FLOOD RISK ASSESSMENT
FOR EXTERNAL FIRE ESCAPE AND ALTERATIONS AT
28 WESTLODE STREET, SPALDING

FINAL REPORT

ECL1779-2/JK DESIGN

DATE AUGUST 2026

ELLINGHAM CONSULTING LTD
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1.0 INTRODUCTION

This Flood Risk Assessment has been prepared in accordance with National Planning Policy Framework (NPPF) and supporting planning practice guidance (PPG) on Flood Risk and Coastal Change.

In areas at risk of flooding or for sites of 1 hectare or more, developers are required to undertake a site-specific Flood Risk Assessment to accompany an application for planning permission. This Flood Risk Assessment has been produced on behalf of JK Design in respect of a proposed external fire escape and alterations to 28 Westlode Street.

A planning application for the proposed development is to be submitted by JK Design.

2.0 SITE LOCATION AND DESCRIPTION

2.1 Site Location

The site is located at 28 Westlode Street, Spalding, Lincolnshire, PE11 2AF. The National Grid Reference of the site is 52496/32291.

The location of the site is shown in Figure 1.



Figure 1 – Location Plan (© OpenStreetMap contributors)

2.2 Existing Site

The site is on the northern side of Westlode Street. The existing building forms part of a terraced row of buildings. The building has a commercial use on the ground floor and residential use on the first floor. The area of development is approximately 0.02 hectares.

Environment Agency LiDAR shows that ground levels within the garden are between +4.8m OD and +5.0m OD. Westlode Street adjacent to the site is typically +5.2m OD.

The site is in the Welland and Deepings Internal Drainage Board (IDB) District. The site and the surrounding land are within the Urban Spalding catchment and the nearest IDB watercourse, Cemetery Drain is 300m north east of the site.

The online British Geological Survey maps indicate that the site is likely to be underlain by Oxford Clay Formation mudstone. The bedrock is shown to be overlain with superficial deposits of clay and silt.

2.3 Proposed Development

The proposed development consists of an external fire escape and internal changes. Details of the proposed development are provided in Attachment 1.

Based upon the nature of the development the Sequential Test and Exception Test have not been applied.

2.4 Local Development Documents

The South East Lincolnshire Local Plan 2011 – 2036, adopted in March 2019, is the Local Plan for the district. Policy 4: Approach to Flood Risk states the requirements for flood risk reduction.

The South East Lincolnshire Level 1 and Level 2 Strategic Flood Risk Assessment (SFRA) was prepared in June 2017.

The Joint Lincolnshire Flood Risk and Drainage Management Strategy has been prepared by Lincolnshire County Council as the Lead Local Flood Authority. The purpose of the Strategy is to increase the safety of people across Lincolnshire by reducing the number of people at risk of flooding, increasing the resilience of local communities, and reducing the impact of flooding

2.5 Available Flood Risk Information

An extract from the Environment Agency Flood Map for Planning is shown in Figure 2. The site is located within Flood Zone 3, an area with a high probability of flooding.

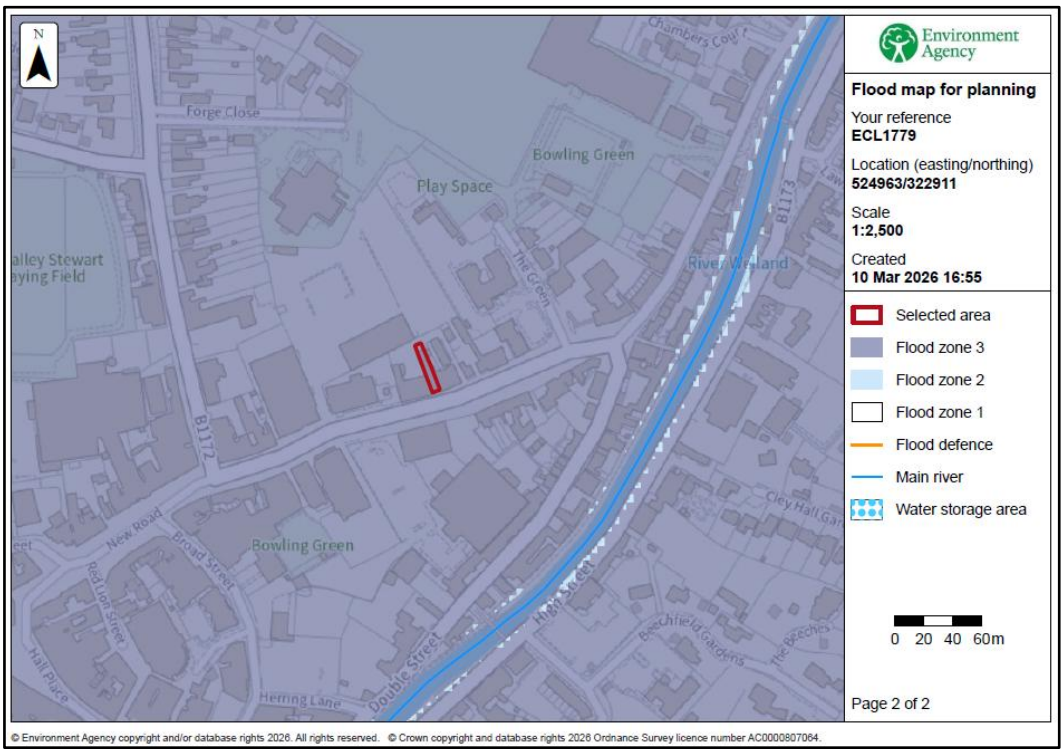


Figure 2 – Environment Agency Flood Map for Planning

The Environment Agency Long Term Flood Risk maps provide an indication of the risk from the primary sources of flooding. The details provided with these maps are summarised in Table 1. The depth of flooding identified is the maximum depth that occurs during a low chance (between 0.1% and 1% chance each year) event.

	Present Day		2050 Epoch	
	Chance of Flooding	**Depth (Low chance)**	**Chance of Flooding**	**Depth (Low chance)**
Rivers and the Sea	The site has a medium chance (between 1% and 3.3% chance each year)	No data available	No data available	No data available
Surface Water	Part of the site has a low chance (between 0.1% and 1% chance each year)	During low chance events depths are below 0.2m	Part of the site has a low chance (between 0.1% and 1% chance each year)	During low chance events depths are below 0.2m
Reservoir	Outside of the area at risk.			

Table 1 – Environment Agency Long Term Flood Risk Maps

Table 2 shows the level of risk at the site within the South East Lincolnshire SFRA.

SFRA Map	Present Day	2116
Residual Flood Hazard Map for the 1% fluvial and 0.5% tidal event	The site is outside of the 'Low Hazard' area	The site is outside of the 'Low Hazard' area
Residual Peak Depth Map for the 1% fluvial and 0.5% tidal event	The site is outside of the area at risk of flooding	The site is outside of the area at risk of flooding

Table 2 – Flood Risk within SFRA Maps

3.0 SITE SPECIFIC FLOOD RISK

3.1 Local Flood Assets

The site is 140m north west of the River Welland as it flows through Spalding. The site is 1200m north of the inlet to the Coronation Channel, a bypass channel of the River Welland. The embankments of the Coronation Channel were constructed in the 1950's to convey river flows around Spalding. The Coronation Channel together with the Crowland and Cowbit Washes offer flood reduction to Spalding and the surrounding district.

The River Welland tidal defences are downstream of the confluence of the Coronation Channel and River Welland, however, these defences provide benefit downstream of Spalding and not to the town. The Cowbit Washes, Coronation Channel and River Welland tidal defences are the responsibility of the Environment Agency.

There is a long-term strategy for the maintenance of the Environment Agency defences which is reviewed and updated periodically.

There is an extensive local drainage network managed by Welland and Deepings IDB. The site and the surrounding land are within the Urban Spalding catchment and drain in a westerly direction to Pode Hole Pumping Station. Pode Hole Pumping Station discharges to Vernatts Drain which flows into the River Welland at Surfleet.

During the operation and maintenance of its pumping stations, associated structures, and channel systems, the IDB seeks to maintain a general standard capable of providing flood protection to its district. A routine maintenance programme is in place to ensure that the Boards assets are commensurate with the standard of protection that is sought.

Current maintenance standards of the Welland and Deepings Internal Drainage Board and the Environment Agency are generally good.

3.2 Sources of Flooding

A summary of the sources of flooding is provided in Table 3.

Source of Flooding	Level of Risk
Drainage Network Flooding	The risk is assessed in Section 4.3.
Surface Water Flooding	Based upon the EA maps the chance is low with depths below 0.2m.
Fluvial Flooding	The risk is assessed in Section 4.3.
Tidal Flooding	The site is not at risk of tidal flooding.
Reservoir Flooding	Based upon the EA Maps the site is not at risk of reservoir flooding.
Groundwater Flooding	There is no evidence to suggest the site is at risk of groundwater flooding.

Table 3 – Sources of Flooding

3.3 Probability of Flooding

The probability of flooding associated with blockages in the Welland and Deepings IDB drainage system is low due to the maintenance standards achieved and managed by the IDB. Failure of Pode Hall Pumping Station would lead to an increased level of risk in the IDB catchment.

Through the operation and maintenance of the pumping stations and the channel system the Board seek to maintain a general standard capable to providing flood protection to agricultural land and developed areas of 1 in 20 years and 1 in 100 years, respectively. The risk associated with flood events that exceed the standard of protection provided is lowered due to the Welland and Deepings IDB main drains incorporating freeboard. This freeboard provides storage during the exceedance events.

The Coronation Channel and the Cowbit Washes protect the site from the River Welland. These flood relief measures provide protection during the 1% annual probability (1 in 100 chance each year) fluvial event.

3.4 Historic Flooding

During the preparation of this assessment, no evidence was discovered of the site being flooded. Previous historic rainfall events of 1968 and 1978, estimated to be greater than 1% annual probability (1 in 100 chance each year), caused no flooding to any residential properties.

3.5 Climate Change

Climate change is likely to impact the site through increased rainfall intensity and duration affecting the local drainage network and increased flood levels.

The River Welland defences have been designed to include an allowance for climate change.

In summary the existing systems and defences are appropriate for the design life of the development (i.e., 100 years).

3.6 Residual Risk

There is a residual risk of flooding in and around Spalding site should a breach occur in the defences. The South East Lincolnshire SFRA includes maps demonstrating the impact of a breach in 2115. The residual flood hazard map for a breach in 2115 during the 0.1% annual probability (1 in 1000 chance each year) event is shown in Figure 3.

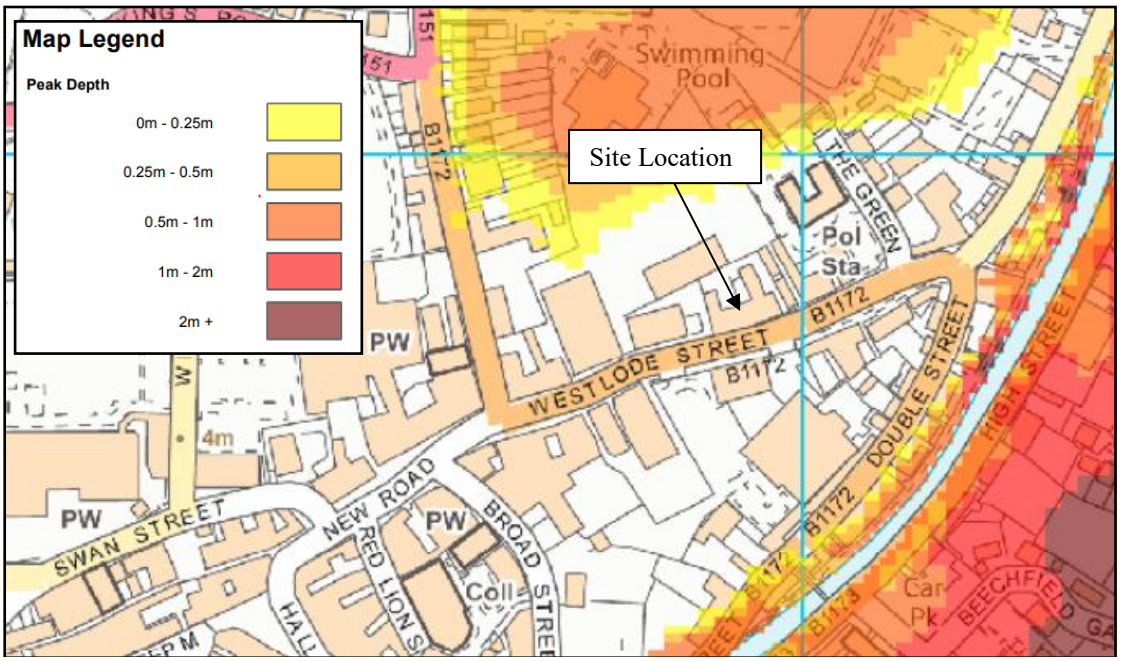


Figure 3 – Residual Flood Hazard Map 2115 0.1% Annual Probability

As shown in Figure 3 the site is not at risk during a breach.

4.0 FLOOD RISK MITIGATION

4.1 Summary of Risks

The probability of this development flooding from localised drainage systems is low. Failure of Pode Hole Pumping Station could lead to an increased level of risk at the site.

The site benefits from any Environment Agency defences that provide protection during the 1% annual probability (1 in 100 chance each year) fluvial event and 0.5% annual probability (1 in 200 chance each year) tidal event. Over time there will be a gradual increase in risk to the site due to climate change. During the design life of the development, it is not anticipated that the site would flood.

The SFRA considers the residual risk associated with a breach in the defences. The maps show that the site is not at risk.

There will be no increase in impermeable area associated with the development so there is no potential that flood risk will be increased elsewhere.

4.2 Mitigation Measures

The site has a low 'actual risk' of flooding. Based upon the nature of the development there are no recommendations to the proposals to reduce the risk of flooding.

The developer should ensure that the eventual occupier of the flat is sufficiently aware of the risk of flooding, and the standard of the existing defences. The Environment Agency operates a flood warning system for properties at risk of flooding to enable householders to protect life or take actions to manage the effect of flooding on property. Floodline Warnings Service is a national system run by the Environment Agency for broadcasting flooding warnings. The occupier of the flat should register to receive flood warnings.

Should there be a failure of Pode Hole Pumping Station and conditions were such to put properties and land at risk of flooding, the Internal Drainage Board would take emergency action to maintain the drainage level of service by using temporary pumping equipment.

5.0 CONCLUSIONS

As a result of the assessment, the following conclusions have been reached.

- The proposed development consists of an external fire escape and internal changes at 28 Westlode Street, Spalding.

- The site is located within an Internal Drainage Board catchment and through the operation and maintenance of the pumping stations and the channel system the Board seek to maintain a general standard capable to providing flood protection to agricultural land and developed areas of 1 in 20 and 1 in 100 years, respectively.

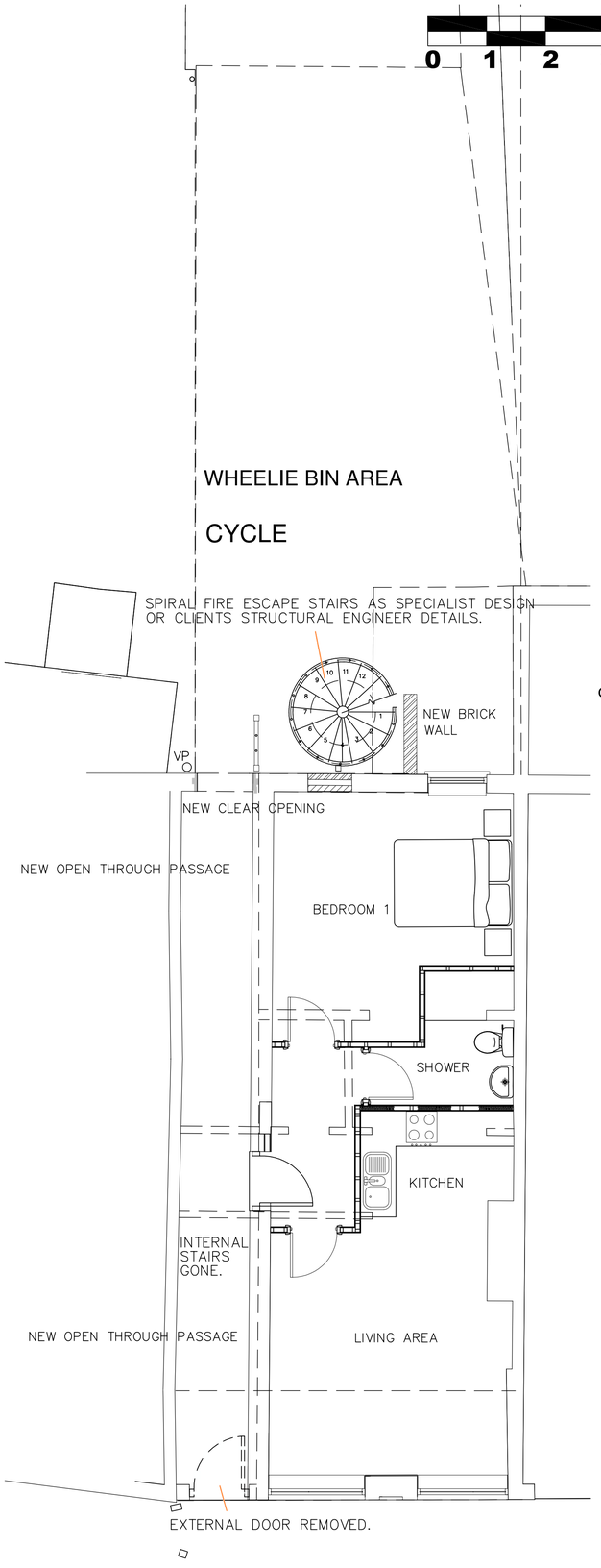
- The proposed development is in Flood Zone 3. The site benefits from defences on the River Welland that provide protection during the 1% annual probability (1 in 100 chance each year) fluvial event and 0.5% annual probability (1 in 200 chance each year) tidal event including climate change. The site is not at risk during a breach of the defences.

- Based upon the nature of the development there are no recommendations to the proposals to reduce the risk of flooding. The occupants should sign up to received Flood Warnings.

ATTACHMENT 1

PROPOSED GROUND FLOOR PLAN AND ELEVATIONS (DWG 3030-101A)

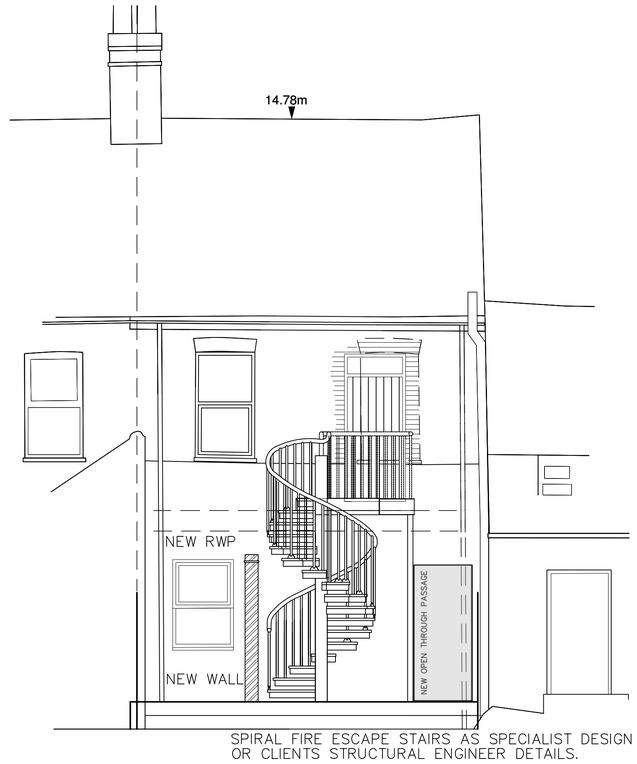
EXISTING GROUND FLOOR PLAN AND ELEVATIONS (DWG 3030-103A)



PROPOSED GROUND FLOOR PLAN. 1:50.



PROPOSED FRONT ELEVATION. 1:50.



PROPOSED REAR ELEVATION. 1:50.

PUBLIC SEWERS – not part of our service but client needs to look into it.

IMPORTANT FOR THE CLIENT TO CONFIRM WITH THERE WATER AUTHORITY BEFORE BUILDING WORKS START.

Since the 1st October 2011 a significant number of private sewers have become the responsibility of the Water Authority and as such any building work that includes a new drainage connection or involves building over or within 3m of a drain might need approval from the Water Authority.

Most of these sewers and lateral drains are not shown on the existing maps of public sewers held by the council so under the circumstances you are advised to consult your Water Authority for more information and make the necessary applications.

Party Wall Act - not required by planning/building control or part of our service but client needs to look into it.

The owner, should they need to do so under the requirements of the Party Wall Act 1996, has a duty to serve a Party Structure Notice on any adjoining owner if building work on, to or near an existing Party Wall involves any of the following:

- Support of beam
- Insertion of DPC through wall
- Raising a wall or cutting off projections
- Demolition and rebuilding
- Underpinning
- Insertion of lead flashings
- Excavations within 3 metres of an existing structure where the new foundations will go deeper than adjoining foundations, or within 6 metres of an existing structure where the new foundations are within a 45 degree line of the adjoining foundations.

A Party Wall Agreement is to be in place prior to start of works on site.

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Development proposals (with the exception of developments that create one or more dwellings), which create less than 100 square metres of gross internal new build floorspace (such as residential extensions less than 100 square metres of new floorspace) will be exempt from the Community Infrastructure Levy and will not normally be charged.

If you fall within this category, you are not required to take any further action regarding CIL, but check with your own Council to confirm exemption.

Development which creates one or more new dwellings will be charged the Community Infrastructure Levy irrespective of the floorspace created.

All developments that do not meet the development exemption noted above could be liable for CIL. In these cases, clients/applicants/developers must:

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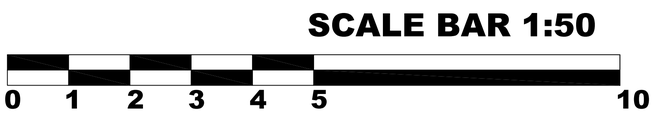
• Submit an application to be considered for social housing relief, residential annex or extension exemption, self-build housing exemption or charitable exemption from paying CIL in advance of commencement of development and have received a response prior to submitting a commencement notice.

• Submit a Commencement Notice to notify the Council of the development commencement date prior to the commencement.

• Notify the planning authority immediately of any changes in details.

• Notify the planning authority immediately of any changes to the information regarding existing buildings or buildings to be demolished and whether they are "in use" or not.

FAILURE TO COMPLY WITH THE REGULATIONS COULD RESULT IN A SURCHARGE/S BEING IMPOSED AND, IN SOME CASES, RESULT IN IMPRISONMENT.



ELEVATIONAL MATERIALS

NEW BRICKWORK TO MATCH EXISTING UNLESS AGREED OTHERWISE.
NEW RENDERED OR RE-RENDERED AREAS TO BE SMOOTH OFF WHITE RENDER FINISH OR MATCH EXISTING UNLESS AGREED OTHERWISE.
NEW WINDOWS TO BE PAINTED TIMBER OR WHITE PVC UNLESS AGREED OTHERWISE.
NEW RAINWATER GOODS TO BE BLACK AND SQUARE UNLESS AGREED OTHERWISE.
NEW EXTERNAL FIRE ESCAPE SPIRAL STAIRCASE TO BE BLACK POWDER COATED UNLESS AGREED OTHERWISE.

BEAWARE PRIOR TO COMMENCEMENT

Contractor to check and confirm all existing dimensions and features positions and is to work to suit site dimensions.

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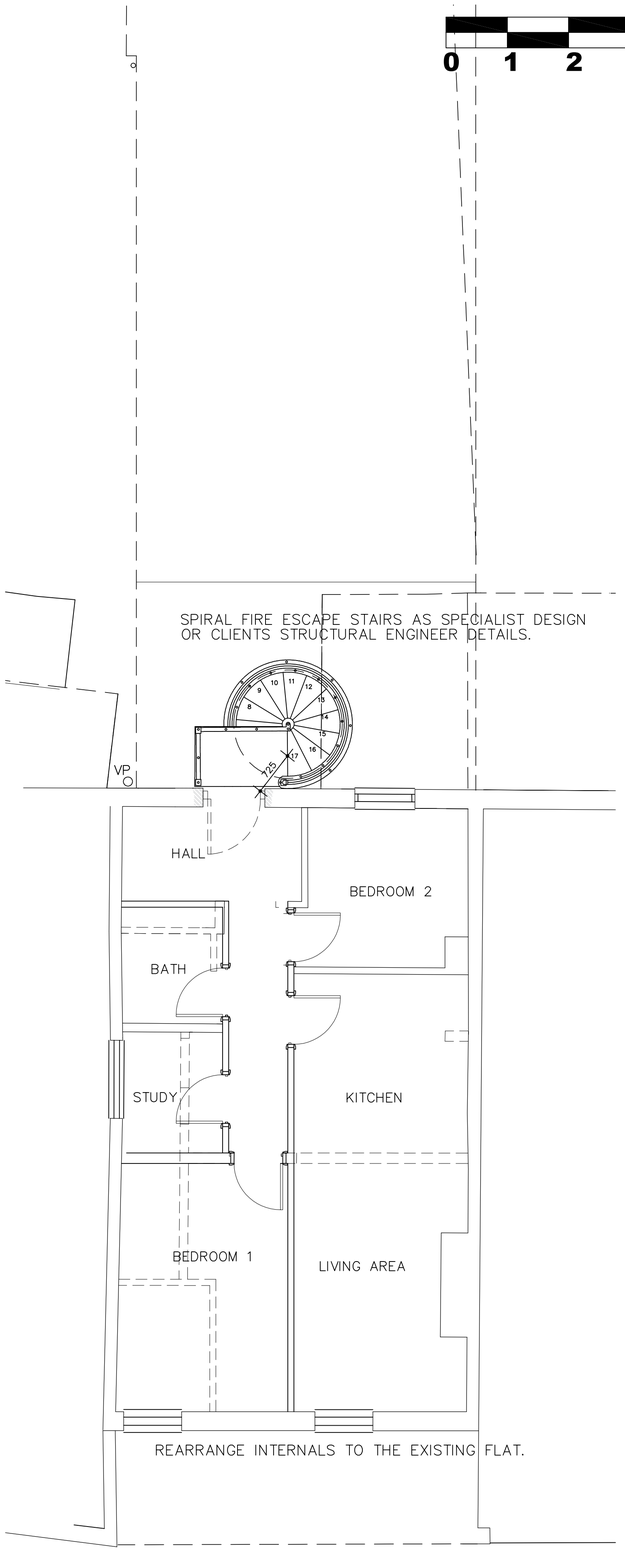
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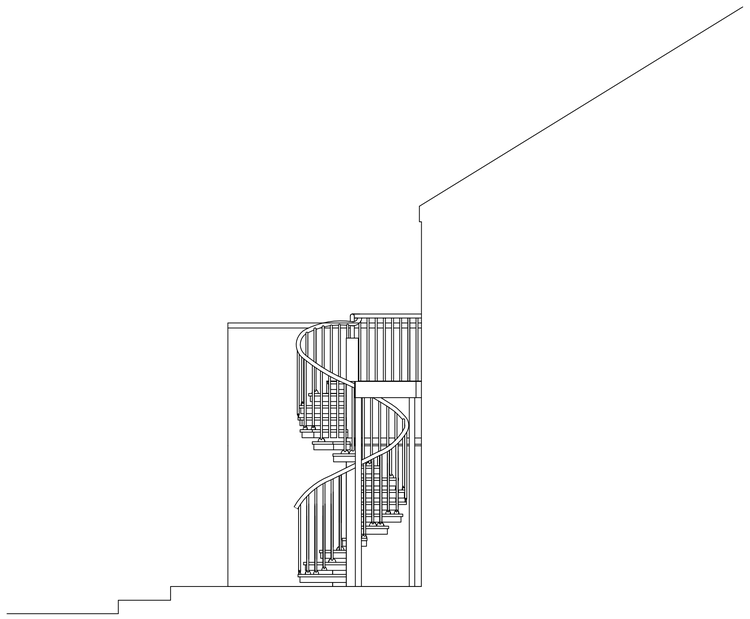
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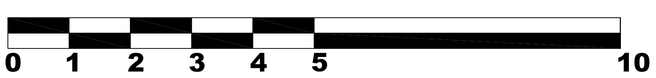




PROPOSED SIDE ELEVATION. 1:50.

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