

Flood Consequence Assessment

Planning & Development

30 September 2024

Eleys Group LTD

12 London Road, Neath, SA11 1HB



Document Control

Client	Eleys Group LTD
Report Title	Flood Consequence Assessment – 12 London Road, Neath, SA11 1HB
Report Reference	206824-F01
Report Status	Final
Prepared by	L. James
Checked by	H. Fisher
Approved by	A. Jones
Date of Issue	30/09/2024
Issue Method	PDF

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Distribution

Eleys Group LTD

Robert Eley





Executive Summary

Ashfield Flood Risk Solutions ("Ashfield") were commissioned by Eleys Group LTD ("the client") to undertake a Flood Consequence Assessment ("FCA") in support of a planning application for the proposed change of use from a children's creche to a five bed House in Multiple Occupation (HMO) at 12 London Road, Neath, SA11 1HB ("the site").

The nearest Natural Resources Wales (NRW) designated Main River is the River Neath, located approximately 425m west of the site, flowing in a southerly direction before discharging into Swansea Bay at Aberavon Beach, approximately 8km south-west of the site. The nearest ordinary watercourse is the Gnoll Brook located approximately 336m east of the site, flowing in a northerly direction before its confluence with the River Neath approximately 652m north of the site. Additionally, the Neath Canal is located approximately 324m west of the site.

The NRW Development Advice Map (DAM) indicates that the site is located within Zone A of the River Neath. Zone A is categorised as an area considered to be at little or no risk of fluvial or tidal/coastal flooding; therefore, a justification test is not required.

Flood model data (2016) was obtained from NRW to inform this FCA. This comprises the Neath – Phase 2 Hydraulic Model published by JBA in December 2016. A review of the Product 6 fluvial defended data indicates that the site is located outside of all return periods up to and including the 1 in 1000 year event. Furthermore, the site is not at risk of flooding in the 1 in 100 + 20% CC design flood event which aligns with requirements set out in TAN15. Therefore, the development will not impact the risk of flooding at or within the vicinity of the site as this shows no flood water displacement would be caused during this flood event. Overall, the risk of fluvial flooding to the site is considered Low.

The NRW Flood Risk from Surface Water and Small Watercourses Mapping indicates that the site is not projected to be at risk of flooding from surface water across the high, medium and low probability events. Therefore, the risk of surface water flooding is considered Low.

The risk of flooding from tidal sources, groundwater and artificial sources is also considered to be Low. The risk of flooding from reservoir failure is considered Negligible.

This report therefore has met the aim as set out in Section 1.2 of this report and concludes that the development:

- Is suitable in the location proposed;
- Will not impact flood risk elsewhere (off-site) at the design flood event; and,
- Is unlikely to place additional persons at risk of flooding.

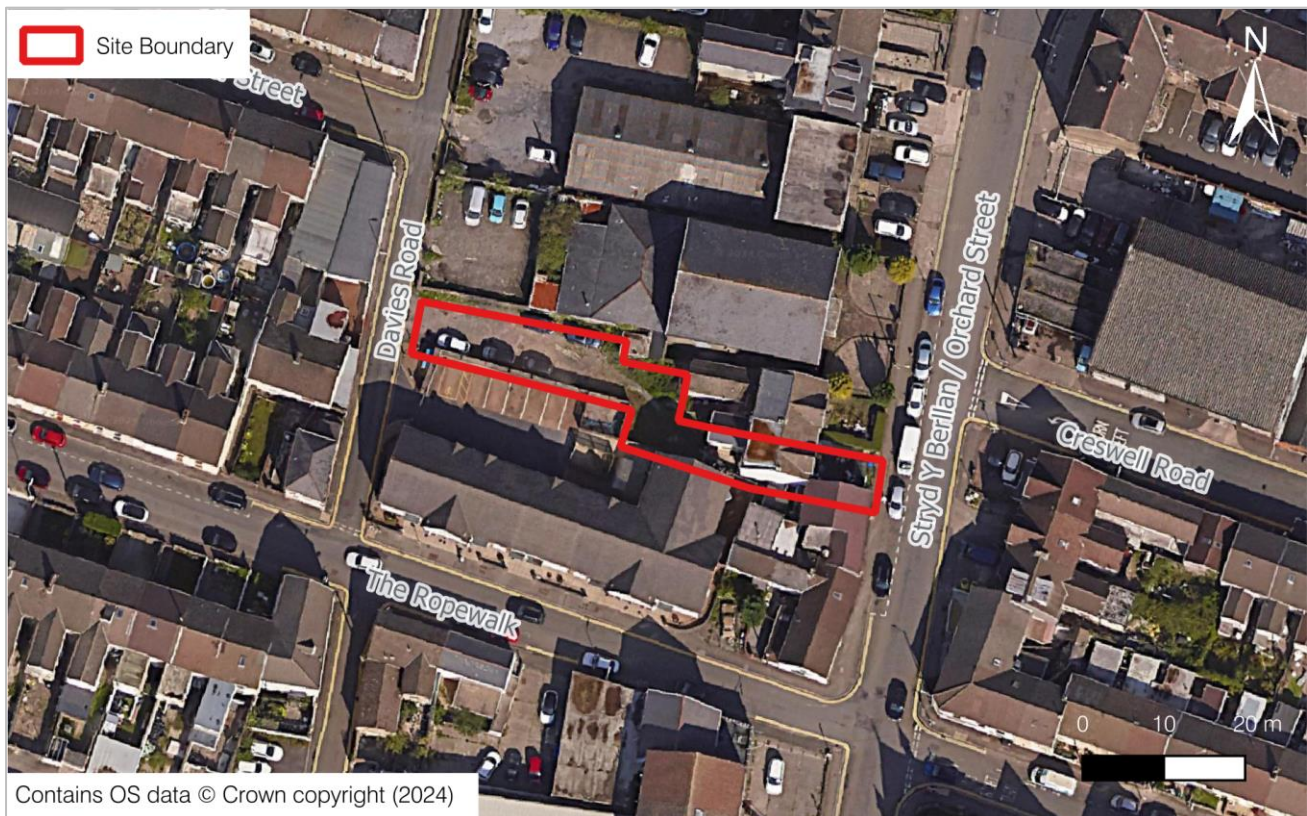


1 Introduction

1.1 Authorisation and Context

Ashfield Flood Risk Solutions ("Ashfield") were commissioned by Eleys Group LTD ("the client") to undertake a Flood Consequence Assessment ("FCA") in support of a planning application for the proposed change of use from a children's creche to a five bed House in Multiple Occupation (HMO) at 12 London Road, Neath, SA11 1HB ("the site"). The site location is illustrated in Figure 01 for reference.

Figure 01 - Site Location



1.2 Aim and Objectives

The aim of this report is to address the requirements of the Planning Policy Technical Advice Note 15 (TAN 15) (2004) by:

- Assessing whether the site is likely to be affected by flooding from different sources;
- Providing an assessment of the vulnerability of the proposed development and its suitability in relation to the identified flood risks;
- Providing an opinion in relation to the likely impacts of the proposed development on flooding elsewhere; and,
- Where required, presenting flood risk mitigation measures necessary to ensure that the proposed development and occupants will be safe, whilst ensuring flood risk is not increased elsewhere.



1.3 Information Sources Used

In order to prepare this FCA, the following information sources and general guidance documents have been used:

- Planning Policy Wales, Edition 12 – February 2024;
- Planning Policy Wales TAN15 – Welsh Assembly Government (July 2004);
- Scheme Design: Existing Block Plan (DRW-2453-04) – Artium Architecture, August 2024;
- Scheme Design: Proposed Block Plan (DRW-2453-05A) – Atrium Architecture, August 2024;
- Neath Port Talbot County Borough Council (NPTCBC) Strategic Flood Consequences Assessment (SFCA) Stage 1 & 2 – NPTCBC, September 2014;
- NPTCBC Preliminary Flood Risk Assessment (PFRA) – NPTCBC, March 2011;
- NPTCBC PFRA Addendum – NPTCBC, December 2017;
- NPTCBC Flood Risk Management Plan (FRMP) – NPTCBC, December, 2015;
- NPTCBC Local Flood Risk Management Strategy (LFRMS) – NPTCBC, June, 2013;
- NRW Product 6 Data – Neath Phase 2 Hydraulic Model – JBA, December 2016, Licenced September 2024;
- 1m Resolution LiDAR Data – Downloaded September 2024;
- Natural Resources Wales (NRW) interactive flood maps – accessed online September 2024; and,
- British Geological Survey (BGS) Drift & Geology Maps – accessed online September 2024.

1.4 Report Limitations

This assessment of flood risk has looked to use the most accurate and up to date flood mapping for the location. The site boundary has been supplied by the client and the assessment of risk is based on this. This report has been prepared with due care and diligence in accordance with industry best practice and guidance. The conclusions in this report are valid only to the extent that the information provided to Ashfield was accurate and complete at time of receipt.

1.5 Site Setting

The site is located at coordinates XY: 275305, 197283 (nearest post code: SA11 1HB). The site is located on the outskirts of Neath Town Centre, approximately 228m southwest of Neath Train Station. The site currently comprises a children's creche and is encompassed by a combination of both residential and commercial properties to the north, south, east and west. The site can be accessed via Orchard Street to the east or via Davies Road to the west.

1.6 Development Proposals

This FCA is in support of a planning application for the proposed change of use from a children's creche to a five bed House in Multiple Occupation (HMO). There are no changes to the building footprint proposed, with the existing and proposed block plans seen within Appendix A for reference. Furthermore, the existing and proposed floor plans can be seen within Appendix B for reference. It is understood that the ground floor will change from one main room and split into a front and rear bedroom. The first floor will change into two bedrooms keeping to the existing layout. The second floor will change from an office and storage to a fifth bedroom with an en-suite bathroom. The Finished Floor Level (FFL) is proposed to remain the same. It is understood that the addition of five car parking spaces in the western region of the site have already been approved under planning application No. P2015/1039.



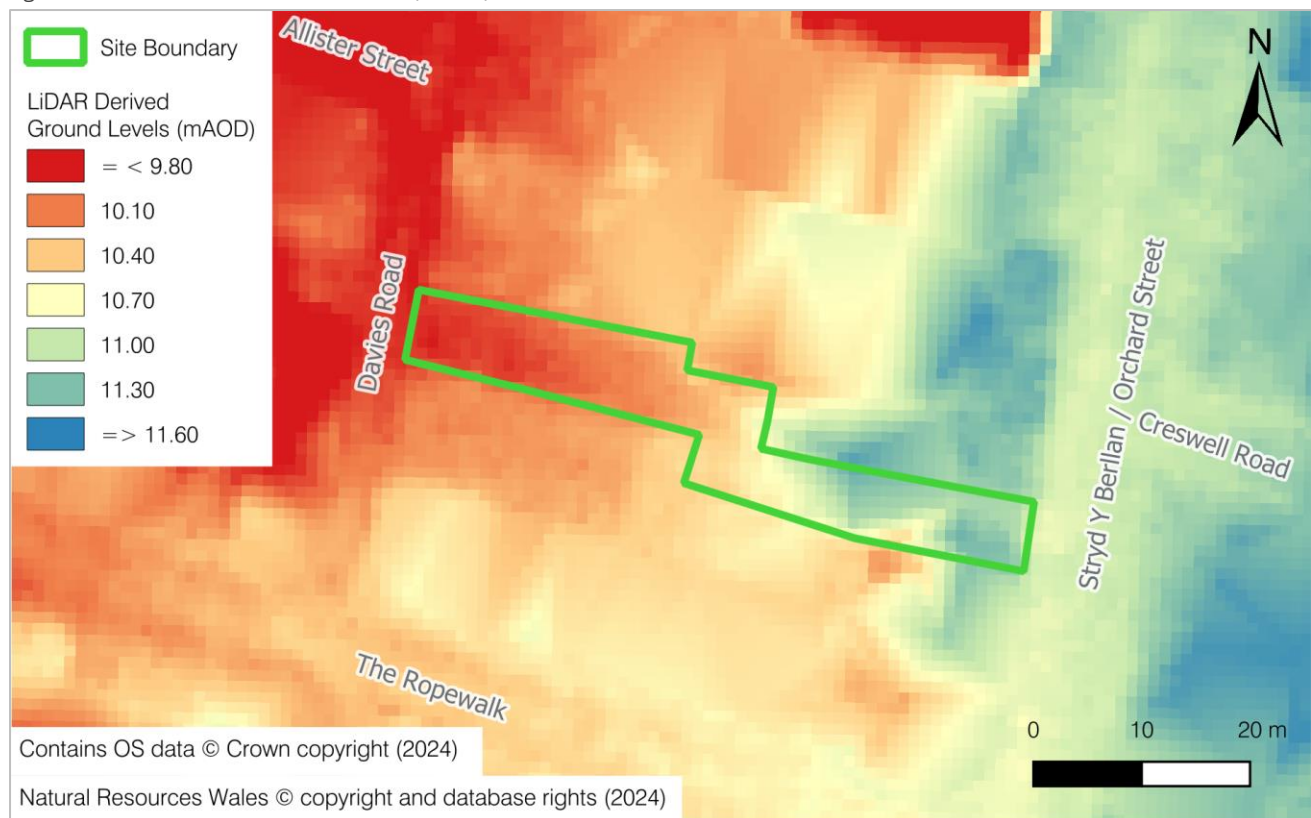
1.7 Topographic Mapping

In the absence of a site-specific topographic survey, freely available 1m resolution Light Detection and Ranging (LiDAR) data has been downloaded to allow analysis of the whole site and local area. A visual illustration of the LiDAR is presented on Figure 02.

From review of the LiDAR, it was indicated the topography of the whole site falls from approximately 11.31mAOD in the eastern region of the boundary to 9.81mAOD at the northwestern corner of the boundary. This is a difference in ground levels of 1.5m.

The building footprint is located in the area of the site that is at a higher elevation, with ground levels ranging from 11.16mAOD in the northeastern corner of the footprint, to 10.70mAOD in the southwestern corner. This is a minor difference in ground levels of 0.46m.

Figure 02 - LiDAR Derived Ground Levels (mAOD)



1.8 Local Hydrology

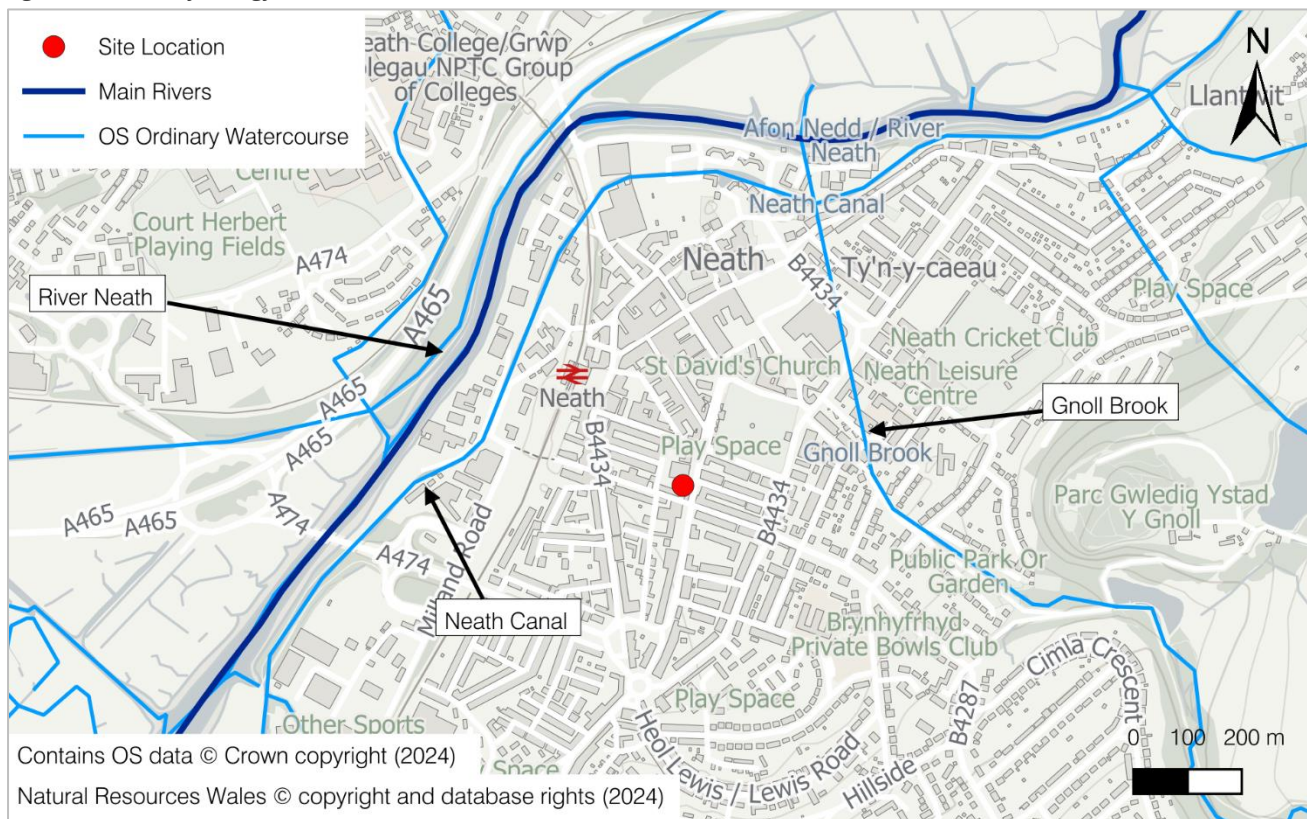
The nearest NRW designated Main River is the River Neath, located approximately 425m west of the site (Figure 03), flowing in a southerly direction before discharging into Swansea Bay at Aberavon Beach, approximately 8km south-west of the site.

The nearest ordinary watercourse is the Gnoll Brook, located approximately 336m east of the site, flowing in a northerly direction before its confluence with the River Neath approximately 652m north of the site. The Gnoll Brook is partially culverted, with the nearest open channel section located approximately 336m east of the site.

Additionally, the Neath Canal is located approximately 324m west of the site.



Figure 03 - Local Hydrology



1.9 Local Drainage

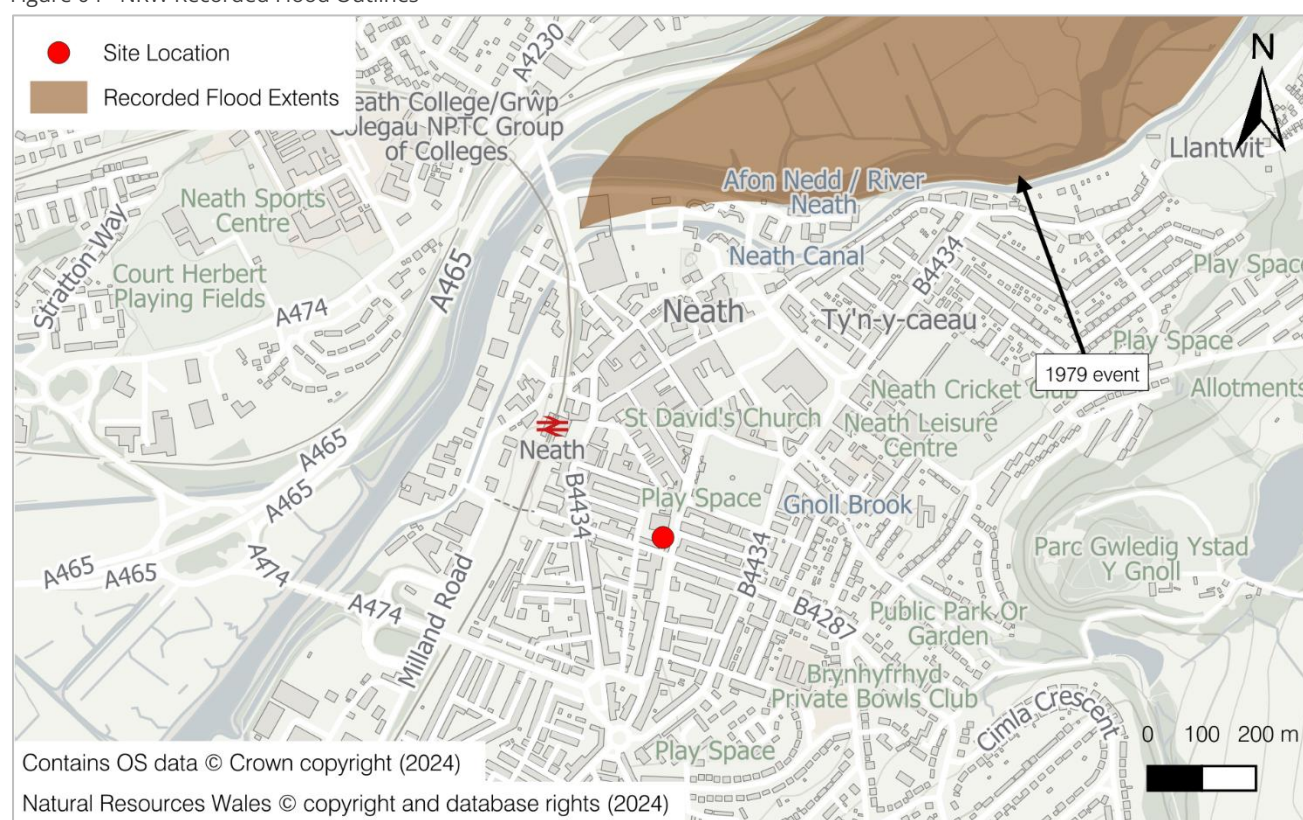
A drainage plan for the site was not provided by the client; however, a review of Street View imagery indicated that the nearest drains to the site are gully drains, located on the junction of Orchard Street and Creswell Road (13m northeast). The nearest drain at the rear of the site is a gully drain located 18m northwest at the junction of Davies Road and Allister Street. It is assumed that the site is connected to the wider public below ground drainage network and there will be no changes to outfalls based on the development being a change of use.

1.10 Flood History

From review of the NRW open-source data of recorded flood outlines, it is indicated that historic flooding has not occurred at the site. The nearest recorded flood outline is located approximately 558m north of the site. This incident was indicated to have occurred in 1979, due to the River Neath exceeding its channel capacity with no raised defences (Figure 04).



Figure 04 - NRW Recorded Flood Outlines



Online Documentation

The Neath Port Talbot County Borough Council (NPTCBC) Strategic Flood Consequences Assessment (SFCA) Stage 1 & 2 (2014)¹ was reviewed for historic flood events at and within the vicinity of the site. Upon review of the SFCA, it was indicated that there have been 13 records of historic flooding in relation to heavy rain incidents, sewer flooding and culvert blocking within the Borough; however, no more information was available within the SFCA.

The NPTCBC Preliminary Flood Risk Assessment Report (PFRA) (2011)² was reviewed for historic flood events at and within the vicinity of the site. Upon review of the PFRA, it was indicated that there have been numerous flooding incidents within Neath, including the 1979 incident identified by the NRW open-source data of recorded flood outlines. This incident is recorded as the highest rainfall event on record in the Neath catchment, at the time the PFRA was written. More recent events have been reported in 1998, 2007 and 2008. The flooding event in 1998 occurred 338m west of the site (Canal Side) when the River Neath overflowed into the canal, exceeding the canal channel capacity.

An addendum to the NPTCBC PFRA³ was issued in 2017, stating that one flood event has occurred since the publication of the PFRA in 2011 that has changed the understanding of the flood risk of the area. This event occurred in 2016 during significant rainfall in the Swansea Valley and surrounding area, which resulted in three major flood events at three separate locations, with Flood Investigation Reports published for each locality⁴. The site was not impacted during this event.

¹ https://www.npt.gov.uk/media/5137/ldp_submission_eb01.pdf

² https://www.npt.gov.uk/media/4629/pfra_report_2011.pdf

³ <https://beta.npt.gov.uk/parking-roads-and-travel/flood-and-coastal-defence/flood-and-water-management-act/#contents1>

⁴ <https://beta.npt.gov.uk/parking-roads-and-travel/flood-and-coastal-defence/investigations-into-flooding/>



Canal side (338m west) has flooded twice since the PFRA addendum was published in 2017, in 2018⁵ and 2020⁶. The 2018 incident occurred due to hydraulic over capacity of the sewerage network as a result of heavy prolonged rainfall. The 2020 incident occurred due to the River Dulais exceeding its channel capacity, combined with the sewer network exceeding its hydraulic capacity. Neither event was indicated to impact the site.

The NPTCBC Local Flood Risk Management Strategy (LFRMS) (2013)⁷ was reviewed for historic flood events at and within the vicinity of the site. Upon review of the LFRMS, it was indicated that there have been no reportable incidents identified at or within the vicinity of the site.

The NPTBCB Flood Risk Management Plan (FRMP) (2015)⁸ was reviewed for historic flood events at and within the vicinity of the site. Upon review of the FRMP, it was indicated that there have been no reportable incidents identified at or within the vicinity of the site.

Flood History Summary

A review of the documents referenced in Section 1.3 of this report along with NRW's recorded flood outlines, indicated that flooding occurred within the wider area of the site; however, there are no reportable events closer than 338m.

Development Advice Map

The Development Advice Map (DAM) shows areas at risk of flooding from rivers and the sea for the purposes of land-use planning. The DAM supports Planning Policy Wales and TAN15 to guide new development away from areas at risk of flooding wherever possible. The composition and use of the Development Advice Map zones can be seen below in Table 1.

Table 1 – Composition and use of the Development Advice Map zones

Description of Zone	Zone	Use within the precautionary framework
Considered to be at little or no risk of fluvial or tidal/coastal flooding.	A	Used to indicate that justification test is not applicable and no need to consider flood risk further.
Areas known to have been flooded in the past evidenced by sedimentary deposits.	B	Used as part of a precautionary approach to indicate where site levels should be checked against the extreme (0.1%) flood level. If site levels are greater than the flood levels used to define adjacent extreme flood outline there is no need to consider flood risk further.

⁵ <https://www.npt.gov.uk/media/12125/investigation-report-into-flooding-incident-of-13-october-2018-canal-side-aberdulais.pdf?v=20210817104117>

⁶ <https://www.npt.gov.uk/media/13956/investigation-report-into-flooding-incident-of-16-february-2020-canal-side-aberdulais.pdf?v=20211008153620>

⁷ <https://beta.npt.gov.uk/parking-roads-and-travel/flood-and-coastal-defence/flood-risk-management-strategy/#:~:text=The%20LFRMS%20determines%20the%20locally,with%20main%20rivers%20and%20sewers.>

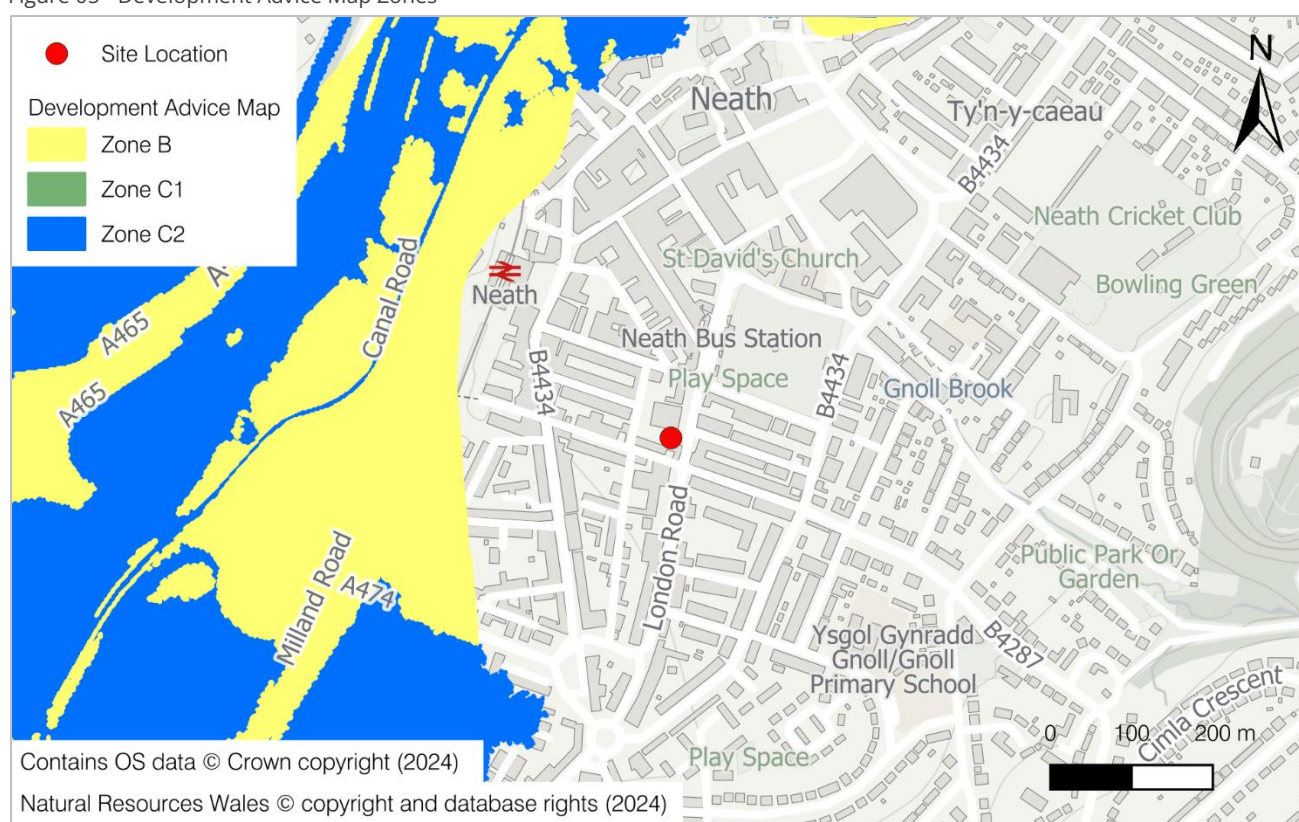
⁸ <https://www.npt.gov.uk/media/5399/floodriskmanagementplan15.pdf?v=20170627002320>



Description of Zone	Zone	Use within the precautionary framework
Based on Environment Agency extreme flood outline, equal to or greater than 0.1% (river, tidal or coastal)	C	Used to indicate that flooding issues should be considered as an integral part of decision making by the application of the justification test including assessment of consequences.
Areas of the floodplain which are developed and served by significant infrastructure, including flood defences.	C1	Used to indicate that development can take place subject to application of justification test, including acceptability of consequences.
Areas of the floodplain without significant flood defence infrastructure.	C2	Used to indicate that only less vulnerable development should be considered subject to application of justification test, including acceptability of consequences. Emergency services and highly vulnerable development should not be considered.

As seen in Figure 05, the site is shown to be located within Zone A, indicating that the site is within an area considered to be at little or no risk of fluvial/tidal flooding. Further reference will be made in regard to the DAM in Section 3 of this report.

Figure 05 - Development Advice Map Zones





1.11 The Design Flood

The Planning Practice Guidance along with TAN15 identifies that new developments should be designed to provide adequate flood risk management, mitigation and resilience against the 'design flood' for their lifetime.

This is a flood event of a given annual flood probability, which is generally taken as fluvial (river) flooding likely to occur with a 1% annual probability (1 in 100 chance each year), or tidal flooding within a 0.5% annual probability (1 in 200 chance each year) plus an allowance for Climate Change (CC), against which the suitability of a proposed development is assessed and mitigation measures, if any, are designed. The site is confirmed to not be at a risk of tidal flooding. As the main risk to the site is fluvial, the 1 in 100 year +CC event will be considered throughout this report. Additionally, consideration to the tolerable limits of TAN15 is given within Section 3 of this report.

1.12 Climate Change

In September 2021, NRW published the Climate Change Allowance guidance for FCAs⁹. This includes predicted future change in peak river flows which replaced the previous national 20% allowance, with a range of projections applied to regionalised river basin districts.

Peak River Flow Allowance

The site falls within the Western Wales Basin District. Table 2 identifies the relevant peak river flow allowance from this river basin district.

Table 2 – Peak River Flow Allowance for the Western Wales Basin District

Allowance Category	Total potential change anticipated for the '2020s' (2015 to 2039)	Total potential change anticipated for the '2050s' (2040 to 2069)	Total potential change anticipated for the '2080s' (2070 to 2115)
Upper End Estimate	25%	40%	75%
Change factor/central estimate	15%	25%	30%
Lower end Estimate	5%	10%	15%

When determining the appropriate allowance for use in a Flood Consequence Assessment, the guidance from the Welsh Government recommends that the central estimate or change factor should be used. For the lifetime of the proposed development, the 2080s central estimate should be considered, which as seen in Table 2 above is an additional 30% for Climate Change (CC).

To ensure that the development is designed adequately for its lifetime, an allowance of 30% should be applied to the design flood (1 in 100 year) event. This will be considered further within Sections 2 and 3 of this FCA.

⁹ https://www.gov.wales/sites/default/files/publications/2021-09/climate-change-allowances-and-flood-consequence-assessments_0.pdf



2 Flood Risk Evaluation

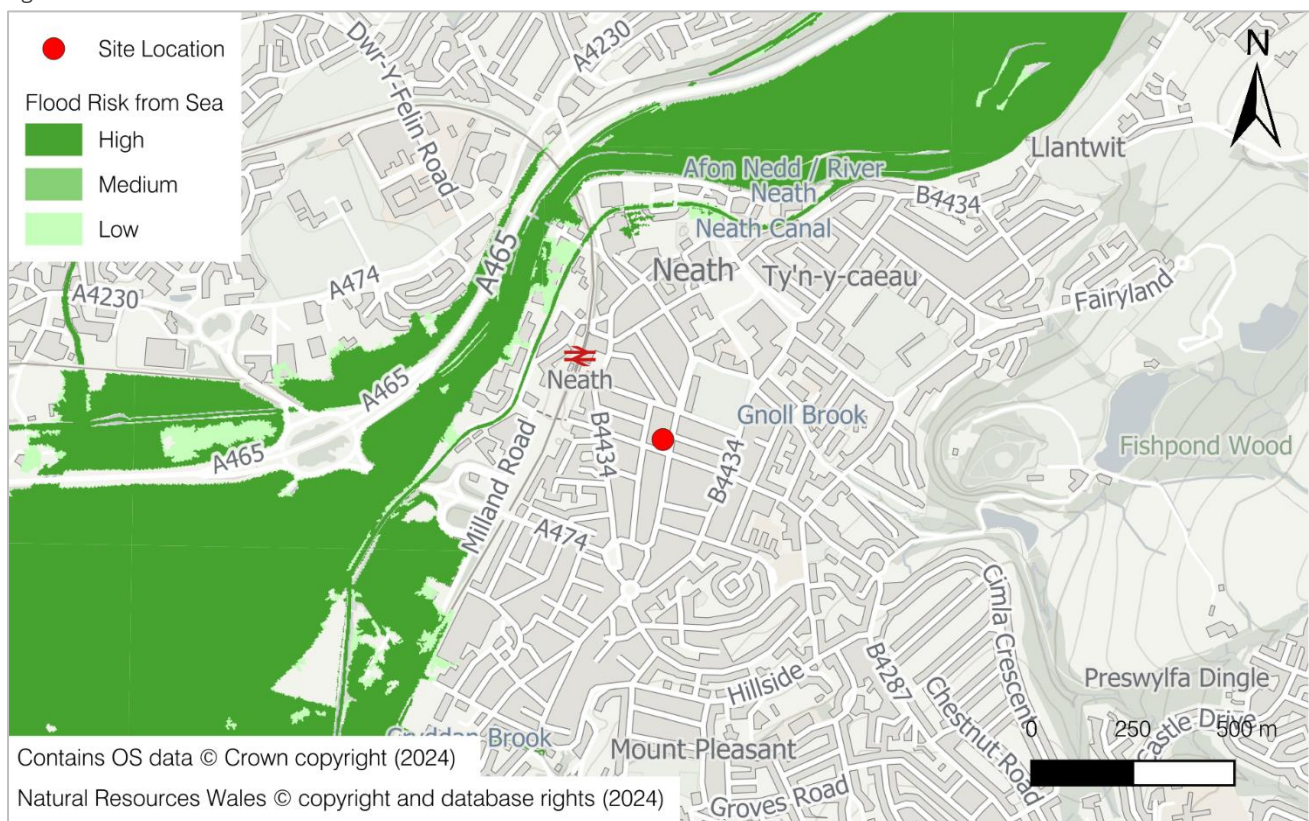
The following sections provide an evaluation of the risk posed by the key flood sources in relation to the site location. Consideration is given to the severity of flood risk to the site as a whole, making use of existing flood mapping, high-level local strategic studies and available topographic information.

2.1 Tidal Flood Risk

Tidal flood risk can affect the coastline as well as estuaries and rivers that are tidally influenced. Flood events often coincide with the tidal regime, high rainfall events or other natural phenomena, which can lead to water levels covering low-lying land or exceeding natural or man-made defences.

The NRW Flood Risk Assessment Wales (FRAW) (Rivers and Sea) divides the floodplain into risk-based categories and provides an indication of flood risk for the site. The FRAW mapping (Rivers and Sea) (Figure 06) indicates that the site is not located within an area at risk of flooding from the sea. The site is located outside of the high, medium and low risk tidal extent, with the coastline located approximately 6.7km southwest of the site. The nearest high risk tidal extent of the River Usk is located 325m west of the site.

Figure 06 - NRW Flood Risk from Sea



The risk of flooding from tidal sources is considered **Low** at the site. No further consideration is made within this report to this source of flooding.



2.2 Fluvial Flood Risk

Fluvial flood risk originates from a watercourse of any size that may affect a site when the channel capacity is exceeded. This type of flooding often occurs following an extreme rainstorm event or a prolonged period of wet weather.

As previously mentioned in Section 1.8 of this report, the nearest NRW designated Main River is the River Neath, located approximately 425m west of the site, flowing in a southerly direction before it discharges into Swansea Bay approximately 8km south-west of the site.

The nearest ordinary watercourse is the Gnoll Brook, located approximately 336m east of the site, flowing in a northerly direction before its confluence with the River Neath approximately 652m north of the site. The Gnoll Brook is partially culverted, with the nearest open channel section located approximately 336m east of the site.

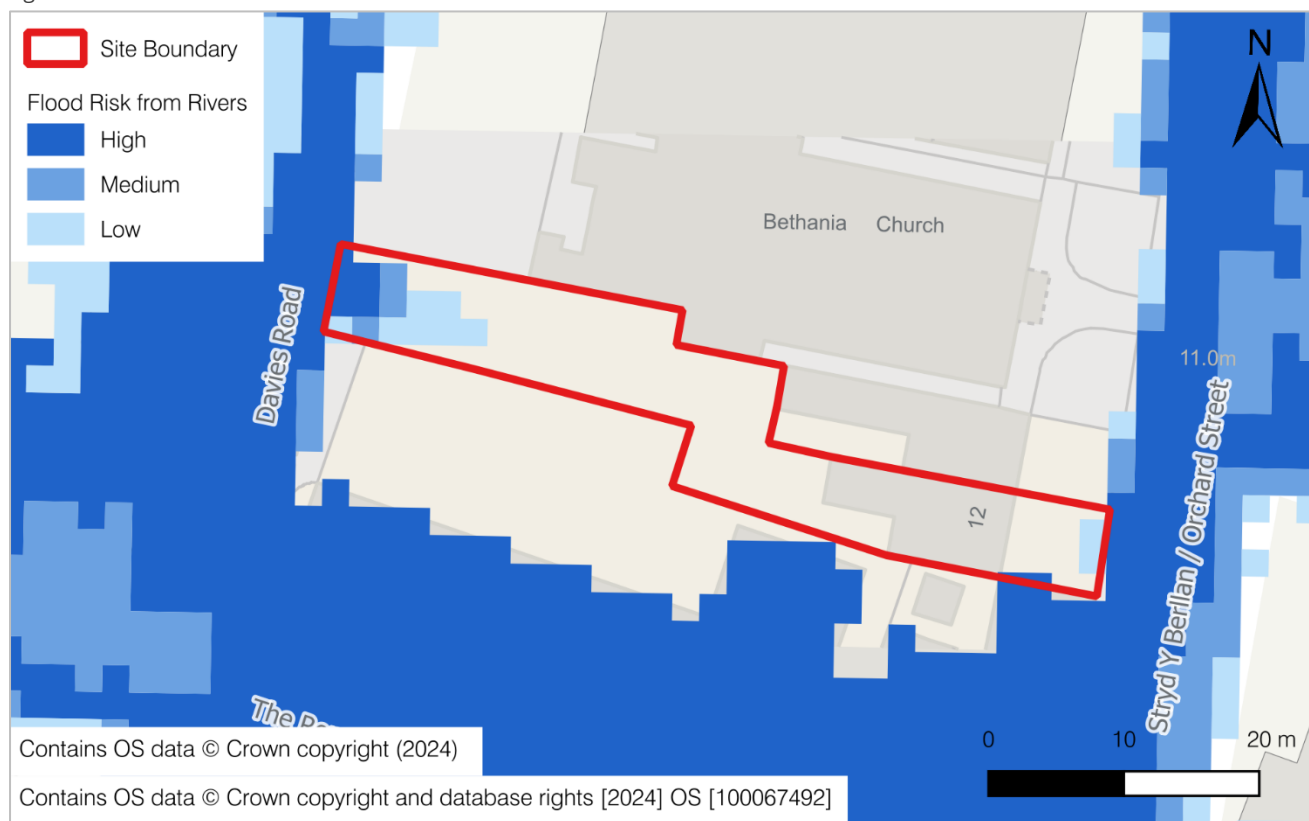
NRW Flood Mapping

The NRW Flood Risk Assessment (FRAW) (Rivers) divides the floodplain into risk-based categories and provides an indication of flood risk for the site. The FRAW mapping (Rivers and Sea) (Figure 07) indicates that the building within the site boundary is located outside of any area at risk. However, there is an area of high, medium and low risk within the western area, with the eastern boundary also encroached by a small, localised area of low risk. The risk definitions for reference are:

- **High Risk** – An area that has a chance of flooding of greater than 1 in 30 (3.3%) in any given year.
- **Medium Risk** – An area that has a chance of flooding between a 1 in 100 (1%) and 1 in 30 (3.3%) in any given year.
- **Low Risk** – An area that has a chance of flooding between 1 in 1000 (0.1%) and 1 in 100 (1%) in any given year.



Figure 07 - NRW Flood Risk from Rivers



Flood Defences

The open-source layer for flood defences in GIS Viewer has not identified any flood defences in the vicinity of the site. Moreover, the site is indicated to not be located within an area benefitting from flood defences.

NRW Flood Model Data

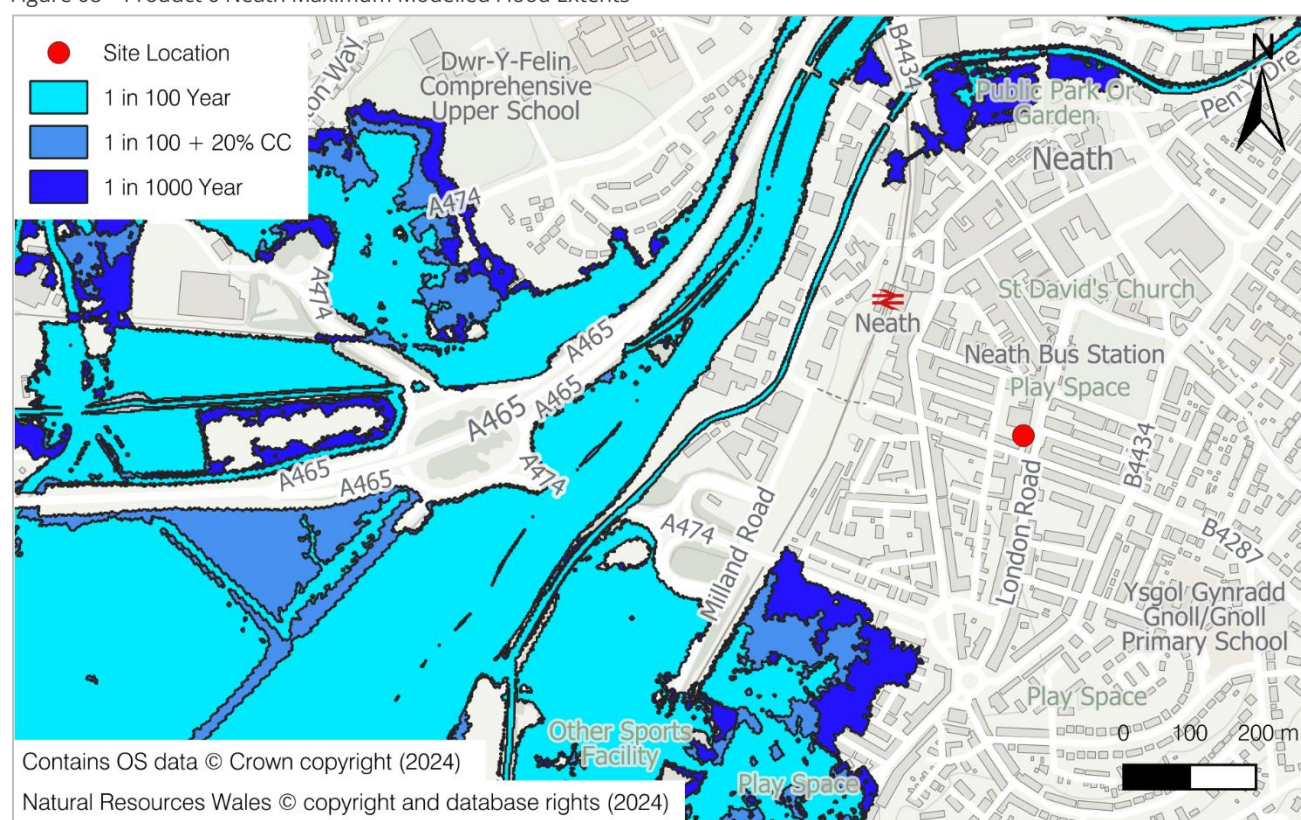
Product 5 and 6 flood model data (2016) was obtained by from NRW to inform this FCA. This comprises the Neath – Phase 2 Hydraulic Model published by JBA in December 2016. The model is a 1D/2D TUFLOW model. This allows for a detailed representation of the floodplain, using efficient techniques to modify the baseline ground elevation and model grid to define floodplain features which control flood mechanism.

The flood extents used within this report are taken from the defended fluvial scenario. It must be noted that the data used was the latest data held by NRW which included 20% Climate Change (CC) allowance.

Figure 08 shows the Product 6 Neath maximum modelled flood extents for the site. As seen in this figure, the site is shown to be outside of all return periods up to and including the 1 in 1000 year event. The nearest area shown to be at risk in the 1 in 100 year event up to and including the 1 in 1000 year event is located approximately 326m west of the site.



Figure 08 – Product 6 Neath Maximum Modelled Flood Extents



It must be noted that Figure 07 is indicated to show the flood risk to the site from the Gnoll Brook. Figure 08 takes into account the flood risk within the area from the River Neath. Despite the data not showing the risk of the Gnoll Brook, both mapping paint the site in a good light as the building footprint is shown to be outside of an area of high, medium and low river risk as well as being located outside of all return periods up to and including the 1 in 1000 year event.

Online Documentation

Upon review of the relevant documents, it was indicated that there have been fluvial flood events within 338m; however, there have been no reportable incidents located at the site.

In summary, the site is shown to be outside of all return periods up to and including the 1 in 1000 year event. Therefore, the overall risk to the site from fluvial flooding is considered to be **Low**. No further consideration of this source is made within this FCA.

2.3 Surface Water Flooding

Surface water flooding occurs when local drainage networks are overwhelmed during an extreme rainfall event, causing water to flow over the surface and follow gravity to the lowest point where it often pools. This flood source is increasingly becoming one of the major contributors of flood risk, due to changing weather patterns and increased extreme rainfall events occurring across the UK. This places more pressure than ever on drainage systems, which are often overwhelmed during flash flood events, normally only designed to take between a 1 in 20 and a 1 in 30 return period event.

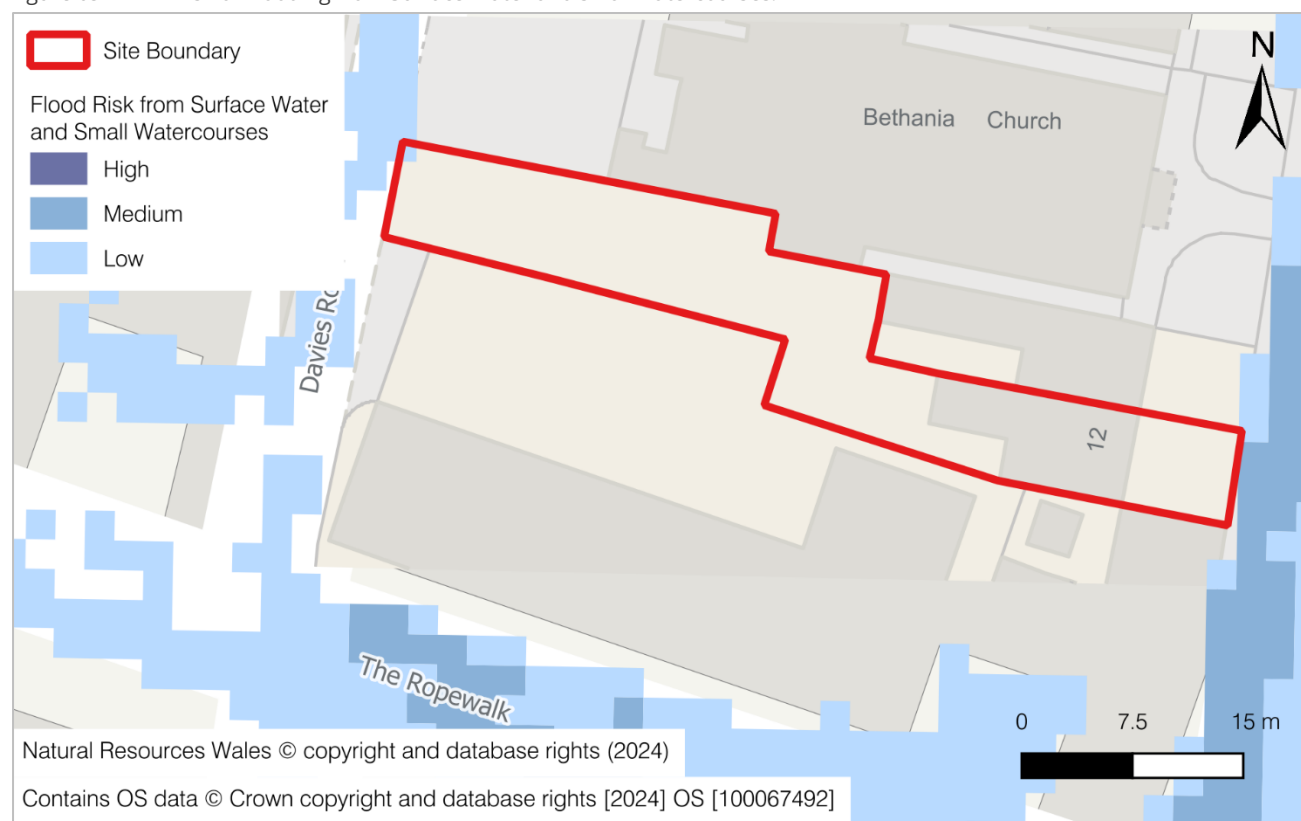


When interpreting the surface water flood map information, it needs to be taken into account that surface water mapping is generated from information that is largely high-level. The flood mapping must be correctly interpreted in order to give a fair representation of the site's surface water flood risk and used only as a guide.

The NRW Flood Risk from Surface Water and Small Watercourses Mapping (Figure 09) indicates that the eastern boundary of the site is projected to be encroached by surface water flooding in the medium probability event. Moreover, in the low probability event surface water is shown to encroach upon the eastern and western boundary. In all three probability events, the site footprint is not indicated to be at risk of surface water flooding or flooding from small watercourses. The risk definitions are:

- **High Probability** means that each year, this area has a chance of flooding of greater than 1 in 30 (3.3%).
- **Medium Probability** means that each year, this area has a chance of flooding between 1 in 100 (1%) and 1 in 30 (3.3%).
- **Low Probability** means that each year, this area has a chance of flooding between 1 in 1000 (0.1%) and 1 in 100 (1%).

Figure 09 - NRW Risk of Flooding from Surface Water and small watercourses.



During the high probability event, surface water is shown to not impact the site. The nearest area projected to be impacted by the high risk is located approximately 84m southwest of the site. During the medium probability event, surface water is projected to be localised within the road (Orchard Street) and not encroach upon the building footprint with projected depths of 0.15m – 0.3m (Figure 10). During the low probability event (Figure 11), surface water flooding is shown to encroach upon the eastern and western boundary with projected depths of ≤ 0.15 m in the western region and 0.3m - 0.9m in the eastern. The surface water projected adjacent to the eastern boundary is indicated to be localised within the road (Orchard Street) and not encroach upon the building footprint.



Figure 10 - NRW Medium Probability Surface Water Depths



Figure 11 - NRW Low Probability Surface Water Depths





Online Documentation

Upon review of the relevant documents, it was indicated that there have been no reportable instances of historic surface water flood events located at or within the vicinity of the site.

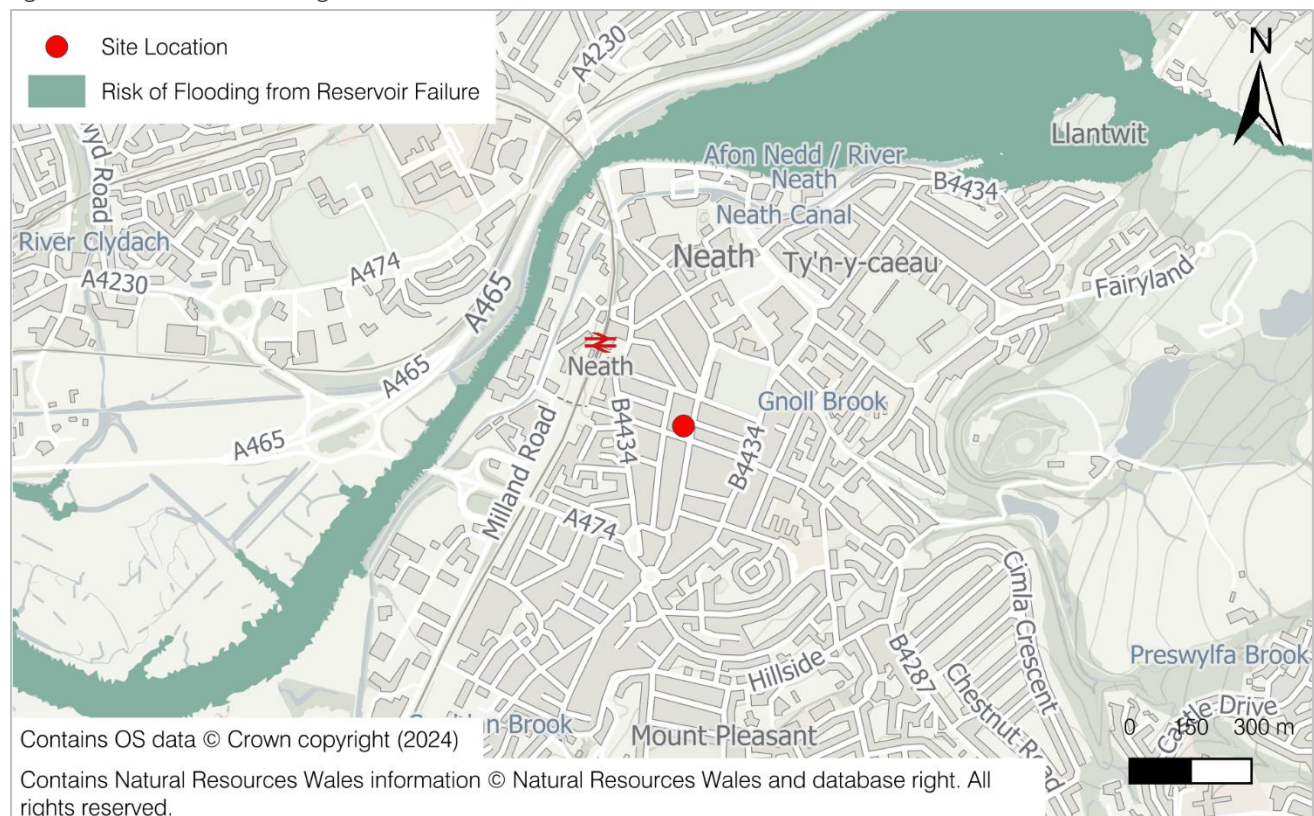
Based on the available flood risk mapping, flood risk from this source is considered to be **Low**. No further consideration of this source is made within this FCA.

2.4 Reservoir Failure

Assessment of risk of a reservoir failure may be interpreted as the extent of flooding that would occur, should any reservoir that has a capacity larger than 25,000m³, suffer a catastrophic failure. Mapping of this nature is described by Natural Resources Wales as a very worst-case scenario, with a flood event of this type being extremely unlikely to occur.

The NRW Risk of Flooding from Reservoir Mapping (Figure 12) shows the site to not be located within an area at risk of flooding during a reservoir failure event. The nearest area projected to be impacted during a reservoir failure event is located approximately 435m west of the site. The nearest reservoir is Llyn Fawr which is located approximately 17.6km to the northeast of the site. Current legislation ensures that reservoirs are inspected regularly, and essential safety work is carried out as required.

Figure 12 - NRW Risk of Flooding from Reservoir Failure





Online Documentation

Upon review of the relevant documents, it was indicated that there have been no reportable instances of reservoir failure flood events located at or within the vicinity of the site.

The site is not located within an area at risk of flooding from reservoir failure. Current legislation ensures that reservoirs are inspected regularly. The risk of flooding from reservoir failure is therefore considered to be **Negligible**. No further consideration of this source is made within this FCA.

2.5 Groundwater

Flooding from a groundwater source often occurs during or following a period of prolonged wet weather within areas that are low lying underlain by permeable rocks (aquifers). When aquifers are at their maximum holding potential, flooding at surface level can occur from beneath the ground.

Groundwater as a sole flooding mechanism is often regarded as low risk as it often relies on a coinciding rainfall, or flood event from an additional source to become a flood risk. The main contributory factor that will enhance the risk of groundwater flooding, is prolonged periods of high rainfall, which result in the groundwater saturation level rising to the point where it reaches the surface.

Online BGS mapping shows the bedrock geology beneath the site to comprise Hughes Member - Mudstone, siltstone and sandstone. This is classified a 'Secondary A' aquifer. These are permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers.

The bedrock is overlain by Glaciofluvial Sheet Deposits, Devensian - Sand and gravel. This is classified as a 'unproductive' aquifer. These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow.

The nearest borehole to the site which shares the same underlying geology groundwater information is located approximately 299m northeast (Ref: SS79NE87), which has a depth of approximately 11.7m below ground level (bgl). Groundwater was struck at approximately 10.4m bgl.

Online Documentation

Upon review of the relevant documents, it was indicated that there have been no reportable instances of historic groundwater flood events located at or within the vicinity of the site. No further information regarding the susceptibility of groundwater flooding at the site was provide within any of the listed documents.

The risk of groundwater flooding is therefore considered to be **Low**. No further consideration of this source is made within this FCA.

2.6 Artificial Flood Sources

Flood risk from artificial sources would include the failure of man-made drainage or water supply network. Although the likelihood of such an occurrence is highly unpredictable, it is recommended that any proposed designs for the site take into account the location of any existing below ground services, in order to avoid any inadvertent flooding taking place during the construction phase and in the future.



Online Documentation

Upon review of the relevant documents, it was indicated that there have been two incidents of artificial flooding within the wider area of the site (Canal Side, 338m west). However, there are no reportable incidents of artificial flooding located at the site.

In summary, the overall risk to the site from artificial sources is considered to be **Low**. No further consideration of this source is made within this FCA.

2.7 Summary

Table 3 provides a summary of the classification of risk to the site from all flood sources and indicates where further considerations are required.

Table 3 – Flood Risk Summary

Flood Source	Overall Risk Classification	Additional Considerations
Tidal	Low	None
Fluvial	Low	None
Surface Water	Low	None
Reservoir Failure	Negligible	None
Groundwater	Low	None
Artificial Sources	Low	None



3 Flood Risk in Planning Context

This report has so far evaluated all potential flood risk sources that may affect the site. The following sections describe the identified flood risks in the context of the proposed development and provides justification for enabling safe development.

3.1 Flood Risk Status

The site is not at risk of fluvial flooding in the design flood event of a 1 in 100 year event +20% CC. Furthermore, the site is shown to not be a risk in all return periods up to and including the 1 in 1000 year event. Overall, the risk of fluvial flooding at the site is considered to be **Low**. The risk of flooding from tidal sources, surface water, groundwater and artificial sources is also considered to be **Low**. The risk of flooding from reservoir failure is considered **Negligible**.

3.2 TAN 15 Requirements

As stated in Section 1.11 of this report, the site is located with Zone A of the DAM (Figure 05). This is considered an area of little to no risk of fluvial/coastal flooding. Consequently, a justification test is not required. However, as this is a change of use from a children's creche to a five bed House (HMO) the risk of flooding to future residents has been considered and outlined within this report. This has been supported by our analysis of available flood model data (Neath 2016) which indicates that the site is not at risk of flooding in all return periods up to and including the 1 in 1000 year event.

3.3 Impact on Flooding Elsewhere

The site is shown to not be at risk of fluvial flooding in the 1 in 100 year + CC design flood event, as required in TAN15. Therefore, the development will not impact the risk of flooding at or within the vicinity of the site as this shows no flood water displacement would be caused during this flood event. In addition, the development is a change of use with no changes proposed to the building footprint.

Flood Awareness

A Personal Flood Plan should be in use to ensure that the client is aware of the potential risks from flooding in the locality, as well as understanding what to do in the instance of a potential flood event. The NRW Personal Flood Plan template can be seen within Appendix C It is also recommended that the client registers to the NRW Flood Warning service¹⁰ as a precaution. Safe refuge is achievable in the upper level of the dwelling itself; however, should there be a requirement to evacuate, this should be done at the 'Flood Alert' stage. The client should egress the site informed by the NRW Flood Alert service.

¹⁰ <https://naturalresources.wales/flooding/sign-up-to-receive-flood-warnings/?lang=en>



4 Conclusion

The aim of this FCA was to address the requirements of TAN15. The proposed development at the site comprises the change of use from a children's creche to a five bed HMO, with no alterations to the building footprint.

The site is located within DAM Zone A of the River Neath and therefore a justification test is not required.

The site has been assessed for flood risk from a variety of flood sources and based upon detailed analysis of anecdotal and modelled flood risk information this FCA has identified that the risk of flooding from fluvial sources is considered Low. The site is indicated to be outside of the 1 in 100 + 20% CC and 1 in 1000 year events which aligns with requirements set out in TAN15. Therefore, the development will not impact the risk of flooding at or within the vicinity of the site as this shows no flood water displacement would be caused.

This FCA has further identified that the risk of flooding from tidal sources, surface water, reservoir failure, groundwater and artificial sources is also considered to be Low. The risk of flooding from reservoir failure is considered Negligible.

This report therefore has met the aim as set out in Section 1.2 and concludes that the development:

- Is suitable in the location proposed;
- Will not impact flood risk elsewhere (off-site) at the design flood event; and,
- Is unlikely to place additional persons at risk of flooding.



Limitations of this report

This report has been prepared by Ashfield Flood Risk Solutions Limited (Ashfield) for the sole benefit of the client.

This report has been prepared solely for the benefit of Eleys Group LTD (the “Client”) and has not been assigned to any other third parties. If reliance on this report was required by a third party, this could be arranged for an agreed fee. This report should not be used by the client in relation to any other matters not covered specifically by the scope of the report. If this report does not contain a signature in the Document Control window, then this is an uncontrolled electronic copy and should not be relied upon by the client or any other recipient, as Ashfield cannot give assurances on the source or content of the document. Ashfield has used all reasonable skill, care and diligence in the preparation of this report.

This Flood Risk Assessment report has been designed to meet the aims outlined in Section 1. It is a desktop review of information provided by the client and from selected private and public databases. It only includes a site investigation where specifically referenced. This report does not make a detailed site-specific assessment of the suitability of the existing drainage on the Site. If this is required, then a site survey should be considered. Ashfield accepts no responsibility for the accuracy or completeness of third-party data reviewed within this assessment.

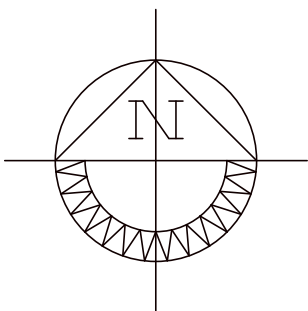
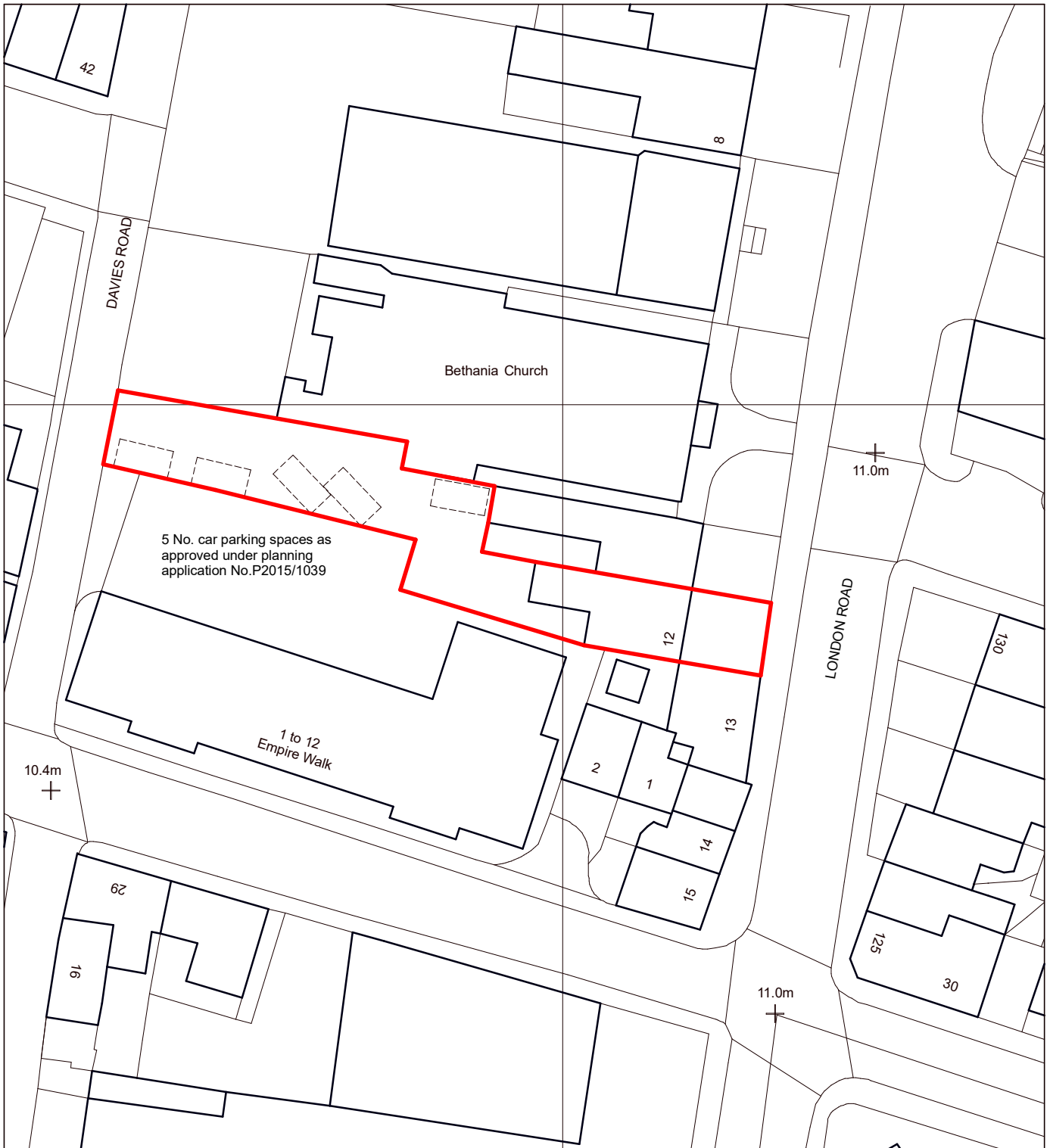
This report is provided under Ashfield Solutions Limited Standard Terms and Conditions.



Appendices



Appendix A Site Plans



12 LONDON ROAD, NEATH
Eley's Group Ltd

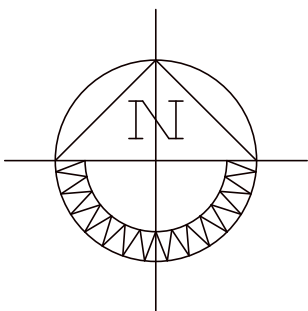
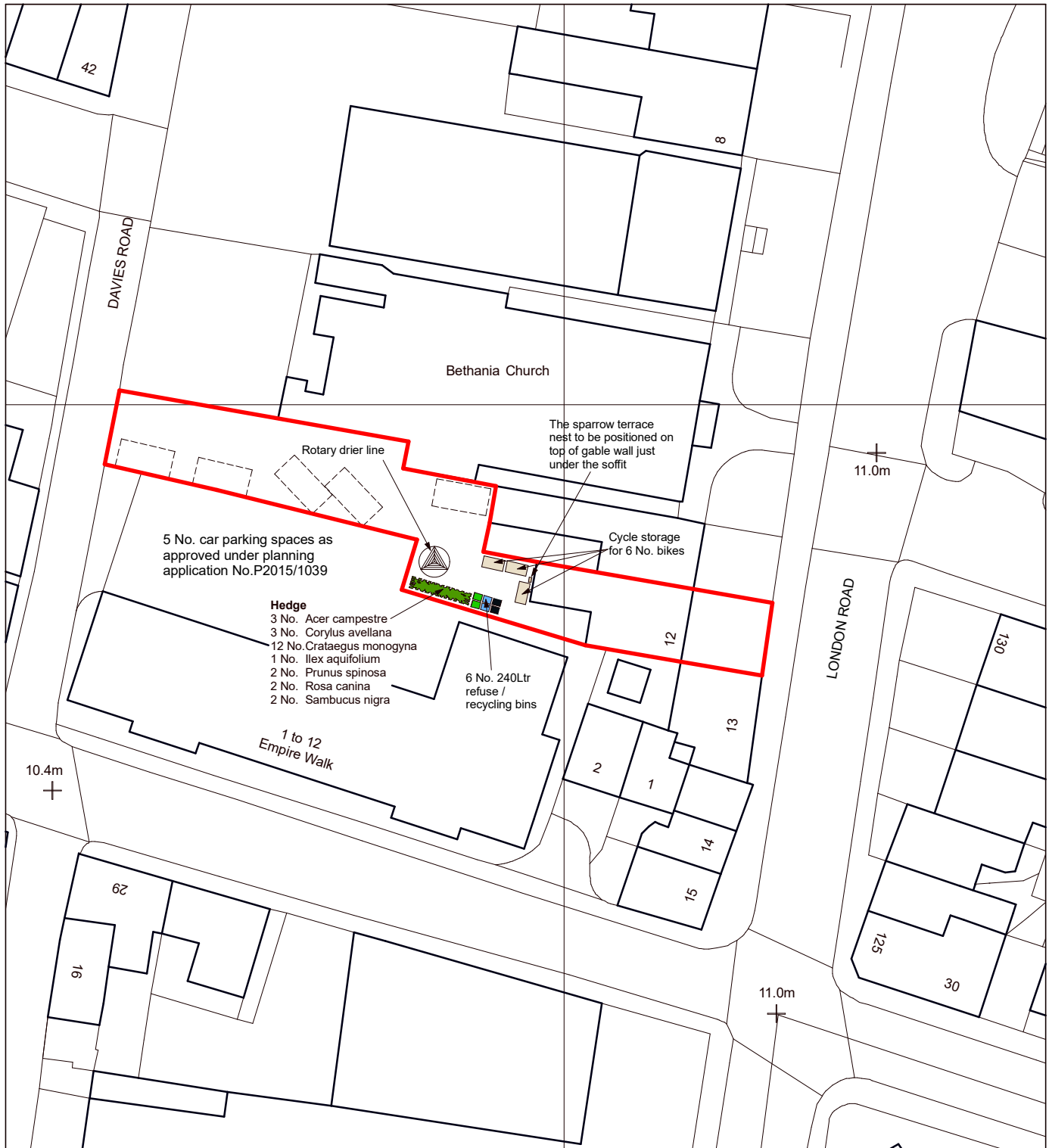
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2453-04

1:500 @ A4

August 2024





Revisions

A. Proposed cycle storage & clothes line added. 17.08.24

12 LONDON ROAD, NEATH
 Eley's Group Ltd

SCHEME DESIGN: Proposed Block Plan

2453-05A

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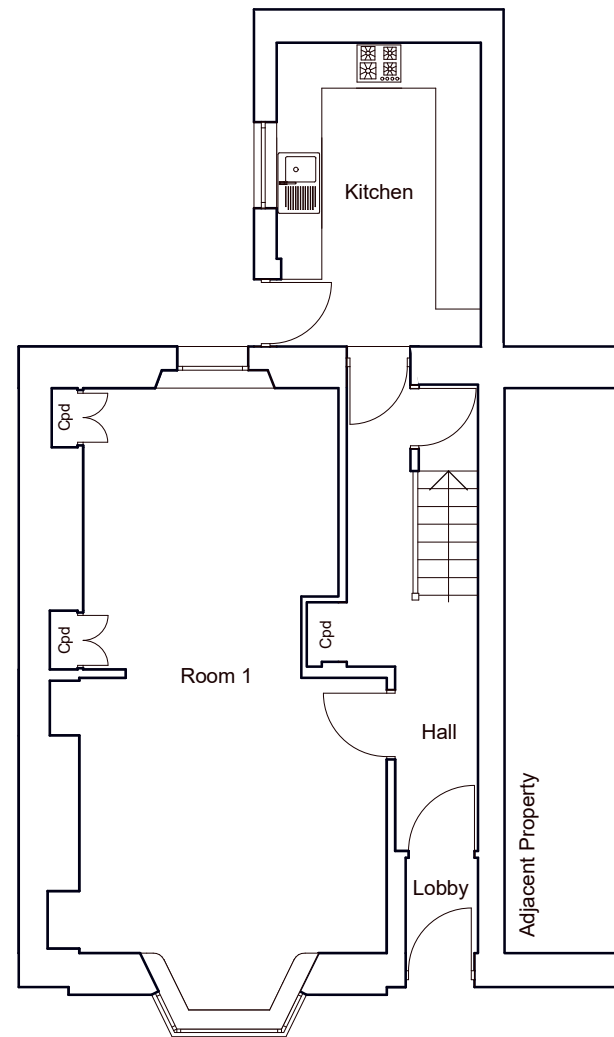
August 2024



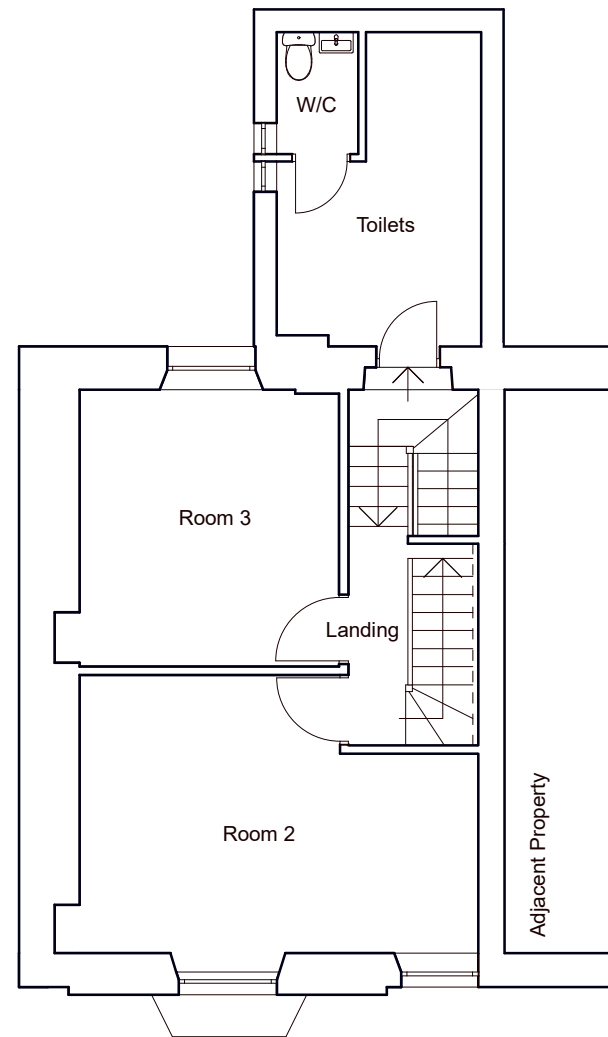


Appendix B

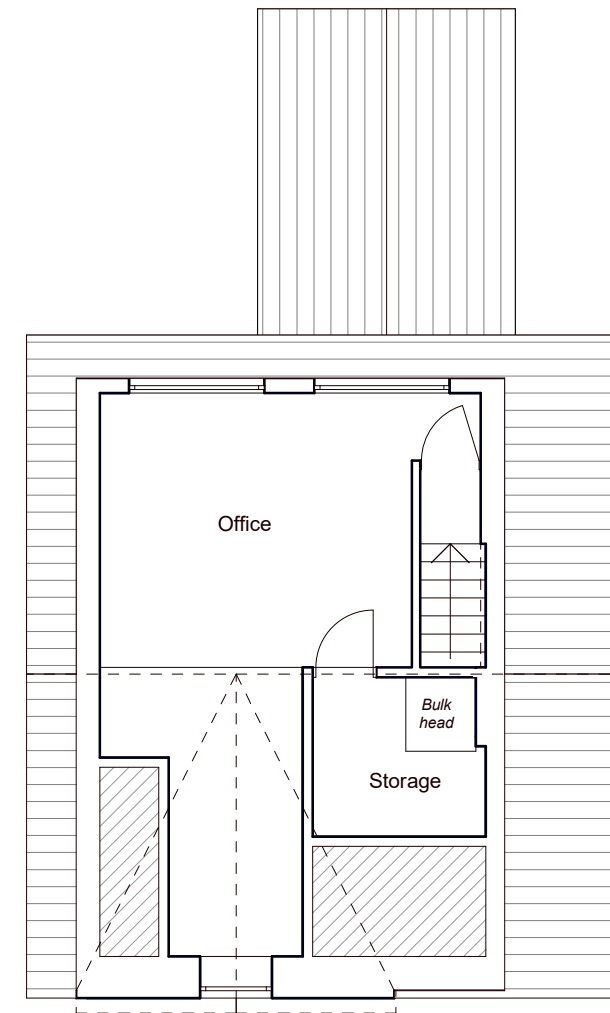
Floor Plans



GROUND FLOOR PLAN



FIRST FLOOR PLAN



SECOND FLOOR PLAN

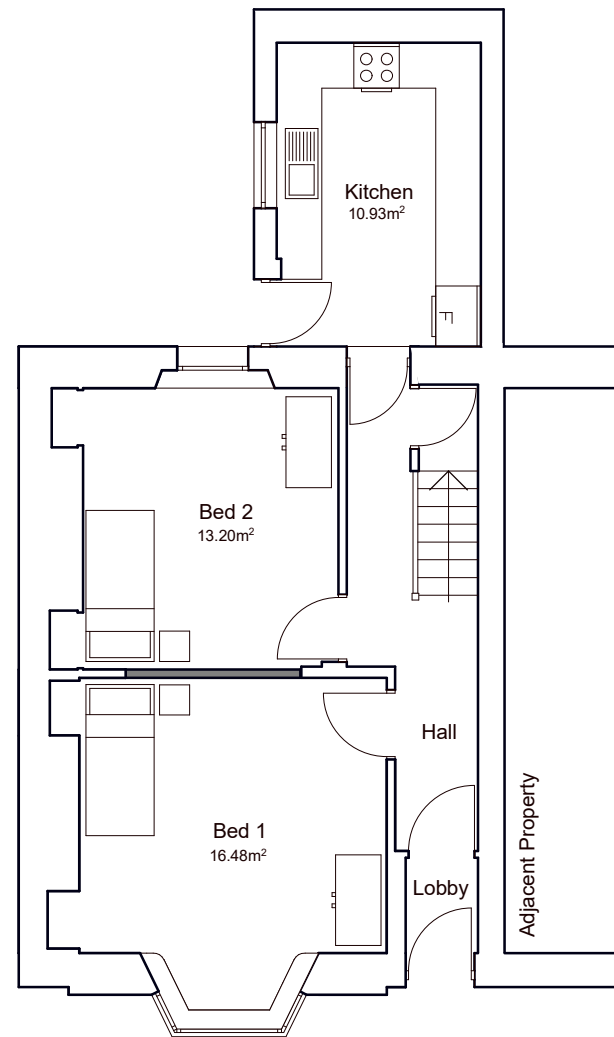
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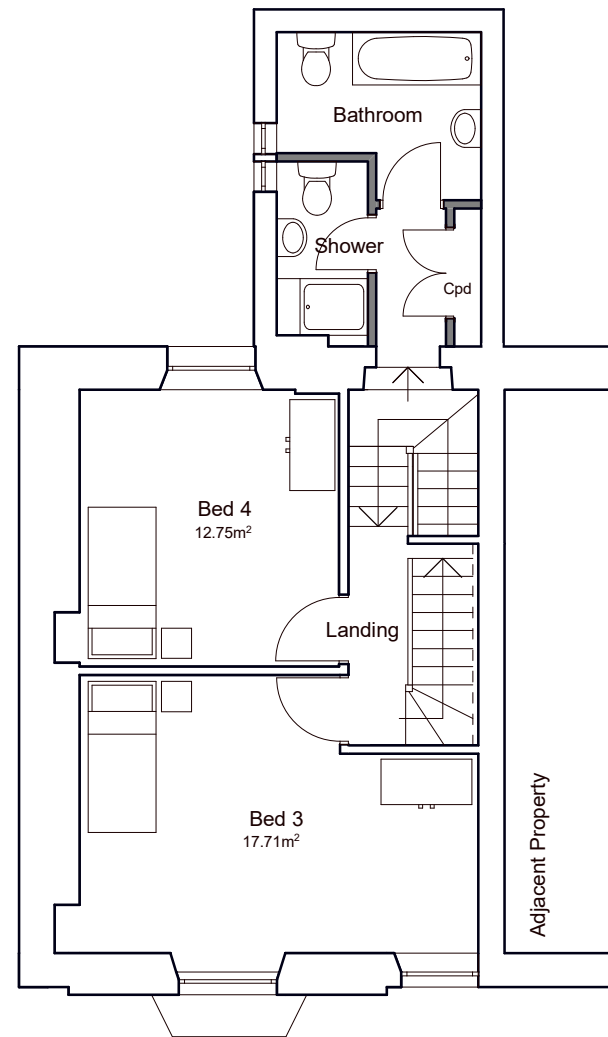
12 LONDON ROAD
NEATH
Eley's Group Ltd
**SCHEME DESIGN - Existing
Floor Plans**

Date: August 2024
Scale: 1:100 @ A3
Drawing Number: 2453-02

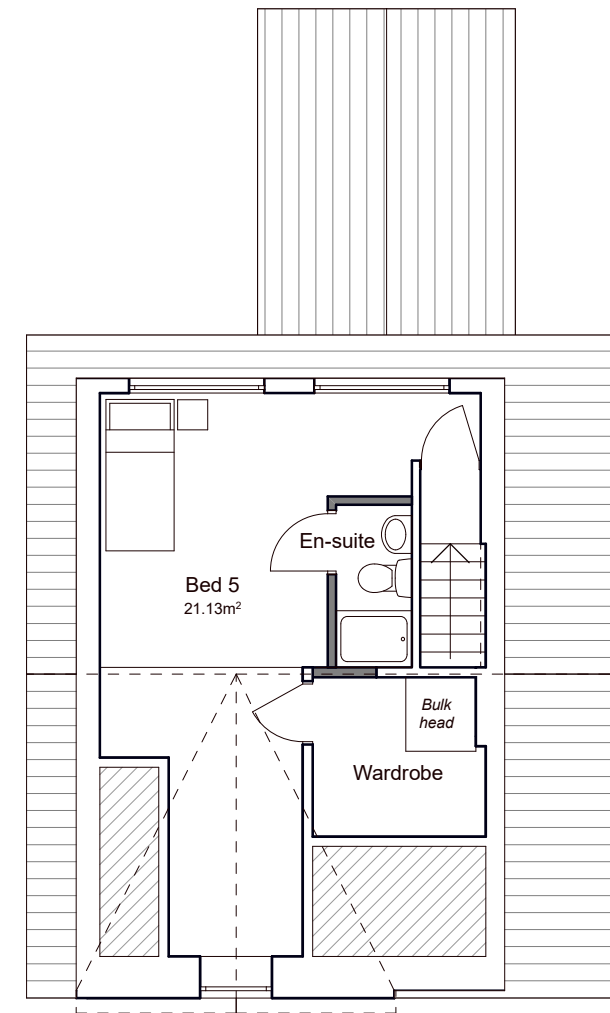




GROUND FLOOR PLAN



FIRST FLOOR PLAN



SECOND FLOOR PLAN

Scale 1 / 100 @ A3



12 LONDON ROAD
NEATH
Eley's Group Ltd
**SCHEME DESIGN - Proposed
Floor Plans**

Date: August 2024
Scale: 1:100 @ A3
Drawing Number: 2453-03





Appendix C

NRW Personal Flood Plan Template



Personal Flood Plan

Name:

Useful numbers:

General contact list	Company name	Contact name	Telephone
Floodline	Natural Resources Wales		0345 988 1188
Electricity provider			
Gas provider			
Water company			
Telephone provider			
Insurance company & policy number			
Local council			
Local radio station			
Travel / weather info			

Key locations:

Service cut-off	Description of location
Electricity	
Gas	
Water	

Who can help / who can you help?

Relationship	Name	Contact details	How can they / you help?
Relative			
Friend or neighbour			

What can you do if a flood is expected in your area?

Actions	Location
Home Move furniture and electrical items to safety	
Put flood boards, polythene and sandbags in place	
Make a list now of what you can move away from the risk	
Turn off electricity, water and gas supplies	
Roll up carpets and rugs	
Unless you have time to remove them hang curtains over the rods	
Move sentimental items to safety	
Put important documents in polythene bags and move to safety	
Garden and outside Move your car out of the flood risk area	
Move any large or loose items or weigh them down	
Business Move important documents, computers and stock	
Alert staff and request their help	
Farmers move animals and livestock to safety	
Evacuation – prepare a flood kit in advance Inform your family or friends that you may need to leave your home	
Get your flood kit together and include a torch, warm and waterproof clothing, water, food, medication, toys for children and pets, rubber gloves and wellingtons	

What can I do now?

Put important documents out of flood risk and protect in polythene ☐	Look at the best way of stopping floodwater entering your property ☐
Check your insurance covers you for flooding ☐	Make a flood plan and prepare a flood kit ☐
Find out where you can get sandbags ☐	Identify what you would need to take with you if you had to leave your home ☐
Identify who can help you / who you can help ☐	Understand the flood warning codes ☐

Are you signed up to receive flood warnings?

☐ If not call Floodline on **0345 988 1188** to see if your area receives free flood warnings.

Let us know when you've completed your flood plan by calling Floodline on **0345 988 1188**. This will help us learn more about how people are preparing for flooding.

There are a range of flood protection products on the market to help you protect your property from flood damage. A directory of these is available from the National Flood Forum at www.bluepages.org.uk



Thank you

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