

# Technical Note

<b>Project</b>	Hadley Street	<b>Project No</b>	14041
<b>Subject</b>	Flood Risk Assessment	<b>Date</b>	7 August 2023
<b>File Ref</b>	14041-CRH-ZZ-XX-Technical Note-C-0003_Hadley Street Flood Risk.docx	<b>Pages</b>	2

## 1.0 SITE CONTEXT

The site is located on Hadley Street, the nearest postcode to the site is NW1 8TD. Camden London Borough Council are the Local Planning Authority and Lead Local Flood Authority for the site. The site is situated in a residential area and is surrounded by roads Heybridge residential block to the east, Lewis Street to the south, Hadley Street to the west and Castle Road to the north.

The proposed development consists of the demolition of the existing undercroft car park in advance of future development of the site which will be subject to a separate planning application. This technical note has been prepared in support of the planning application for the site consisting of: *'The demolition of unused parking structure and associated works.'*

## 2.0 POLICIES AND GUIDANCE

In accordance with the Flood Risk and Coastal Change Planning Practice Guidance (PPG), a Flood Risk Assessment (FRA) is required when developments are:

- Located within a Flood Zone 2 or 3 including minor development and change of use;
- More than 1 hectare (ha) in a Flood Zone 1;
- Less than 1 ha in a Flood Zone 1, including a change of use in development type to a more vulnerable class (for example from commercial to residential), where they could be affected by sources of flooding other than rivers and sea (for example surface water, reservoirs); or
- In an area within a Flood Zone 1 which has critical drainage problems as notified by the Environment Agency (EA).

Annex 3 of National Planning Policy Framework (NPPF) defines the various flood risk vulnerability classifications and identifies the different types of development within each category.

## 3.0 PROPOSED DEVELOPMENT

The proposed development consists of the demolition of the existing undercroft car park. Once the existing car park structure is demolished the site will be covered with 250 mm of compacted MOT Type 1 aggregate, either from reclaimed demolition material or imported.

The temporary drainage solution for this area involves multiple filter drains falling towards the north-east corner of the site, where these connect to the existing private combined sewer and outflow into the wider Heybridge drainage network. This mimics the existing surface water system which is understood to discharge to the same combined sewer. A drawing showing the drainage proposals for the demolished site can be found appended to this document.

#### 4.0 FLOOD RISK FOR THE PROPOSED DEVELOPMENT

The site is approximately 0.12ha and is entirely within Flood Zone 1. The site is primarily at low to very low risk from other sources of flooding, although it does contain a small area high surface water flood risk in its northwest corner, due to a low point in the existing levels. However, the site is located within a critical drainage area, as identified in the London Borough of Camden Strategic Flood Risk Assessment (SFRA)

The fluvial flood risk to the site is **low**, as the site is located Flood Zone 1.

The tidal flood risk to the site is **very low**, as the site is located within Flood Zone 1 and is not situated close to any tidal sources.

The surface water flood risk for the site is **medium**. The London Borough of Camden SFRA indicates that the site is in a critical drainage area, as seen in the extract appended to this document. The site contains a small area of high surface water flood risk in its northwest corner, due to a low point in the existing levels.

The ground water flood risk for the site is **low**. The bedrock geology of the site is London clay formation and is likely impermeable in nature. A review of the SFRA confirms the wider area is generally at Low risk of groundwater flooding.

The sewer flood risk for the site is considered **low**. A review of the SFRA confirms the wider area has not had any recorded cases of internal or external sewer flooding.

The artificial flood risk for the site is considered **low**. This is confirmed by a review of the Environment Agency mapping for inundation from reservoirs.

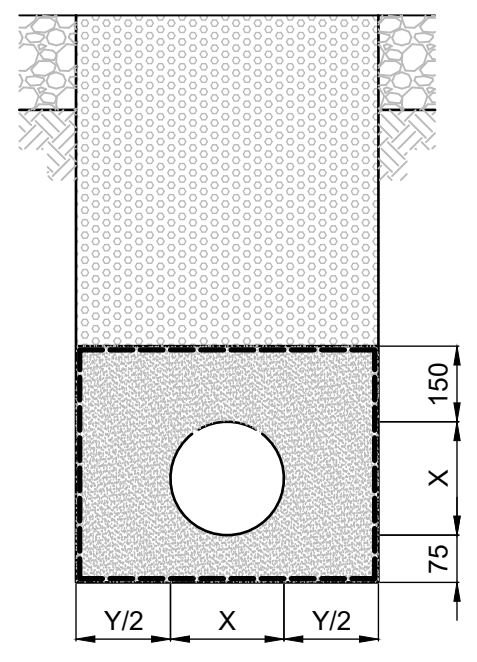
#### **Flood Risk Summary**

*Table 1.0: Summary of existing flood risk*

Flood Risk	Level of Risk
Fluvial	Low
Tidal	Very Low
Surface Water	Medium
Groundwater	Low
Sewer	Low
Artificial	Low

Considering the above information, it is considered that the proposed development is appropriate for the site with regard to flood risk and flood risk vulnerability, and the risks adequately mitigated.



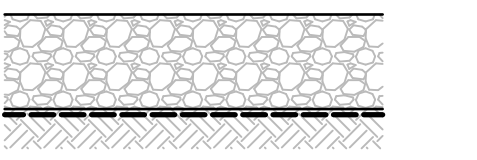


- Filter drain key**
- Type 1 granular material to SHW Clause 803 and prepared and installed to SHW Clause 803.
  - 20/40 mm filter material Type B to SHW Clause 505 and Table 5/5.
  - 0/20 mm filter material Type A to SHW Clause 505 and Table 5/5.

- Filter drain notes:**
1. X = Outside diameter (OD) of pipe.
  2. The first 300mm of fill above the crown of the pipe shall not be mechanically compacted.

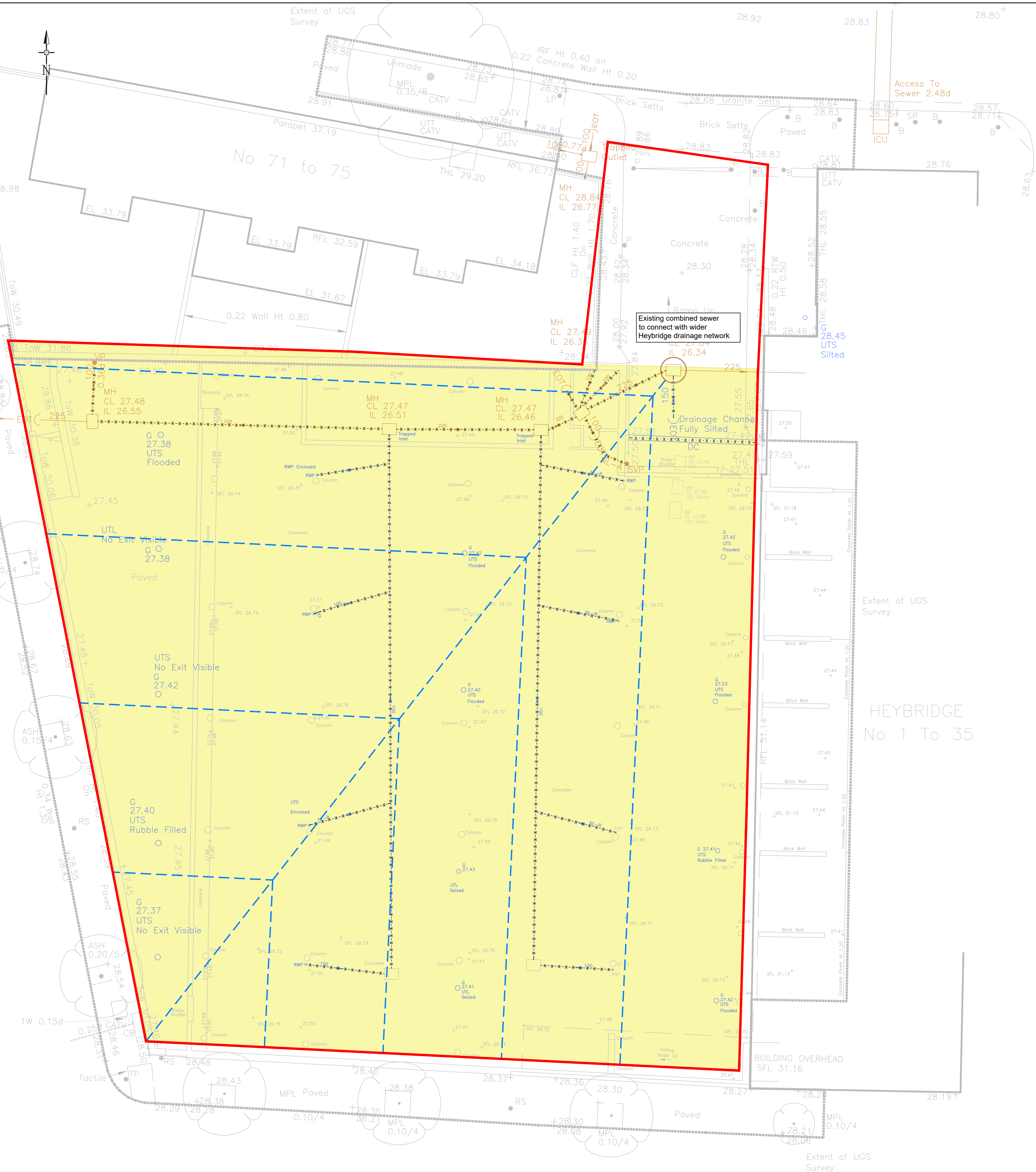
**Type 1 filter drain**  
Unless otherwise stated, pipe shall be 100 mm diameter perforated pipe. Type A filter material to be wrapped in Terram T1000 geotextile or equivalent approved.

**Filter drain detail**  
Scale 1:20



- Construction Materials / Thicknesses**
- 250mm Type 1 granular sub-base material. To be in accordance with cl. 803 SHW and prepared and installed to cl. 802 SHW.
  - Terram T1000 geotextile or equivalent approved.

**Compacted Type 1 Construction Detail**  
Scale 1:20



**Notes**

1. Do not scale from this drawing on print or electronically. Work from figured dimensions only.
2. No deviation from the details on this drawing is allowed without CampbellReith's prior permission in writing.
3. Read this drawing with all Architect's, Service Engineer's and CampbellReith's relevant details, specifications and drawings.
4. All work is to be done in accordance with the relevant specifications issued by CampbellReith, British Standard Codes of Practice, Statutory Regulations and the Contract Documents.
5. **Drawing revision:**  
**P: Preliminary** Evolving drawings for approvals, tenders, billings etc.  
**C: Contractual** Drawings authorized and approved for stage completion.
6. **Drawing status:**  
**Work in progress**  
**S0 - Initial status**  
**Shared (Non-contractual)**  
**S1 - Suitable for coordination, S2 - Suitable for information, S3 - Suitable for review and comment, S4 - Suitable for stage approval.**  
**Published (For contractors purposes)**  
**A1, An etc - Authorised and accepted ('n' relates to work stages)**  
**B1, Bn etc - Partial sign-off (with comments)**  
**CR - As constructed record document (Final Construction ONLY). Any deviations to that which is on site is not the liability of CampbellReith)**
7. **Work Stages:**  
**2 - Concept, 3 - Definition, 4 - Design, 5 - Build & commission, 6 - Handover**
8. Only drawings with **revision Cn and status A5 to be used for Construction.**

**Legend**

- Site Boundary
- 250mm compacted Type 1 granular material to SHW Clauses 803 and 802
- Existing Combined Manhole
- Proposed Temporary Filter Drain
- Existing Drainage To Be Abandoned/Removed
- Existing Surface Water Drainage
- Existing Foul Water/Combined Drainage

Total Area of Type 1: 0.1ha  
Total Length of Filter Drain: 197m

Rev	Description	Date	By
P1	Issued for information	08/08/23	JA

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Job Title	<b>Hadley Street</b>
Client	<b>London Borough of Camden</b>

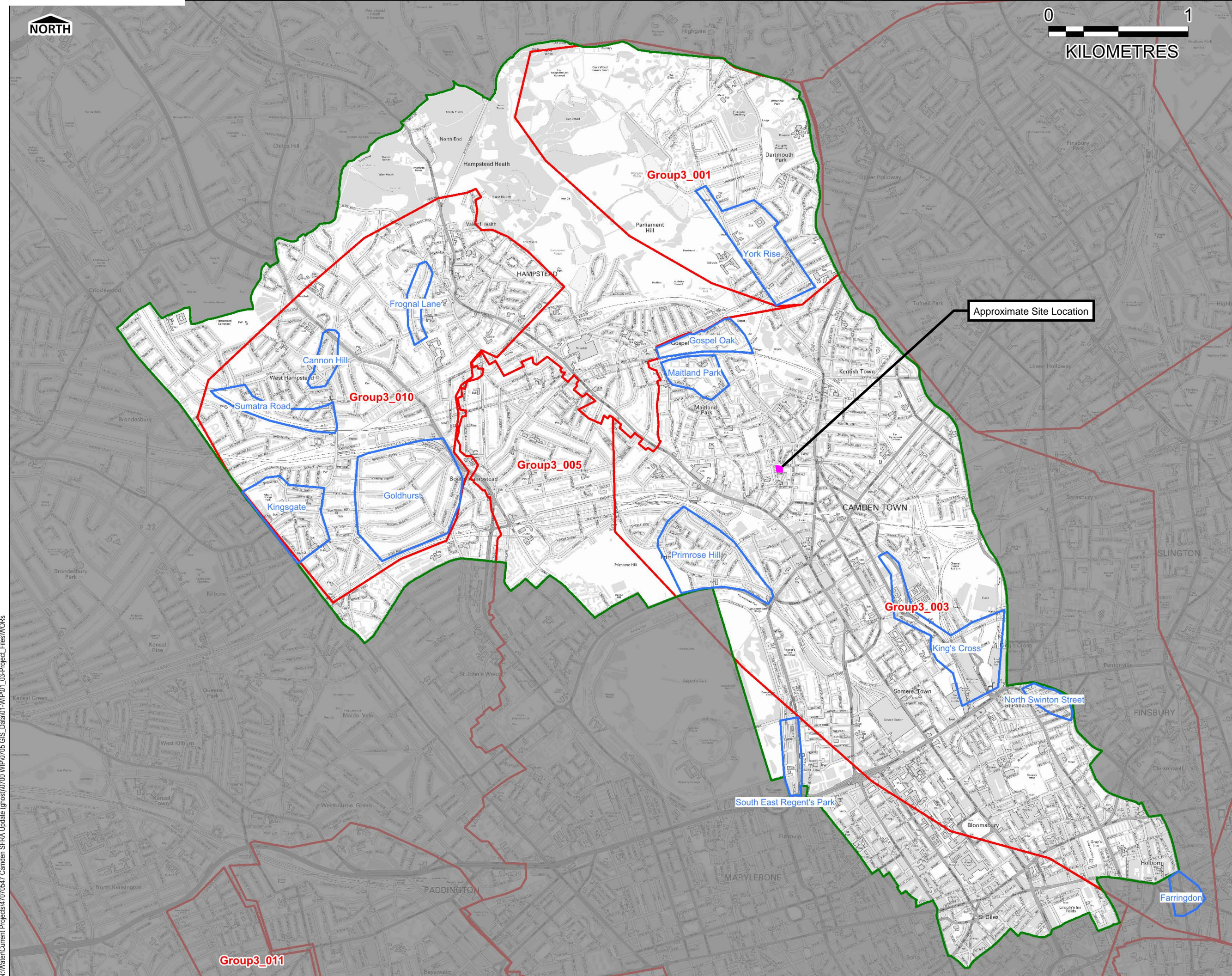
**Post-Demolition Proposed Drainage Layout**

Drawn by	Date made	Scale @ A1	Checked by	Suitability	CR Project
AL	31/07/23	1:100	JA	S2	14041

Project No	Orig.	Funct.	Spatial	Form	Disc.	Number	Rev
14041	CRH	XX	XX	DR	C	5060	P1



# APPENDIX B



THIS DRAWING IS TO BE USED ONLY FOR THE PURPOSE OF ISSUE THAT IT WAS ISSUED FOR AND IS SUBJECT TO AMENDMENT.

**LEGEND**

- London Borough Camden Boundary
- Critical Drainage Area
- Local Flood Risk Zone

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Revision Details			
By	Check	Date	Suffix

Purpose of Issue: **FINAL**

Client: **Camden**

Project Title: **LONDON BOROUGH OF CAMDEN STRATEGIC FLOOD RISK ASSESSMENT**

Drawing Title: **Critical Drainage Areas / Local Flood Risk Zones**

Drawn	Checked	Approved	Date
CB/EB	EY	MT	04/06/2014

URS Internal Project No. **47070547**      Scale at A3 **1:25,000**

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**URS**

Drawing Number	Rev
<b>FIGURE 6</b>	<b>Rev 2</b>

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