

Flood Risk Assessment

Proposed two storey dwelling
at
64 Langley Crescent,
Hayes UB3 5HN
for
Mr P Singh

Prepared by
Shaw Savage Ltd
Civil and Environmental Consultants
23rd May 2023
www.shaw-savage.co.uk

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Issue 01
Checked by
William Savage CEng MICE
23rd May 2023



1 Summary

Shaw Savage have been instructed by Mr P Singh to prepare a Flood Risk Assessment (FRA) relating to a proposed two storey dwelling, to be constructed within the curtilage of 64 Langley Crescent, Harlington UB3 5HN.

This assessment will evaluate the flood risk to the site, which lies within flood zone 2.

The assessment has been carried out in accordance with EA standing advice, with reference made to the following information;

- EA Flood maps for planning,
- DEFRA RoFSW surface water flood information,
- West London Strategic Flood Risk Assessment.

The site consists of an existing dwelling and associated garden and garage, within which the new two storey building is proposed. The site is surrounded by established residential uses. The proposal is classified as 'minor development' with respect to flood risk.

The proposed use is classified as 'more vulnerable' and is considered appropriate within flood zone 2. The proposal does not increase or change the flood risk vulnerability of the existing dwelling or surrounding areas. The nearest statutory main river is Frogs Ditch approximately 65m from the site.

Access and escape routes are recommended within this assessment, to reduce the impacts of flood risk on the proposal, which is considered acceptable on flood risk grounds.

2 Development Proposals

2.1 Type of development

The development represents the demolition of an existing garage and the erection of a new two storey building.

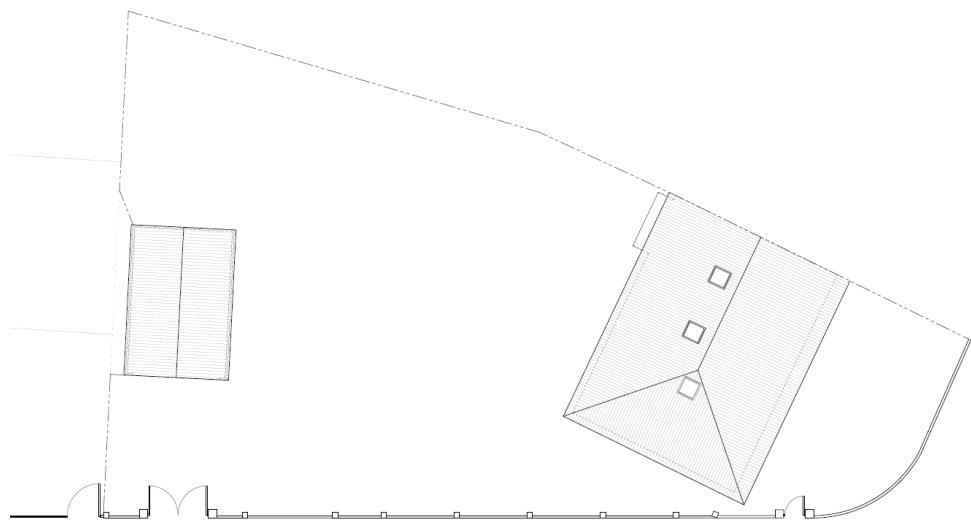


Fig 1 – Existing site (garage on left)

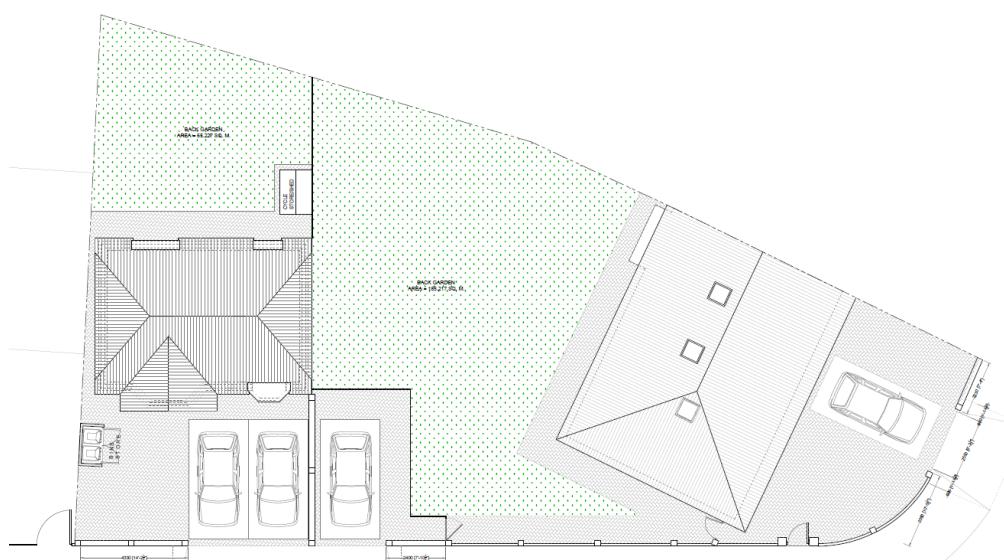


Fig 2 – Proposed site plan

2.2 Scale of development

The proposal lies within the curtilage of an existing dwelling and is classified as 'minor development' in flood risk terms.

2.3 Vulnerability classification

The proposal is categorised as a dwelling house and therefore 'more vulnerable' in accordance with EA standing advice.

3 Site Conditions

3.1 Nearest watercourse

The nearest statutory main river is Frogs Ditch, approximately 65m to the north of the site.

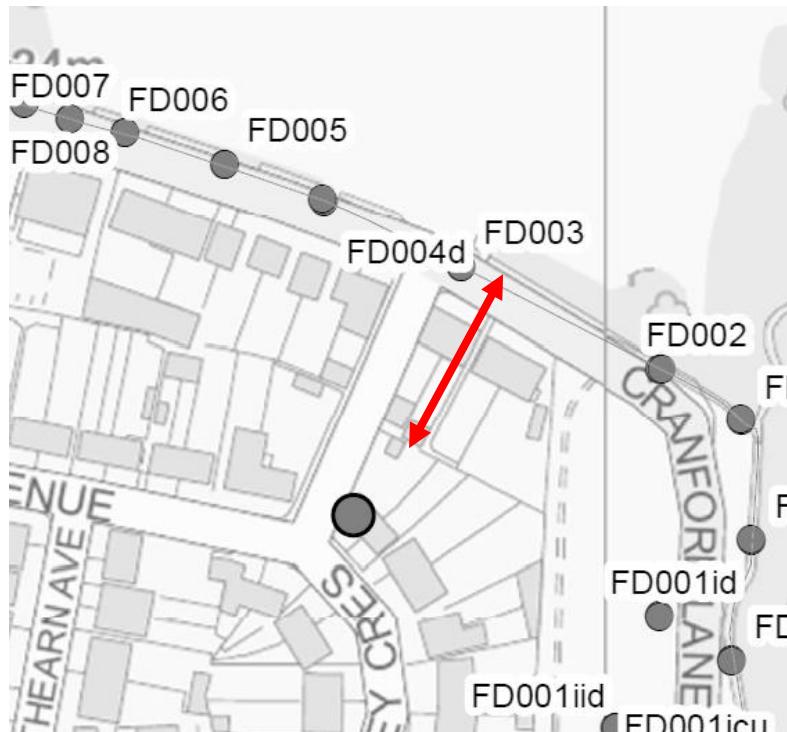


Fig 3 – Frogs Ditch lies 65m from the site

3.2 Flood zone

Reference has been made to EA flood maps for planning and the West London SFRA, which identify the site as lying within flood zone 2 and outside zone 3a. The site is not at risk from fluvial flooding during the 1in100 year rainfall event.

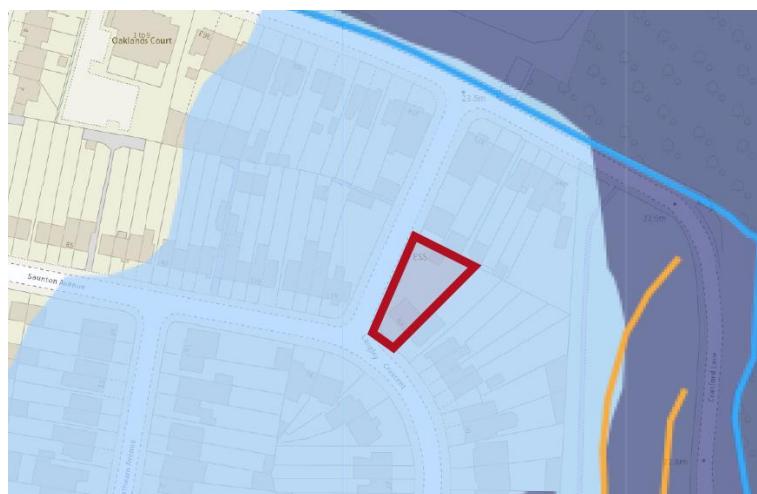


Fig 4 – EA flood map for planning (FZ 2)

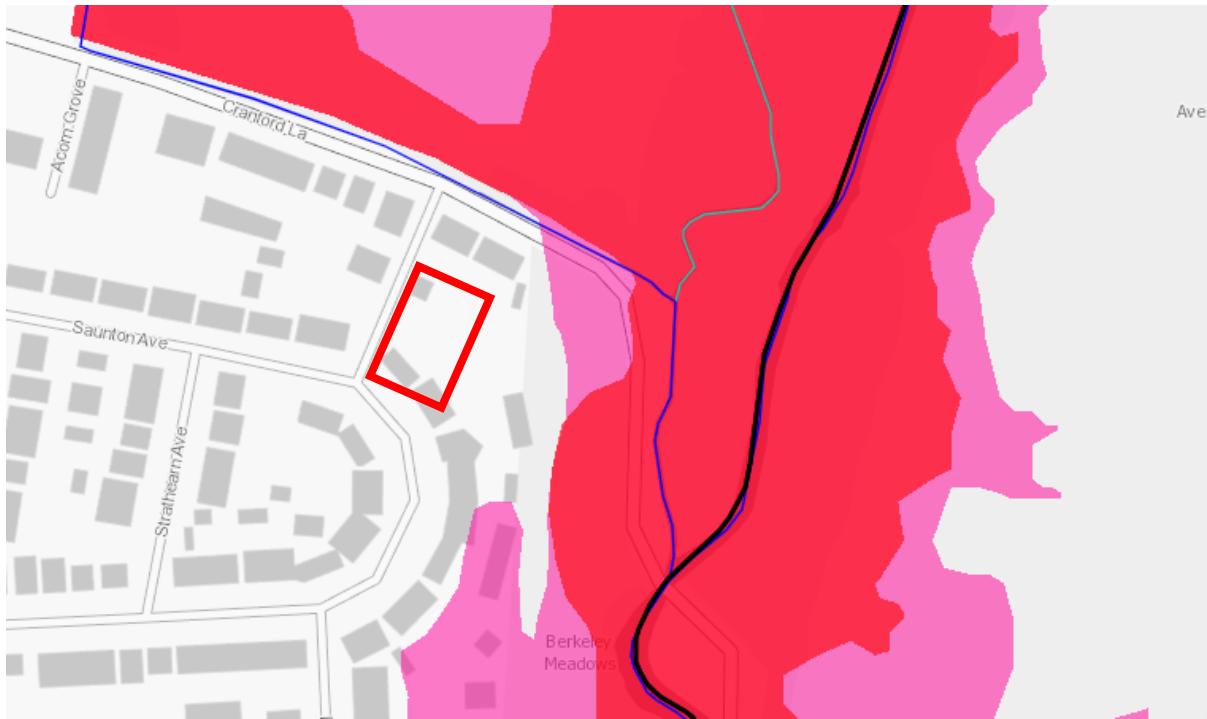


Fig 5 – SFRA identifies site lies outside FZ3a

DEFRA Risk of Flooding from Surface Water (RoFSW) data has been used to supplement the EA flood modelling information, to estimate the risk of surface water flooding during the 1in100 year storm event.

Surface water flooding within Langley Crescent is estimated as minimal, and no more than 150mm during the 1in100 year event. The existing dwelling itself is not estimated to be at risk from surface water flooding.

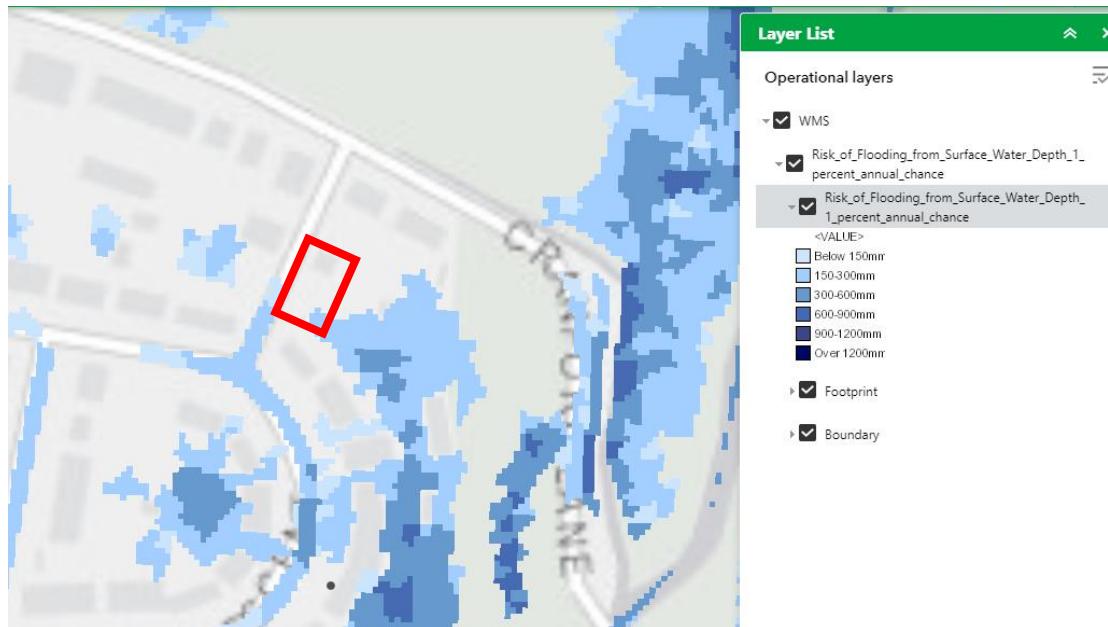


Fig 6 – Surface water flooding estimate within Langley Crescent (DEFRA RoFSW data)

4 Impact of Potential Flooding on the Development

4.1 Intended use

Planning permission is sought for a new two storey dwelling to be erected within the curtilage of an existing dwelling.

4.2 Flood risk compatibility

As the site lies within flood zone 2 and the proposed development is classified as 'more vulnerable' an Exception Test is not required. The proposed development can be considered appropriate on flood risk grounds.

Flood Zones	Flood Risk Vulnerability Classification				
	Essential infrastructure	Highly vulnerable	More vulnerable	Less vulnerable	Water compatible
Zone 1	✓	✓	✓	✓	✓
Zone 2	✓	Exception Test required	✓	✓	✓
Zone 3a †	Exception Test required †	✗	Exception Test required	✓	✓
Zone 3b *	Exception Test required *	✗	✗	✗	✓*

Key:

✓ Development is appropriate

✗ Development should not be permitted.

Fig 7 – Extract from EA standing advice

4.3 Impact of the development of local hydrology

The new dwelling will be built partly over the footprint of the existing garage, and partly on greenfield. A sustainable surface water drainage system is recommended to mitigate the impact of increased runoff on the existing drainage infrastructure.

4.4 Access and escape

A review of the potential flooding mechanisms has confirmed that the surrounding area lies within flood zone 2 and may be at risk of fluvial flooding during rainfall events in excess of 1in100 years.

DEFRA data has been used to identify the hazard rating associated with the surface water flooding during the 1in100 (+CC) event.

A short escape route is possible to dry land within Cranford Lane, with a hazard of less than 0.75.



*Fig 8 – Escape route to dry land
Hazard <0.75*

5 Conclusion

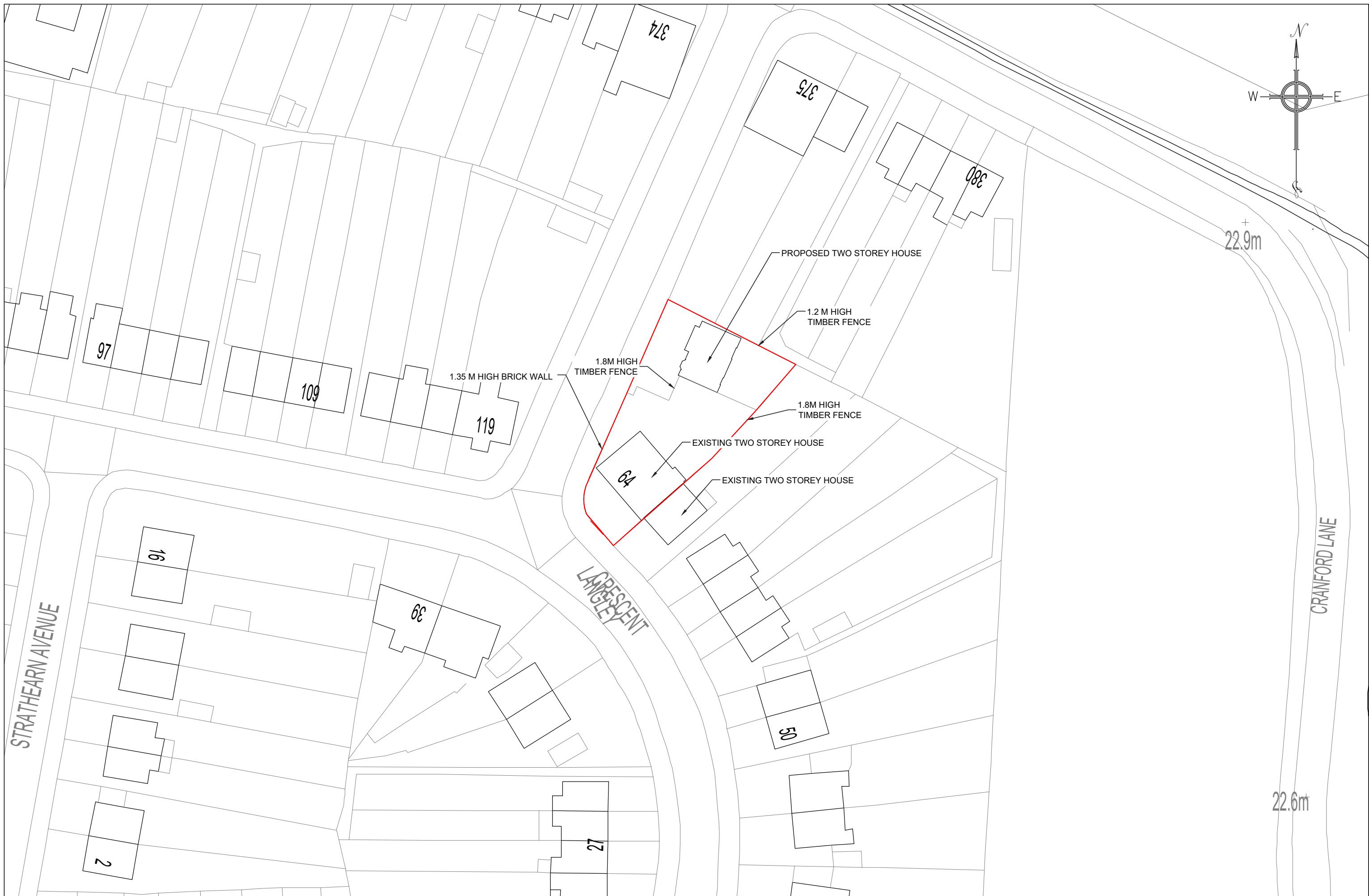
The proposal involves the demolition of an existing garage associated with 64 Langley Crescent, and the erection of a new two storey dwelling within the existing site curtilage. The site is located within flood zone 2 and the proposal is considered 'minor development'.

An assessment of the likely causes of flooding indicate that the surrounding residential area lies within flood zone 2 and may experience fluvial flooding during rainfall events in excess of 1in100 years. A low risk emergency egress route to Cranford Lane is available, with a hazard of less than 0.75.

The proposal does not impact negatively on the surrounding hydrology and should be considered acceptable with respect to flood risk as the proposed residential use is appropriate within the flood zone.

Appendix A

Proposed plans



PROPOSED BLOCK PLAN
SCALE 1:500@A3

M 1:500
0 5 10 15 20 25 30 35 40 45 50 [m]

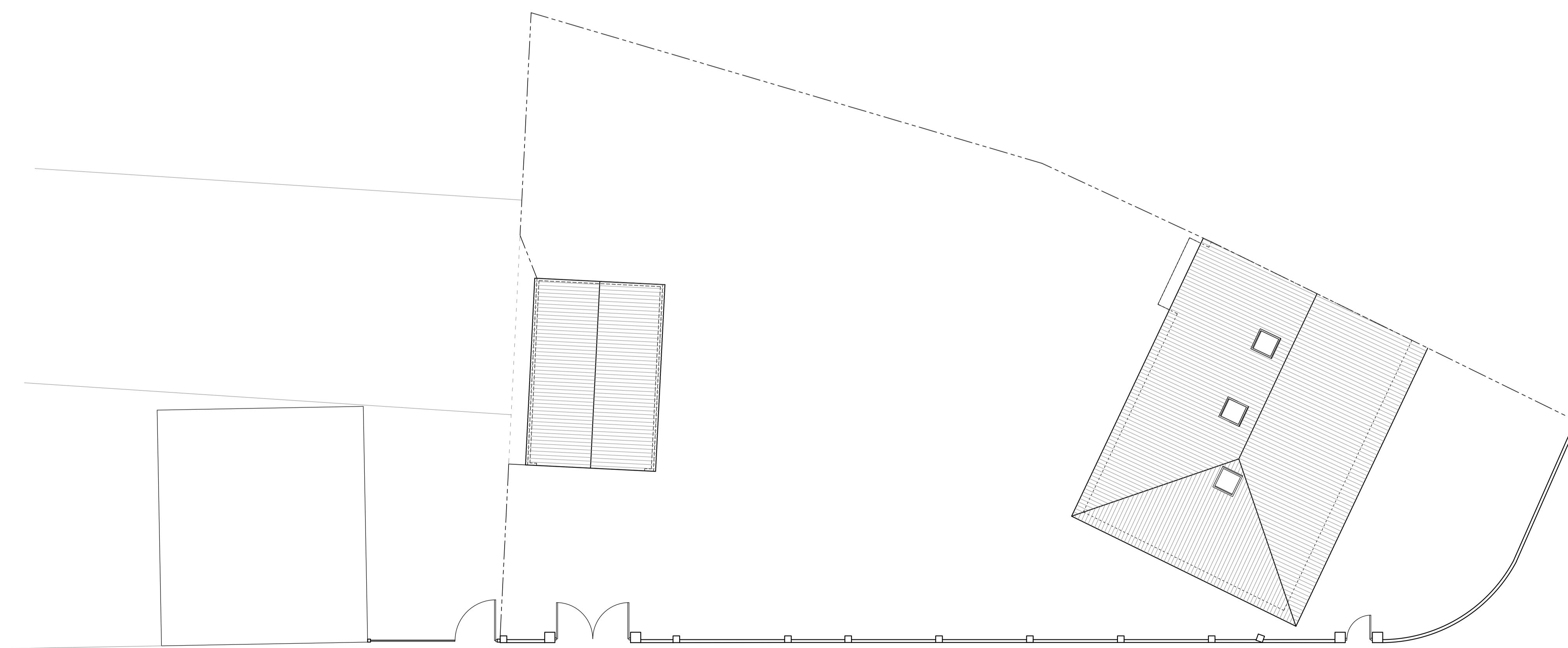
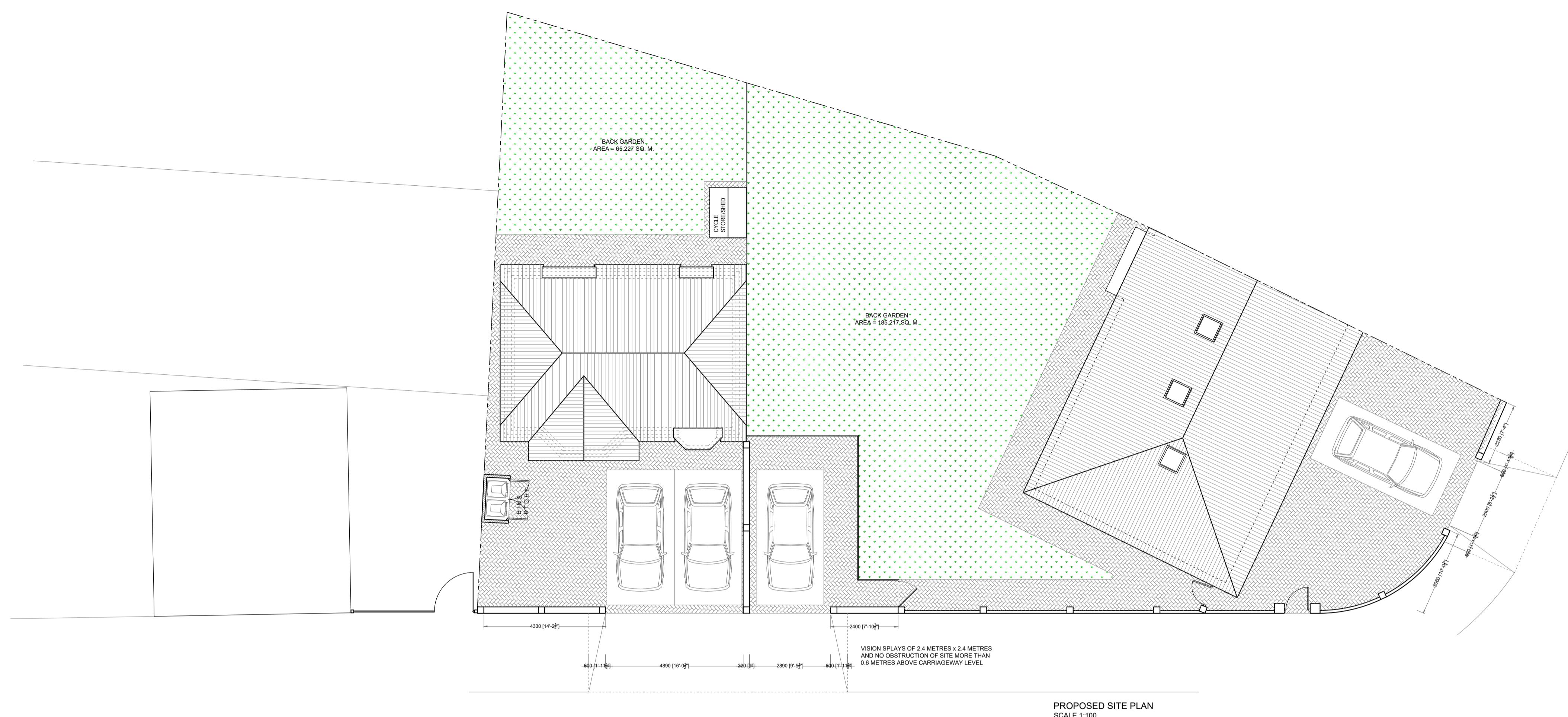
KOMPASLONDON WILL NOT BE RESPONSIBLE FOR THE CONTRACT AFTER HAVING OBTAINED PLANNING PERMISSION AND/OR BUILDING REGULATION APPROVALS AND THAT THERE CAN BE NO GUARANTEE THAT PLANNING PERMISSION OR BUILDING REGULATION WILL BE OBTAINED. ANY WORKS WHICH ARE STARTED BEFORE APPROVALS WILL BE AT OWNERS RISK. NO RESPONSIBILITY WILL BE TAKEN FOR WORKS WHICH ARE UNFORESEEN AND FOR ANY SUBSEQUENT ALTERATIONS MADE WHICH ARE BEYOND THE CONTROL OF THE AGENT.

GENERAL NOTES

1. DIMENSIONS

All dimensions to be checked on site.

Contractor to check site thoroughly & report any discrepancies.



M 1:100
0 1 2 3 4 5 6 7 8 9 10 [m]

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REVISIONS		DATE
	16 ELECTRIC PARADE SEVEN KINGS ROAD ILFORD, ESSEX, IG3 8BY PH : 020 8590 0002 FAX : 020 8599 3773	
PROJECT	DEMOLITION OF EXISTING GARAGE AND ERECTION OF NEW TWO STOREY TWO BEDROOM HOUSE AT THE REAR OF 64 LANGLEY CRESCENT UB3 5HN	
DRAWING	EXISTING AND PROPOSED PLANS	
CLIENT	MR. --	
DATE	MAR. 2023	SCALE 1:100 @ A1
DRG NO.	KL/1362-PR1	REVISIONS

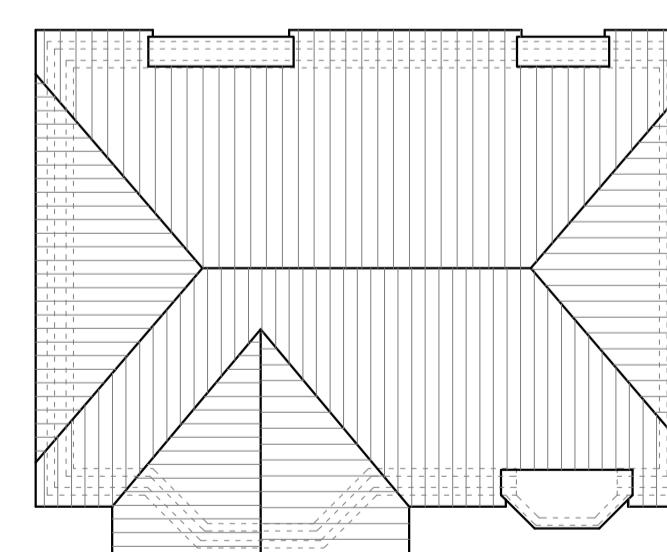
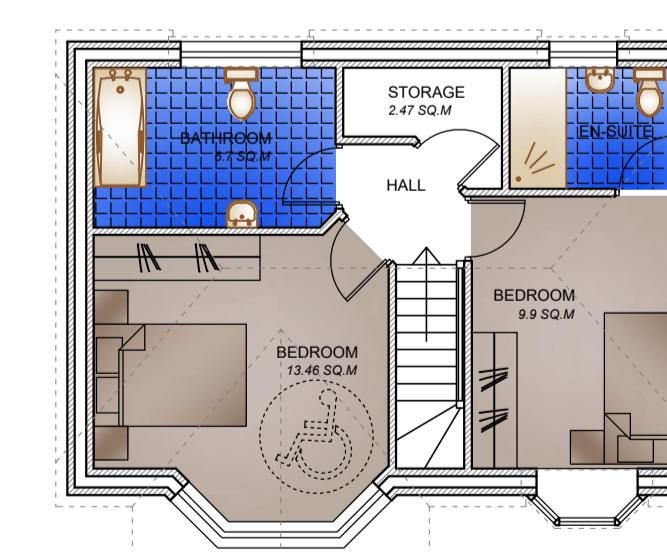
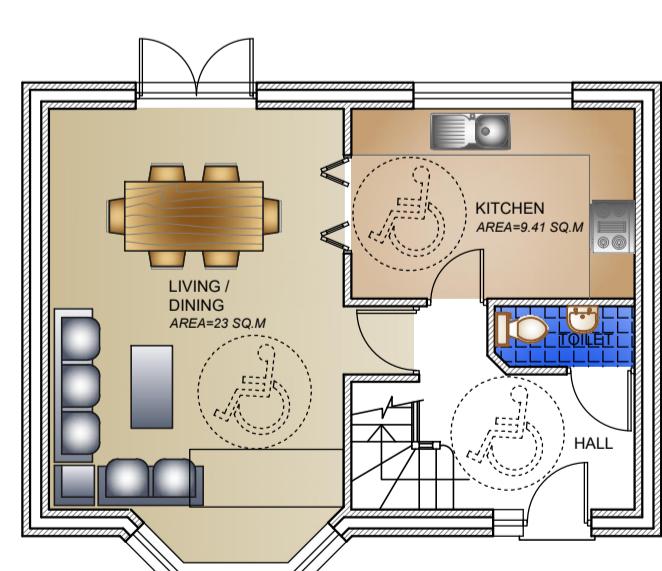
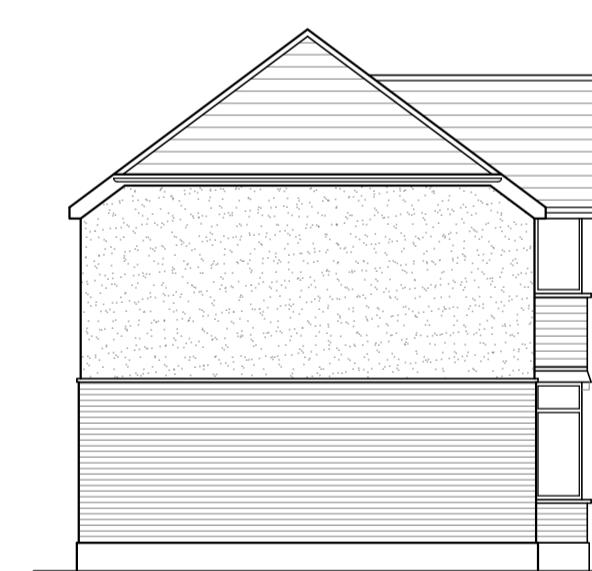
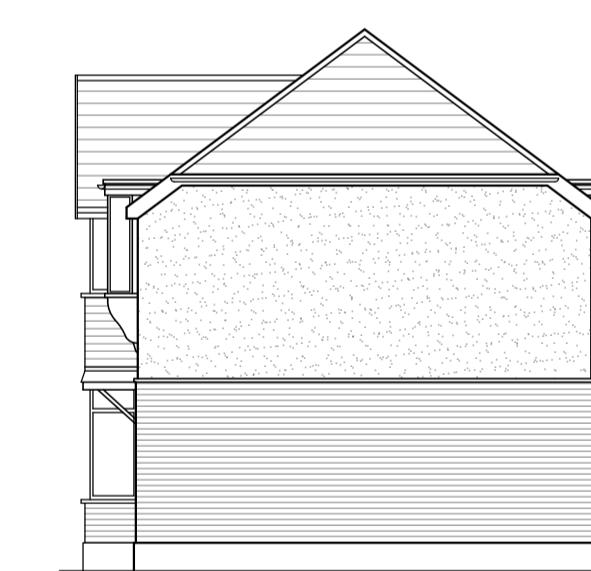
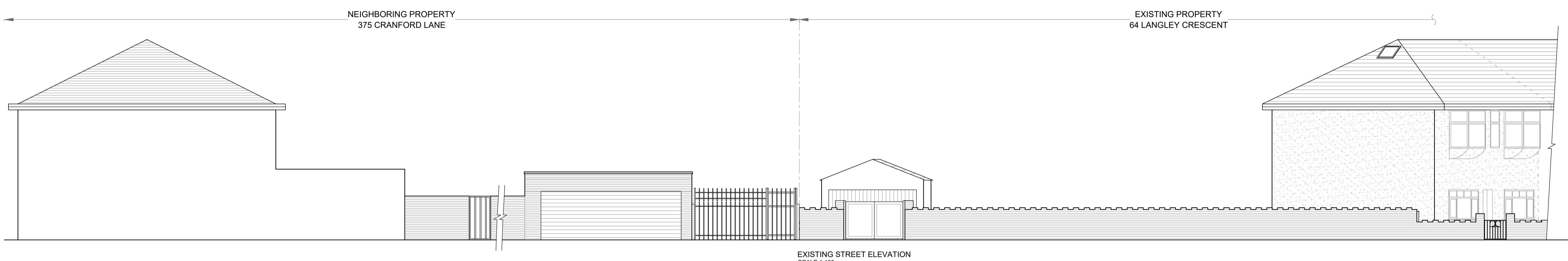
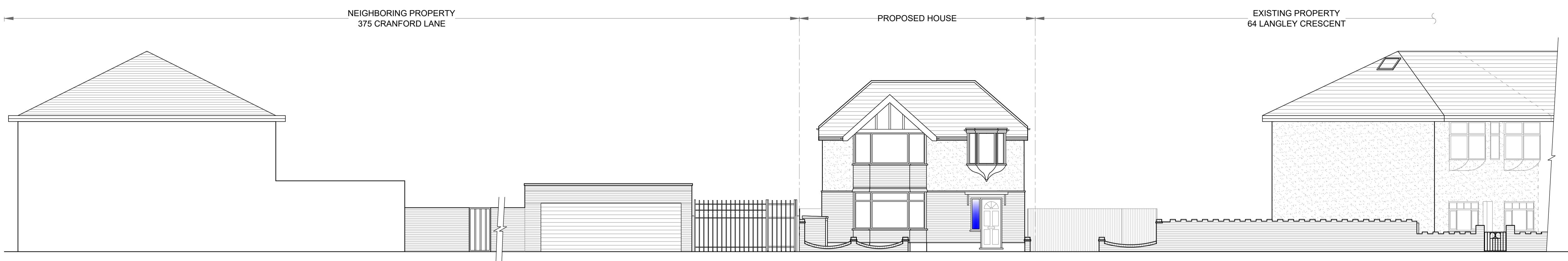
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PROJECT DEMOLITION OF EXISTING GARAGE AND ERECTION OF NEW TWO STOREY TWO BEDROOM HOUSE AT THE REAR OF 64 LANGLEY CRESCENT UB3 5HN		
DRAWING PLANS AND ELEVATIONS		
CLIENT MR. --		
DATE	SCALE	1:100 @ A1
DRG NO.	REVISIONS	
KL/1362-PR2		