Development Control
Gloucester City Council
PO Box 3252, Gloucester, GL1 9FW
01452 396396
development.control@gloucester.gov.uk
www.gloucester.gov.uk/planning

Application for Planning Permission

Town and Country Planning Act 1990 (as amended)

Publication of applications on planning authority websites

Please note that the information provided on this application form and in supporting documents may be published on the Authority's website. If you require any further clarification, please contact the Authority's planning department.

Site Location

Disclaimer: We can only make recommendations based on the answers given in the questions.

If you cannot provide a postcode, the description of site location must be completed. Please provide the most accurate site description you can, to help locate the site - for example "field to the North of the Post Office".

Number: 69

Suffix:

Property Name:

Address Line 1: Elmleaze

Address Line 2:

Address Line 3: Gloucestershire

Town/city: Gloucester

Postcode: GL2 0JY

Description of site location must be completed if postcode is not known:

Easting (x): 385651

Northing (y): 219457

Description:

Applicant Details

Name/Company

Title

Mr

First name

Surname

tonks

Company Name

Address

Address line 1

69 Elmleaze

Address line 2

Address line 3

Gloucestershire

Town/City

Gloucester

Country

Postcode

GL2 0JY

Are you an agent acting on behalf of the applicant?

- [x] Yes
- [ ] No

Contact Details

Primary number

Secondary number

Fax number

Email address

Agent Details

Name/Company

Title

Mr

First name

Simon

Surname

Littlewood

Company Name

Elevation One Building Design Ltd

Address

Address line 1

25 Uley Road

Address line 2

Address line 3

Town/City

Dursley

Country

undefined

Postcode

GL11 4NJ

Contact Details

Primary number

***** REDACTED ******

Secondary number

Fax number

Email address

***** REDACTED ******

Site Area

What is the measurement of the site area? (numeric characters only).

188.00

Unit

Sq. metres

Description of the Proposal

Please note in regard to:

- **Fire Statements** - From 1 August 2021, planning applications for buildings of over 18 metres (or 7 stories) tall containing more than one dwelling will require a 'Fire Statement' for the application to be considered valid. There are some exemptions. View government planning guidance on fire statements or access the fire statement template and guidance.
- **Permission In Principle** - If you are applying for Technical Details Consent on a site that has been granted Permission In Principle, please include the relevant details in the description below.
- **Public Service Infrastructure** - From 1 August 2021, applications for certain public service infrastructure developments will be eligible for faster determination timeframes. See help for further details or view government planning guidance on determination periods.

Description

Please describe details of the proposed development or works including any change of use

New dwelling to side of existing

Has the work or change of use already started?

◯ Yes
⊘ No

Existing Use

Please describe the current use of the site

resi

Is the site currently vacant?

◯ Yes
⊘ No

Does the proposal involve any of the following? If Yes, you will need to submit an appropriate contamination assessment with your application.

Land which is known to be contaminated

◯ Yes
⊘ No

Land where contamination is suspected for all or part of the site

◯ Yes
⊘ No

A proposed use that would be particularly vulnerable to the presence of contamination

◯ Yes
⊘ No

Materials

Does the proposed development require any materials to be used externally?

⊘ Yes
◯ No

Please provide a description of existing and proposed materials and finishes to be used externally (including type, colour and name for each material)

Type:
Walls

Existing materials and finishes:
white render

Proposed materials and finishes:
white render

Type:
Roof

Existing materials and finishes:
conc tiles- brown/red

Proposed materials and finishes:
conc tiles- brown/red

Type:
Windows

Existing materials and finishes:
white upvc

Proposed materials and finishes:
white upvc

Are you supplying additional information on submitted plans, drawings or a design and access statement?

⊘ Yes
◯ No

If Yes, please state references for the plans, drawings and/or design and access statement

drawings, suds

Pedestrian and Vehicle Access, Roads and Rights of Way

Is a new or altered vehicular access proposed to or from the public highway?

◯ Yes
⊘ No

Is a new or altered pedestrian access proposed to or from the public highway?

◯ Yes
⊘ No

Are there any new public roads to be provided within the site?

◯ Yes
⊘ No

Are there any new public rights of way to be provided within or adjacent to the site?

◯ Yes
⊘ No

Do the proposals require any diversions/extinguishments and/or creation of rights of way?

◯ Yes
⊘ No

Vehicle Parking

Does the site have any existing vehicle/cycle parking spaces or will the proposed development add/remove any parking spaces?

⊘ Yes
◯ No

Please provide information on the existing and proposed number of on-site parking spaces

Vehicle Type:
Cars

Existing number of spaces:
2

Total proposed (including spaces retained):
3

Difference in spaces:
1

Trees and Hedges

Are there trees or hedges on the proposed development site?

◯ Yes
⊘ No

And/or: Are there trees or hedges on land adjacent to the proposed development site that could influence the development or might be important as part of the local landscape character?

◯ Yes
⊘ No

If Yes to either or both of the above, you may need to provide a full tree survey, at the discretion of the local planning authority. If a tree survey is required, this and the accompanying plan should be submitted alongside the application. The local planning authority should make clear on its website what the survey should contain, in accordance with the current 'BS5837: Trees in relation to design, demolition and construction - Recommendations'.

Assessment of Flood Risk

Is the site within an area at risk of flooding? (Check the location on the Government's Flood map for planning. You should also refer to national standing advice and your local planning authority requirements for information as necessary.)

◯ Yes
⊘ No

Is your proposal within 20 metres of a watercourse (e.g. river, stream or beck)?

◯ Yes
⊘ No

Will the proposal increase the flood risk elsewhere?

◯ Yes
⊘ No

How will surface water be disposed of?

☐ Sustainable drainage system

☐ Existing water course

☐ Soakaway

☑ Main sewer

☐ Pond/lake

Biodiversity and Geological Conservation

Is there a reasonable likelihood of the following being affected adversely or conserved and enhanced within the application site, or on land adjacent to or near the application site?

To assist in answering this question correctly, please refer to the help text which provides guidance on determining if any important biodiversity or geological conservation features may be present or nearby; and whether they are likely to be affected by the proposals.

a) Protected and priority species

◯ Yes, on the development site
◯ Yes, on land adjacent to or near the proposed development
⊘ No

b) Designated sites, important habitats or other biodiversity features

◯ Yes, on the development site
◯ Yes, on land adjacent to or near the proposed development
⊘ No

c) Features of geological conservation importance

◯ Yes, on the development site
◯ Yes, on land adjacent to or near the proposed development
⊘ No

Supporting information requirements

Where a development proposal is likely to affect features of biodiversity or geological conservation interest, you will need to submit, with the application, sufficient information and assessments to allow the local planning authority to determine the proposal.

Failure to submit all information required will result in your application being deemed invalid. It will not be considered valid until all information required by the local planning authority has been submitted.

Your local planning authority will be able to advise on the content of any assessments that may be required.

Foul Sewage

Please state how foul sewage is to be disposed of:

- [x] Mains sewer
- [ ] Septic tank
- [ ] Package treatment plant
- [ ] Cess pit
- [ ] Other
- [ ] Unknown

Are you proposing to connect to the existing drainage system?

- (x) Yes
- ( ) No
- ( ) Unknown

If Yes, please include the details of the existing system on the application drawings and state the plan(s)/drawing(s) references

block plan

Waste Storage and Collection

Do the plans incorporate areas to store and aid the collection of waste?

- ( ) Yes
- (x) No

Have arrangements been made for the separate storage and collection of recyclable waste?

- ( ) Yes
- (x) No

Trade Effluent

Does the proposal involve the need to dispose of trade effluents or trade waste?

- ( ) Yes
- (x) No

Residential/Dwelling Units

Does your proposal include the gain, loss or change of use of residential units?

- (x) Yes
- ( ) No

Please note: This question is based on the current housing categories and types specified by government.

If your application was started before 23 May 2020, the categories and types shown in this question will now have changed. We recommend that you review any information provided to ensure it is correct before the application is submitted.

Proposed

Please select the housing categories that are relevant to the proposed units

- [x] Market Housing
- [ ] Social, Affordable or Intermediate Rent
- [ ] Affordable Home Ownership
- [ ] Starter Homes
- [ ] Self-build and Custom Build

Market Housing

Please specify each type of housing and number of units proposed

Housing Type:
Houses

1 Bedroom:
0

2 Bedroom:
0

3 Bedroom:
1

4+ Bedroom:
0

Unknown Bedroom:
0

Total:
1

Proposed Market Housing Category Totals	1 Bedroom Total	2 Bedroom Total	3 Bedroom Total	4 Bedroom Total	Unknown Bedroom Total	Bedroom Total
	0	0	1	0	0	1

Existing

Please select the housing categories for any existing units on the site

- [ ] Market Housing
- [ ] Social, Affordable or Intermediate Rent
- [ ] Affordable Home Ownership
- [ ] Starter Homes
- [ ] Self-build and Custom Build

Totals

Total proposed residential units	1
Total existing residential units	0
Total net gain or loss of residential units	1

All Types of Development: Non-Residential Floorspace

Does your proposal involve the loss, gain or change of use of non-residential floorspace?
Note that 'non-residential' in this context covers all uses except Use Class C3 Dwellinghouses.

◯ Yes
⊘ No

Employment

Are there any existing employees on the site or will the proposed development increase or decrease the number of employees?

◯ Yes
⊘ No

Hours of Opening

Are Hours of Opening relevant to this proposal?

◯ Yes
⊘ No

Industrial or Commercial Processes and Machinery

Does this proposal involve the carrying out of industrial or commercial activities and processes?

◯ Yes
⊘ No

Is the proposal for a waste management development?

◯ Yes
⊘ No

Hazardous Substances

Does the proposal involve the use or storage of Hazardous Substances?

◯ Yes
⊘ No

Site Visit

Can the site be seen from a public road, public footpath, bridleway or other public land?

⊘ Yes
◯ No

If the planning authority needs to make an appointment to carry out a site visit, whom should they contact?

⊘ The agent
◯ The applicant
◯ Other person

Pre-application Advice

Has assistance or prior advice been sought from the local authority about this application?

◯ Yes
⊘ No

Authority Employee/Member

With respect to the Authority, is the applicant and/or agent one of the following:
(a) a member of staff
(b) an elected member
(c) related to a member of staff
(d) related to an elected member

It is an important principle of decision-making that the process is open and transparent.

For the purposes of this question, "related to" means related, by birth or otherwise, closely enough that a fair-minded and informed observer, having considered the facts, would conclude that there was bias on the part of the decision-maker in the Local Planning Authority.

Do any of the above statements apply?

◯ Yes
⊘ No

Ownership Certificates and Agricultural Land Declaration

Certificates under Article 14 - Town and Country Planning (Development Management Procedure) (England) Order 2015 (as amended)

Please answer the following questions to determine which Certificate of Ownership you need to complete: A, B, C or D.

Is the applicant the sole owner of all the land to which this application relates; and has the applicant been the sole owner for more than 21 days?

⊘ Yes
◯ No

Is any of the land to which the application relates part of an Agricultural Holding?

◯ Yes
⊘ No

Certificate Of Ownership - Certificate A

I certify/The applicant certifies that on the day 21 days before the date of this application nobody except myself/ the applicant was the owner* of any part of the land or building to which the application relates, and that none of the land to which the application relates is, or is part of, an agricultural holding**

*** "owner" is a person with a freehold interest or leasehold interest with at least 7 years left to run.**

**** "agricultural holding" has the meaning given by reference to the definition of "agricultural tenant" in section 65(8) of the Act.**

NOTE: You should sign Certificate B, C or D, as appropriate, if you are the sole owner of the land or building to which the application relates but the land is, or is part of, an agricultural holding.

Person Role

◯ The Applicant
⊘ The Agent

Title

Mr

First Name

Simon

Surname

Littlewood

Declaration Date

06/06/2022

☑ Declaration made

Declaration

I / We hereby apply for Full planning permission as described in this form and accompanying plans/drawings and additional information. I / We confirm that, to the best of my/our knowledge, any facts stated are true and accurate and any opinions given are the genuine options of the persons giving them. I / We also accept that: Once submitted, this information will be transmitted to the Local Planning Authority and, once validated by them, be made available as part of a public register and on the authority's website; our system will automatically generate and send you emails in regard to the submission of this application.

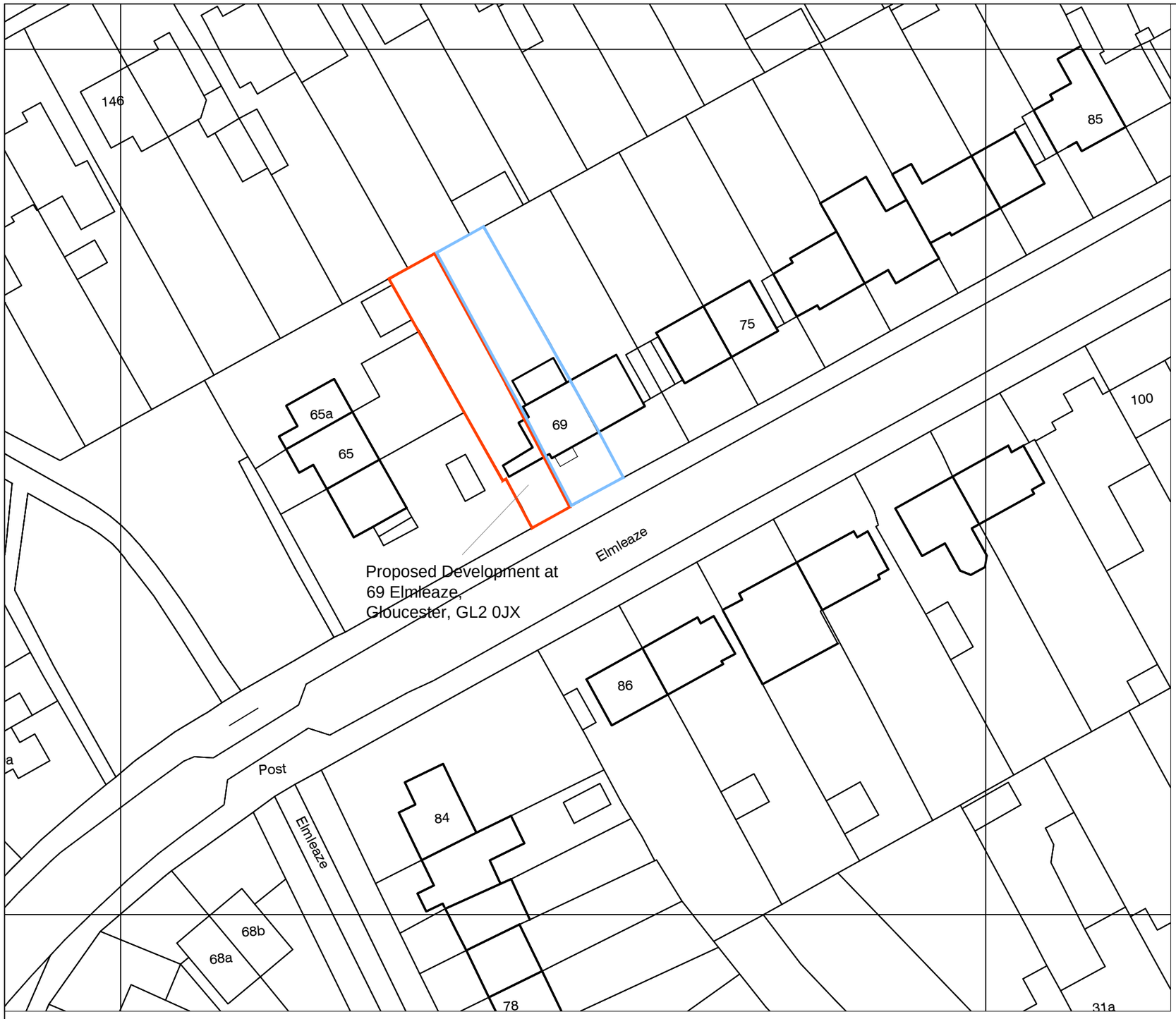
☑ I / We agree to the outlined declaration

Signed

Simon Littlewood

Date

08/06/2022



Block Plan Sc 1:500

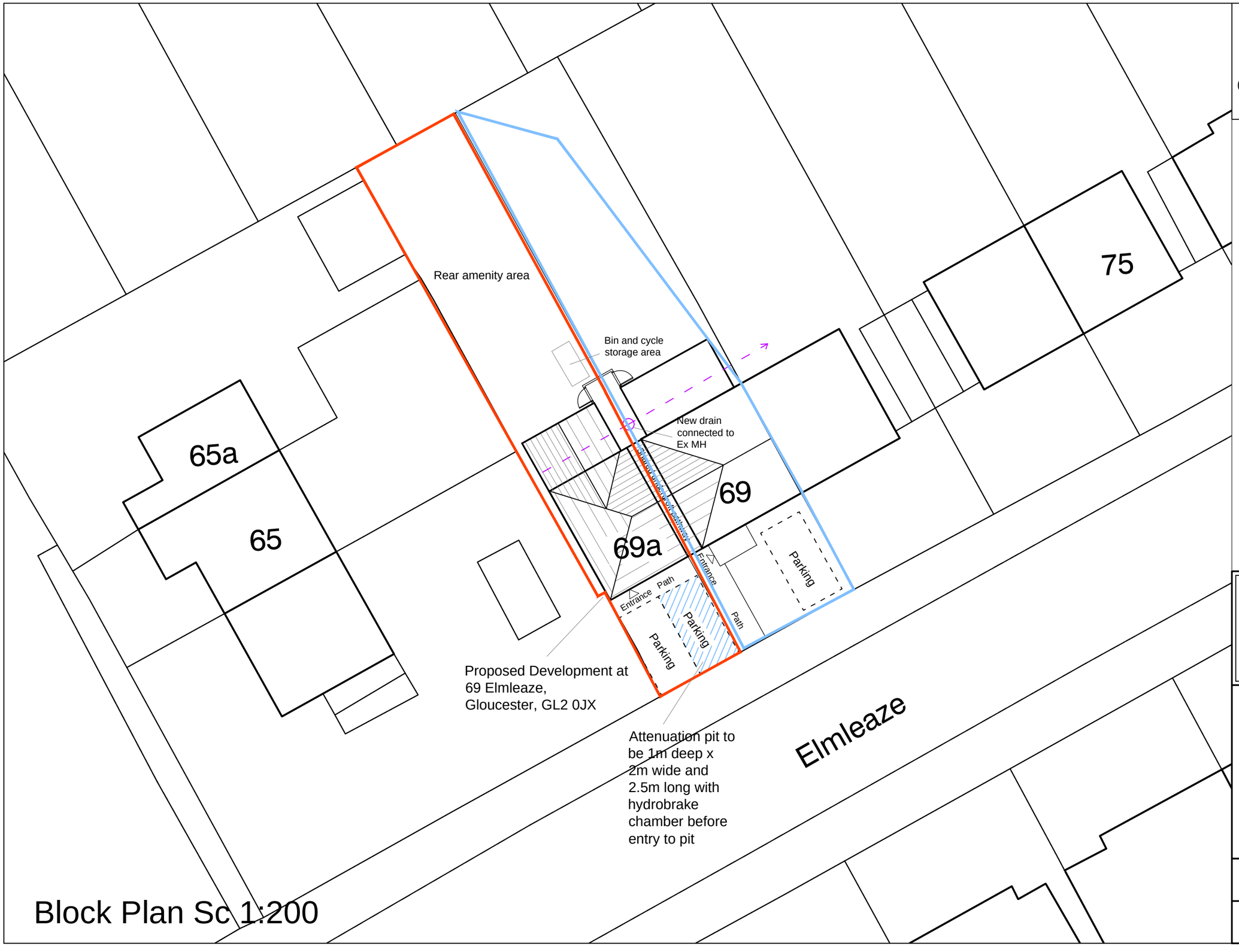
North

Area Plan Sc 1:1250

ELEVATION ONE
BUILDING DESIGN LTD
[redacted]

Project:-
Proposed Development at
69 Elmleaze,
Gloucester, GL2 0JX
Drawing Title:-
Site Plan
Scale:-
1:500, 1250 @ A3
Client:-
[redacted]

Project No:- ST-010	Drawing No: - 01
Date:- Nov 21	Revision:-



Block Plan Sc 1:200

ELEVATION ONE
BUILDING DESIGN LTD
[redacted]

Project:-
Proposed Development at
69 Elmleaze,
Gloucester, GL2 0JX
Drawing Title:-
Block Plan
Scale:-
1:200 @ A3
Client:-
[redacted]

Project No:-	Drawing No: -
ST-010	02
Date:-	Revision:-
Nov 21	-

SUDS and Drainage

Works at:

69 Elmleaze,
Gloucester,
GL2 0JX

By

Elevation One
Building Design Ltd
[redacted]

Elevation One
Building Design Ltd

for

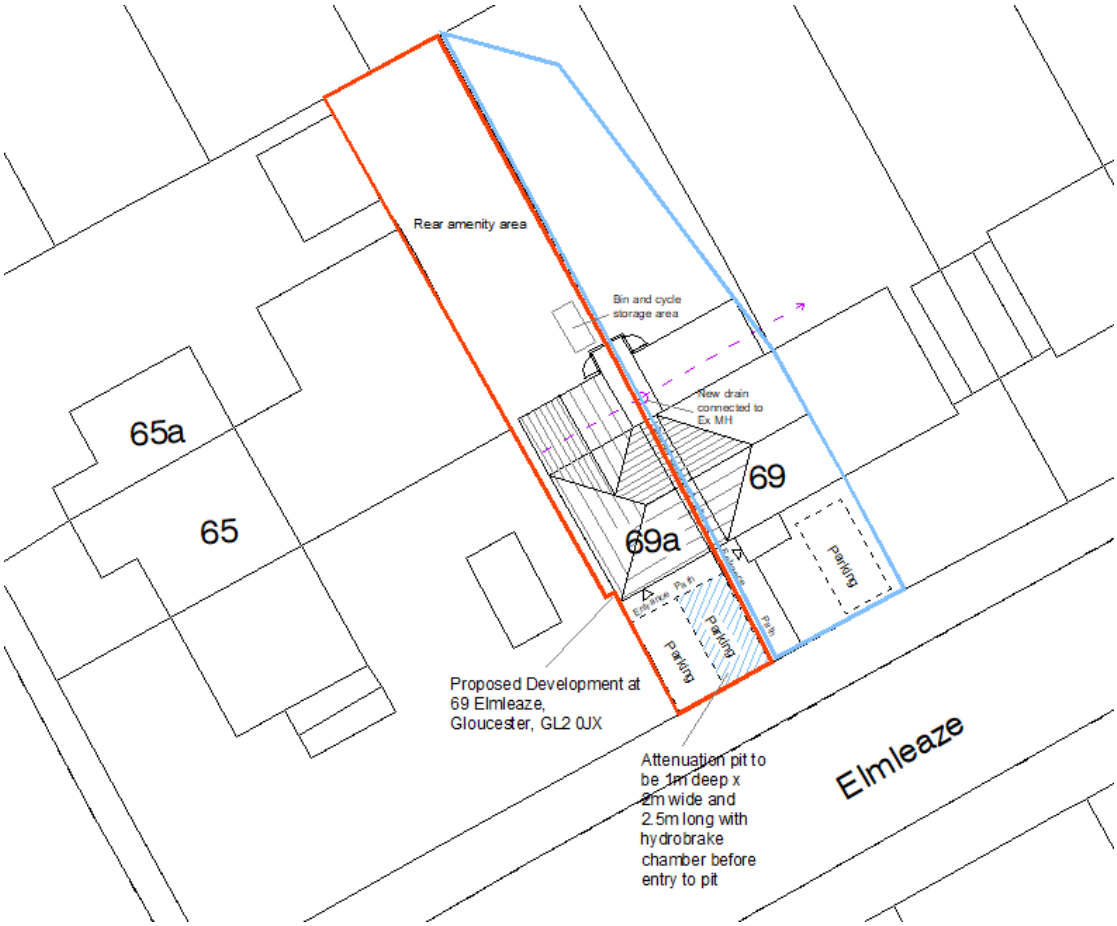
[redacted]

June 22

1.0 Introduction

This statement has been prepared by **Elevation One Building Design Ltd** on behalf of [redacted].. This statement demonstrates that the proposal is compliant with the Development Plan and Government Guidance and explains the key design and access principles that will be used to develop future details of the scheme.

This report should be read in conjunction with the drawings submitted as part of this planning application.



Filter strips	Grass strips hat promote sedimentation and filtration as runoff is conveyed over the surface	L		●		●	○	○	15
Filter drains	Shallow stone-filled trenches that provide attenuation, conveyance and treatment of runoff	L	●	○		●	○	○	16
Swales	Shallow landscaped depressions that allow runoff to pond temporarily on the surface, before filtering through vegetation and underlying soils	L	●	●	●	●	●	●	17
Bioretention systems	Trees with soil-filled tree pits, tree planters or structural soils used to collect, store and treat runoff	P	●	●	●	●	●	●	18
Trees	Structural paving through which runoff can soak and subsequently be stored in the sub-base beneath, and/or allowed to infiltrate into the ground below	P	●	●		●	●	●	19
Pervious pavements	Structural paving through which runoff can soak and subsequently be stored in the sub-base beneath, and/or allowed to infiltrate into the ground below	S	●	●	●	●	○	○	20
Attenuation storage tanks	Large, below-ground voided spaces used to temporarily store runoff before infiltration-controlled release or use	P	●						21
Detention basins	Vegetated depressions that store and treat runoff	P	●	●		●	●	●	22
Ponds and wetlands	Permanent pools of water used to facilitate treatment of runoff – runoff can also be stored in an attenuation zone above the pool	P	●			●	●	●	23

P-Point L-Lateral S-Surface

● – likely valuable contribution to delivery of design criterion

○ – some potential contribution to delivery of design criterion, if specifically included in the design

Figure 1 CIRIA Table 7.1 SuDS Components

3.1.2 The above table gives examples of various SuDS components, which may offer source control in accordance with the requirements. Water-butts and or rainwater harvesting can be implemented within the design. Section 9.2 of BS 8582:2013 states that the use of rainwater harvesting systems should be evaluated to deliver both water supply and surface water management. Rainwater harvesting can be used for landscaping irrigation purposes as well as other grey water uses and will contribute towards a reduction in runoff volume entering the sewer network. Rainwater harvesting units can incorporate an overflow to the drainage system to cater for extreme events.

3.1.3 Section 3.3 of the EA document *Rainfall runoff management for developments* Report SC030219 states that a minimum flow of 5 l/s per second should be used. On that basis, a flow rate should be engineered that reduces flow sufficiently while providing an outflow orifice diameter which is not susceptible to blockage. i.e 1.0 l/s.

3.1.4 Consideration has been given to the ODPM document Preparing for Floods which is a *"guide intended for use by developers, local planning authorities and others involved in construction of new buildings,*

3 SuDS Considerations

3.0.1 Consideration of SuDS are a planning requirement for new developments. SuDS are designed to replicate the natural course of drainage as closely as possible with a view to reducing the impact of flooding, removing pollutants at source, and combining water management with green space.

Developments should utilize SuDS where possible and ensure that surface water run-off is managed as close to its source as possible in line with the following hierarchy:

1. Into ground (infiltration).
2. To a surface water body.
3. To a surface water sewer.
4. To a combined sewer.

3.0.2 Sustainable Drainage Systems should be included in the design to manage surface water flood risk. SuDS should be inspired by natural drainage processes and manage water as close to its source as possible whilst offering pollution control and landscape benefits.

3.1 SuDS Incorporation

Component Type	Description	Design Criteria							
		Collection Mechanism	Water Quantity (Chapter 3)			Water Quality (Chapter 4)	Amenity (Chapter 5)	Biodiversity (Chapter 6)	Further Information (Chapter 8a9)
			Peak Runoff Rate	Runoff Volumes					
				Events (interceptions)	Large Events				
Rainwater Harvesting Systems	Systems that collect runoff from the roof of a building or other paved surface for use	P		●	●		●		11
Green roofs	Planted soil layers on the roof of buildings that slow and store runoff	S	○	●		●	●	●	12
Infiltration systems	Systems that collect and store runoff, allowing it to infiltrate into the ground	P	●	●	●	●	●	●	13
Proprietary treatment systems	Subsurface structures design to provide treatment to runoff	P				●			14

Land use surface type (Lust)	Impermeability (IMP_{av})	Total suspended solids pollution index (PI_{tss})	Organic pollution index (PI_{org})	Hydrocarbon pollution index (PI_{hc})	Metals Pollution Index (PI)
Roofs					
Industrial / Commercial	1.0	0.3	0.3-0.4	0.2	0.4-0.8
Residential	0.9	0.4-0.5	0.6-0.7	0.1	0.2-0.5
Highways					
Motorways	0.8-0.9	0.9	0.7	0.9	0.8
Major arterial highways	0.7-0.8	0.8	0.7	0.8	0.8
Urban distributor roads	0.6-0.7	0.7-0.8	0.5	0.8	0.7
Residential Street	0.4-0.6	0.4	0.6	0.6	0.6
Pavements	0.5-0.6	0.4	0.6	0.3	0.3
Car Parks / Hardstanding					
Industrial/Commercial	0.6-0.8	0.6-0.7	0.6-0.7	0.7	0.4-0.5
Driveways (Residential)	0.5	0.5	0.6	0.4	0.3
Open Areas					
Gardens (All types)	0.1	0.3	0.2-0.3	0	0.01
Parks/Golf Courses	0.2	0.2-0.3	0.2	0	0.02
Grassed Areas (including verges, all types)	0.1	0.2-0.3	0.2-0.3	0.05	0.05

Note 1 Pollution index values are based on reported land use type EMC distributions and impact potential thresholds from House et al (1991), Luker and Montague (1994), Butler and Clark (1995), D'Arcy et al (2000), Mitchell (2005) and Moy et al (2003)

Figure 3 Impermeability and pollution indices for different land use types

3.1.10 The appended drainage calculation allows for a 1:100-year storm plus 40% climate change. Safety factors have been cautiously applied to demonstrate the effectiveness of this development in reducing flood risk. The safety factors that have been applied are referenced from Table 25.2 of CIRIA SuDS Manual 2015.

and renovation of existing buildings at risk of flooding. If adopted the principles set out within this guide should help reduce the stress and disruption of flooding and provide a more sustainable approach to flood risk".

3.1.5 Private roads, and drives offer an opportunity to apply permeable surfacing which can be considered a method of source control. As per table 7.1 (**Figure 1**), surface water is slowed at source by soaking through the surfacing before discharging to the drainage network. Permeable surfacing offers the added benefit of filtering the runoff as it drains through, hence improving the quality.

3.1.6 In accordance with Table 26.2 of CIRIA Report C753, the pollution hazard level can be classified as 'Low'. Using table 26.3 of the same document, the mitigation indices values for permeable surfacing exceed the pollution hazard values taken from the previous table. This ensures that proposals offer enough pollution risk mitigation.

3.1.7 Despite low levels of permeability, permeable surfacing can offer the opportunity for both infiltration and attenuation. The flow control is to be set to an allowable discharge rate with the attenuation sized appropriately, with the sub-base being lined with an impermeable membrane.

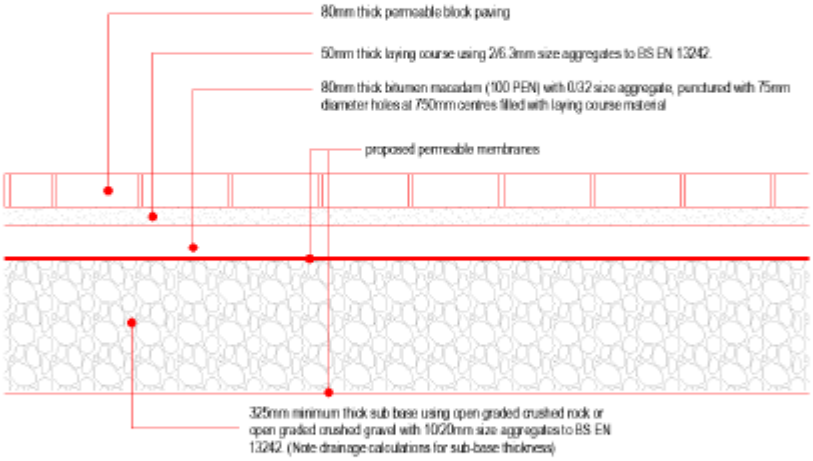


Figure 2 Typical permeable surfacing

3.1.8 Where flow controls are applied attenuation volume is required to provide storage during varying storm events.

3.1.9 The **Figure 1** proposals ensure that an 'at source' SuDS measure is applied, and betterment is provided in terms of surface water runoff velocity and quality. Pollution indices from different land types can be found per as per table 26.15 CIRIA SuDS Manual 2015, below.

4 Surface Water Strategy

The surface water strategy is based upon the SuDS implementation as outlined above along with the hierarchy for surface water disposal as follows:

A. Store rainwater for later use:

Rainwater storage is to be utilised where possible. The layout offers an opportunity to utilise rainwater storage for landscape irrigation with the added benefit of reducing the volume of runoff entering the public drainage network. This can be implemented in the form of a water butt.

B. Use infiltration techniques, such as porous surfaces:

Permeable Paving has been proposed as a form of source control as well as attenuation.

C. Attenuate rainwater in ponds or open water features for gradual release:

The site layout does not permit the use of open water features.

D. Attenuate rainwater by storing in tanks or sealed water features for gradual release:

As per the appended greenfield run-off calculations, an outfall rate of QBAR 0.1 l/s is not suitable for this development, therefore a proposal of 1.0 l/s has been made.

In addition to this, the appended exceedance calculations show that the system can accommodate a critical event of the 1 in 200 year storm, plus 40% climate change allowance.

E. Direct rainwater direct to the watercourse:

N/A

F. Discharge rainwater to a surface water sewer/drain

N/A

G. Discharge rainwater to combined sewer:

As above, throttled to 1.0 l/s

H. Discharge rainwater to foul sewer:

N/A

4.1 Designing for Exceedance

4.1.0 Consideration should be given to external levels to ensure they are set above overland flood risk levels, and low points are created to direct water away from the building footprints during exceedance events. Please see appended drawing for exceedance flow directions.

4.1.1 CIRIA document C635 *Designing for exceedance in urban drainage – good practice* states that "at present there are no guidelines on the return period of event (extreme event) that should be used for

design exceedance". However, Section 3.4 also states that "it is suggested that return periods of 1 in 30, to 1 in 100 or 1 in 200-year events would form a suitable framework for most applications".

4.1.2 In accordance with the above, the drainage network has been modelled using a 1 in 200-year event, and the calculations are appended to show the capability and resilience of the network.

4.1.3 Whilst the development proposal will limit the potential for extension to the dwellings, an allowance of 10% to the building area has been added to the impermeable area in line with BS8582:2013 Code of practice for surface water management for development sites for urban creep.

5 Building and Detailed Design

5.0.2 Consideration should be given to external levels to ensure they are set above overland flood risk levels. Therefore, low points are required to direct water away from the building footprints during exceedance events (above the 100yr +40% (cc) event)

5.1 Pollution, Water Quality, and Control Measures

5.1.0 Consideration for surface water needs to be taken during the construction process, and how it is managed including flood risk and pollution control.

5.1.1 For the permeable surfacing surface water is slowed at source by soaking through the surfacing before discharging to the drainage solution. Permeable surfacing offers the added benefit of filtering the runoff as it drains through, hence improving the quality. Furthermore, the sub-base can be used to attenuate surface water when used in conjunction with controlled discharge rates.

5.1.2 On completion of the permanent drainage system the network will be relied upon to control pollution and water quality for the remainder of the construction works.

5.1.3 Wheel and plant washing will take place at the temporary entrance to minimise the pollutants being transferred to, or from site, and is also located to minimise the risk of pollutants entering the permeable surfacing and other drainage elements.

5.1.4 Pollution incident potential involving plant and machinery can be contained by simple measures:

- Use of drip trays
- Emergency spill kits
- Regular maintenance/checks of plant and machinery including checks for wear, oil leaks and immediate decommissioning when faults occur
- Procedures for refuelling areas, with spillage kits

6 Surface water Drainage Maintenance Schedules

6.0.1 This section of the report gives guidance on the maintenance of the drainage system and outlines the responsible party as the freeholder.

6.0.2 The design life of the development is likely to exceed the design life of each of the SuDS components listed above. During the routine inspections of any drainage components, it may become apparent that they have reached the end of their functional lifetime. In the interest of sustainability, repairs should be the first-choice solution where practicable. If this is not the case, then it will be necessary for the property owners to undertake complete replacement of the component in question.

6.1 Rainwater Pipes, and Chambers

Table 1– Rainwater Pipes, and Chambers: System storage operation and maintenance requirements

Maintenance Schedule	Required Action	Recommended Frequency
Regular Maintenance	Inspection of silt trap chamber and removal of debris when necessary	Quarterly or as required following monitoring
Remedial Actions	Check for blockages in manholes and pipes. Rodding and jetting of pipes to be carried out. CCTV survey can be carried out to inspect condition of pipework	Quarterly or as required following monitoring
Monitoring	Inspect collection apparatus for debris and litter. Remove where necessary to prevent blockages in the system.	Monthly or after periods of heavy rainfall

6.2 Flow Control

Table 2– Flow Control: System storage operation and maintenance requirements

Maintenance Schedule	Required Action	Recommended Frequency
Regular Maintenance	Remove litter and debris and grass cuttings from upstream to prevent being washed into the flow control. Inspection of the flow control chamber and the removal of any sediment/debris when required.	Quarterly or as required following monitoring
Remedial Actions	Check flow control is functional	Quarterly or as required following monitoring
Monitoring	Inspect flow control and check flows are not impeded	Monthly or after periods of heavy rainfall

6.3 Permeable Paving

Table 3 – Permeable Paving: System operation and maintenance requirements

Maintenance Schedule	Required Action	Recommended Frequency
Regular Maintenance	Sweeping. [NOTE: Any jointing material between the blocks that is lost or displaced as a result of sweeping must be replaced. New jointing material must be the same type as that removed or a suitable replacement]	3 no. times a year: - • At the end of Winter; • Mid-summer; and • After autumn leaf fall. required based on site specific observations
Occasional Maintenance	Stabilise and mow contributing and adjacent areas to prevent excess sediment being washed into the paving	As required
Remedial actions	Remedial work to any depressions, rutting and cracked or broken blocks considered detrimental to the structural performance or a hazard to users	As required

7 Conclusions

7.0.1 An existing combined water sewer provides an outfall in accordance with the hierarchy, infiltration not feasible.

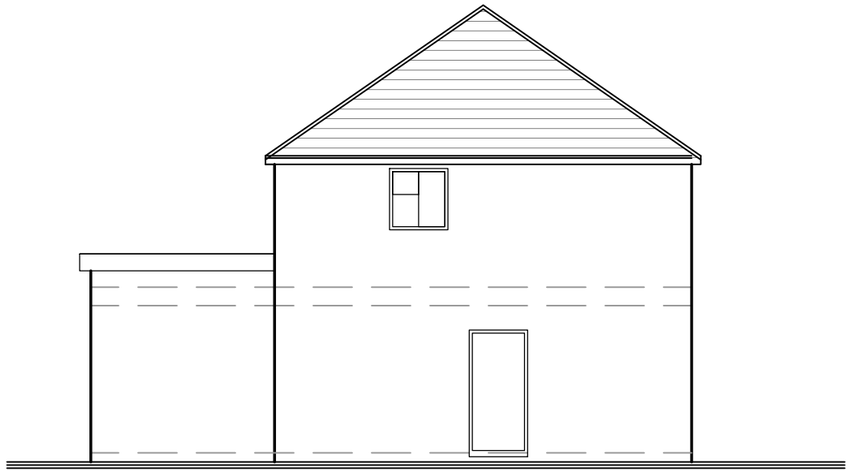
7.0.2 Indirect connection should be made subject to water authority approval.

7.0.3 It can be concluded that the above sustainable drainage strategy is compliant with local and national policy and can be accommodated within the site boundary.

BEFORE COMMENCEMENT OF ANY WORKS THE CONTRACTOR MUST CHECK AND VERIFY ALL BUILDING, SITE DIMENSIONS AND LEVELS, ALL RELEVANT SEWER OUTFALLS, INVERT LEVELS, AND CONNECTION POINTS

EXISTING FRONT ELEVATION

EXISTING REAR ELEVATION



EXISTING SIDE ELEVATION

Project:-
Proposed Development at
69 Elmleaze,
Gloucester, GL2 0JX
Drawing Title:-
Existing Elevations
Scale:-
1:100 @ A3
Client:-
Mr S Tonks

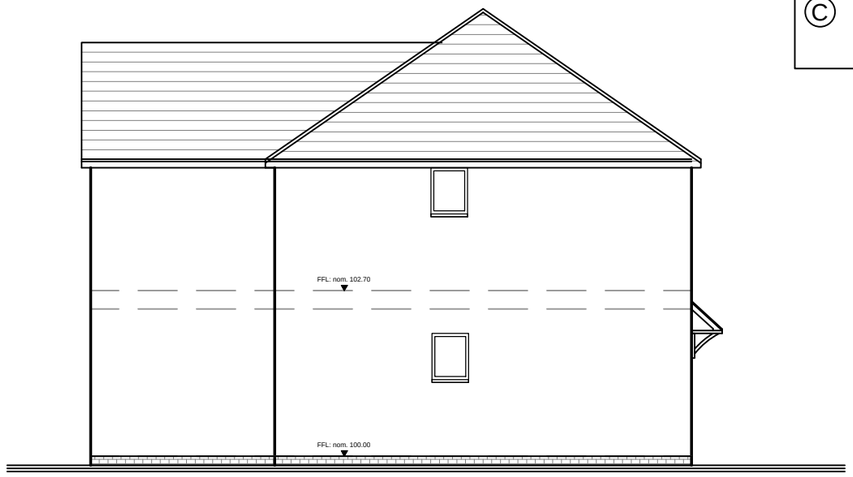
ELEVATION ONE
BUILDING DESIGN LTD

[redacted]

Project No:-	Drawing No: -
ST-010	05
Date:-	Revision:-
Nov 21	

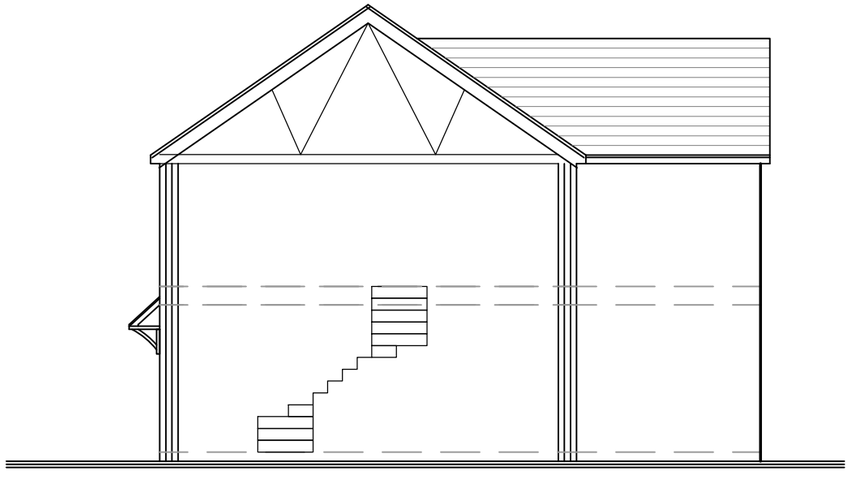
BEFORE COMMENCEMENT OF ANY WORKS
THE CONTRACTOR MUST CHECK AND VERIFY
ALL BUILDING, SITE DIMENSIONS AND
LEVELS, ALL RELEVANT SEWER OUTFALLS,
INVERT LEVELS, AND CONNECTION POINTS

PROPOSED FRONT ELEVATION



PROPOSED SIDE ELEVATION

PROPOSED REAR ELEVATION

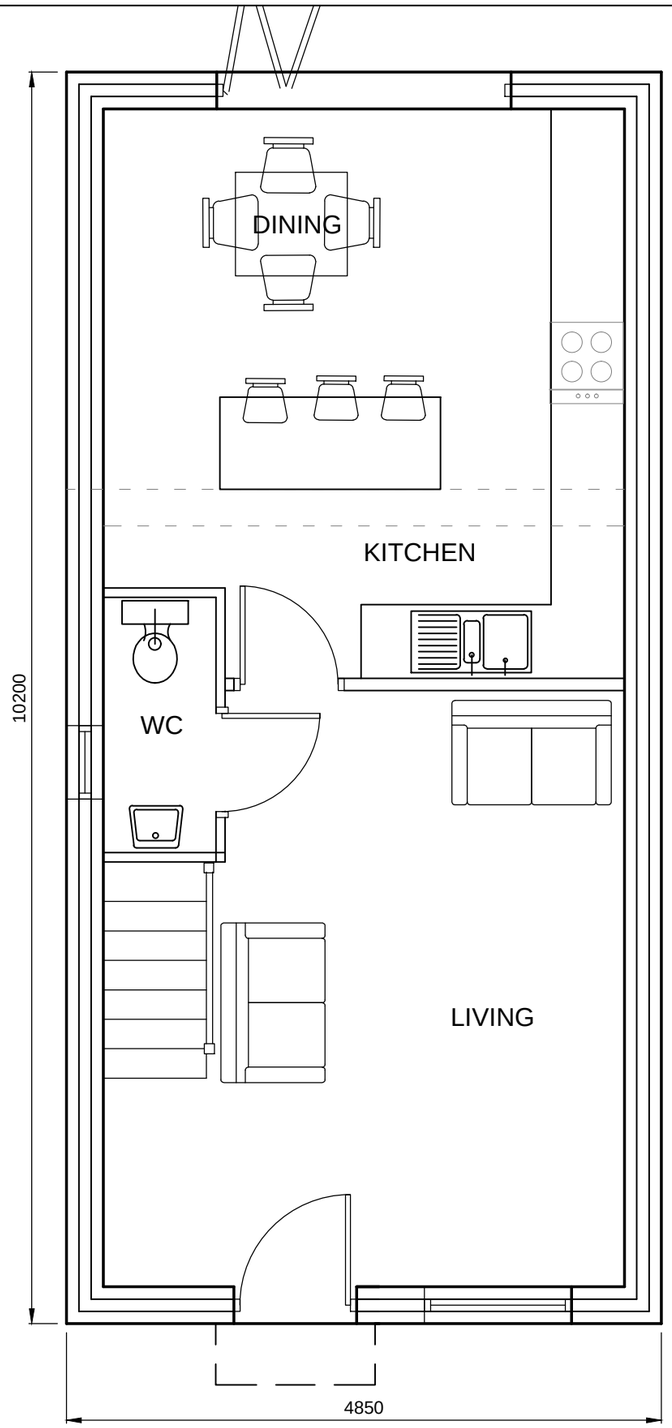


PROPOSED SIDE ELEVATION
Attached to no 69

Project:-
Proposed Development at
69 Elmleaze,
Gloucester, GL2 0JX
Drawing Title:-
Proposed Elevations
Scale:-
1:100 @ A3
Client:-
[redacted]

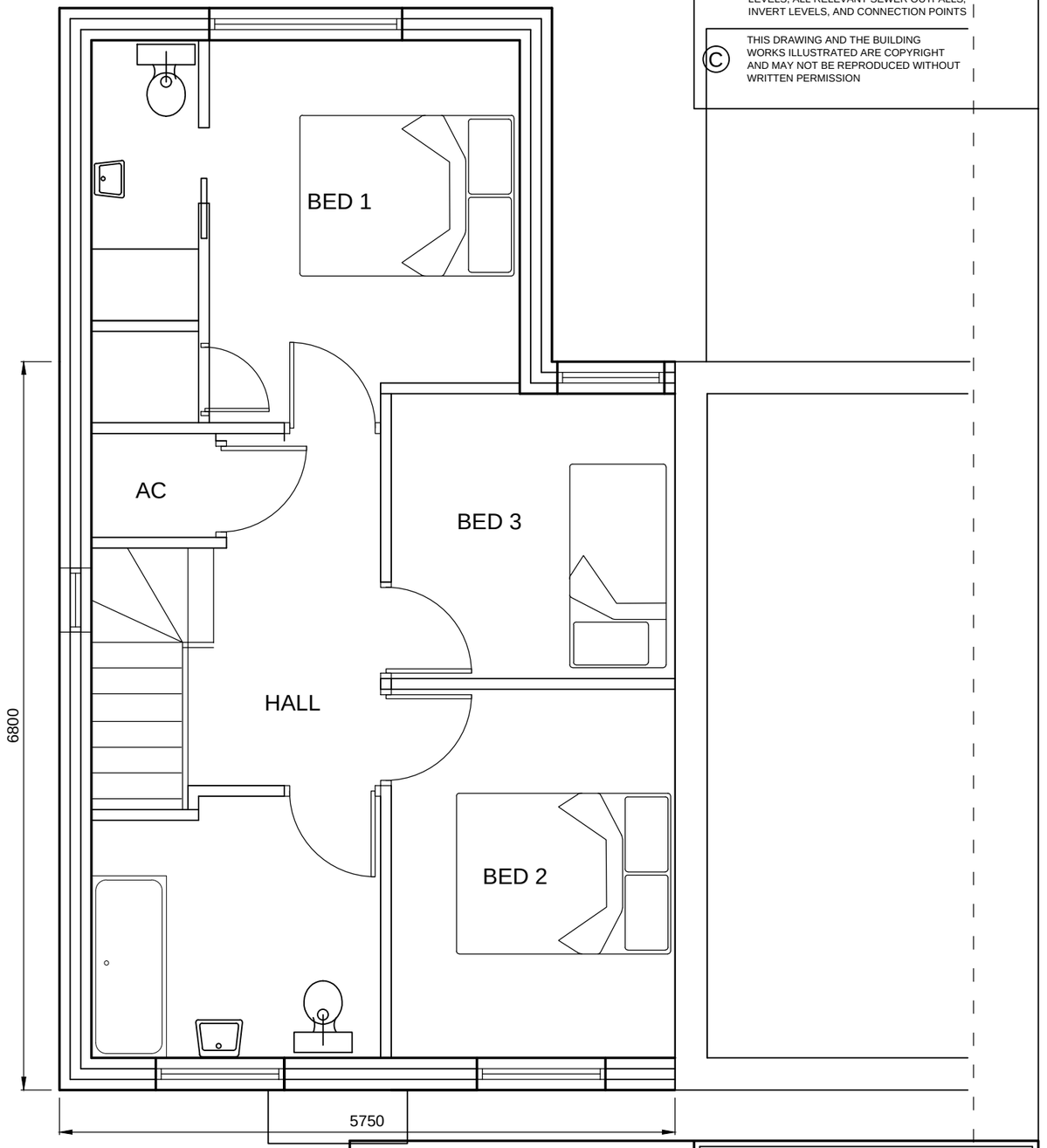
ELEVATION ONE
BUILDING DESIGN LTD
[redacted]

Project No:-	Drawing No: -
ST-010	04
Date:-	Revision:-
Nov 21	



GROUND FLOOR LAYOUT

Shared undercroft pathway



FIRST FLOOR LAYOUT

Project:-
Proposed Development at
69 Elmleaze,
Gloucester, GL2 0JX
Drawing Title:-
Proposed Floor Plans
Scale:-
1:50 @ A3
Client:-
[redacted]

ELEVATION ONE
BUILDING DESIGN LTD

Project No:-	Drawing No: -
ST-010	03
Date:-	Revision:-
Nov 21	