

Drainage Planning Conditions

Subject: Nutt Farm, Nutt Lane, Prestwich

Ref: ICMA0049 Rev A

Date: 02.10.2015

The Planning Permission Ref: 54805
Condition 10 relates to drainage proposals for the development.

Condition 10

No development shall commence unless and until details of foul and surface water drainage aspects have been submitted to and approved by the Local Planning Authority. This must include assessment of potential SuDS options for surface water drainage with appropriate calculations to support the chosen solution.

Pre-
Commencement

Attachments

- ICMA0049-500A Proposed Drainage Layout
- ICMA0049-501A Proposed Outfall Layout
- ICMA0049 Foul Drainage Calculation Sheet
- ICMA0049 Rev A Micro Drainage Calculations for the 1 year, 30 year and 100 year + 30% climate change events.
- United Utilities Pre-Development Enquiry response dated 09/09/2015 and referenced DE1431.

Foul Water Drainage

The foul water drainage is proposed to be collected by pipes around the perimeter of the properties which collect within the private access road and discharge towards the development access at Nutt Lane.

The foul drainage pipes flow beneath Nutt Lane and connect to the Public Sewer network at Public Sewer manhole 3901 at its junction with Simister Lane.

United Utilities have confirmed that *"Foul will be allowed to drain to the public combined sewer network at an unrestricted rate. The connection to the public sewer can be at a point convenient to yourself"*.

Refer to the United Utilities Pre-Development Enquiry response dated 09/09/2015 and referenced DE1431.

Connection to this sewer requires agreement with Bury Council for permit to work within the highway to construct the outfall pipes and a Section 106 Agreement with United Utilities for the connection to the sewer.

The proposed foul peak flows have been calculated based on the Discharge Unit Method from BS-EN 752 and equate to 3 l/s.

Refer to ICMA0049- Foul Drainage Calculation Sheet

Surface Water Drainage

Initial investigations into the proposed surface water outfall confirmed that the infiltration may be possible; however the existing ground conditions are confirmed as clay and sand layers at varying depths.

The nearest watercourse is approximately 300m south-east of the site access and would require crossing through third party land which would be an unfeasible option.

There is a surface water public sewer within Simister Lane and approval was sought from United Utilities for a potential connection.

United Utilities have confirmed that *"Surface water can drain to the 150mm surface water sewer next to manhole 4903 (4953) on Simister Lane at a maximum pass forward flow of 5 l/s"*.

Refer to the United Utilities Pre-Development Enquiry response dated 09/09/2015 and referenced DE1431.

Further consultations with United Utilities confirmed that they would allow a connection into combined public sewer at manhole 3901; at its junction with Simister Lane at a restricted rate of 5 l/s.

The surface water drainage is proposed to connect into the public sewer network with provision of sustainable drainage features on site.

The surface water drainage is proposed to be collected by pipes around the perimeter of the properties which collect within the private access road and discharge towards the development access at Nutt Lane. There is a flow control (Hydro-brake) proposed at the manhole at the development access point (Manhole SMH03 HB) restricting the flows to a maximum of 5 l/s for up to the 1 in 100 year plus an allowance for 30% climate change.

Attenuation is provided within the drainage system to accommodate the flows up to the 1 in 100 year plus 30% climate change event with minor flooding (0.4-0.6m³) at localised locations for the 1 in 100 year plus 30% event which will be constrained within the site.

The surface water drainage pipes flow beneath Nutt Lane and connect to the Public Sewer network at Public Sewer manhole 3901.

Connection to this sewer requires agreement with Bury Council for permit to work within the highway to construct the outfall pipes and a Section 106 Agreement with United Utilities for the connection to the public sewer.

Refer to the proposed surface water Micro Drainage Calculations for the 1 year, 30 year and 100 year + 30% climate change events, Revision A.

Sustainable Drainage Solutions

The proposed drainage system is designed to accommodate flows up to the 1 in 100 year storm event, with an allowance for 30% climate change.

The proposed flows are to be restricted to a maximum of 5 l/s.

Attenuation is proposed within the permeable construction beneath the resin bonded areas, with additional storage provided within oversized pipes, manhole and filter strip drains.

In accordance with Environment Agency Pollution Protection Guidance 3 (PPG3), the areas subject to vehicles are less than 800m² and therefore a petrol interceptor is not required.

The proposed development is not likely to be subject to heavy goods vehicles, bin wagons or service vehicles and therefore is considered to be at low to medium risk of oil due to the type of regular vehicle use. However the areas subject to vehicles are proposed a resin bonded permeable construction and therefore a level of treatment is provided by filtration through the stone layers.

Additional water quality benefits are provided to the external paved areas by filter strip drains.

Maintenance

A management company may be required to maintain the on-site sustainable drainage systems.

It is recommended that the drainage system is inspected as a minimum twice a year, with the system also being inspected after any major storm event.

Merchant Exchange T. 0161 236 2394
17-19 Whitworth Street West
manchester@curtins.com
Manchester www.curtins.com
M1 5WG



Significant sediment deposition is likely in areas used for storage, so a post clean-up operation may be required including the removal of litter, vegetation, sewerage debris and larger objects.

Long-term management practices include monthly sweeping of external paved areas. The sweeping program will remove sand and contaminants directly from paved surfaces before they become mobilised during storm events and transported to the drainage system.

During the winter months, drainage features such as gullies and channels should be cleared of ice, snow, debris or litter.



