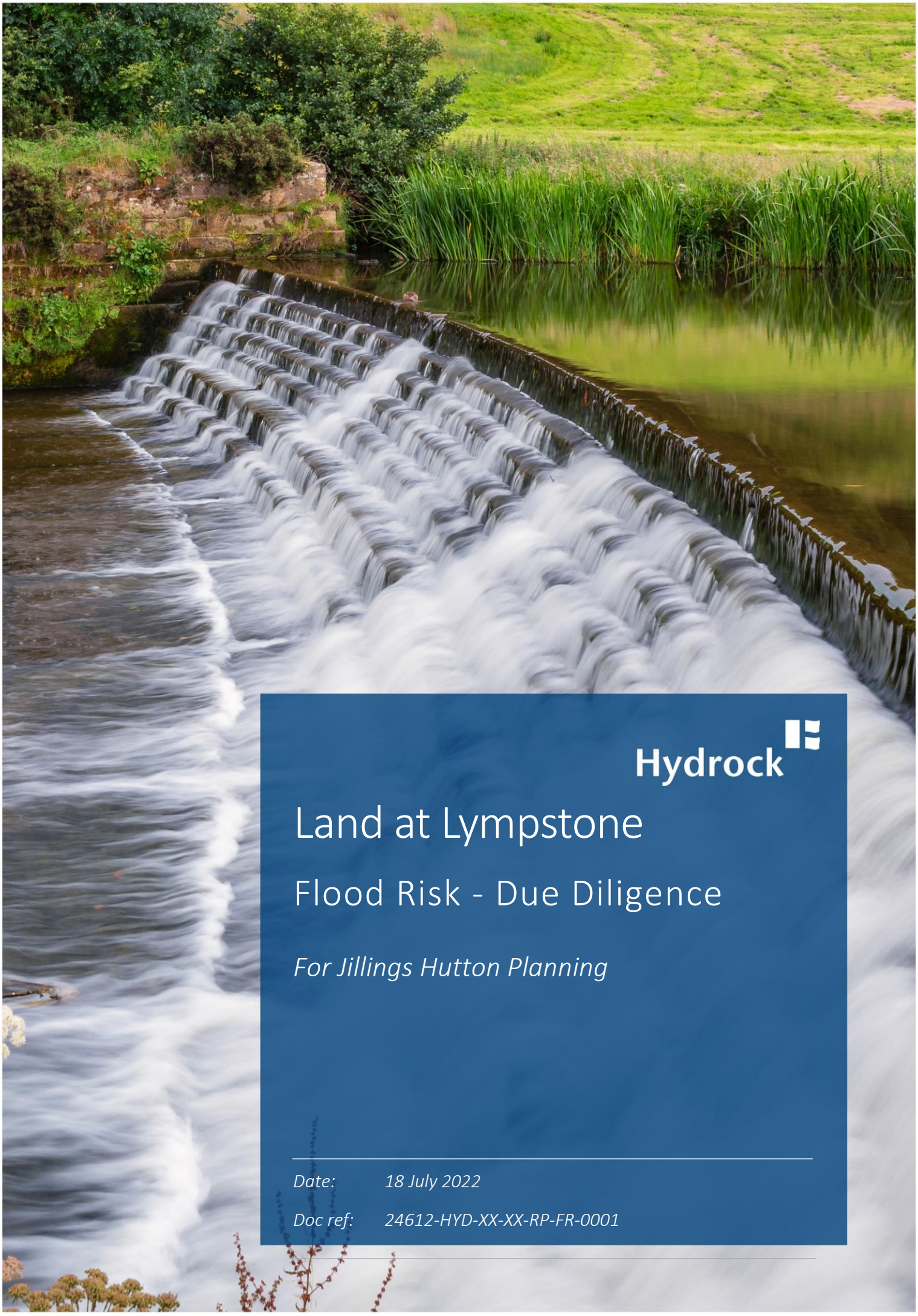

Hydrock

Land at Lympstone

Flood Risk - Due Diligence

For Jillings Hutton Planning

Date: *18 July 2022*

Doc ref: *24612-HYD-XX-XX-RP-FR-0001*

DOCUMENT CONTROL SHEET

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1. INTRODUCTION

This Due Diligence report has been produced by Hydrock Consultants Limited (Hydrock) on behalf of Jillings Hutton Planning in support of representations to the East Devon District Council Local Plan. Information reviewed and summarised within this document has been acquired through desktop means. As such, discrepancies may be present between the information provided within this document and the physical conditions on site.

2. SITE INFORMATION

2.1 Site Location

The site is identified as site GH/ED/72 in the working draft local plan for East Devon District Council. It is located in the north of Lympstone and bordered to the north by agricultural fields, to the east by Exmouth Road (A376), to the south by Meeting Lane and to the west by Nutwell Road.

Vehicular access to the site is currently via Meeting Lane.

The site information including address and Ordnance Survey reference is included in Table 1 with the site location shown in Figure 1.

Table 1: Site Referencing Information

Site Referencing Information	
Site Address	Land north of Meeting Lane Lympstone EX8 5HR
Grid Reference	SX994847 299414, 84759

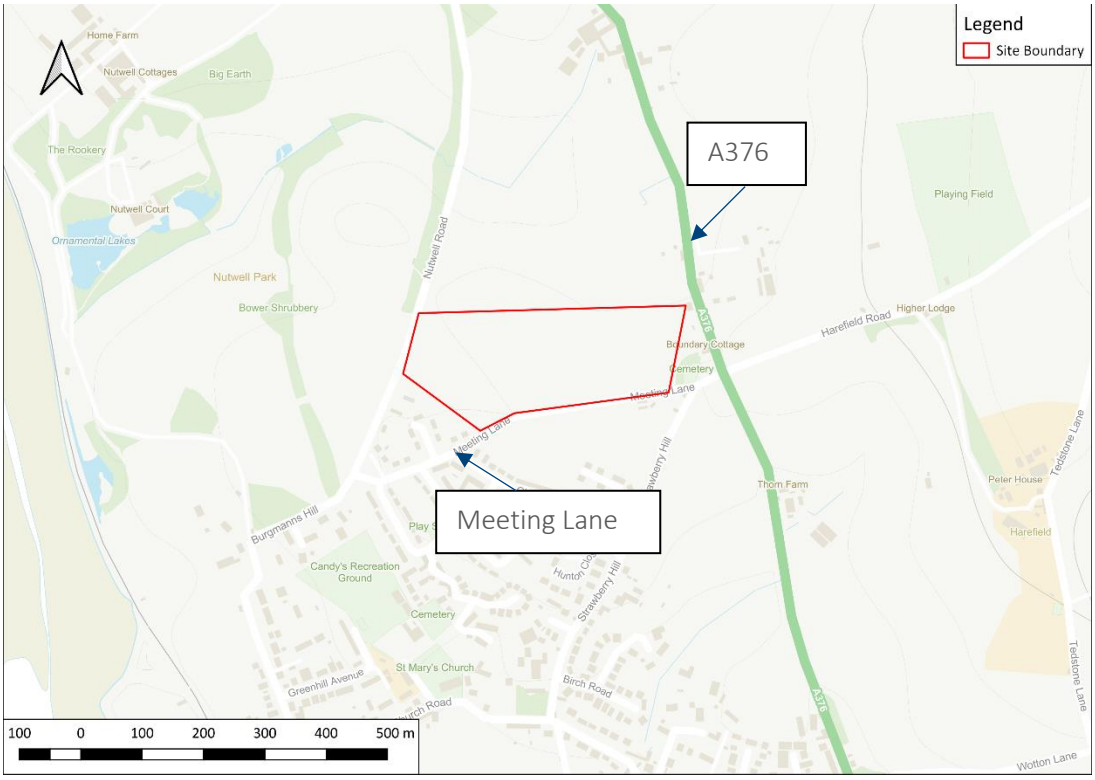

Figure 1: Site Location

2.2 Topography

In lieu of a topographic survey LiDAR data has been used which shows the site to lie at an elevation of 40m AOD in the east of the site sloping to 24m AOD in the west of the site.

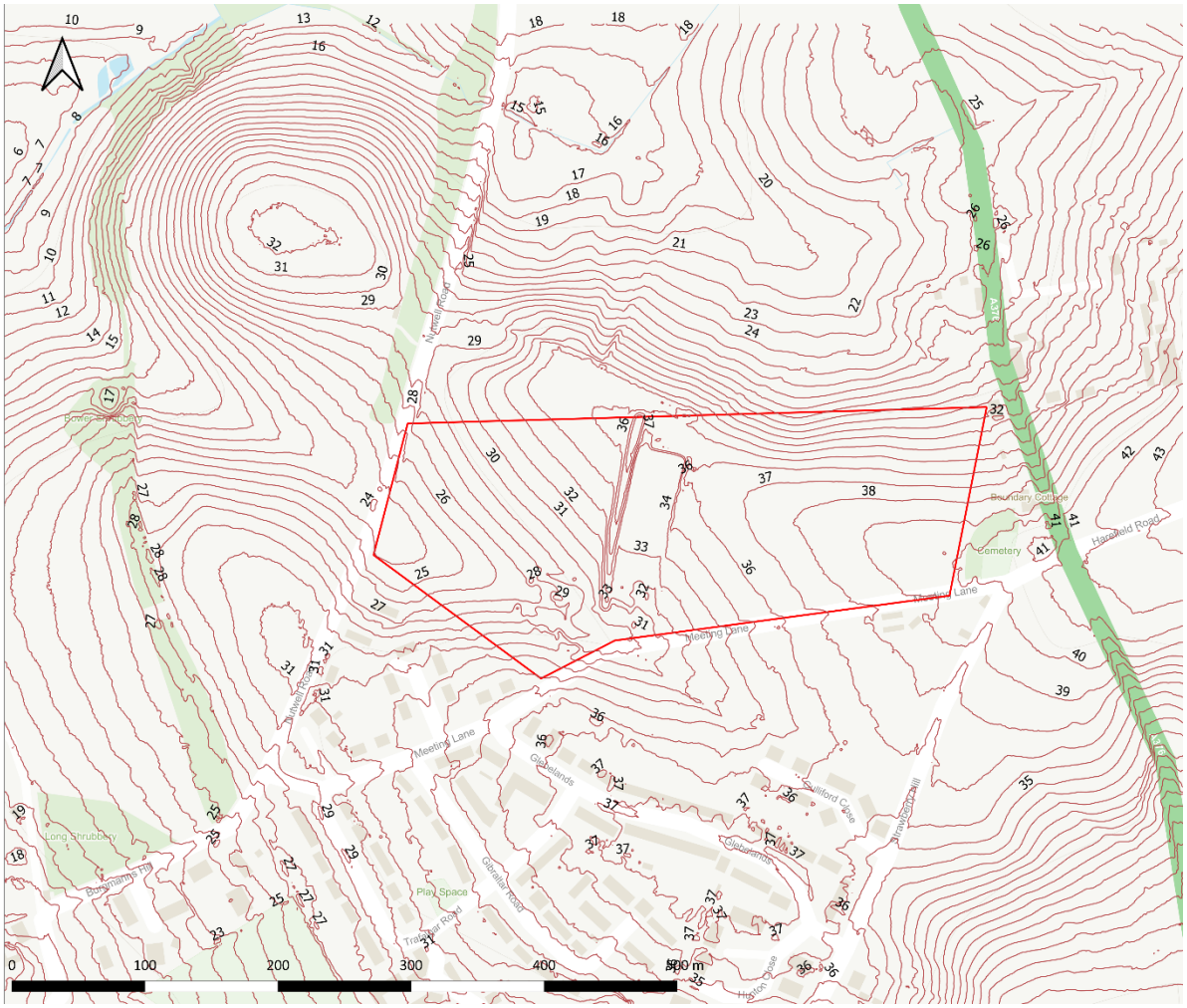

Figure 2: LiDAR Data

3. SOURCES OF FLOOD RISK

3.1 Fluvial and Tidal flooding.

The closest watercourse is the Wotton Brook lying approximately 600m south of the site flowing to the west.

The EA flood map shows the site is entirely located within Flood Zone 1 (land assessed as having less than 1 in 1000 annual probability of fluvial / tidal flooding).The East Devon Strategic Flood Risk Assessment shows no evidence of historic flooding across the site.

Figure 3: EA Flood Map for Planning

3.2 Surface Water Flooding

Surface water flooding occurs as the result of an inability of intense rainfall to infiltrate the ground. This often happens when the maximum soil infiltration rate or storage capacity is reached. Flows generated by such events either enter existing land drainage features or follow the general topography which can concentrate flows and lead to localised ponding/flooding.

The EA's Surface Water Flood Risk Map shows the majority of the site to be at 'Very Low' Risk of surface water flooding.

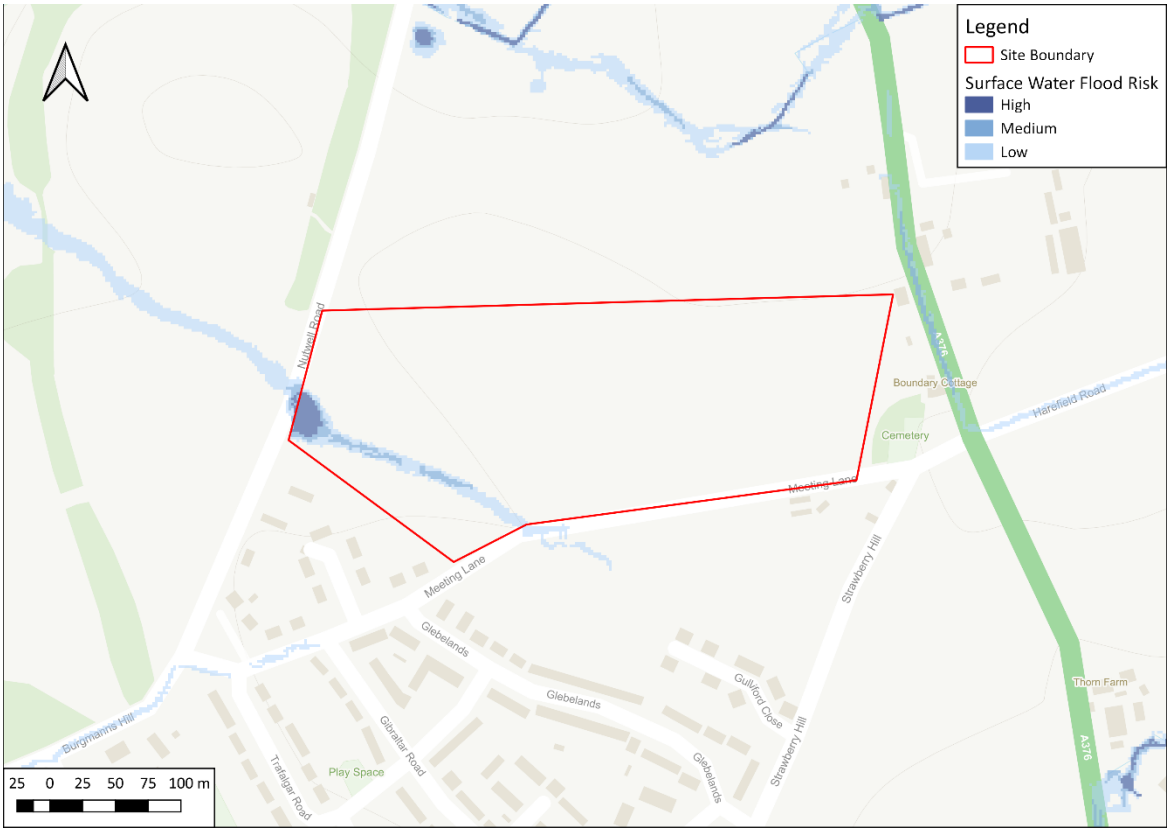

Figure 4: EA Surface Water Flood Map

A surface water flow route runs through the western portion of the site flowing in a north westerly direction. This will need to be maintained or suitably diverted and needs to be taken into consideration when developing the site. In the Low-risk scenario, the surface water flow route equates to depths less than 300mm. Although there is no evidence of historic flooding within the SFRA, anecdotal evidence suggests there has been some surface water flooding on site, following the path of the surface water flow route.

3.3 Groundwater Flooding

The site is underlain by the Exmouth mudstone and sandstone formation suggesting that there is little likelihood of groundwater flooding. Boreholes carried out 200mm east of the site show that no groundwater was encountered therefore the risk of groundwater flooding is Low.

3.4 Infrastructure Failure Flooding

Given that the site is greenfield in nature, it is unlikely that there will be an engineered sewer network across the site.

EA reservoir flood mapping shows the site to be at low risk of flooding from reservoirs.

There is no known risk of flooding from canals or any other artificial sources and as such the site is concluded to be at low risk of infrastructure failure flooding.

4. RECOMMENDATIONS

4.1 Sequential and Exception Tests

With respect to Planning Policy the site is within Flood Zone 1 where all development types are deemed appropriate therefore in this instance the Sequential and Exception Tests are not deemed applicable.

A sequential approach should be utilised on site to respect the surface water flow route.

4.2 Mitigation Measures

Whilst the site is shown to be predominantly at low risk from all sources, the following section details any measures recommended to mitigate any 'residual' flood risks and to ensure that the proposed development will be safe for its lifetime.

4.2.1 Finished Floor Levels

It is recommended best practice that any finished floor levels are set at 150mm above the ground level of the site in line with best practice.

4.2.2 Safe Access and Egress

Existing access to the site is from Meeting Lane. There is some surface water flooding on Meeting Lane at the access point, although depths are less than 300mm which are shown as being generally acceptable in line with guidance related to access and egress. Furthermore, the road is already likely served by an existing highway drainage network capable of manging these flows. Therefore, safe access and egress can be provided.

5. CONCLUSION

This report has considered the flood risk posed to the site from a variety of sources of flooding, as defined by the NPPF. EA Flood Zone mapping shows the site to be within Flood Zone 1 and at low risk of flooding from fluvial and tidal sources. The site is predominantly at Low Risk of Surface Water Flooding.

In accordance with the NPPF and NPPG, providing the sequential approach is adopted on site in order to maintain the surface water flow route, then the application of the Sequential and Exception Tests should not be required in this instance, as all forms of development are appropriate within Flood Zone 1.

It has also been demonstrated that a means of safe access and egress is possible to and from the site.

Based on a high-level desktop assessment the site is concluded to be at low risk of flooding from all sources and as such, is considered appropriate for development from a flood risk perspective.

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