

13 February 2026

F.A.O – Flood Risk Management Team (LLFA)
Local Planning Authority
Manchester City Council



Application Ref: 142609/FO/2025

Site: Land off Crabtree Lane, Manchester

Proposal: Erection of 194 dwellings (Class C3) with associated works

In response to the comments issued under Table 2: Masterplanning (LLFA comments dated 10/02/2026), we provide the following written confirmation regarding the adequacy of the proposed easement in safeguarding both the proposed foundations and the existing culverted watercourse.

1. Culvert Investigation Summary

The existing culverted ordinary watercourse crossing the site has been comprehensively investigated in accordance with the agreed investigation strategy under Table 1.

Survey works included CCTV inspection and geolocation to establish:

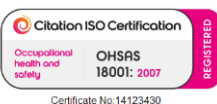
- Culvert alignment (georeferenced and plotted on the masterplan).
- Culvert dimensions (recorded between 225mm, 300mm, 450mm and 600mm diameter along its length).
- Depth to invert (recorded depth approximately 3.0m and 7.5m below ground level).
- Structural condition (localised blockage identified and to be remediated separately).

The culvert route, dimensions, depths and proposed easement extents are shown on Drawing **KMH28-120-A – Existing Culvert Proposed Easement Plan (A3)**.

2. Easement Width Justification

The easement has been determined in accordance with United Utilities' "Easement Local Practice" (Section 3, Table 1), which defines minimum distances from buildings and structures based on pipe diameter and depth to invert.

As confirmed by the investigation, both culvert diameter and depth vary along its alignment. Accordingly, the proposed easement width also varies to reflect these parameters. This is illustrated on Drawing KMH28-120-A, where Sections A–F define the relevant diameter, depth range and corresponding easement width.



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To ensure a precautionary and robust approach, the downstream depth to invert has been used when determining the required easement width for each defined section. This represents a conservative methodology, accounting for the greatest burial depth within each reach.

Whilst the culvert is an ordinary watercourse rather than a public sewer, the above guidance provides an appropriate and widely accepted industry benchmark for deep buried drainage infrastructure of comparable scale and function.

The resulting easement widths therefore vary along the culvert alignment in accordance with recorded depth and diameter. The full required width is maintained throughout.

In limited locations (notably within Sections A and E), the easement corridor has been offset relative to the culvert centreline. In all instances, the full required easement width is preserved. The offset arrangement has been adopted to maintain suitable access and working space should future excavation, maintenance or reconstruction of the culvert be required.

No buildings are proposed within the defined easement corridor.

3. Safeguarding of Foundations

All proposed dwellings across the development are to be constructed using piled foundations. Piled foundations transfer structural loads to deeper competent strata and compared to shallow strip or raft foundations, generate a significantly smaller and more localised zone of influence within the surrounding soil. As such, they do not impose distributed bearing pressures in the soils surrounding the culvert. Accordingly, no adverse impact on the culvert structure is anticipated from the proposed foundation solution.

In assessing the suitability of the proposed easement arrangement, the following site-specific factors have been considered:

- The recorded culvert depth profile (approximately 3.0m to 7.5m below ground level).
- The varying pipe diameters along the alignment.
- The adoption of piled foundations across the development.
- The absence of shallow bearing foundations within the defined easement corridor.
- Maintenance of the required minimum horizontal offsets in accordance with the adopted easement standards.



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Taking account of the confirmed culvert dimensions, recorded depth profile and foundation strategy, the variable easement widths shown on Drawing KMH28-120-A are considered appropriate to safeguard both the structural integrity of the culvert and the stability of the adjacent development.

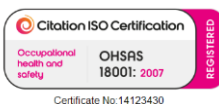
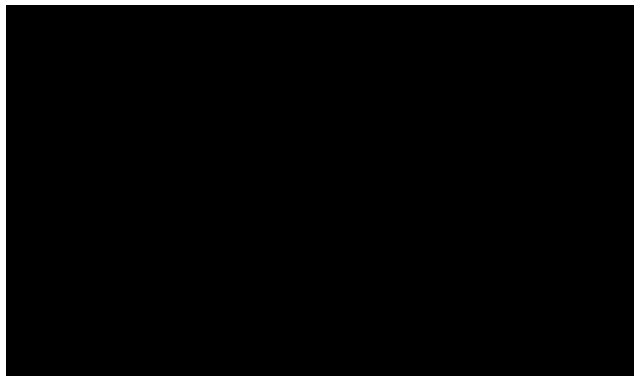
The masterplan has been designed to respect this protection corridor in full, with no buildings or permanent structures located within the defined easement extents.

4. Engineer's Confirmation

Having reviewed the investigation findings, culvert survey information, foundation strategy and adopted easement standards, we confirm that the proposed easement arrangement, as shown on Drawing KMH28-120-A, is appropriate for the recorded depth and diameter of the culverted watercourse.

The development proposals have been designed to respect these easement extents, and no buildings or permanent structures are located within the defined corridor.

We trust the above provides the clarification requested in respect of the proposed easement provision and foundation safeguarding. The proposed arrangement is considered robust and proportionate based on the confirmed investigation data and accepted design standards. Should any further clarification be required, we would be pleased to assist.



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- Legend**
- Development boundary
 - Proposed adoptable Surface Water Sewer
 - Proposed 100yr Cellular Storage
 - Highway Sewer & Manhole
 - Highway Gully & Connection Pipe Work
 - Proposed adoptable Foul Water Sewer
 - Existing Asset (Assumed Ordinary Watercourse)
 - Existing Asset Offset
 - Existing Combined Sewer (Private)

- Notes**
- Planning layout ref, Keepmoat Homes - 4091-KHNW-DR-A-1000-Planning Layout.
 - Topographical survey provided by 'SurveyEng Ltd', ref 'MCI.TS.115_E Crabtree Lane, Openshaw - Topo Survey', Dated June 2021.
 - Road detail, levels and layout are subject to local authority section 38 Highways approval.

The adoptable drainage and highway works are subject to technical approval by ICOSA and Manchester City Council respectively and may therefore change

A	16.02.26	Produced to support LLFA response	CP	RA
Mark	Date	Details	By	Chk

Revision history	
Drawing originator:	



Project title:

Crabtree Lane,
Manchester

Drawing title:

Existing Culvert
Proposed Easment Plan

Scale: 1:1000 for the original size of A3

Drn by: CP | Chkd by: - | Passed by: RA | Date: Feb 26

Drawing status:

For Information

Job No:	Drawing No:	Revision:
KMH28	Project Origin Volume Level Type Discp. Number xx BET xx xx xx C 120	A

Do not scale this drawing

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