59 Carlton Avenue, Manchester M14 7NL

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Flood Risk Assessment & SUDS for Planning

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EnviroSolution offers a broad set of services that allow the land or property owner or manager to access a suite of services that are not normally available from a single, high quality and professional source.

EnviroSolution has expertise and experience in all aspects of environmental enforcement, regulation and assessment, working in conjunction with the HSE, Local Authorities and Environment Agency. With specific capability in environmental protection and planning policy and control, EnviroSolution has a core knowledge base to assist clients in dealing with Flood Risk issues.

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Abbreviations:

EA Environment Agency
FZ Flood Zone

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If this report has been released electronically, the appendices referred to herein can be found in the annexed zip folder/s as .pdf or .dwg files. If this report has been released in hard copy the appendices will be bound into the back of this report. Plans may be annexed separately as A1 or A0 copies where a bound-in A3 copy is not appropriate.

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1.0 Scope

This report contains the details of a Flood Risk Assessment carried out by Enviro Solution Ltd for 59 Carlton Avenue, Manchester M14 7NL, henceforth referred to as “the site” in this report.

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The Executive Summary contains an overview of key findings and conclusions. However, no reliance should be placed on the Executive Summary until the whole of the report has been read. Other sections of the report may contain information which puts into context the findings noted within the Executive Summary.

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2.0 Executive Summary

This FRA&SUDS Strategy for Planning has been carried out in accordance with the National Planning Policy Framework (NPPF) and NPPG to assist the council and EA in their assessment of the planning application.

The proposed development comprises: extension to existing dwelling remaining as one dwelling in FZ1. No change to the operation or sensitivity of the site.

- Site is in EA FZ1 and patchy LOW hazard surface water flood risk
- No soakaways are feasible because there is no space at the constrained site
- The site is footprint or hardstanding / small garden surrounded by other buildings
- The re-use of existing connections with betterment is the only option and is the most sustainable option
- The scheme cannot alter the connections from the site
- Any other new hardstanding where feasible will be maximized to be permeable / porous
    - SUDS to be appropriate to the site and operation: subbase storage in open areas
    - Inherently resilient and resistant specifications

This is categorized as retaining a "More Vulnerable" use at the site: in accordance with the NPPF classifications the NPPF/PPG Exception Test does not need to be passed; it is considered passed by this assessment.

Given the residual risk flood setting, the level, extent and depth of flooding on the site can be managed in terms of resistant and resilient measures and precautionary mitigation measures.

Based on the likely flooding risk and small scale of the proposed development, it is considered that the proposed development can be constructed and continue to be operated safely in flood risk terms, without increasing flood risk elsewhere; it is therefore considered appropriate development in accordance with the NPPF / PPG.

3.0 Introduction

The FRA combined a desktop study, review of available information, consultations and an assessment of all sources of flooding posed to and from the site and proposed development, in accordance with NPPF & NPPG. Appropriate flood mitigation measures were then considered, either as already incorporated within the scheme or recommended for inclusion at detailed design stage. The suitability of the proposed development was also reviewed in the context of the NPPF/NPPG and any relevant technical guidance accompanying the NPPF.

4.0 Purpose of the Report

This FRA has been carried out in accordance with National Planning Policy Framework (NPPF) & PPG.

The report provides the following information in accordance with the NPPF:

- An assessment of the flood risk posed to the site based on flood information and mapping provided by the EA and Strategic Flood Risk Assessment (SFRA);
- An assessment of the proposed development in terms of surface water run-off; and
- Proposals for measures to mitigate the flood risks posed to and from the development where appropriate.

5.0 Report Information Sources

The information source used to undertake this FRA has been collected from the following sources:

- British Geological Survey Website & iGeology App
- EA Website & Data
- Council Strategic Flood Risk Assessment, Surface Water Management Plan / Preliminary Flood Risk Assessment
- Lead Local Flood Authority (LLFA) SUDS Policies and Guidance
- Internet mapping and searches.

6.0 Consultation

Where appropriate, the EA and local council will have been contacted to request any available and relevant flooding data.

7.0 Overview of British Legislation

7.1 National Planning Policy

The National Planning Policy Framework (NPPF) and NPPG supercede all Planning Policy Statements (PPS's) and Planning Policy Guidance (PPG's). Flood risk is retained as a key development consideration.

The Sequential and Exception Tests are retained. The accompanying NPPF Technical Guidance / NPPG also include Tables 2 and 3 to assist with flood risk vulnerability classifications and development suitability.

NPPG, New Climate Change Allowances compliant

7.2 Local Policy

The Strategic Flood Risk Assessment (SFRA) is a key source of flood risk specific information for the area. The SFRA provides a more detailed review of flood risks and recommendations for ensuring developments can be constructed and operated safely in accordance with the NPPF. Greater detail of the SFRA is provided in the report where appropriate.

LLFA SUDS guidance compliant.

8.0 Site Status and Environmental Setting

8.1 Site Location and Status

The site is an existing house with hardstanding. The location plan is included in Appendix A and is shown on the mapping extracts below.

There are no data that suggest there are lost rivers / culverted watercourses within or near the site.

8.2 Existing Flood Risk 2026

Flood Sources	**Site Status**	**Comment on flood risk posed to / from the development**
Fluvial / Tidal	Site is wholly in FZ1 Low Risk	Low hazard
Groundwater	SWMP indicates site not in potential elevated future groundwater risk	The proposed development will not increase the risk of groundwater flooding; New slabs can be engineered / waterproofed appropriately to industry standard Low Risk
Artificial Sources	No other artificial sources within 100m	Low Risk
Surface Water / Sewer Flooding	Property and area of works are in NO – VERY LOW hazard area; adjacent ponding area but not affecting the scheme Condition, depth and location of surrounding infrastructure uncertain	Low Risk No further drainage assessment required
Climate Change including new allowances	Assessed as is appropriate, for this site and scheme specifically Area of works are not within climate change flood extent area	Development will not increase the peak flow and volume of discharge from the site Low risk posed to and from the development

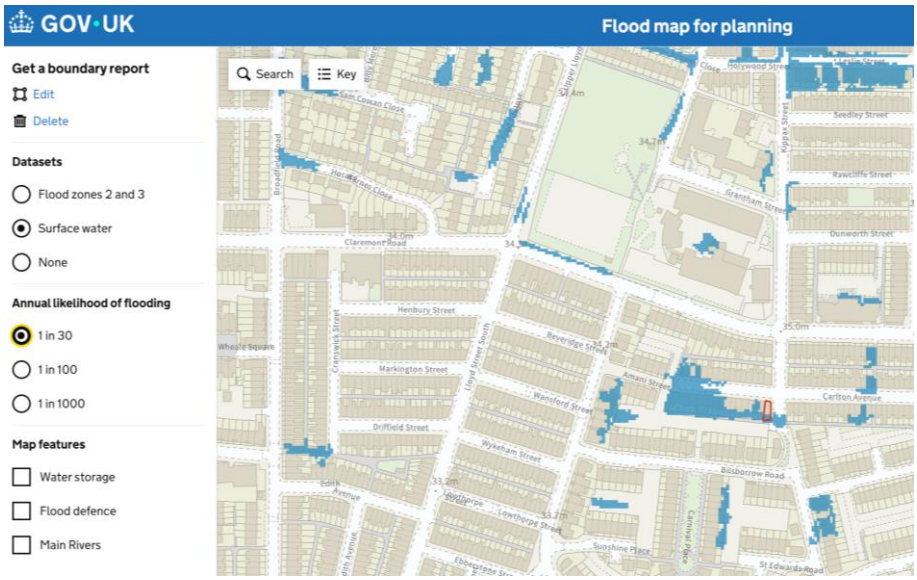
8.3 Topography

- There are no site specific flood levels
- There is no requirement to raise any floor levels above a certain flood level
- There is no requirement to undertake site specific hydraulic modelling

No further site specific topographic survey is required.

8.4 Surface Water Risk and Hazard Summary 2026

- Site is in Low hazard with patchy areas of Low hazard in the 1in30year
- Highway has patchy areas of medium hazard
- Site is inundated in the 1in1000year
- No impact on suitabiity or design of the scheme
- No impact posed from the proposed scheme
- Appropriate response is flood resilience for extension project



8.6 Existing Drainage

The site is 100% footprint or hardstanding surrounded by other buildings / highways.
The site drains 100% to sewer as an inner urban site.

9.0 Assessment of Proposed Development

9.1 Proposed Development

The proposed development comprises (See Appendix B):

- extension to existing dwelling remaining as one dwelling in FZ1

This is a heavily constrained site but the scheme maximises SUDS appropriate to the site and scheme:

  - extend existing drainage (guttering and new downpipes)
  - Utilise subbase / cellular storage for any patio area
- The scheme cannot change the drainage connections at the site
- Infiltration is not feasible due to site constraints (site is too small to meet the easements)
- SUDS storage to be significant betterment and use 45% for climate change
- New climate change thus appropriately accommodated

Drainage Connections

The existing connections will be retained and extended as appropriate to communicate with the new site operations.

9.2 SUDS Drainage Specifications

All drainage can be drained using gravity as existing.

Given the nature of scheme being a small residential extension, it is not considered necessary to provide a new formal connection; using the existing system is the most sustainable approach.

To address the surface water risk and reduce the surface water risk to surrounding areas:

a. Extension:

Extend existing guttering and downpipes:

- Roof drainage to subbase storage if available under new patio area
- Discharge at restricted rate to existing connection

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/7728/pavingfrontgardens.pdf

9.3 Pipe sizes / Manholes / Pipe runs

These will be confirmed as part of detailed designs; specifications of landscaping and drainage products need to be confirmed through Buildings Regs.

Not required at this stage to demonstrate scheme can accommodate the surface water flows or meet LLFA requirements.

9.4 SUDS Hierarchy Check

SUDS Hierarchy	SUDS Technique	Potential Benefits			Site Specific	
		Flood Reduction	Pollution Reduction	Landscape & Wildlife Benefit	?	Scheme Specific SUDS Suitability Appraisal and Comment
Most Sustainable	Living / Blue Roofs	•	•	•	X	Not Feasible for this extension as there will not be a suitable sized flat roof area (Blue, Green and Brown roofs)
	Ponds / Basins	•	•	•	X	Not suitable for site or scheme
	Swales	•	•	•	X	Not suitable for site or scheme
	Infiltration Techniques	•	•		X	Not suitable for site or scheme
	Permeable / Porous Surfaces with granular subbase	•	•		*	If any areas of outdoor surfacing need to be changed, they can be changed to permeable / porous areas with subbase storage
Least Sustainable	Tanked Systems / Cellular storage	•			✓	Only feasible option

Key:
Potentially suitable at the site: * Incorporated in the scheme: ✓ Not suitable / possible at the site: X

9.5 Flood Resilience

The extension will incorporate standard flood resilience on the ground floor.

No further details required for the flood risk assessment.

- Plasterboards if required will be installed in horizontal sheets rather than conventional vertical installation methods to minimise the amount of plasterboard that could be damaged in a flood event
- Wall sockets will be raised to as high as is feasible and practicable in order to minimise damage if flood waters inundate the property
- The ground floor levels will be raised above existing ground level where feasible
- Any wood fixings on ground floor will be robust and/or protected by suitable coatings in order to minimise damage during a flood event
- If required: airbricks / air vents will be raised to as high as is feasible and practicable

- Waterproofing will be installed as necessary and above the main floor slab and tied in to the walls where appropriate, to reduce the turnaround time for returning the property to full operation after a flood event.
- The ground floor waterproofing will be extended to an appropriate level above existing ground levels
- Sensible storing of any materials easily damaged by water at higher levels within the building as necessary i.e. produce on raised internal structures

9.6 Refuge and Evacuation

Not relevant to the scheme.

10.0 Flood Storage

It is considered that flood compensation is not required given the site is wholly in EA Flood Zone 1 and there will be no surface water floodplain displacement.

11.0 Conclusion

The proposed development is categorised as retaining “More Vulnerable” uses at the site in accordance with the NPPF with the area of works being in EA Flood Zone 1; the Exception Test does not need to be passed.

- Fully NPPF and LLFA compliant
- Inherently resilient

Based on the likely flooding risk, it is considered that the proposed development could be constructed and operated safely in flood risk terms without increasing flood risk elsewhere and is therefore appropriate development in accordance with the NPPF/NPPG.

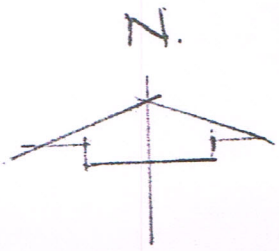
11.1 Recommendations

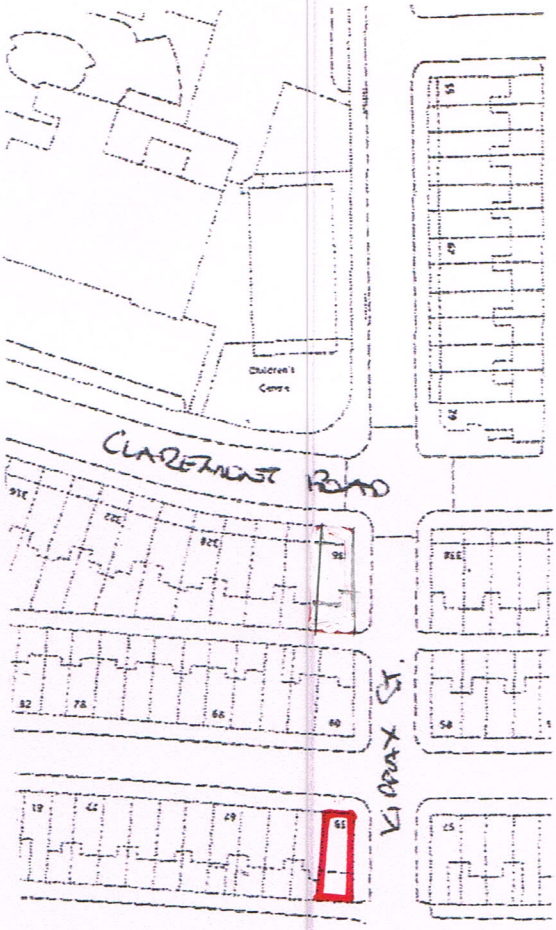
- Detailed specifications and designs, layout and dimensions of all construction stage new drainage infrastructure to be designed in collaboration with contractor / landscaping team
- Detailed maintenance and management plan also to be produced: secured by condition

12.0 Appendices

A. Site Location & Existing Layout
B. Proposed Layouts

Appendix A





BLOCK PLAN

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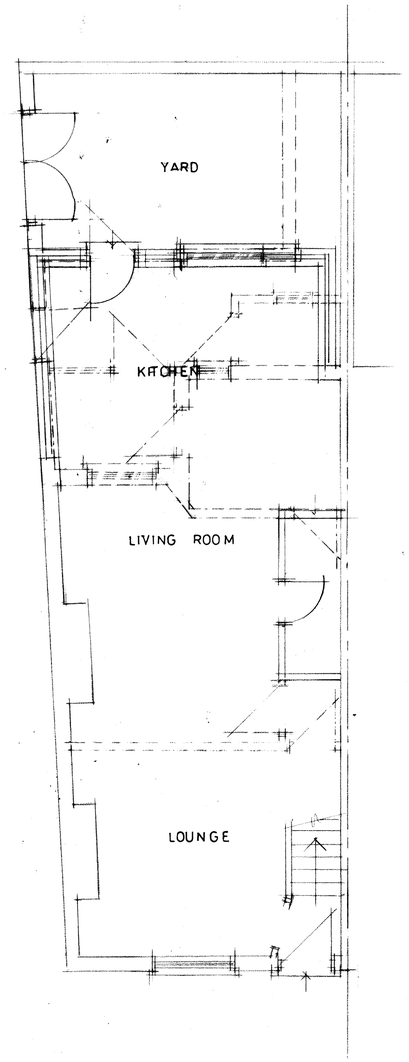
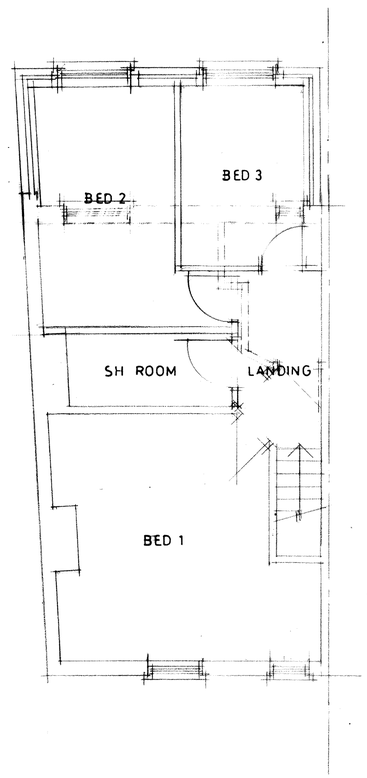
Appendix B



GROUND FLOOR PLAN



FIRST FLOOR PLAN

CLIENT
MAYFAIR LAND & PROPERTY
59 CARLTON AVENUE
MOSS SIDE M14 7NL

JOB TITLE
PROPOSED 1 & 2 REAR EXTENSIONS

DRG. TITLE
PLANS AND ELEVATIONS AS PROPOSED

HOLBOROW ORMESHER +
Limited
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