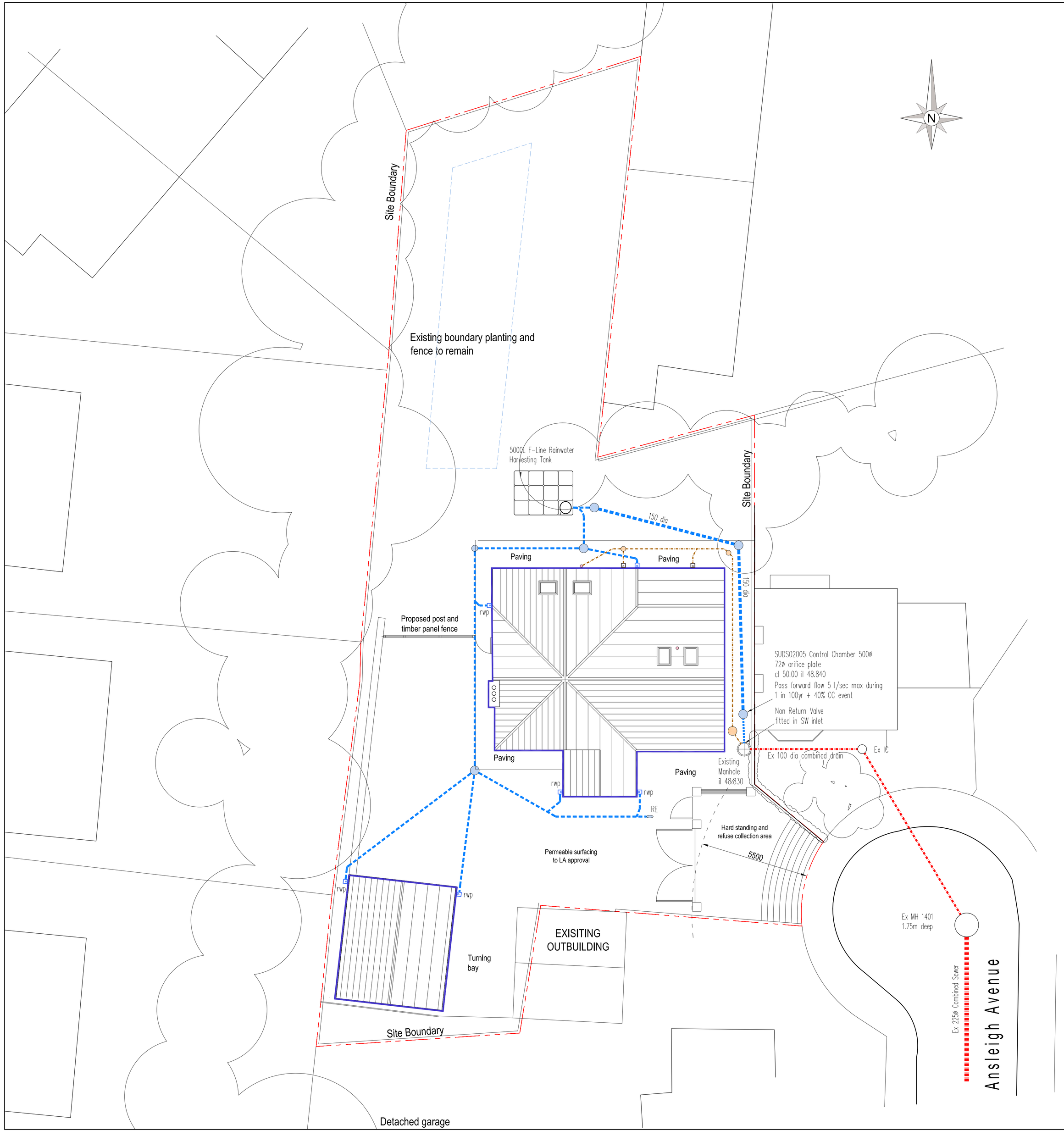
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Notes

1. All dimensions are in millimetres unless stated otherwise.

2. Levels are in metres related to Local Datum 50.000m on Existing manhole cover at site entrance.

3. The locations and depths of all existing sewers and manholes to be used for new connections are to be accurately determined by the Developer prior to the commencement of all drainage works on the site and the information conveyed to CFA Civils.

4. All private drainage works are to be built in accordance with the recommendations of Building Regulations: Approved Document H 2015.

5. Unless stated otherwise, all private drains are to be 100 nominal diameter drainage pipes at minimum gradient of 1 in 100 for surface water and 1 in 80 for foul and combined, bedded and backfilled to manufacturers' specification.

6. All SuDS fittings to be supplied by SEL Environmental Ltd., Canal House, Bonsall Street, Blackburn, BB2 4DD

DRAINAGE STRATEGY

In accordance with the National Planning Policy Framework and Building Regulations, the site will be drained on a separate system with foul water draining to the public sewer and surface water draining in the most sustainable way.

Surface Water
Planning Practice Guidance and the Building Regulations Approved Document H3 outline the hierarchy to be investigated when considering a surface water drainage strategy, in the following order of priority:

- Into the ground (infiltration);
- To a surface water body;
- To a surface water sewer, highway drain, or another drainage system;
- To a combined sewer.

Infiltration : The Cranfield Soil & Agrifood Institute – Soilscapes data identified the site as being in an area of "slowly permeable, seasonally wet... clayey soils" which would be unsuitable for soakaways.

An intrusive investigation by Worms Eye in July 2021 has revealed the majority of the site comprises a combination of made ground and topsoil with a small area of damp sand and gravel centrally. This report also identifies levels of contamination by PAHs found to be present in the made ground over a wide area, with lead also present in one area. A remediation strategy is proposed that will cap the garden area and non-permanent hard-surfaced areas with clean imported topsoil.

The site slopes down to the north-east where a timber yard is located about 2.5 metres below the site, a neighbouring building forms the north-eastern garden boundary, and to the west are existing residential properties, approximately 5 metres below the site level.

Given all these findings, it is considered that formal soakaways with the rear garden area would be inappropriate, as this could increase the flow of water into the contaminated ground, and cause leachate to dissipate into the lower premises adjacent to the site. Furthermore, the requisite offset distances set out in the Building Regulations for the siting of soakaways [5m from buildings] would result in the only available area on the site being close to the top of the embankments above the neighbouring properties.

Surface Water Bodies: There are no suitable surface water bodies in the close proximity of the site.

Surface Water Sewers: No surface water sewers or available highway drains are present in the proximity of the site.

Combined Sewers: An existing 225 dia combined public sewer is present in Ansleigh Avenue. The original dwelling on the site drained via a combined system to the existing combined drain manhole near the site entrance.

The proposed roofs will drain into appropriate trapped gullies and flow to a new rainwater harvesting tank serving the proposed dwelling. Excess flows will be directed via a length of 150mm dia pipe discharging through a flow control chamber into the existing combined drain manhole near the site entrance. Peak pass forward flows limited will be limited to 5 l/sec during a 1 in 100 year + 40% climate change event, being the minimum figure generally required where lower [Greenfield] flow rates are predicted.

Attenuation storage sizing calculated with Micro Drainage Design Software.

rev	description	date	by
A	Notes amended	Feb 2022	TMC

Project
9 Ansleigh Avenue,
Crumpsall, Manchester

Drawing Title
Proposed Replacement Dwelling
Drainage Layout

Date	Scale	Drawn by	Checked by
February 2022	1:100	TMC	–

Job No.	Drawing No.	Revision
CFC 21079	001 A1	A

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