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ID ESTATES

STATION STREET, SPALDING

FLOOD RISK ASSESSMENT

SEPTEMBER 2017

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Wardell Armstrong

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ID ESTATES**STATION STREET, SPALDING****FLOOD RISK ASSESSMENT****SEPTEMBER 2017****PREPARED BY:**

E Keegan Senior Environmental Scientist

APPROVED BY:

J Gibson Associate Director

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1 INTRODUCTION

- 1.1 The proposal is to convert an existing business unit at Nos 1 – 2 Station Street, Spalding, PE11 1EF (NGR: 524502,322684) from B1 (Business) use to C3 (Residential) use on the first floor, and from B1 use to A1 (Shops) use on the ground floor. Only the internal layout of the building will be altered, there will be no extensions or works to the external areas. The proposals are shown on the application drawings included in Appendix A (Drawing Nos. SSL-17 01 Rev A, TJCQS/1-2SSS/01, 02a and 06a).
- 1.2 The site is located in the centre of Spalding, Lincolnshire which is wholly located within Flood Zone 3 on the Environment Agency's Flood Map for Planning. This is land assessed as having a greater than 1 in 100 year annual probability of flooding. As such, the Environment Agency was consulted with the proposals and their advice sought with regards to the scope of a formal Flood Risk Assessment in accordance with the National Planning Policy Framework (NPPF). The Environment Agency confirmed that the site is protected by formal flood defences and is not in an area affected by flooding if a breach of the defences was to occur. On this basis, a formal Flood Risk Assessment is not required by the Environment Agency (see Appendix B).
- 1.3 Notwithstanding this, the Lead Local Flood Authority will need to be satisfied that the proposed development is also in accordance with other requirements of the NPPF and considers the risk of flooding from other sources (ie groundwater, drainage systems, reservoirs, canals, ordinary watercourses and surface water). The risk of flooding from these sources is considered further below.

2 FLOOD RISK TO THE SITE

Groundwater

- 2.1 Groundwater flooding can occur when long periods of rainfall cause the groundwater table to rise above the ground level. The risk of groundwater flooding is difficult to quantify as it often occurs in conjunction with other types of flooding such as surface water runoff or fluvial flooding.
- 2.2 The mapping contained within the Lincolnshire Preliminary Flood Risk Assessment shows that the site is not in an area susceptible to groundwater flooding. Additionally, the Lincolnshire Council website provides a record of flood investigations (carried out under Section 19 of the Flood and Water Management Act 2010). This database does

not show any recorded groundwater flooding incidents at Station Street. The risk of groundwater flooding is, therefore considered to be low.

Drainage Systems

- 2.3 Flooding could theoretically occur from localised high intensity storms of a relatively short duration that might exceed the capacity of the local drainage network. In particular, surface water and combined sewers are at risk of exceedance during extreme rainfall events.
- 2.4 The published literature (PFRA and SFRA) does not contain any record of historical sewer flooding incidents in the vicinity of the site. It is understood that the existing site is served by a private drainage network discharging to the public sewer network in Station Street. It is assumed that this was designed and constructed in accordance with Building Regulations and is sufficient to serve the existing site without flooding. The risk of flooding to the site from sewers is, therefore, considered to be low.

Artificial Sources

- 2.5 Artificial sources of flooding include reservoirs, canals, culverts and any other impounded water body which is elevated above the level of the site. Flooding can occur when the impounding structures such as dams and embankments fail, when culverts become blocked, or during extreme rainfall events when the waterbodies overflow.
- 2.6 The Environment Agency 'Flood Risk from Reservoirs' map shows that the site is not at risk from flooding from a reservoir breach. Additionally, the Lincolnshire Council Section 19 flood investigations database does not show any recorded flooding incidents from artificial sources at the site. The risk of flooding from artificial sources is, therefore, considered to be low.

Ordinary Watercourses

- 2.7 Ordinary watercourses are defined as all watercourses that are not classified as Main Rivers by the Environment Agency. The Environment Agency carries out maintenance, improvement or construction work to manage flood risk on Main Rivers only. Lead Local Flood Authorities, district councils and internal drainage boards carry out flood risk management work on Ordinary watercourses.
- 2.8 The nearest ordinary watercourse is a small drain known as the Edward Road Dyke, located approximately 1km to the north-west of the site. This forms part of the catchment of Vernatt's Drain, a larger dyke located approximately 1.5km to the north-

west of the site. These two drains are controlled by the Welland and Deepings Internal Drainage Board (IDB). The IDB catchment water levels are controlled by Pode Hole Pumping Station to the west of Spalding.

- 2.9 It is understood that the highest predicted water levels in the IDB drainage channels in the area are in Vernatt's Drain, which are 3.79mAOD. The SFRA states that the maximum design water level in Vernatt's Drain is 3.92mAOD. The maximum predicted water levels in a 1 in 100 year event in 2115 are below 1.00mAOD. The lowest bank level along Vernatt's drain is approximately 4.30mAOD and, therefore, the risk of flooding to the site from this source can therefore be considered to be negligible.

Surface Water

- 2.10 The Environment Agency "*Flood Risk from Surface Water*" map shows that a small area on Station Street immediately to the south of the site is at a Low risk of surface water flooding (ie an annual probability of flooding of between 1 in 100 and 1 in 1000). Surface water depth modelling estimates that the depth of any flooding will be below 0.3m. Surface water velocity modelling shows flooding would progress eastwards away from the site.
- 2.11 It is considered unlikely that any flooding would extend into the existing building. The risk of surface water flooding is, therefore, considered to be low.

3 FLOOD RISK POSED BY THE PROPOSED DEVELOPMENT

- 3.1 The footprint of the existing building will not be modified as part of the proposed development and, therefore, there will be no changes to flow routes from fluvial flooding events.
- 3.2 External areas will be not be modified as part of the development and, therefore, there will be no increase in impermeable area and the existing rate and volume of surface water runoff generated will not increase as a result of the development.
- 3.3 There will, therefore, be no increase in the risk of fluvial flooding or surface water flooding to other areas as a result of the proposed development.

4 CONCLUSIONS

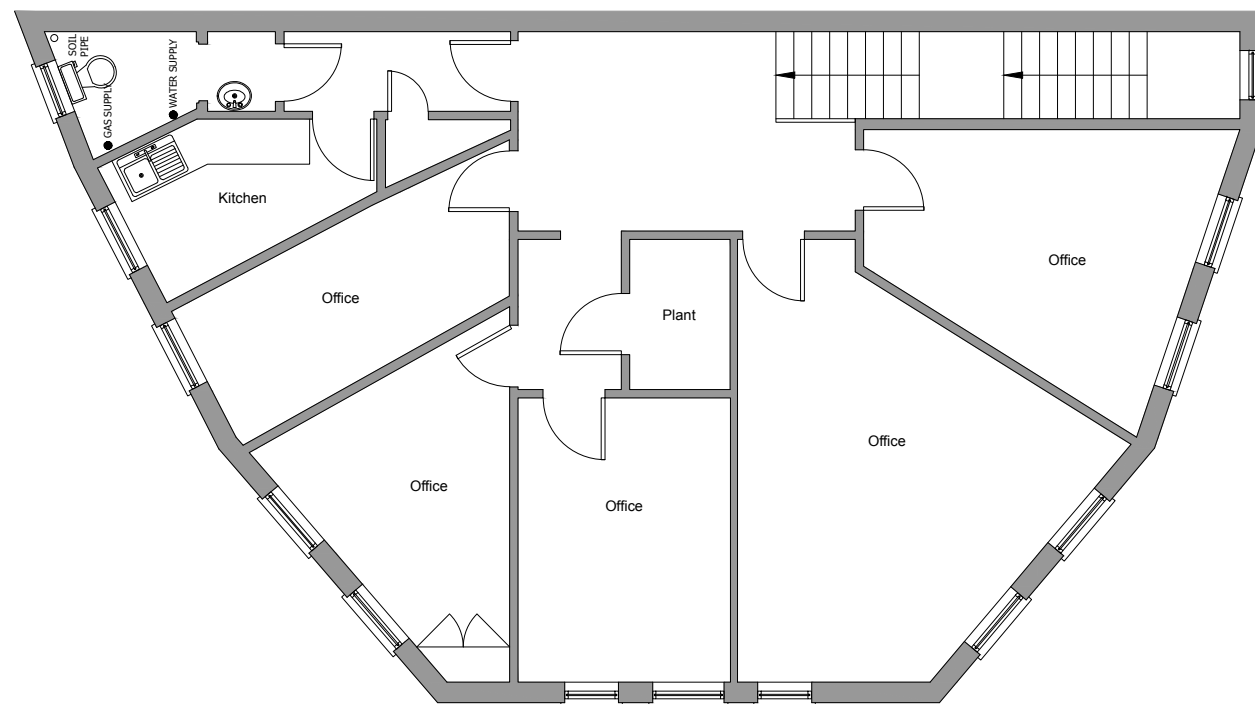
- 4.1 This statement gives details of a flood risk assessment which has been carried out in accordance with the National Planning Policy Framework. The site is located within Flood Zone 3 according to the Environment Agency's current Flood Map. The Environment Agency has confirmed, however, that the site is protected by flood defences and is not in an area at risk should the defences breach.
- 4.2 The site is at low risk of flooding from surface water, drainage systems, ordinary watercourses, groundwater and artificial sources.
- 4.3 There will be no increase in the risk of fluvial flooding or surface water flooding to other areas as a result of the proposed development.
- 4.4 It is considered, therefore, that the site is suitable for the type of development proposed.

APPENDICES

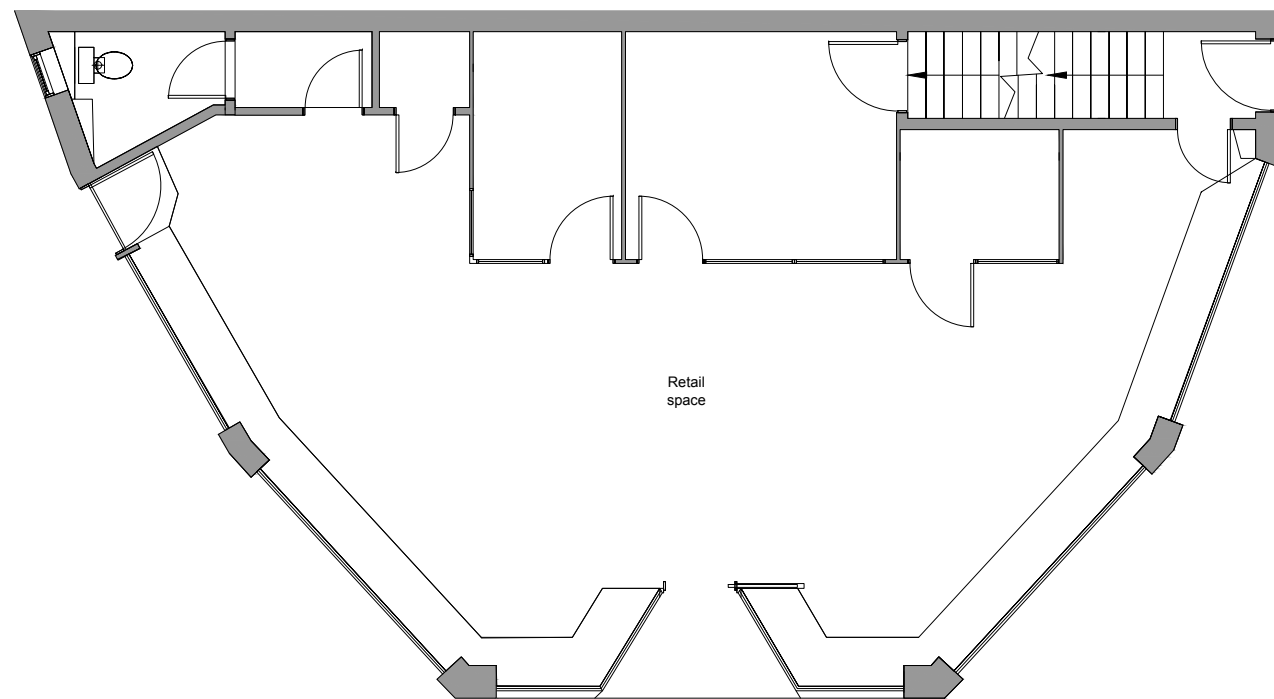
APPENDIX A

Application Drawings

AS EXISTING

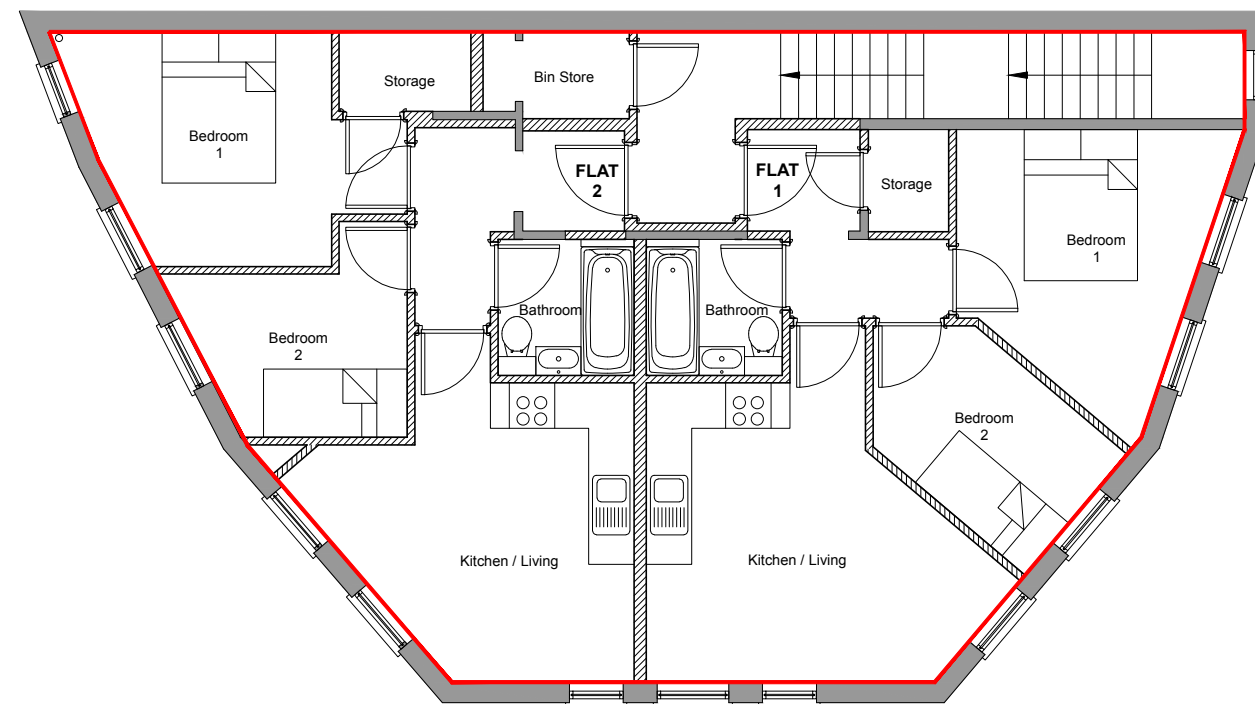


FIRST FLOOR

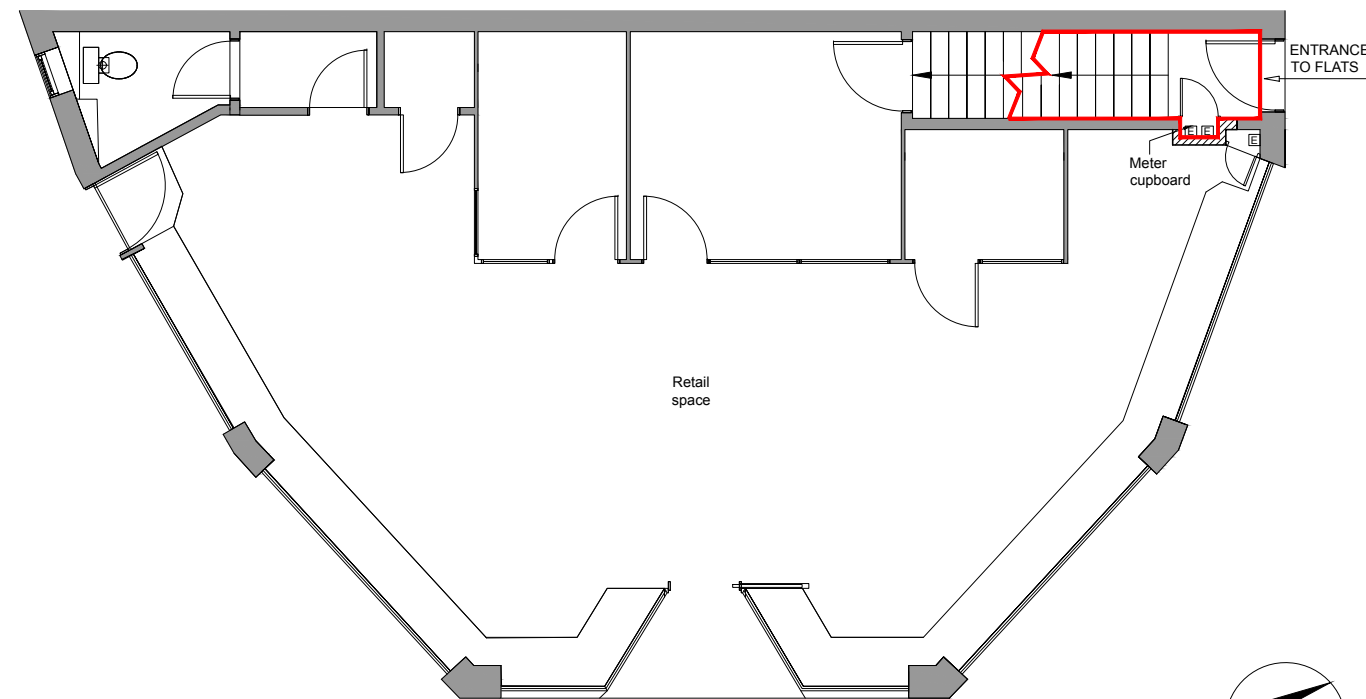


GROUND FLOOR

AS PROPOSED



FIRST FLOOR



GROUND FLOOR



FOR PLANNING

GENERAL NOTES:
1. To be read in conjunction with other consultants drawings.
2. Check site conditions prior to commencement of work.
3. Any discrepancies to be reported directly to the AW Architectural Design Ltd.
5. All dimensions to be checked on site.
6. All drawings are the copyright of AW Architectural Design Ltd.

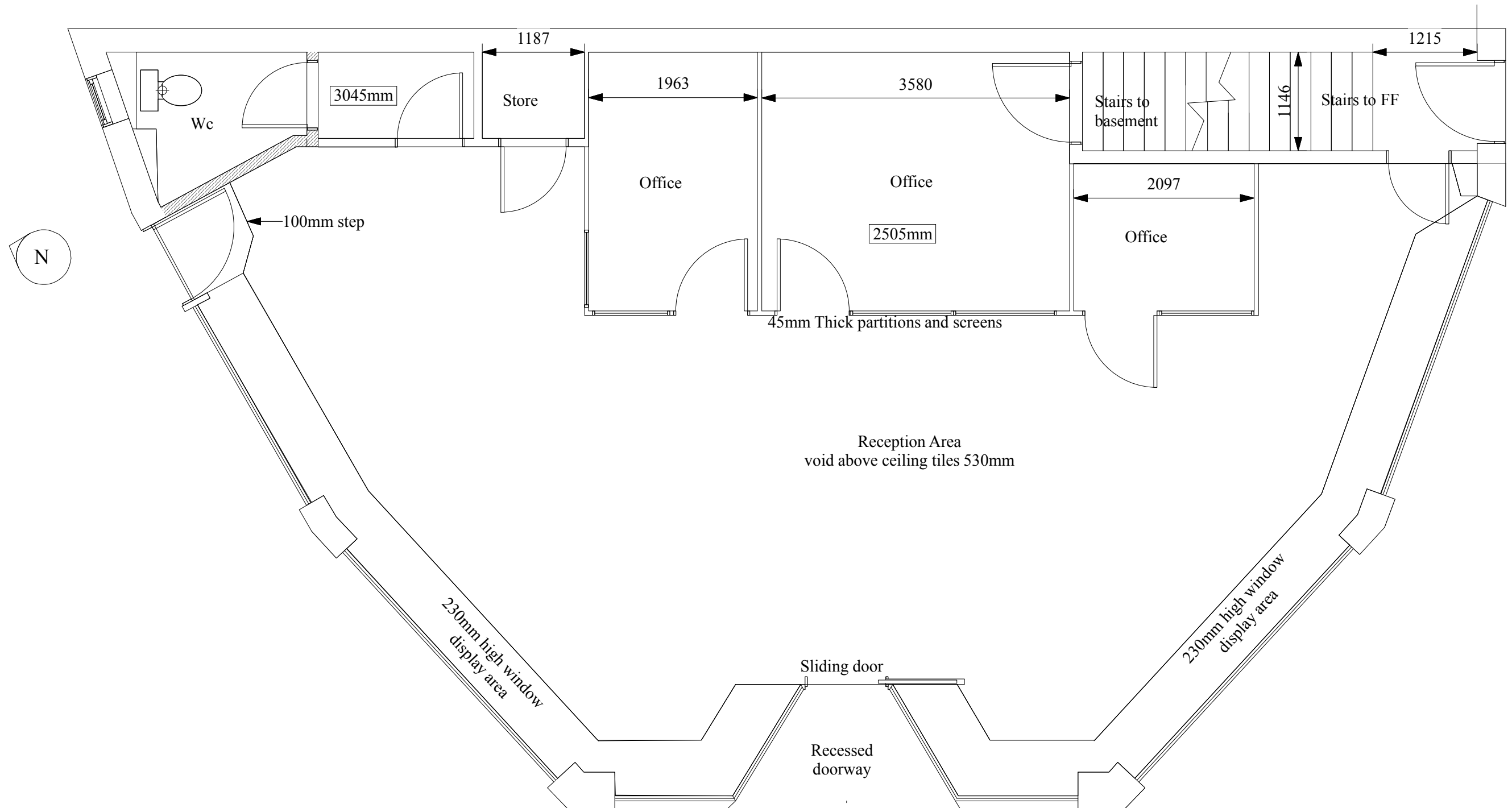
SCALE:
1:100 @ A3
JOB NO:
SSL-17

DATE:
11/08/17
DRG NO:
01
REV:
A

CLIENT:
id estates
PROJECT:
SPALDING

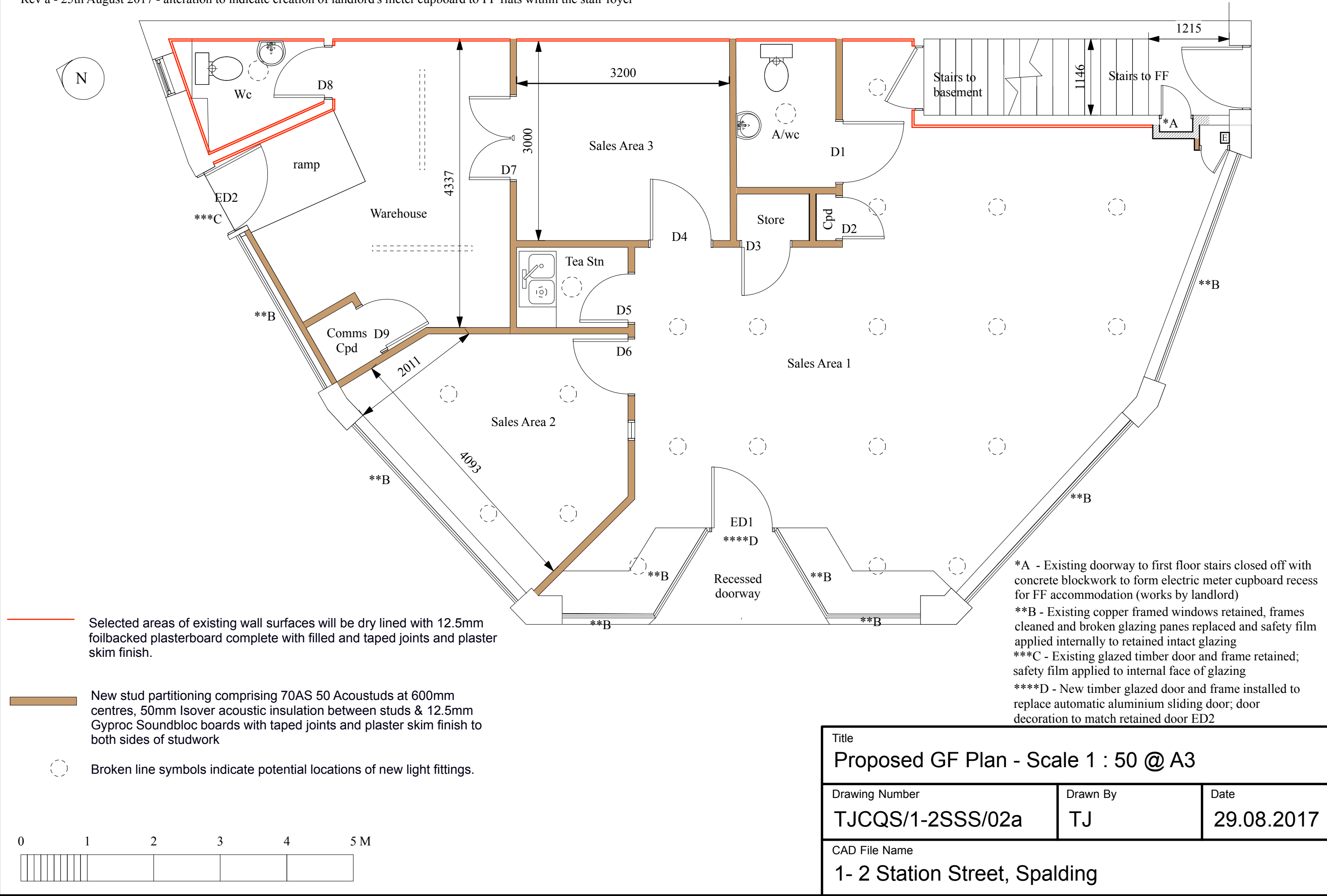
ADDRESS:
1-2 STATION STREET, SPALDING, PE11 1EF
DRAWING TITLE:
EXISTING & PROPOSED PLANS

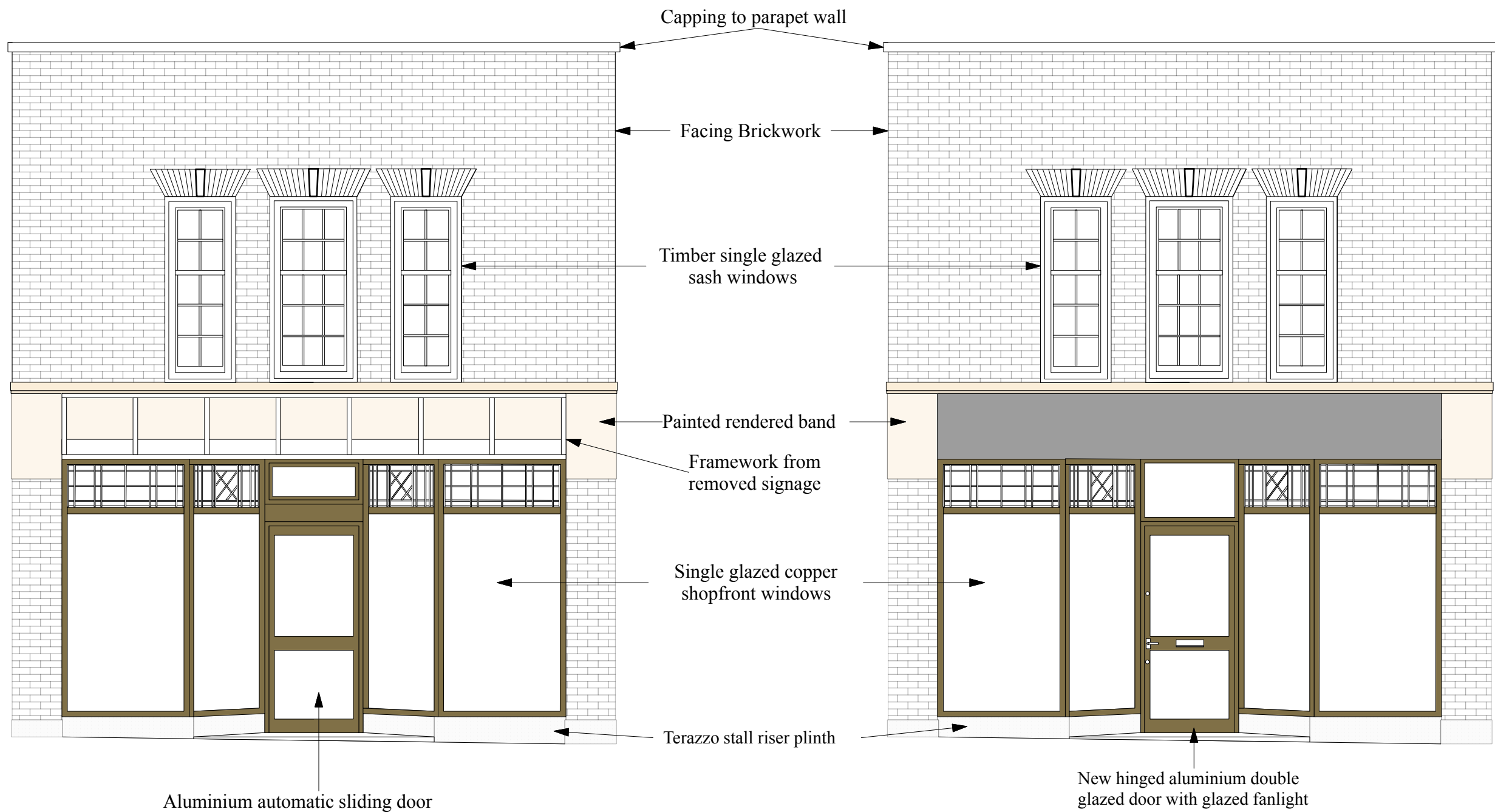
aw architectural design ltd
AW Architectural Design Ltd, 12 Wing Road, Stewkley, Buckinghamshire, LU7 0JB
E: andy@aw-architectural.co.uk | T: 01525 240800 | www.aw-architectural.co.uk



Title Existing GF Plan - Scale 1 : 50 @ A3		
Drawing Number TJCQS/1-2SSS/01	Drawn By TJ	Date 14.08.2017
CAD File Name 1- 2 Station Street, Spalding		

Rev a - 25th August 2017 - alteration to indicate creation of landlord's meter cupboard to FF flats within the stair foyer





Existing Shopfront

Proposed Shopfront



Scale 1:50 @ A3

Title Existing & Proposed Front Elevations		
Drawing Number TJCQS/1 -2SSS/06a	Drawn By TJ	Date 29.08.2017
CAD File Name 1 -2 Station Street, Spalding		

APPENDIX B

Environment Agency Correspondence

Gibson, John

From: Nolan, Sharon <Sharon.Nolan@environment-agency.gov.uk>
Sent: 11 September 2017 14:40
To: Keegan, Emma
Cc: Lincs & Northants, Customer Enquiries
Subject: RE: Pre-planning flood risk request - Station Street, Spalding, Lincs

Follow Up Flag: Follow up
Flag Status: Flagged

Dear Emma

Thank you for your enquiry.

The application site lies within Flood Zone 3 defined by the Environment Agency Flood Map as having a high probability of flooding. The National Planning Policy Framework (NPPF) requires applicants for planning permission to submit a Flood Risk Assessment (FRA) when development is proposed in such locations.

However, the hazard mapping contained within South Holland's Strategic Flood Risk Assessment (SFRA) shows the site to be unaffected if a breach of the flood defence was to occur.

A site specific FRA is therefore unlikely to provide any additional information on flood risk than that already provided within the SFRA. We have therefore deemed submission of a FRA unnecessary in this instance.

Please note that our advice has not considered the risk of flooding from ground water, drainage systems, reservoirs, canals or ordinary watercourses. The Local Planning Authority will therefore need to be satisfied that the proposed development is also in accordance with other requirements of the NPPF.

If I can be of any further assistance please do not hesitate to contact me on the number below.

Kind regards,

Sharon Nolan
Planning Advisor

Our team mail box has changed to LNplanning@environment-agency.gov.uk

Lincolnshire and Northamptonshire Area
Environment Agency
Nene House, Pytchley Lodge Road, Kettering, NN15 6JQ
53525 (internal)
020302 53525 (external)
sharon.nolan@environment-agency.gov.uk



Awarded to Lincolnshire and Northamptonshire Area

We have recently published new webpages for [LPAs](#), [developers](#) and [Neighbourhood Planning Groups](#) giving clarification on our planning consultation role. Please refer to this to check if we can provide you with advice on your development proposals. For developments in areas at risk of flooding, please refer to our new [Flood Risk Assessment checklist](#).

From: Keegan, Emma [<mailto:ekeegan@wardell-armstrong.com>]
Sent: 07 September 2017 09:23
To: EMDenquiries <EMDenquiries@environment-agency.gov.uk>
Subject: Pre-planning flood risk request - Station Street, Spalding, Lincs

Dear Sirs

We are advising our client on a planning application for a proposed development on Station Street, Spalding, PE11 1EF (NGR: 524502,322684). The client is proposing to submit a Prior Approval application for the change of use of the first floor of an existing unit in Spalding town centre (1 – 2 Station Street) from a B1 use to a C3 (residential) use, and for the change of use from B1 to an A1 use on the ground floor. The town is within FZ3. Only the internal layout of the building will be altered, there will be no extensions or works to the external areas. I have attached the relevant draft plans that are currently available.

The Flood Risk Vulnerability will remain as 'Less Vulnerable' on the ground floor, and will become 'More Vulnerable' on the first floor. As the site is fully impermeable at present, and there are no proposed changes to the external areas there will be no impact on surface water drainage.

As the site is located within Flood Zone 3 (see attached flood map), I am emailing for advice on the scope of a Flood Risk Assessment to accompany the planning application.

Please let me know if you require any more information to assist you.

Kind regards,

Emma Keegan | Senior Environmental Scientist
Wardell Armstrong LLP
Sir Henry Doulton House, Forge Lane, Etruria, Stoke on Trent, ST1 5BD
t: 01782 276700 N/A



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