compliant with and subsequently maintained pursuant to the requirements of Paragraph 165 of the National Planning Policy Framework.

The surface water discharge from the site has been reviewed in line with the SUDs hierarchy with the most sustainable outfall option selected.

Development of the site will result in an increase of impermeable areas and therefore a corresponding increase in run-off volumes. The use of SUDs techniques to discharge the additional surface water has been evaluated below:

The Building Regulations Approved Document H (2002) outlines a hierarchy of potential methods of disposing surface water from a site:

- A soakaway; or where that is not practicable.
- A watercourse or river; or where that is not practicable,
- A sewer.

The viability of each has been assessed below:

- **Soakaway:** Regarding the consideration of soakaway infiltration methods for the disposal of surface water, Coopers (Chester) Ltd undertook a Site Investigation in October 2020 and found that the underlying strata is made up of impermeable cohesive clay and so soakaways will not be viable and can be discounted.
- **Watercourse's waterbodies:** There are no watercourses or waterbodies within the site or in its immediate vicinity.
- **Sewers:** A United Utilities surface water sewer is located within Pendle Drive, a public highway situated between the 2 development parcels. United Utilities have confirmed via a pre-development enquiry, that a connection to this sewer (at the greenfield QBAR rate) will be acceptable should the evaluation of more sustainable drainage options show soakaways and watercourse connections are not available/viable. The drainage proposals for the 2 development parcels show surface water flows connecting to the public sewer in Pendle drive at the greenfield QBAR rate.

Due to the cohesive nature of the underlying strata, as described above, discharging surface water flows via infiltration is not viable. There are no watercourses nearby so surface water shall connect to the nearby surface water sewer.

DEFRA's non statutory technical standards for sustainable drainage systems states that proposed developments on previously developed (brownfield sites should control their peak flow as follows:

- ***S3 For developments which were previously developed, the peak runoff rate from the development to any drain, sewer or surface water body for the 1 in 1 year rainfall event and the 1 in 100-year rainfall event must be as close as reasonably practicable to the greenfield runoff rate from the development for the same rainfall event but should never exceed the rate of discharge from the development prior to redevelopment for that event.***

The construction of the proposed development will result in an increase of impermeable areas and therefore a corresponding increase in surface water run-off. To ensure that the site poses no flood risk to proposed or existing properties a restriction of surface water run-off is required.

It is proposed to restrict surface water run off to the Greenfield QBAR rate 19.3 litres per second.

A surface water pumping station is required to convey flows from Parcel A to the surface water public sewer in Pendle Drive due to the invert level of the receiving chamber and the low point being situated to the far north of the parcel.

United Utilities has been contacted via a pre-development enquiry and they confirmed that the greenfield runoff rate should be proposed for the site.

The restriction of surface water run will result in volumes of storage being required. Oversized pipes are proposed to provide storage for the 30 year and 100 year + climate change storm events. An additional 5% rainfall has been included in the micro drainage simulations to account for urban creep.

Emergency storage is required for the surface water pumping station and a volume should be provided in line with the requirements of the DCG which states:

"For surface water pumping stations, 125 m3 of storage should be provided per hectare of impermeable surface draining to the pumping station (i.e., 15 minutes of rainfall at 50 mm per hour)."

Micro drainage software has been used to verify the suitability of the proposed storage.

Proposed sewers up to the outfall point, including the pumping station will be offered to United Utilities for adoption under a section 104 agreement. They will remain under their inspection and maintenance regime for the lifetime of the development.

Yours sincerely,

