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# FLOOD RISK ASSESSMENT

*HOLIDAY INN EXPRESS, WIMBLEDON*

*200 HIGH STREET COLLIERS WOOD*

*LONDON*

*SW19 2BH*

**PREPARED FOR:**

CARTER LAUREN
CONSTRUCTION LTD

| | |
|---|---|
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## DOCUMENT HISTORY

| Issue No. | Description | Date |
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| 1 | First issue. | 04/12/2024 |
| 2 | Latest site plan & floor plans included in Appendix A. | 20/12/2024 |
| | | |
| | | |

## CONTENTS



## APPENDICES

## 1. INTRODUCTION

1.1 This report has been prepared by Simpson TWS on behalf of Carter Lauren Construction Ltd. to accompany a planning application for the proposed extension of the Holiday Inn Express Hotel located at 200 High Street Colliers Wood, London SW19 2BH. The proposed development comprises of the following elements:

- A small four storey extension of the building in the north-east that will accommodate 10 additional hotel bedrooms, roof top bar and new digital advertising hoarding.
- Conversion of meeting rooms and the gymnasium at ground floor to create 8 additional bedrooms.
- Refurbishment of ground floor reception and restaurant areas.
- Relocation of the sites existing electric sub-station.

1.2 A set of drawings showing the full development proposals is included in *Appendix A*.

1.3 The EA's Flood Map for Planning is the initial dataset used for identifying whether a flood risk assessment is required as part of a planning application. *Figure 1.1* below shows the flood map, which identifies the site to be in Flood Zone 2 and 3.

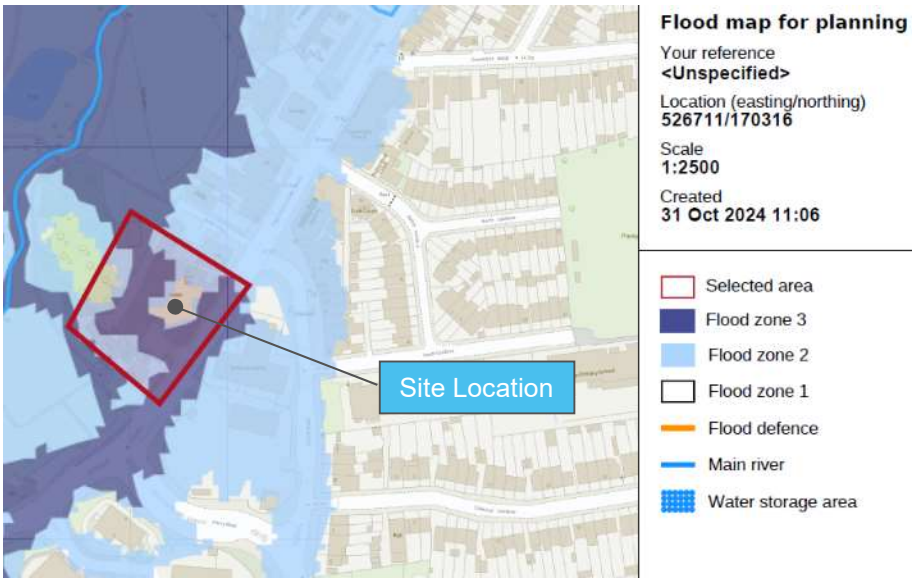


*Figure 1.1: EA Flood Zone Map for Planning*

1.4 The National Planning Policy Framework (NPPF) & associated Planning Practice Guidance require flood risk assessments to accompany planning applications for all development in Flood Zone 2 and 3. This report assesses flood risk associated with the development proposals, following guidance set out in the NPPF and the following local planning policy documents.

- The National Planning Policy Framework (NPPF) & associated Planning Practice Guidance.
- BS 8533:2017: Assessing and managing flood risk in development – Code of practice.

- Merton Council's Core Planning Strategy (July 2011) – Policy 16 Flood Risk Management
- Merton Local Plan 2024 – 2037/38 due to be adopted on 20th November 2024: Policy F15.7 Flood Risk Management and Sustainable Drainage and F15.8 Managing Local Flooding
- London Borough of Merton Level 1 Strategic Flood Risk Assessment (SFRA) – Nov 2020
- London Borough of Merton's LLFA Local Flood Risk Management Strategy – August 2014.

## 2. SITE CHARACTERISTICS

Site Location

2.1 The site comprises the Holiday Inn Express Hotel located at 200 High Street Colliers Wood in Wimbledon South, London as shown on *Figure 2.1* below. The site is centred on Ordnance Survey grid reference TQ 26682 70295 and co-ordinates X: 526682; Y: 170295. The post code of the existing hotel is SW19 2BH.

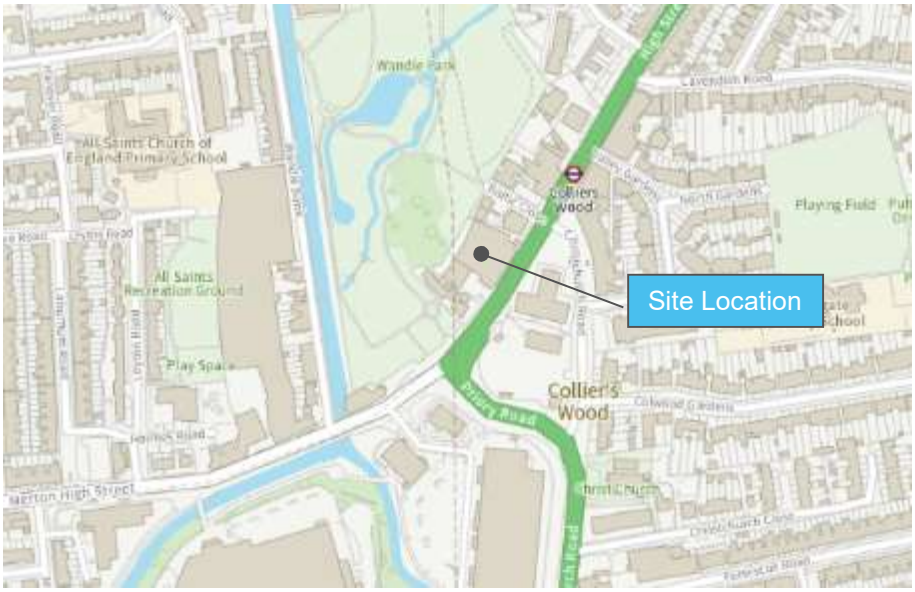


*Figure 2.1: Site Location*

Site Description

2.2 The site is currently occupied by an existing four storey Holiday Inn Express hotel with associated ground level, undercroft and basement level car parking facilities.

2.3 To the north-east, the site is bounded by a restaurant with a small footpath separating the buildings. To the north-west, the site is bounded by recreational, undeveloped grounds known as Wandle Park. To the south-west, the site is bounded by three small buildings, known as Millers Mead Court. To the south-east, the site is bounded by High Street Colliers Wood.

2.4 Vehicular and pedestrian access is gained from High Street Colliers Wood Road located along the south-east boundary.

Topography

2.2 A topographical survey of the site and measured survey of the buildings floors is included in *Appendix B*. The topographical survey shows levels along High Street Colliers Wood Road to have a slight fall in a south-westerly direction. Edge of carriageway levels along High Street Colliers Wood Road are shown to vary from 11.85m in the north-east to 11.64m in the south-west. At the sites vehicular access, levels are shown to rise into the site for a short distance to a level of 11.81m at the start of the ground level car park. From this point levels do not vary significantly until reaching the undercroft area over the ground floor car park where levels begin to fall in a north-westerly direction to a minimum level of 10.82m at the edge of the survey extents.

2.3 Floor plans for the existing building are also included in *Appendix B*. The plans show the buildings ground floor level to vary in level. At the building entrance points from High Street Colliers Wood Road, the ground floor level of the entrance lobbies is shown to be 12.00m AOD to 12.05m AOD. Internal stairs then provide access to an upper ground floor level of 13.08m AOD to 13.27m AOD. The basement level is shown to be 10.13m AOD to 10.24m AOD with access gained from the north-western side of the building via an external ramp.

Existing Ground Conditions

2.4 A geotechnical & geoenvironmental report was produced by Card Geotechnics Ltd in November 2024, which comprised a geotechnical and geoenvironmental site investigation. The ground investigation took place in two phases between May and October 2024 and comprised 2 No. Window Sampler boreholes to depths of 6m bgl and a deep cable percussion borehole to 25m bgl. *Table 2.1* below summarises the ground conditions encountered.

*Table 2.1: Summary of Ground Conditions (as defined in the NPPF)*

| Description of Stratum | Depth to Top (m bgl) [m AOD] | Typical Thickness (m) |
|---|---|---|
| (Made Ground) Generally comprising dark grey clayey sandy gravel with angular to subrounded, fine to coarse gravels of brick and concrete and very clayey slightly gravelly sand. Sand is coarse and occasional rounded coarse flint gravels. | 0.34 to 1.20 [11.84 to 11.93] | 0..4 to 1.20 |
| Very soft dark brown to dark grey sandy silty Clay. Sand is fine to medium. Occasional rounded coarse flint gravels and relic organic material. Mild organic odour.<br>or<br>Very loose dark grey brown slightly gravelly clayey Sand. Sand is fine to coarse. Gravel is angular to rounded, fine to coarse of flint and brick. Rare fine shells and shell fragments. [Alluvium] | 1.00 to 1.20 [10.93 to 10.68] | 1.30 to 1.80 |
| soft light gravely slightly sandy clay over medium dense light brown very sandy gravel. Gravel is subangular to rounded, medium to coarse of flint. Sand is fine to coarse. [River Terrace Deposits] | 0.90 to 2.80 [10.94 to 9.13] | 0.35 to 2.20 |
| Firm becoming stiff greyish brown fissured mottled light bluish grey silty clay with mica traces. [London Clay Formation] | 2.85 to 3.10 [9.03 to 8.74] | 21.90* |

* Base of stratum not encountered

2.5 Groundwater strikes were encountered at depths of 1.58m to 2.50n bgl (10.26m AOD) within the River Terrace deposits and 4.45 bgl (7.39m AOD) within the London Clay. Groundwater monitoring carried out between May and October 2024 recorded ground water levels at 1.67m (10.17m AOD) to 2.31m (9.62m AOD).

2.6 Contamination testing carried out from soils samples taken from the investigation identified concentrations of soil contaminants to be below the applicable assessment criteria for the proposed end use and unacceptable risks to the identified receptors (future site users, controlled waters and buildings) were identified. Therefore, the report concluded that specific remedial measures are not required at the site.

2.7 Groundwater testing results detected benzo(a)pyrene in shallow groundwater. However, the report identified that as the proposed structure will cover the entire site footprint, water infiltration from the surface will be significantly reduced, in turn decreasing the potential for these contaminants to be mobilised and migrate further into the groundwater, although a Piling Works Risk Assessment is likely to be required.

Existing Drainage Arrangements

2.5 *Figure 2.2* below shows an extract from Thames Water's sewer records, which indicates the local area to be drained by a network of combined sewers and surface water sewers.


*Figure 2.2: Thames Water Sewer Records*

2.6 A 1275mm combined sewer is shown to be located along the edge of the sites south-eastern boundary. The location and depth of the sewer has been confirmed by a line and level survey that is included on the existing drainage characteristics plan in *Appendix C*. The plan also includes drainage information taken from a utility survey and engineering records for the building. The plan shows the site to be drained by separate foul and surface water drainage networks, which discharge to the existing combined sewer and surface water sewers shown on Thames Water's sewer records.

## 3. FLOOD RISK PLANNING POLICY & GUIDANCE

National Planning Policy Framework (NPPF)

3.1 The NPPF establishes the Flood Zones as the starting point for assessment with the overarching aim to steer new development to areas with the lowest probability of flooding. Flood Zone maps are available on the GOV.UK website and the definitions of the Flood Zones extracted from the National Planning Policy Framework (NPPF) are described below:

- Flood Zone 1 – Low probability. This zone comprises land assessed as having a less than 1 in 1,000 annual probability of river or sea flooding (<0.1%).
- Flood Zone 2 – Medium probability. This zone comprises land assessed as having between a 1 in 100 and 1 in 1,000 annual probability of river flooding (1% - 0.1%), or between a 1 in 200 and 1 in 1,000 annual probability of sea flooding (0.5% - 0.1%) in any year.
- Flood Zone 3a – High probability. This zone comprises land assessed as having a 1 in 100 or greater annual probability of river flooding (>1%), or a 1 in 200 or greater annual probability of flooding from the sea (>0.5%) in any year.
- Flood Zone 3b – The functional floodplain. This zone comprises land where water has to flow or be stored in times of flood. Typically, land which would flood with an annual probability of 1 in 20 (0.5%) or greater in any year, or is designed to flood in an extreme (0.1%) flood.

3.2 The NPPF and the Planning Practice Guidance (PPG) seek to ensure flood risk is considered at all stages of the planning process, to avoid inappropriate development in areas at risk of flooding and to direct development towards areas at lowest flood risk. The NPPF retains a risk-based approach to the planning process and uses the Flood Zones as the basis for applying the sequential test, as well as flood risk vulnerability classifications, which define the type of development that is considered appropriate within each zone. It advises local planning authorities to demonstrate that there are no reasonably available sites in areas with a lower probability of flooding that would be appropriate to the type of development or land use proposed. However, applications for some minor development and changes of use are an exception and should not be subject to the sequential or exception tests but should still meet the requirements for site-specific flood risk assessments. It deems minor development to include householder development, small non-residential extensions (with a footprint of less than 250m$^2$) and changes of use; except for changes of use to a caravan, camping, or chalet site, or to a mobile home or park home site, where the sequential and exception tests should be applied as appropriate.

London Borough of Merton Council's Core Planning Strategy to 2026 (July 2011) – Policy 16 Flood Risk Management

3.3 At a local level, Policy 16: Flood Risk Management of Merton Council's Core Planning Strategy advises that flood risk assessments should be undertaken for all developments within zones 2 and 3 to assess the risk of flooding to the development and identify options to mitigate the flood risk to the development, site users and the surrounding area.

Merton Local Plan 2024 – 2037/38 due to be adopted on 20th November 2024: Policy F15.7 Flood Risk Management and Sustainable Drainage and F15.8 Managing Local Flooding

3.4 Policy 15.7 advises that the management of flood risk within Merton will be undertaken in line with the NPPF, Flood and Water Management Act 2010, Flood Risk Regulations 2009 and the European Water Framework Directive 2000 transposed into law through the Water Environment (Water Framework Directive) (England and Wales) Regulations 2003.

3.5 Policy 15.8 advises Flood Risk Assessments (FRAs) will be needed in line with national policy and guidance, as well as the BSI (British Standards Institution) Code of Practice on Assessing and managing flood risk in development (BS 8533:2017). It also advises to refer to the EA's guidelines on 'Flood Risk Assessment for Planning applications' or the EA's 'Standing Advice on Flood Risk Assessment' in cases where an FRA is not needed, including for householder applications and minor non-residential extensions.

3.6 In terms of the Sequential Test Policy 15.8 advises that it will not be needed if it is not a Major Development and at least one of the following applies:

a) It is a sites allocation that has already been sequentially tested unless the use of the site
b) proposed is not per the allocations in the Local Plan.
c) It is within a main centre boundary as identified within this Local Plan (Wimbledon and Morden town centres).
d) Redevelopment of an existing single residential property.
e) Conversions and change of use.

<u>London Borough of Merton Council's Level 1 (Nov 2020) Strategic Flood Risk Assessment (SFRA)</u>

3.7 The Level 1 SFRA provides details of sources of flood risk within the local area. The following section of this report reviews flood risk associated with sources of flooding identified by the SFRA and by flood maps available on the Environment Agency's website.

## 4. SOURCES OF FLOODING

Historical Flooding

4.1 The Level 1 SFRA advises the following:

- "*Environment Agency Historic Flood Map indicate that extensive flooding occurred in Merton in 1968 in the south west of the Borough around West Barnes, along the banks of the Pyl Brook and the Beverley Brook. Prior to this, flooding occurred in 1937. This flood event affected small areas along the Beverley Brook and relatively small patches of flooding occurred in proximity to Marina Avenue and Burlington Road.*
- *In 2007 extensive flooding occurred as a result of high-water levels in the Beverley Brook and Pyl Brook, blocking outfalls and causing water to back up in the road drainage system and flood. This occurred in what is presently Raynes Park High School, along with areas south of Malden Way and down towards West Barnes Lane and along the Pyl Brook from Lower Morden Lane towards Raynes Park High School. Hatfield Primary School experienced flooding of approximately 300mm depth as a result of overtopping of the Pyl Brook and the East Pyl Brook flowed out of bank where it flows through the south-west end of Morden Park up towards Camborne Road. Less extensive flooding associated with the Pyl Brook occurred between Lower Morden Lane and the southern boundary of Merton.*
- *There are two point records of fluvial flooding noted in the study area. One is thought to be associated with the culverted section of the River Graveney in Colliers Wood. The other is associated with the Pyl Brook adjacent to Lower Morden Lane. More recently, flooding has been recorded from the River Wandle on June 24th 2016, and June 10th 2019.*"

4.2 *Figure 4.1* below shows a historical flood map from the SFRA, which provides the location and source of previous recorded flood incidents. The map shows the borough to have a large majority of surface water flooding incidents, which is also the most common source of flooding recorded near the site.

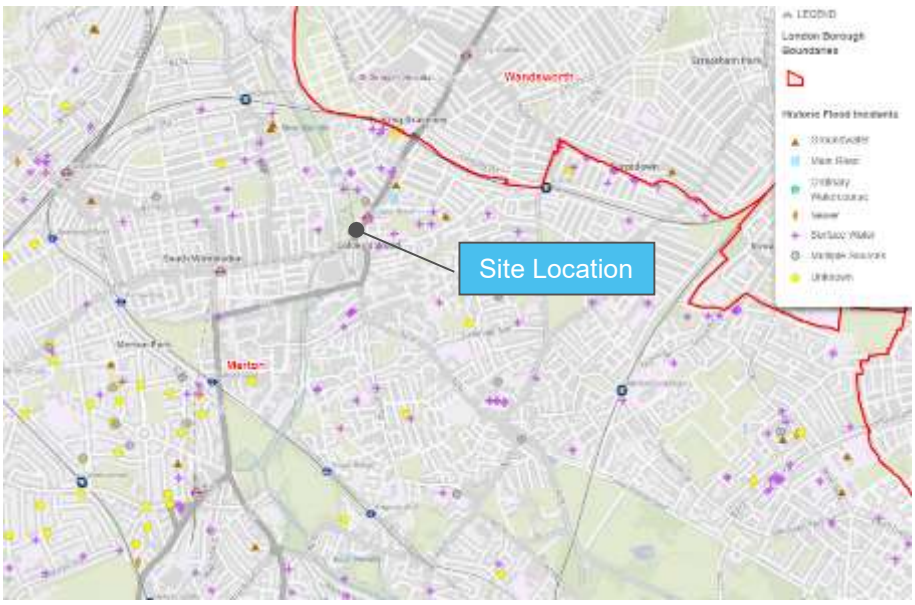


*Figure 4.1: Historic Flood Map*

Fluvial Flooding

4.3 The Level 1 SFRA identifies that "*the River Wandle flows north through the Borough and is joined by the River Graveney at Summerstown. The Beverley Brook rises in Cuddington Recreation Ground in Worcester Park in Sutton and flows north through Motspur Park along the western boundary of the Borough of Merton. The Beverley Brook continues to flow north along the western boundary of the Borough of Merton adjacent to Wimbledon Common. The Pyl Brook and its tributary, the East Pyl Brook, flows north east through Merton to the confluence with the Beverley Brook at Raynes Park.*"

4.4 The EA's Flood Map for Planning is the initial dataset used for identifying the location and extent of fluvial flooding. The map shows England split into three main flood zones linked to fluvial and tidal flooding as defined by the National Planning Policy Framework (NPPF). Flood Zone 3 is additionally delineated into Flood Zone 3a (high probability area) and Flood Zone 3b (the functional floodplain, where water has to flow or be stored in times of flood). Each of the Flood Zones is described in *Table 4.1* below.

*Table 4.1: Flood Zone Definitions (as defined in the NPPF)*

| Flood Zone | Definition | Probability of Flooding |
|---|---|---|
| Flood Zone 1 | Land assessed as having a less than 1 in 1,000 annual probability of river or sea flooding (<0.1%) | Low Probability |
| Flood Zone 2 | Land assessed as having between a 1 in 100 and 1 in 1,000 annual probability of river flooding (1% - 0.1%), or between a 1 in 200 and 1 in 1,000 annual probability of sea flooding (0.5% - 0.1%) in any year. | Medium Probability |
| Flood Zone 3a | Land assessed as having a 1 in 100 or greater annual probability of river flooding (>1%), or a 1 in 200 or greater annual probability of flooding from the sea (>0.5%) in any year | High probability |
| Flood Zone 3b | Land where water has to flow or be stored in times of flood. Typically, land which would flood with an annual probability of 1 in 20 (0.5%) or greater in any year, or is designed to flood in an extreme (0.1%) flood | Functional floodplain |

4.5 *Figure 5.2* below shows the Flood Map for Planning downloaded from the EA's website, which identifies the site to be affected by Flood Zone 2 and 3.

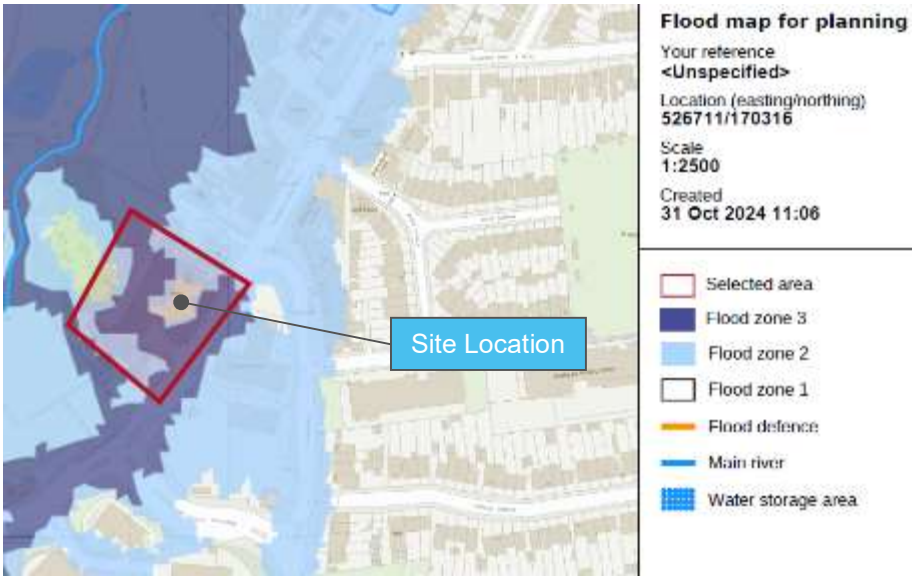


*Figure 4.2: EA Flood Zone Map for Planning*

4.6 *Figure 4.3* below shows the EA's flood risk from rivers and sea map. The map takes into account the effect of any flood defences in the area and shows the site and immediate surrounding area to be at medium risk of flooding from rivers and the sea.

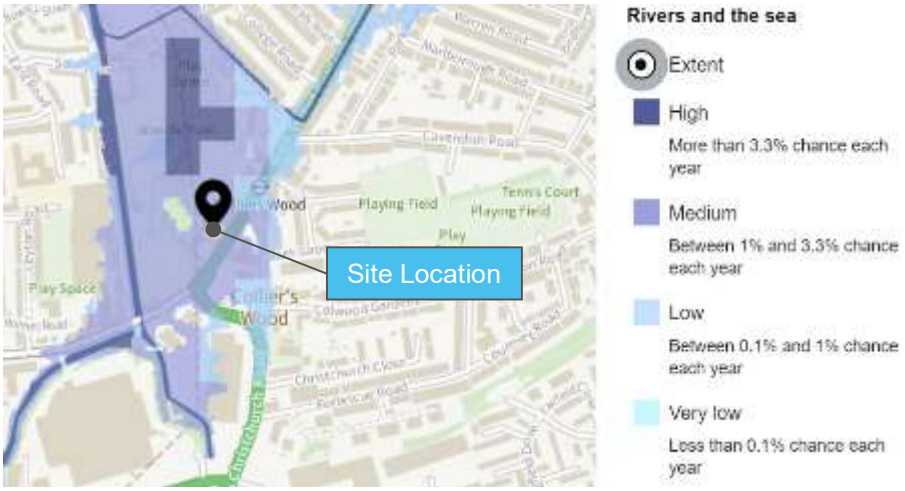


*Figure 4.3: EA Risk of Flooding from Rivers and the Sea*

4.7 The SFRA includes further flood zone mapping that splits Flood Zone 3 into 3a and 3b. *Figure 4.4* below shows the flood zone map and identifies the site to not be affected by Flood Zone 3b, therefore Flood Zone 3 on the EA's flood map for planning is deemed to be representative of Flood Zone 3a.

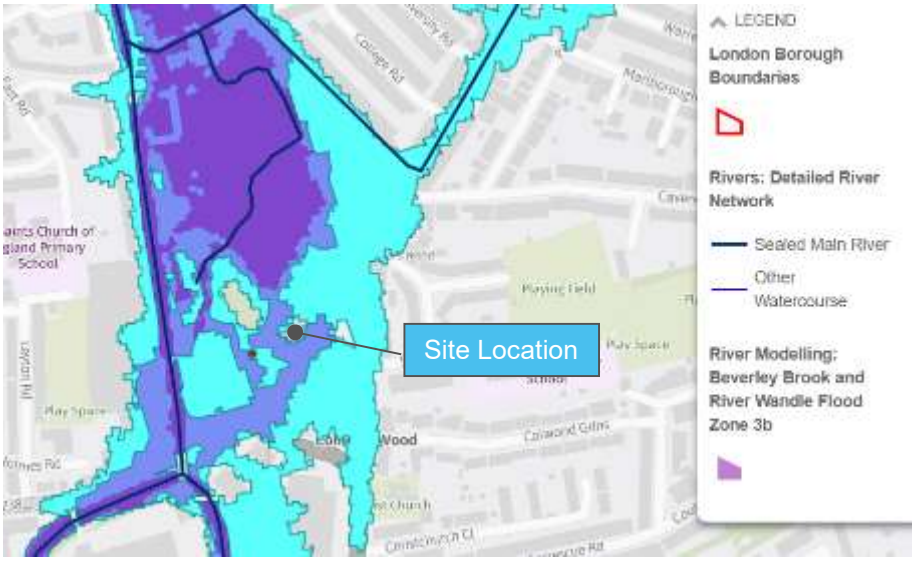


*Figure 4.4: SFRA Online Mapping*

4.8 The maps available on the EA's website and within the SFRA are produced from a combination of a national generalised computer model, detailed modelling and some historic flood event outlines and are intended as a guide only. Further flood data received from the EA is included in *Appendix D*. The data includes modelled mapping and flood level information from the River Wandle Modelling Study completed in May 2015 by JBA Consulting.

4.9 The modelled mapping included in *Appendix D* shows the flood extents for a variety of modelled Annual Event Probabilities (AEP) for defended and undefended scenarios. The maps indicate the site to be affected by events ranging from a 2% AEP event to a 1% AEP +70% CC and 0.1% event in both a defended and undefended scenario.

4.10 The data received from the EA also includes a set of predicted flood levels at a number of modelled floodplain nodes located through the site. *Figure 4.5* below shows the modelled node locations.

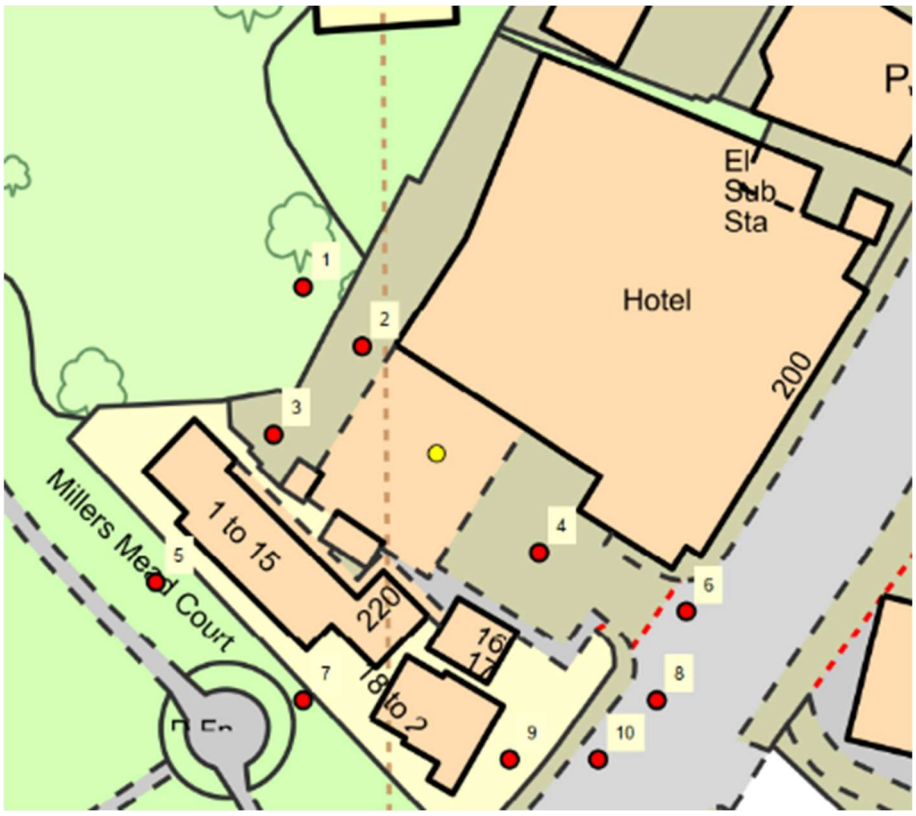


*Figure 4.5: Modelled EA Floodplain Nodes*

4.11 *Table 4.2* and 4.3 below show the predicted flood levels at relevant nodes located on or near the site, for the modelled defended and undefended scenarios.

*Table 4.2: Modelled Defended Flood Levels*

| AEP | Node Flood Level (m AOD) | | | | | |
|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 6 | 8 |
| 20% | - | - | - | - | - | - |
| 5% | - | - | - | - | - | - |
| 2% | - | 11.50 | - | 11.78 | 11.82 | 11.82 |
| 1.3% | - | 11.74 | 11.74 | 11.82 | 11.85 | 11.85 |
| 1% | - | 11.82 | 11.82 | 11.91 | 11.91 | 11.91 |
| 0.4% | - | 12.04 | 12.04 | 12.11 | 12.12 | 12.10 |
| 0.1% | 12.40 | 12.40 | 12.40 | 12.45 | 12.46 | 12.46 |
| 1%+25% CC | - | 11.98 | 11.98 | 12.12 | 12.13 | 12.13 |
| 1%+35% CC | - | 12.01 | 12.02 | 12.15 | 12.16 | 12.16 |
| 1%+70% CC | - | 12.14 | 12.15 | 12.25 | 12.26 | 12.26 |

*Table 4.3: Modelled Undefended Flood Levels*

| AEP | Node Flood Level (m AOD) | | | | | |
|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 6 | 8 |
| 20% | - | - | - | - | - | - |
| 5% | - | - | - | - | - | - |
| 2% | - | - | - | - | - | - |

| | | | | | | |
|---|---|---|---|---|---|---|
| 1.3% | - | - | - | - | - | - |
| 1% | - | 11.70 | 11.70 | 11.91 | 11.91 | 11.91 |
| 0.4% | - | - | - | - | - | - |
| 0.1% | 12.24 | 12.24 | 12.25 | 12.39 | 12.41 | 12.40 |
| 1%+25% CC | - | 11.82 | 11.82 | 12.12 | 12.13 | 12.13 |
| 1%+35% CC | - | 11.87 | 11.87 | 12.15 | 12.16 | 12.26 |
| 1%+70% CC | - | 12.00 | 12.01 | 12.25 | 12.26 | 12.26 |

4.12 In fluvial flooding situations, flood risk assessments should consider flood risk for a 1% event with an appropriate allowance for climate change. The flood levels in *Table's 4.2* & *4.3* include allowances for climate change; however, the appropriate climate change allowance for development should be based on the vulnerability of development, its location, and its life expectancy.

4.13 The development would fall under a "*more vulnerable*" category. In Flood Zone 3a it is recommended to base climate change allowance for "*more vulnerable*" developments on the central allowance, which are shown in *Figure 4.6* below.

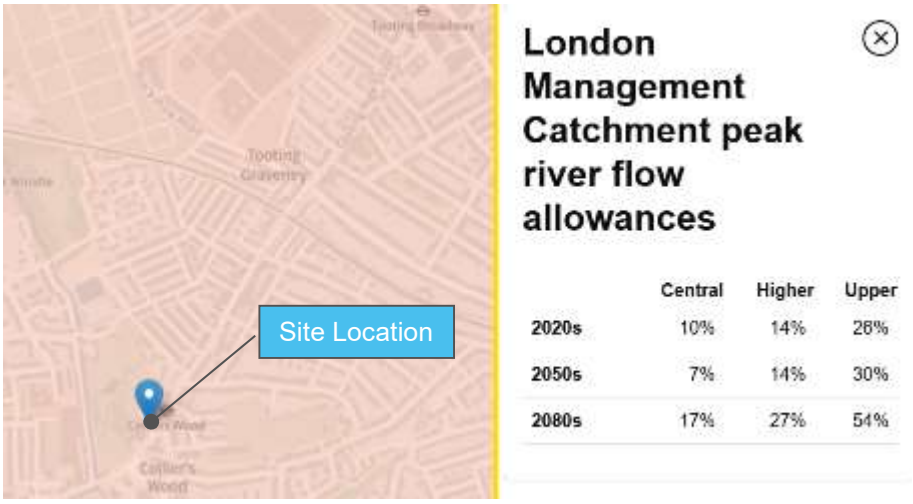


*Figure 4.6: DEFRA Peak River Flow Allowances*

4.14 Typically, the planned lifespan of a new hotel development would be 70 years. Therefore, it is considered appropriate to consider the 2080's climate change allowance shown in *Figure 4.6* to be 17%.

4.15 The modelled flood level data for the 1% AEP in *Tables 4.2* & *4.3* includes climate change allowances of 25%, 35% and 70%. The 25% allowance has the nearest relationship to the required 17% central allowance and is therefore considered appropriate for use in determining the design flood level.

4.16 From *Tables 4.2* and *4.3*, the design flood level has been determined to be 12.13m AOD based on the worst case modelled flood levels for the 1% AEP plus 25% climate change allowance for a defended and undefended situation.

4.17 In *Section 2* it was identified that the ground floor level of the entrance lobbies is 12.00m AOD to 12.05m AOD. Internal stairs then provide access to an upper ground floor level of 13.08m AOD to 13.27m AOD, which comprises of a restaurant, kitchen, hotel bedrooms and meeting rooms. Thus, it is established that the entrance lobby areas are at risk of fluvial flooding as these areas are 0.08m to 0.13m below the

design flood level, whilst the upper ground floor areas are protected from flooding as they area raised 0.95. to 1.14m above the design flood level,

4.18 Externally the sites vehicular access and ground floor parking area would be at risk from fluvial flooding as reflected by flood mapping, with levels of these areas varying from 11.38m AOD to 11.81m AOD, which is 0.32m to 0.75m below the design flood level.

4.19 In Section 2 it was also identified that the sites basement car park varies from 10.13m AOD to 10.24m AOD in level, which is 1.89m to 2.00m below the design flood level. Due to the availability of access and provision of venting at this level, it is considered that the basement would be inundated by floodwater during a flood event.

4.20 Based on a review of the EA's detailed flood mapping it is considered that the lower ground floor lobby areas, ground floor parking areas and basement car park are at risk from fluvial flooding. However, safe pedestrian access / egress from the hotels main entrance to land outside the floodplain would be available when assessed using the EA's guidance FD2320.

4.21 The EA's guidance FD2320 identifies a calculation of flood hazard to determine safety in relation to flood risk, with Flood hazard a function of the flood depth and flow velocity at a particular point in the floodplain along with a suitable debris factor to account for the hazard posed by any material entrained by the floodwater.

4.22 *Figure 4.6* below shows a table extracted from "FD2320/TR2 - Extended version", which provides an indication of the relationship between flood depth, flood velocity and flood hazard.

| HR | Depth of flooding - d (m) | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | DF = 0.5 | | | | DF = 1 | | | | | | | | |
| Velocity v (m/s) | 0.05 | 0.10 | 0.20 | 0.25 | 0.30 | 0.40 | 0.50 | 0.60 | 0.80 | 1.00 | 1.50 | 2.00 | 2.50 |
| 0.0 | 0.03 | 0.03 | 0.10 | 0.13 | 0.13 | 0.20 | 0.25 | 0.30 | 0.40 | 0.50 | 0.75 | 1.00 | 1.25 |
| 0.1 | 0.03 | 0.06 | 0.12 | 0.15 | 0.18 | 0.24 | 0.30 | 0.36 | 0.48 | 0.60 | 0.90 | 1.20 | 1.50 |
| 0.3 | 0.04 | 0.08 | 0.15 | 0.19 | 0.23 | 0.30 | 0.38 | 0.45 | 0.60 | 0.75 | 1.13 | 1.50 | 1.88 |
| 0.5 | 0.05 | 0.10 | 0.20 | 0.25 | 0.30 | 0.40 | 0.50 | 0.60 | 0.80 | 1.00 | 1.50 | 2.00 | 2.50 |
| 1.0 | 0.08 | 0.15 | 0.30 | 0.38 | 0.45 | 0.60 | 0.75 | 0.90 | 1.20 | 1.50 | 2.25 | 3.00 | 3.75 |
| 1.5 | 0.10 | 0.20 | 0.40 | 0.50 | 0.60 | 0.80 | 1.00 | 1.20 | 1.60 | 2.00 | 3.00 | 4.00 | 5.00 |
| 2.0 | 0.13 | 0.25 | 0.50 | 0.63 | 0.75 | 1.00 | 1.25 | 1.50 | 2.00 | 2.50 | 3.75 | 5.00 | 6.25 |
| 2.5 | 0.15 | 0.30 | 0.60 | 0.75 | 0.90 | 1.20 | 1.50 | 1.80 | 2.40 | 3.00 | 4.50 | 6.00 | 7.50 |
| 3.0 | 0.18 | 0.35 | 0.70 | 0.88 | 1.05 | 1.40 | 1.75 | 2.10 | 2.80 | 3.50 | 5.25 | 7.00 | 8.75 |
| 3.5 | 0.20 | 0.40 | 0.80 | 1.00 | 1.20 | 1.60 | 2.00 | 2.40 | 3.20 | 4.00 | 6.00 | 8.00 | 10.00 |
| 4.0 | 0.23 | 0.45 | 0.90 | 1.13 | 1.35 | 1.80 | 2.25 | 2.70 | 3.60 | 4.50 | 6.75 | 9.00 | 11.25 |
| 4.5 | 0.25 | 0.50 | 1.00 | 1.25 | 1.50 | 2.00 | 2.50 | 3.00 | 4.00 | 5.00 | 7.50 | 10.00 | 12.50 |
| 5.0 | 0.28 | 0.55 | 1.10 | 1.38 | 1.65 | 2.20 | 2.75 | 3.30 | 4.40 | 5.50 | 8.25 | 11.00 | 13.75 |

| Flood Hazard Rating (HR) | Colour Code | Hazard to People Classification |
|---|---|---|
| Less than 0.75 | | Very low hazard - Caution |
| 0.75 to 1.25 | | Danger for some – includes children, the elderly and the infirm |
| 1.25 to 2.0 | | Danger for most – includes the general public |
| More than 2.0 | | Danger for all – includes the emergency services |

*Figure 4.7: Hazard to People Classification using Hazard Rating*

4.23 *Figure 4.6* shows that flood depths up to 300mm would be a very low hazard for velocities up to 0.3m/s. This would be representative of worst-case conditions along

the footpath from the hotel to land outside the floodplain to the north of the hotel, where minimum levels along the route are identified to be 11.84m AOD from the topographical survey included in *Appendix B* and where velocities are expected to be less than 0.25m/s due to the area and shallow fall across the floodplain, which is reflected on surface water velocity and hazard mapping. A drawing showing the route and flood depths reducing northwards from the hotels main entrance is included in *Appendix F*.

Surface Water Flooding

4.24 The SFRA states that flooding from surface water runoff typically arises following periods of intense rainfall, often of short duration, that is unable to soak into the ground or enter drainage systems, occurring most commonly in areas where water is unable to enter the ground due to the presence of impermeable surfaces.

4.25 The EA's Risk of Flooding from Surface Water mapping provides an understanding of the areas, which may be at greater risk from surface water flooding, with the maps showing critical flow paths and areas situated in topographic depressions that could flood following an extreme rainfall event. A surface water flood risk map from the SFRA is shown in *Figure 4.8* below. The map shows a surface water flood flow path crossing the site that closely matches the extents of fluvial flooding.

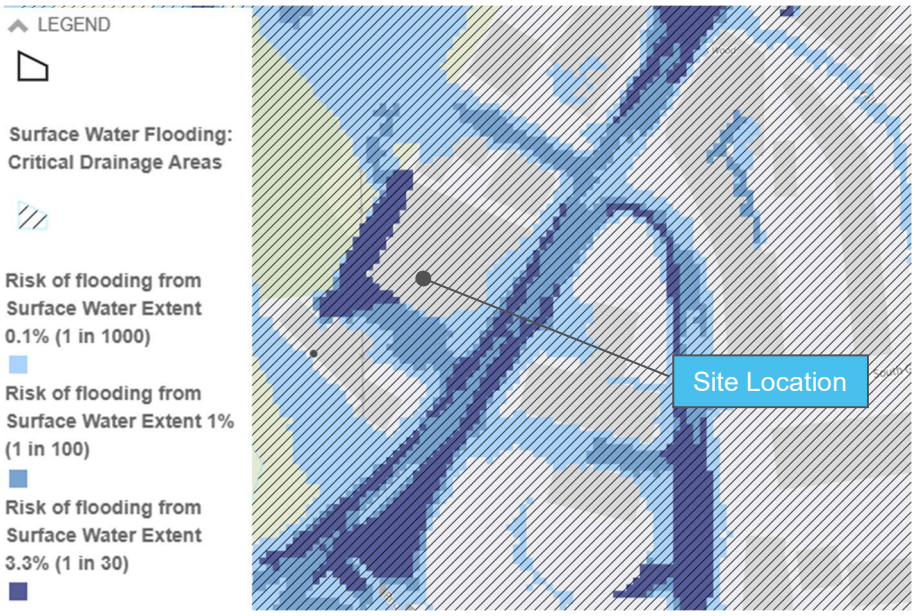


*Figure 4.8: EA Surface Water Flood Risk Map*

4.26 It is evident from sewer records in *Figure 2.2* that the site and local area are served by purpose built below ground surface water sewer systems designed to drain and convey surface water runoff away from the area to the nearby watercourse system. Therefore, it is considered that the risk of surface water flooding is residual and would be linked to exceedance of the capacity of the surface water sewer system or due to problems such as a blockage occurring in the surface water sewer system.

4.27 Based on comparison of the mapping with the topographical survey, it is considered that surface water flooding would enter the site at the vehicular access with High Street Colliers where it would follow a westerly route through the ground floor car park. It would then deviate in a northerly direction at the western extents of the

building following the ramp down to the basement, where surface water would accumulate until it is able to overtop the boundary retaining wall with Wandle Park.

4.28 This would be similar to incidents of surface water flooding that have been reported on site, although the source of such flooding has been from surcharge of the local surface water sewer system during a severe rainfall event, with it understood that flooding overflows from a low-lying chamber at the western end of the ground floor car park. Flood water then flows down the access ramp into the basement car park, where flood water accumulates and is unable to escape as a result of pumping facilities in the basement being overcome by flood volumes and being unable to freely discharge due to the outfall from the pumping facility also being the low lying chamber at the western end of the ground floor car park.

4.29 Based on a review of the surface water flood map and reported incidents of surface water flooding on site it is considered that there is a risk that the ground level car park and basement car park could be affected by surface water flooding due to exceedance of the capacity or as a result of problems such as a blockage occurring in the surface water sewer system.

Groundwater Flooding

4.30 The Level 1 SFRA advises that groundwater flooding occurs in low lying areas underlain by permeable rock and aquifers that allow groundwater to rise to the surface through the permeable subsoil following long periods of wet weather. Low lying areas may be more susceptible to groundwater flooding because the water table is usually at a much shallower depth and groundwater paths tend to travel from high to low ground.

4.31 The SFRA identified the most notable groundwater flooding event occurred during late 2000 / early 2001 after a particularly wet period which resulted in both surface and groundwater flooding incidents in a number of locations across the country. Recorded incidents of groundwater flooding are shown on the historic map in *Figure 4.1*. The map showed no recorded incidents of groundwater flooding on or near the site, although it should be noted that there has not been a statutory obligation to record incidences of groundwater flooding in the past and therefore it is likely that the groundwater flooding incidents recorded are not exhaustive.

4.32 SFRA mapping includes mapping based on a national dataset on the susceptibility of groundwater flooding. The mapping can be used to identify areas where geological conditions could enable groundwater flooding to occur and where groundwater may come close to the ground surface. *Figure 4.9* below shows the mapping and indicates the site to be in an area regarded to have increased potential for elevated groundwater.

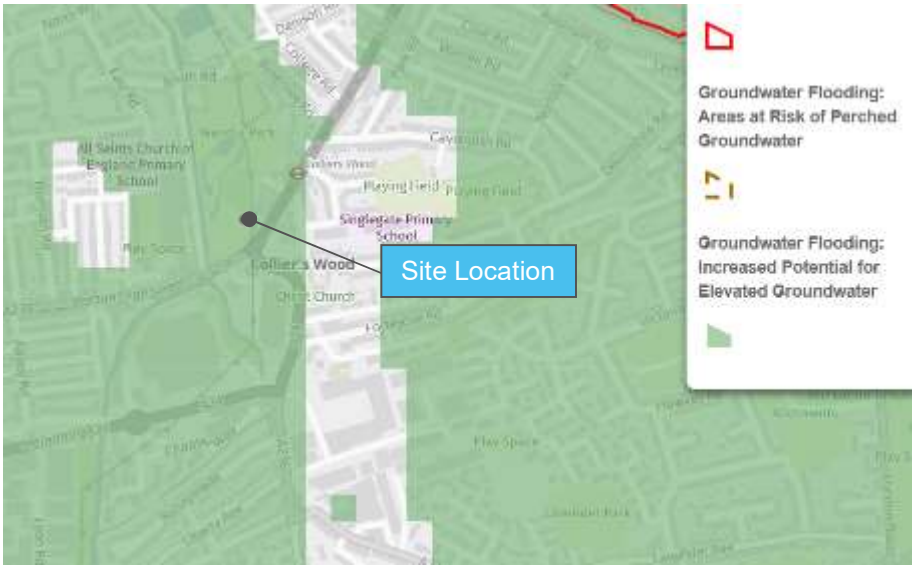


*Figure 4.9: SFRA Groundwater Flood Map*

4.33 The SFRA notes that the dataset does not indicate hazard or risk, i.e. it does not provide any information on the depth to which groundwater flooding occurs or the likelihood of the occurrence of an event of a particular magnitude. It is considered that groundwater flooding would be closely linked and reactive to fluvial flooding due to the susceptibility of the area to flooding from this source. On this basis, it is considered that any measures proposed to deal with the effects of fluvial flooding would also deal with the effects from groundwater flooding.

Sewer Flooding

4.34 The Level 1 SFRA advises that sewer flooding occurs when intense rainfall overloads the sewer system capacity (surface water, foul or combined), and / or when sewers cannot discharge properly to watercourses due to high water levels. Sewer flooding can also be caused when problems such as blockages, collapses or equipment failure occur in the sewerage system. Infiltration or entry of soil or groundwater into the sewer system via faults within the fabric of the sewerage system, is another cause of sewer flooding.

4.35 The SFRA suggests that the sewer systems are typically designed to accommodate rainfall events with a 3.3% AEP or less, with larger events likely to overwhelm the existing sewer systems. Existing sewers can also become overloaded as new development adds to the discharge to their catchment, or due to incremental increases in roofed and paved surfaces at individual property scale (urban creep).

4.36 Thames Water is the sewerage undertaker for the local area and the SFRA historic flood map in *Figure 4.1* includes recorded incidents of sewer flooding from their records. The map shows no recorded incidents of sewer flooding on or in the immediate vicinity of the site. This is consistent with a historic flooding report received from Thames Water that is included in *Appendix E*. The report states "*The flooding records held by Thames Water indicate that there have been no incidents of flooding in the requested area as a result of surcharging public sewers*."

4.37 Despite the above, incidents of surface water flooding are known to have occurred on site, which are linked to flooding caused by surcharge of the local surface water sewer system during a severe rainfall event. It is understood that flooding overflows from a low-lying chamber at the western end of the ground floor car park. Flood water then

flows down the access ramp into the basement car park, where flood water accumulates and is unable to escape as a result of pumping facilities in the basement being overcome by flood volumes and being unable to freely discharge due to the outfall from the pumping facility also being the low lying chamber at the western end of the ground floor car park.

4.38 Based on knowledge of past incidents of sewer flooding from the local surface water sewer system after severe rainfall events, there is considered to be a risk that the basement car park could be affected by surface water flooding as a result of exceedance of the sewer systems capacity or as a result of problems such as a blockage occurring in the surface water sewer system.

Flooding from Artificial Sources

4.39 Flooding from artificial sources is most likely to result from burst water mains or from infrastructure failure in an artificial watercourse or water body, i.e., canals or other water features such as reservoirs. These systems are maintained, improved, and regularly inspected by relevant authorities so flood risk from these sources is generally considered to be low.

4.40 The Level 1 SFRA advises that that the failure of a reservoir has the potential to cause catastrophic damage due to the sudden release of large volumes of water. However, there have been no recorded incidents of reservoir flooding within the London Borough of Merton and reservoir flooding is considered extremely unlikely as under the Reservoir Act 1975, the Environmental Agency are responsible for ensuring that reservoirs are inspected regularly, and essential work is carried out.

4.41 Flood maps associated with large reservoirs that hold over 25,000 cubic meters of water are available on the 'gov.uk' website. The maps help to identify areas that could potentially be affected by reservoir flooding and display a realistic worst-case scenario of the largest area that may be flooded if a reservoir were to fail and release the water it holds. *Figure 4.10* below shows a Reservoir Flood Map produced by the EA. The map shows that the site and the surrounding areas do not sit within areas of reservoir flood risk.

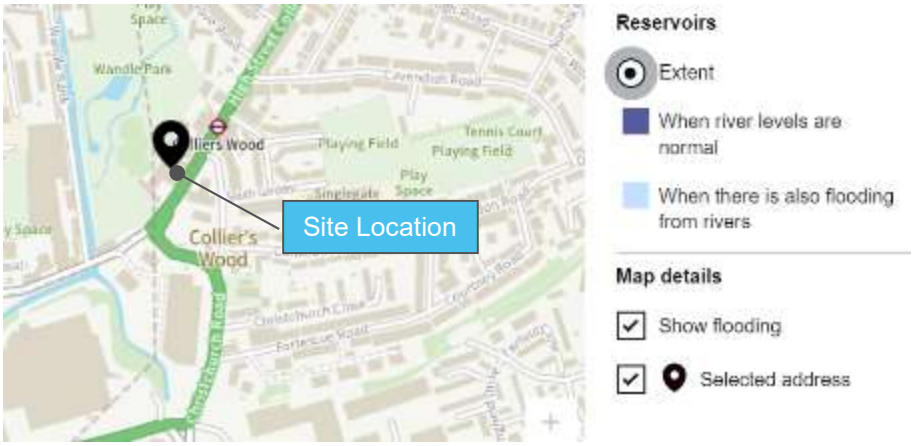


*Figure 4.10: EA Reservoir Flood Map*

4.42 *Figure 4.11* below shows a canal failure map extracted from a site specific flood screening report. The map shows the site to not be in an area that could be affected by a canal failure.

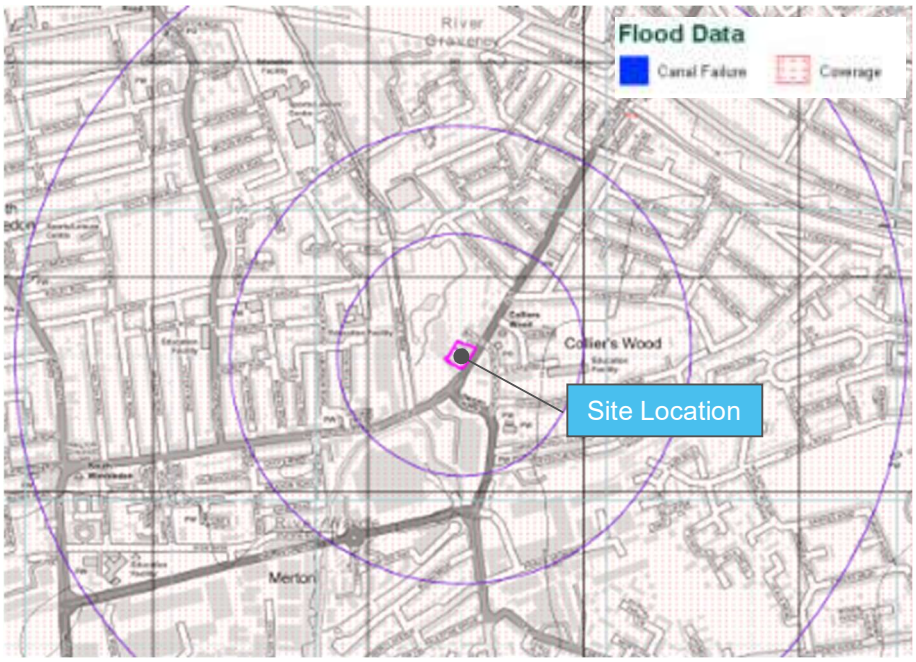


*Figure 4.11: Canal Failure Flood Map*

4.43 Flood patterns associated with burst water mains would typically be limited to locations where watermain infrastructure is normally located and flood flow paths would likely be similar to the flow path of surface water flooding.

4.44 Thames Water records in *Figure 4.12* below show watermain infrastructure to be located in High Street Colliers Wood. Surface water flood mapping in *Figure 4.8* indicated that surface water flooding from High Street Colliers Wood would enter the site at the vehicular access where it would follow a westerly route through the ground floor car park. It would then deviate in a northerly direction at the western extents of the building following the ramp down to the basement, where surface water would accumulate until it is able to overtop the boundary retaining wall with Wandle Park. It is considered likely that should flooding from a burst water main occur in the location of the site that flooding flow paths would be similar to the flow paths identified on surface water flood map.


*Figure 4.12: Thames Water Watermain Records*

## 5. MANAGING THE RISK OF FLOODING

5.1 The National Planning Policy Framework (NPPF) Planning Practice Guidance for Flood risk and coastal change National Planning Policy Framework (NPPF) advises that the objectives of a site-specific flood risk assessment are to establish:

- Whether a proposed development is likely to be affected by current or future flooding from any source;
- whether it will increase flood risk elsewhere;
- whether the measures proposed to deal with these effects and risks are appropriate;
- the evidence for the local planning authority to apply (if necessary) the Sequential Test, and;
- whether the development will be safe and pass the Exception Test, if applicable.

5.2 The objectives are considered below:

Current or Future Flooding from any Source

5.3 Section 5 identified the site to be at high risk of fluvial flooding. The site was also identified to be at risk of flooding from surface water, groundwater, sewers and burst watermain infrastructure. However, it is considered any measures proposed to deal with the effects of fluvial flooding would largely deal with the effects of flooding from these sources.

5.4 For fluvial flooding scenario, the design flood event and design flood level for the site were established to be: -

- Design flood event - 1% AEP + 17% climate change
- Design flood level - 12.13m AOD

Potential for Development to Increase Flood Risk Elsewhere

5.5 The main areas where development typically has potential to increase flood risk elsewhere are where development increases building footprint, raises levels within the floodplain or obstructs flood flow paths. This can reduce the floodplains ability to store floodwater and can increase the risk of flooding to neighbouring areas through the displacement of floodwater.

5.6 The proposed development generally comprises refurbishment of the ground floor of the existing hotel and a small four storey extension located in the north-eastern part of the site. The extension is approximately 120m$^2$ in footprint at ground floor level and replaces an existing single storey side extension and an existing single storey building housing the electric sub-station for the site. Therefore, the extension would not result in any substantial displacement of the floodplain or loss in floodplain storage. The extension would also not be located in a flood flow path. Thus, there would be no risk of the development causing an increase in flood risk elsewhere.

5.7 Increases in flood risk elsewhere can also be caused by increases in drained area that can result in increases in surface water runoff. However, there would be no increase in volumes and rates of surface water runoff from the site as the drained area remains as existing in the post development situation.

Flood Risk Management Measures

5.8 Flood risk management measures typically include avoidance, resistance and resilience measures, which are generally prioritised in this order.

5.9 Avoidance measures can include raised floor levels and the Level 1 SFRA recommends setting floor levels a minimum of 300 mm above the design flood level.

5.10 Where it is not possible to use avoidance measures, resistance and resilience measures can be used to reduce the impact of flooding and speed up restoration times following a flood. Resistance measures are aimed at preventing floodwater ingress into a building, while resilience measures are typically used in situations where it is not possible to prevent flood water from entering a building. Resilience measures therefore typically comprise construction methods and materials that promote easy draining and drying after a flood. The May 2007 Communities and Local Government Report *"Improving the Flood Performance of New Buildings*" sets out an approach for selecting a resistant or resilient approach, which is based on water depth and shown in *Figure 5.1* below.

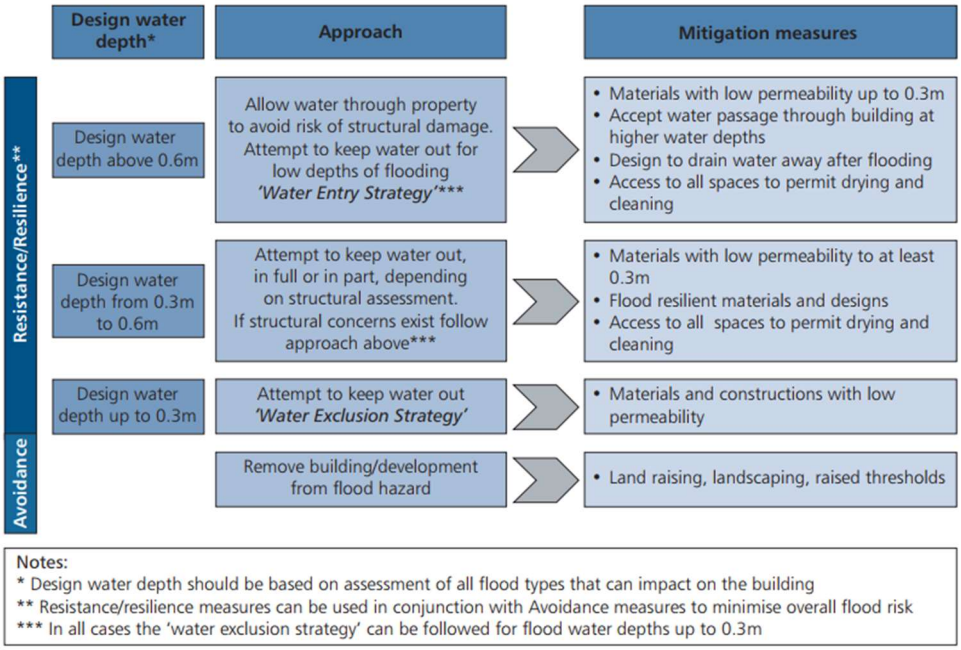


*Figure 5.1: Flood Resistance & Resilience Design Approaches*

5.11 *Table 5.1* below reviews the various elements of the development and measures that could be used to manage flood risk.

*Table 5.1: Flood Risk Management Measures*

| Element | Flood Risk Management Measure |
|---|---|
| 1. Four storey extension | Avoidance measures would be used in the extension, whereby the extensions ground floor level would be set at the existing upper ground floor level of 13.08m AOD to 13.27m AOD. Thus, the ground floor level of the extension would be set 0.95m to 1.14m above the design flood level. |
| 2. Conversion of meeting rooms and gymnasium to hotel bedrooms | Avoidance measures would also be used in the conversion of the ground floor gymnasium and meeting rooms into hotel bedrooms. The ground floor level in this area would be raised to match the existing upper ground floor level of 13.08m AOD |

| | |
|---|---|
| | to 13.27m AOD. Thus, the ground floor level of these areas would be set 0.95m to 1.14m above the design flood level. |
| 3. Refurbishment of existing ground floor reception and lobby areas | A majority of the hotels existing ground floor is set well above the design flood level at levels of 13.08m AOD to 13.27m AOD. However, the lobby and receptions areas of the hotel that are proposed for refurbishment are set at levels of 12.00m AOD to 12.05m AOD in the existing situation. These areas could not be raised in level as they provide level access from High Street Collier Wood for staff and guests. Whilst flood depths would warrant the consideration of a resistant approach, building records indicate that the existing floor construction comprises a suspended beam and block floor, which would not permit this. On this basis it is recommended that these areas are designed to be resilient to flooding as part of the refurbishment works by using floor finishes with water resilient materials including ceramic or concrete-based floor tiles, stone, and sand/cement screeds. Demountable flood barriers at external door access points could help to reduce the ingress or water, while electrical sockets and controls should be raised as high as practical above floor level and preferably 300mm above the design flood level of 12.13m AOD. |
| 4. Relocation of electric sub-station, new plant area and electrical intake room. | The electric sub-station room and electrical intake room will be located within the proposed extension but ability to raise the level of this area is restricted as external access is required. External ground levels in the vicinity of the sub-station are approximately 12.07m to 12.18m AOD. Therefore, it would be feasible to set the rooms floor level at or above the design flood level of 12.13m AOD for protection from flood risk. The room could also designed to be resistant to flooding with a demountable flood barrier provided at the access doors.<br><br>The new plant room would comprise a steel podium erected on stilts. It is recommended that the podium is set at a minimum level 300 mm above the design flood level of 12.13m AOD for protection from flood risk. |

5.12 The level 1 SFRA identifies that safe access and egress is required to enable the evacuation of people from development, provide the emergency services with access to the development during times of flood and enable flood defence authorities to carry out any necessary duties during periods of flood. A safe access/egress route should allow occupants to safely enter and exit the buildings and be able to reach land outside the flooded area (e.g. within Flood Zone 1) using public rights of way without the intervention of emergency services or others during design flood conditions, including climate change allowances.

5.13 In Section 4 it was established that the hazard along the pedestrian route from the sites main entrance to land outside the floodplain to the north would be low during the design flood event. Thus, safe access and egress conditions would be available for staff and guest in a design flood event. The buildings upper floors would provide a second form of management as they would offer a safe refuge for staff and guest in the event of safe access and egress not being possible in flooding conditions. A drawing showing the safe access egress route is included in *Appendix F*.

5.14 In Section 4 it was identified that significant flood depths could be experienced in the sites ground floor parking and basement parking areas in both fluvial and surface water conditions. It is recommended that these areas are operated under a flood response plan, requiring these areas to be vacated on issue of a flood warning by the

EA's flood warning service. The areas should only returned to operation once flooding has subsided and the areas have been deemed safe following a structural survey.

5.15 In Section 4 it was also identified that incidents of surface water flooding have been reported in the sites basement car park caused by surcharge of the local surface water sewer system during severe rainfall events. Flooding originates from a low-lying chamber at the western end of the ground floor car park and flood water then flows down the access ramp into the basement car park, where flood water accumulates and is unable to escape as a result of pumping facilities in the basement being overcome by flood volumes and being unable to freely discharge due to the outfall from the pumping facility also being the low lying chamber at the western end of the ground floor car park. To help alleviate flooding it is recommended that the chamber and chambers upstream are reconstructed with sealed roddable cast iron fittings to prevent floodwater from escaping. It is also recommended that a chamber is provided, where the system leaves the site, which should be fitted with a sealed cast iron anti-flood valve to further reduce the risk of the system being affected by surcharge from the surface water sewer system.

5.16 All proposed measures for managing flood risk are shown on the Flood Risk Management Measure plan in *Appendix G*.

Sequential & Exception Test

5.17 When applying the Sequential and Exception Test, the NPPF advises that a pragmatic approach should be applied to certain types of development specifically in considering planning applications for extensions to existing buildings, where it would be impractical to suggest that there are more suitable alternative locations for the development elsewhere. Given the proposed development falls within this description, it is not considered appropriate to seek other potential locations for the development or apply the exception test.

## 6. SUMMARY & CONCLUSIONS

6.1 It has been established that the site is located in Flood Zone 3a, which is land assessed to be at a high probability of fluvial flooding. The site was also identified to be at risk of flooding from surface water, groundwater, sewers and burst watermain infrastructure. However, any measures proposed to deal with the effects of fluvial flooding would typically deal with the effects of flooding from these sources.

6.2 A design flood event and design flood level for the site has been identified to be:

- Design flood event - 1% + 17% climate change allowance
- Design flood level - 12.13m AOD

6.3 The proposed development generally comprises refurbishment of the ground floor of the existing hotel and a small four storey extension located in the north-eastern part of the site. The extension is approximately 120m$^2$ in footprint at ground floor level and replaces an existing single storey side extension and an existing single storey building housing the electric sub-station for the site. Therefore, the extension would not result in any substantial displacement of the floodplain or loss in floodplain storage. The extension would also not be located in a flood flow path. Thus, there would be no risk of the development causing an increase in flood risk elsewhere.

6.4 The following measures are recommended to the various elements of the development to manage the risk of flooding:

- Four storey extension: The extensions ground floor level should be set at the existing upper ground floor level of 13.08m AOD to 13.27m AOD.
- Conversion of meeting rooms and gymnasium to hotel bedrooms: The ground floor level should be raised to match the existing upper ground floor level of 13.08m AOD to 13.27m AOD.
- Refurbishment of existing ground floor reception and lobby areas: These areas should be designed to be resilient to flooding, with demountable flood barriers provided at external door access points to help reduce the ingress or water.
- Relocation of electric sub-station and electrical intake room: These areas should be set at a minimum floor level of 12.13m AOD and designed to be resistant to flooding with demountable flood barriers provided at external door access points.
- New plant room: Should be erected on a steel podium set at a minimum level a minimum level 300mm above the design flood level of 12.13m AOD for protection from flood risk.
- Existing surface water chambers susceptible to historic flooding should be reconstructed with sealed roddable cast iron fittings to prevent floodwater from escaping. A chamber should also be provided, where the existing surface water drainage system leaves the site, which should be fitted with a sealed cast iron anti-flood valve to further reduce the risk of the system being affected by surcharge from the surface water sewer system.
- The existing ground floor and basement parking areas should be operated under a flood response plan, requiring these areas to be vacated on issue of a flood warning by the EA's flood warning service, with the areas only returned to operation once flooding has subsided and the areas have been deemed safe following a structural survey.

6.5 It has been established that the hazard along the pedestrian route from the sites main entrance to land outside the floodplain to the north would be categorised as low during a design flood event. Thus, safe access and egress conditions would be available for staff and guest in a design flood event. The buildings upper floors would provide a second form of management as they would offer a safe refuge for staff and guests in the event of safe access and egress not being possible in flooding conditions.

6.6 It has been determined that as the proposed development comprises of an extension of an existing Holiday Inn Express hotel, it is not considered necessary to seek other potential locations for the development for the Sequential Test or apply the Exception Test.

6.7 In terms of flood risk, it is concluded that the development can be occupied and operated safely and that there will be no increase in the level of flood risk to the site or neighbouring sites because of the development thus fulfilling the aims of national and local planning policy.

**APPENDIX A**
PROPOSED SITE PLAN & FLOOR PLANS


01 PROPOSED GROUND FLOOR
Scale: 1:100

0 5 8 10 13 15 M

N

| Rev | Date | Description | By | Chk |
|---|---|---|---|---|
| C | 19/12/24 | ISSUED FOR PLANNING | AJ | |

AXIOM ARCHITECTS
1 Brooklands Yard Southover High Street Lewes East Sussex BN7 1HU
Tel. 01273 479434 www.axiomarchitects.co.uk

**Client**
**CARTER LAUREN CONSTRUCTION**

**Project**
HOLIDAY INN EXPRESS WIMBLEDON
COLLIERS WOOD
LONDON SW19 2BH

**Drawing**
**PROPOSED GROUND FLOOR PLAN**

| Scale | Date | Drawn | Checked |
|---|---|---|---|
| 1:100 @ A1 | 18/11/24 | AJ | AB |

**Drawing No.** **Revision**
**5823-P3- 111 C**

**Status**
PLANNING


01 PROPOSED FIRST FLOOR
Scale: 1:100

| Rev | Date | Description | By | Chk |
|---|---|---|---|---|
| C | 19/12/24 | ISSUED FOR PLANNING<br>Plant enclosure revised | AJ | |

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**Project**
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COLLIERS WOOD
LONDON SW19 2BH

**Drawing**
**PROPOSED FIRST FLOOR PLAN**

| Scale | Date | Drawn | Checked |
|---|---|---|---|
| 1:100 @ A1 | 18/11/24 | AJ | AB |

**Drawing No.** **Revision**
**5823-P3- 112 C**

**Status**
PLANNING


01 PROPOSED SECOND FLOOR
Scale: 1:100

| Rev | Date | Description | By | Chk |
|---|---|---|---|---|
| C | 19/12/24 | ISSUED FOR PLANNING | AJ | |

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**Project**
HOLIDAY INN EXPRESS WIMBLEDON
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LONDON SW19 2BH

**Drawing**
**PROPOSED SECOND FLOOR PLAN**

| Scale | Date | Drawn | Checked |
|---|---|---|---|
| 1:100 @ A1 | 18/11/24 | AJ | AB |

**Drawing No.** **Revision**
**5823-P3- 113 C**

**Status**
PLANNING


01 PROPOSED THIRD FLOOR
Scale: 1:100

0 5 8 10 13 15 M

| Rev | Date | Description | By | Chk |
|---|---|---|---|---|
| C | 19/12/24 | ISSUED FOR PLANNING | AJ | |

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**Client**
**CARTER LAUREN CONSTRUCTION**

**Project**
HOLIDAY INN EXPRESS WIMBLEDON
COLLIERS WOOD
LONDON SW19 2BH

**Drawing**
**PROPOSED THIRD FLOOR PLAN**

| Scale | Date | Drawn | Checked |
|---|---|---|---|
| 1:100 @ A1 | 18/11/24 | AJ | AB |

**Drawing No.** **Revision**
**5823-P3- 114 C**

**Status**
PLANNING


01 PROPOSED ROOF LEVEL
Scale: 1:100

0 5 8 10 13 15 M

N

| Rev | Date | Description | By | Chk |
|---|---|---|---|---|
| C | 19/12/24 | ISSUED FOR PLANNING<br>Additional toilets indicated. Enclosed escape route to main stair added | AJ | |

AXIOM ARCHITECTS
1 Brooklands Yard Southover High Street Lewes East Sussex BN7 1HU
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**Client**
**CARTER LAUREN CONSTRUCTION**

**Project**
HOLIDAY INN EXPRESS WIMBLEDON
COLLIERS WOOD
LONDON SW19 2BH

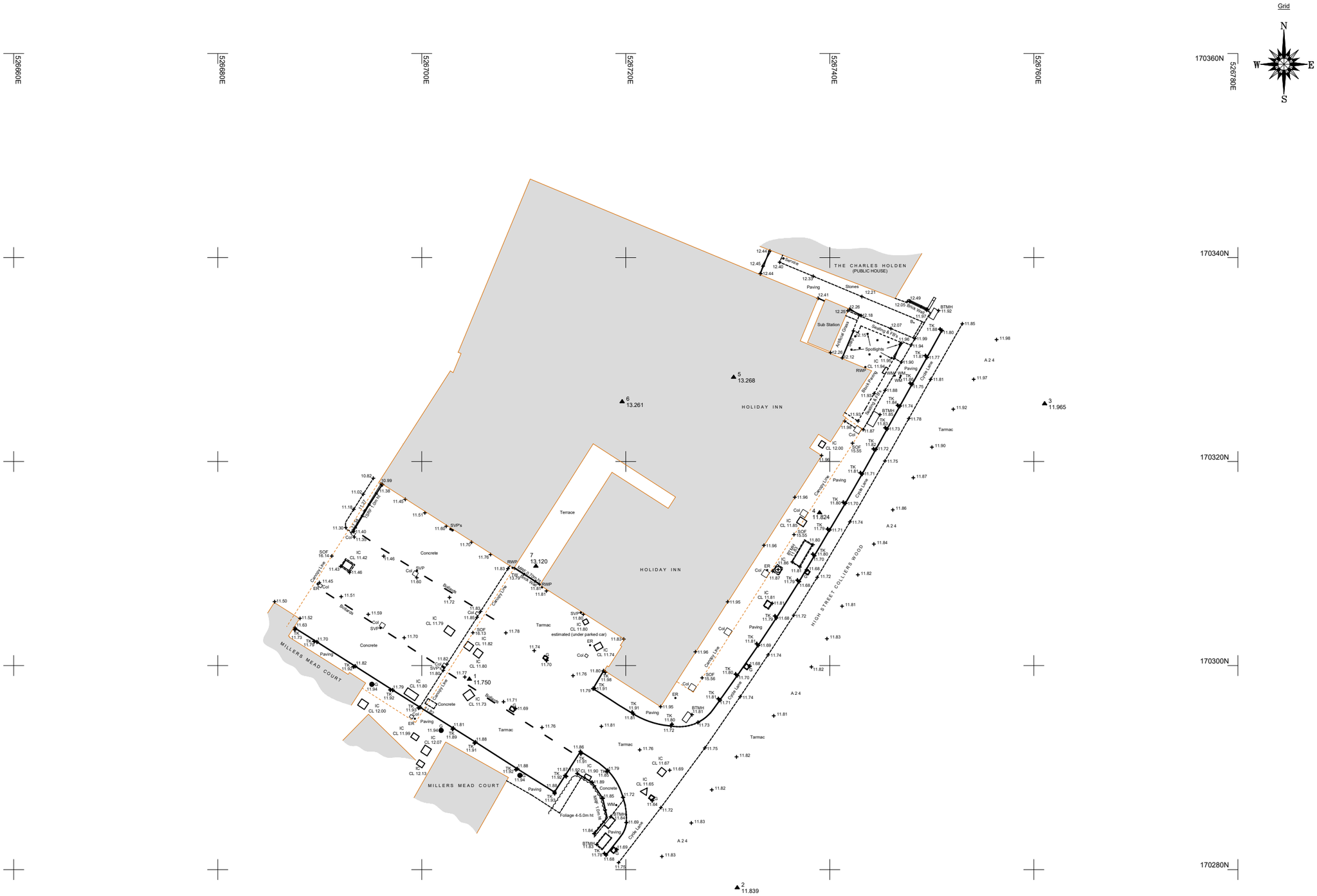
**Drawing**
**PROPOSED ROOF LEVEL**
**FOURTH FLOOR MEETING ROOM & OFFICE**

| Scale | Date | Drawn | Checked |
|---|---|---|---|
| 1:100 @ A1 | 18/11/24 | AJ | AB |

**Drawing No.** **Revision**
**5823-P3- 115 C**

**Status**
PLANNING

**APPENDIX B**
TOPOGRAPHICAL SURVEY & EXISTING PLANS




## SURVEY STATIONS - COORDINATE SCHEDULE

| Station | Easting | Northing | Level |
|---|---|---|---|
| 1 | 526704.669 | 170298.670 | 11.750 |
| 2 | 526730.930 | 170278.221 | 11.839 |
| 3 | 526761.059 | 170325.675 | 11.965 |
| 4 | 526738.995 | 170314.986 | 11.824 |
| 5 | 526730.574 | 170328.263 | 13.268 |
| 6 | 526719.643 | 170325.870 | 13.261 |
| 7 | 526711.192 | 170309.744 | 13.120 |
| 2A | 526661.873 | 170227.752 | 11.927 |

Survey station 3 has a direct relationship to the Ordnance Survey active network. All other stations have been descaled about this point.
The scale factor for these quoted stations is 1.
This is effectively a local coordinate system with a good connection to the OS to facilitate overlaying of further OS digital data.
Please contact Maltby Surveys if further clarification is required.

## LEGEND

BANKING
BUSHES & HEDGES
TREES
MT / 3T / 0.2 / 6
Multiple Trunks — No of Trunks — Dia of Bole — Height of Tree
NOTE:- SPREADS AND HEIGHTS ARE INDICATIVE ONLY
GATES — Single — Double
WALL — Width drawn to scale 0.23m
BUILDING
OPEN SIDED BUILDING
GLASS ROOFED
CONTOURS 25.50

## ABBREVIATIONS (WHERE APPLICABLE)

| | | | |
|---|---|---|---|
| ARCH HEAD HEIGHT | AHH | MARKER | MKR |
| ARCH HEAD LEVEL | AHL | MONITORING WELL | MW |
| ARCH SPRINGER HEIGHT | ASH | NOTICE BOARD | NB |
| ARCH SPRINGER LEVEL | ASL | NAME PLATE | NP |
| AIR VALVE | AV | OVERHEAD WIRES | OHW |
| BED LEVEL | BL | PARKING METER | PM |
| BELISHA BEACON | BB | RIDGE LEVEL | RID |
| BOLLARD | B | ROOF LEVEL | RL |
| BRITISH TELECOM BOX | BTB | ROAD SIGN | RS |
| BRITISH TELECOM MANHOLE | BTMH | RODDING EYE | RE |
| BRICKWORK | BKWK | RETAINING WALL | RTW |
| BUS STOP | BS | RAIN WATER PIPE | RWP |
| CABLE TV | CATV | SLUICE VALVE | SV |
| COVER LEVEL | CL | STOP COCK | SC |
| CABLE MARKER | CM | SOFFIT LEVEL | SOF |
| COLUMN | Col | STRUCTURAL SLAB LEVEL | SSL |
| CONCRETE POST | CP | TREE STUMP | ST |
| EAVES LEVEL | EAV | SOIL AND VENT PIPE | SVP |
| ELECTRICAL COVER | ELEC | THRESHOLD LEVEL | THL |
| ELECTRICITY CONTROL BOX | ECB | TELEGRAPH POLE | TP |
| ELECTRICITY POLE | EP | TELEPHONE CALL BOX | TCB |
| EARTH ROD | ER | TOP OF KERB | TK |
| FLOWER BED | FB | TURNSTILE | TS |
| FINISHED FLOOR LEVEL | FFL | TRAFFIC LIGHT | TL |
| FIRE HYDRANT | FH | TOP OF WALL | TW |
| FLOOR LEVEL | FL | UNABLE TO LIFT | UTL |
| FLAG STAFF | FS | UNABLE TO SURVEY | UTS |
| GAS PIPE | GP | VENT PIPE | VP |
| GAS VALVE | GV | WATER METER | WM |
| GULLY | G | WATER LEVEL | WL |
| GATE STOP | GS | WASH OUT | WO |
| INSPECTION COVER | IC | WASTE PIPE | WP |
| INVERT LEVEL | IL | WATER TANK | WT |
| LAMP POST | LP | WATER VALVE | WV |

## FENCES

| | | | |
|---|---|---|---|
| BARBED WIRE FENCE | BWF | LARCH LAP FENCE | LLF |
| CORRUGATED IRON FENCE | CIF | METAL RAILING FENCE | MRF |
| CLOSE BOARD FENCE | CBF | POST AND CHAIN FENCE | PCF |
| CHAIN LINK FENCE | CLF | PICKET FENCE | PIF |
| CHESTNUT PALING FENCE | CPF | POST AND RAIL FENCE | PRF |
| FENCE POST | FPO | POST AND WIRE FENCE | PWF |
| INTERWOVEN FENCE | IWF | STEEL PALISADE SECURITY FENCE | SPSF |
| IRON RAILING FENCE | IRF | TUBULAR STEEL RAIL FENCE | TSRF |

| REV. | NOTES | DWN | DATE |
|---|---|---|---|
| A | --- | --- | --/---- |

QMS ISO 9001 REGISTERED
A MEMBER OF THE THE SURVEY ASSOCIATION
QMS ISO 14001 REGISTERED

Notes:
Grid and levels relate to OS GPS Active Network.
Sheet is North orientated unless stated.


Maltby Surveys Ltd
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E-Mail: mls@maltbysurveys.com
WebSite: http://www.maltbysurveys.com


| | | |
|---|---|---|
| SURVEYED | JS | CLIENT |
| DRAWN | JS | AXIOM ARCHITECTS |
| CHECKED | SJM | |
| RICS | | SCALE |
| | | 1/200 (A1 Sheet) |

Holiday Inn, 200 High Street, London, SW19 2BH

# TOPOGRAPHICAL SURVEY

| Job No | Rev | Drawing Number |
|---|---|---|
| 23/028 | | 23/028/100 |
| Date : February 2023 | | |


## Grid

N
W E
S

## LEGEND

### ABBREVIATIONS

(WHERE APPLICABLE)

| | | | |
|---|---|---|---|
| BOLLARD | B | PARAPET HEIGHT | PTH |
| BRICKWORK | BKWK | PARAPET LEVEL | PTL |
| COVER LEVEL | CL | RIDGE LEVEL | RID |
| EAVES LEVEL | EAV | ROOF LEVEL | RL |
| GULLY | G | RAIN WATER PIPE | RWP |
| GULLY CHANNEL | GC | SOFFIT LEVEL/HEIGHT | SOL/SOH |
| INSPECTION COVER | IC | SOIL / VENT PIPE | SVP |
| INVERT LEVEL | IL | UNABLE TO LIFT | UTL |
| LOW LEVEL WALL | LLW | UNABLE TO SURVEY | UTS |

### BUILDING

| | | | |
|---|---|---|---|
| ARCH SPRINGER HEIGHT | ASH | ARCH SPRINGER LEVEL | ASL |
| ARCH HEAD HEIGHT | AHH | ARCH HEAD LEVEL | AHL |
| ACCESS HATCH | AH | HOSE REEL | HR |
| ACCESS PANEL | AP | RADIATOR | Rad |
| COLUMN | Col | SKYLIGHT | SL |
| CUPBOARD | CBD | SERVICE RISER | SVR |
| ELECTRICAL BOX | EB | VENTILATION | VT |
| FIRE ALARM | FA | WASH BASIN | WB |
| FIRE HYDRANT | FH | DRY/WET RISER | DR/WR |
| HIGH LEVEL WINDOW | HLW | WATER TANK | WT |
| SOFFIT HEIGHT | SOH | SOFFIT LEVEL | SOL |
| TOP OF WALL (HEIGHT) | TW 2.00ht | TOP OF WALL (LEVEL) | TW 10.00 |
| LOW LEVEL WALL (HEIGHT) | LLW 2.00ht | LOW LEVEL WALL (LEVEL) | LLW 10.00 |

### FLOORS

| | | | |
|---|---|---|---|
| FLOOR LEVEL (Visible) | FL | PLINTH (HEIGHT) | PL 0.10ht |
| FLOOR LEVEL (Structural) | SFL | PLINTH (LEVEL) | PL 10.00 |
| FLOOR LEVEL (False/Raised) | RFL | RAMP / STAIRS DIRECTION | →/ ▷ |
| | | NUMBER OF TREADS | UP 9 △ |

### BEAMS AND CEILINGS

| | | | |
|---|---|---|---|
| FLOOR TO BEAM SOFFIT HEIGHT | BH | BEAM SOFFIT LEVEL | BSL |
| BEAM HEAD HEIGHT | BHH | BEAM HEAD LEVEL | BHL |
| FLOOR TO CEILING HEIGHT | 2.00 | CEILING LEVEL | CL 10.00 |
| STRUCTURAL CEILING HEIGHT | SC 2.00 | STRUCTURAL CEILING LEVEL | SCL 10.00 |
| ARCH CEILING SPRINGER HEIGHT | CSH | ARCH CEILING SPRINGER LEVEL | CSL |
| ARCH CEILING HEAD HEIGHT | CHH | ARCH CEILING HEAD LEVEL | CHL |
| FALSE CEILING | FC | STRUCTURAL CEILING | SC |

### DOORS

| | | | |
|---|---|---|---|
| THRESHOLD HEIGHT | TH | THRESHOLD LEVEL | THL |
| DOOR HEAD HEIGHT | DH | DOOR HEAD LEVEL | DHL |
| ARCH DOOR SPRINGER HEIGHT | DSH | ARCH DOOR SPRINGER LEVEL | DSL |

### WINDOWS

| | | | |
|---|---|---|---|
| FLOOR to CILL HEIGHT | F-C | WINDOW CILL LEVEL | WCL |
| CILL - HEAD HEIGHT | C-H | WINDOW HEAD LEVEL | WHL |
| CILL - ARCH SPRINGER HEIGHT | C-ASH | CILL - ARCH HEAD HEIGHT | C-AHH |

| REV. | NOTES | DWN | DATE |
|---|---|---|---|
| A | --- | --- | --/---- |

QMS ISO 9001 REGISTERED

A MEMBER OF THE THE SURVEY ASSOCIATION

QMS ISO 14001 REGISTERED

Notes:

Grid and levels relate to OS GPS Active Network.
Windows measured to internal reveal unless stated.
Doors measured to leaf unless structure exposed or stated.


Maltby Surveys Ltd

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RH16 1EB
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Fax: 01444 417697
E-Mail: contact@maltbysurveys.com
WebSite: http://www.maltbysurveys.com

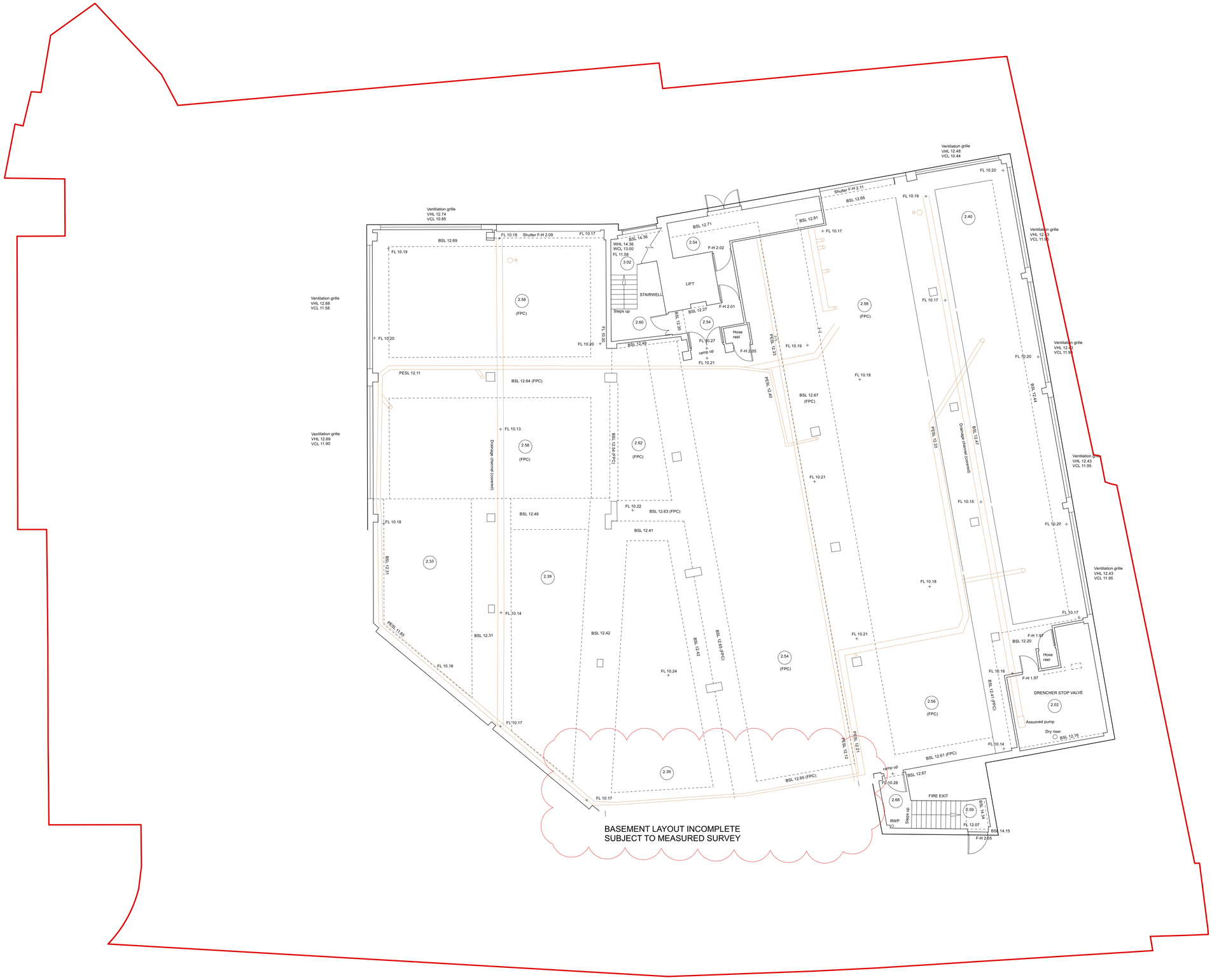

| | | |
|---|---|---|
| SURVEYED | WM | CLIENT |
| DRAWN | YC JH | Axiom Architects |
| CHECKED | SJM | |
| RICS | | SCALE |
| | | 1/100 (A1 Sheet) |

Holiday Inn Express 200 High Street SW19 2BH

# GROUND FLOOR PLAN (Part)

| Job No | Rev | Drawing Number |
|---|---|---|
| 23/028 | | 23/028/200 |

Date : January 2023




1 EXISTING BASEMENT
Scale: 1:100

0 5 8 10 13 15 M

N

Rev Date Description By Chk

AXIOM ARCHITECTS
1 Brooklands Yard Southover High Street Lewes East Sussex BN7 1HU
Tel. 01273 479434 www.axiomarchitects.co.uk

**Client**
**CARTER LAUREN CONSTRUCTION**

**Project**
HOLIDAY INN EXPRESS WIMBLEDON
COLLIERS WOOD
LONDON SW19 2BH

**Drawing**
**EXISTING BASEMENT PLAN**

| Scale | Date | Drawn | Checked |
|---|---|---|---|
| 1:100 @ A1 | 18/11/24 | AJ | AB |

**Drawing No.** **Revision**

**5823-P3- 100**

**Status**
INFORMATION


01 EXISTING GROUND FLOOR
Scale: 1:100

0 5 8 10 13 15 M

N

| Rev | Date | Description | By | Chk |
|---|---|---|---|---|

AXIOM ARCHITECTS
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**Client**
**CARTER LAUREN CONSTRUCTION**

**Project**
HOLIDAY INN EXPRESS WIMBLEDON
COLLIERS WOOD
LONDON SW19 2BH

**Drawing**
**EXISTING GROUND FLOOR PLAN**

| Scale | Date | Drawn | Checked |
|---|---|---|---|
| 1:100 @ A1 | 18/11/24 | AJ | AB |

**Drawing No.** **Revision**

# 5823-P3- 101

**Status**
PLANNING


01 EXISTING FIRST FLOOR
Scale: 1:100

0 5 8 10 13 15 M

N

| Rev | Date | Description | By | Chk |
|---|---|---|---|---|

AXIOM ARCHITECTS
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**Client**
**CARTER LAUREN CONSTRUCTION**

**Project**
HOLIDAY INN EXPRESS WIMBLEDON
COLLIERS WOOD
LONDON SW19 2BH

**Drawing**
**EXISTING FIRST FLOOR PLAN**

| Scale | Date | Drawn | Checked |
|---|---|---|---|
| 1:100 @ A1 | 18/11/24 | AJ | AB |

**Drawing No.** **Revision**

# 5823-P3- 102

**Status**
PLANNING


01 EXISTING SECOND FLOOR
Scale: 1:100

0 5 8 10 13 15 M

N

| Rev | Date | Description | By | Chk |
|---|---|---|---|---|

AXIOM ARCHITECTS
1 Brooklands Yard Southover High Street Lewes East Sussex BN7 1HU
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**Client**
**CARTER LAUREN CONSTRUCTION**

**Project**
HOLIDAY INN EXPRESS WIMBLEDON
COLLIERS WOOD
LONDON SW19 2BH

**Drawing**
**EXISTING SECOND FLOOR PLAN**

| Scale | Date | Drawn | Checked |
|---|---|---|---|
| 1:100 @ A1 | 18/11/24 | AJ | AB |

**Drawing No.** **Revision**
**5823-P3- 103**

**Status**
PLANNING


01 EXISTING THIRD FLOOR
Scale: 1:100

0 5 8 10 13 15 M

| Rev | Date | Description | By | Chk |
|---|---|---|---|---|

AXIOM ARCHITECTS
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**Client**
**CARTER LAUREN CONSTRUCTION**

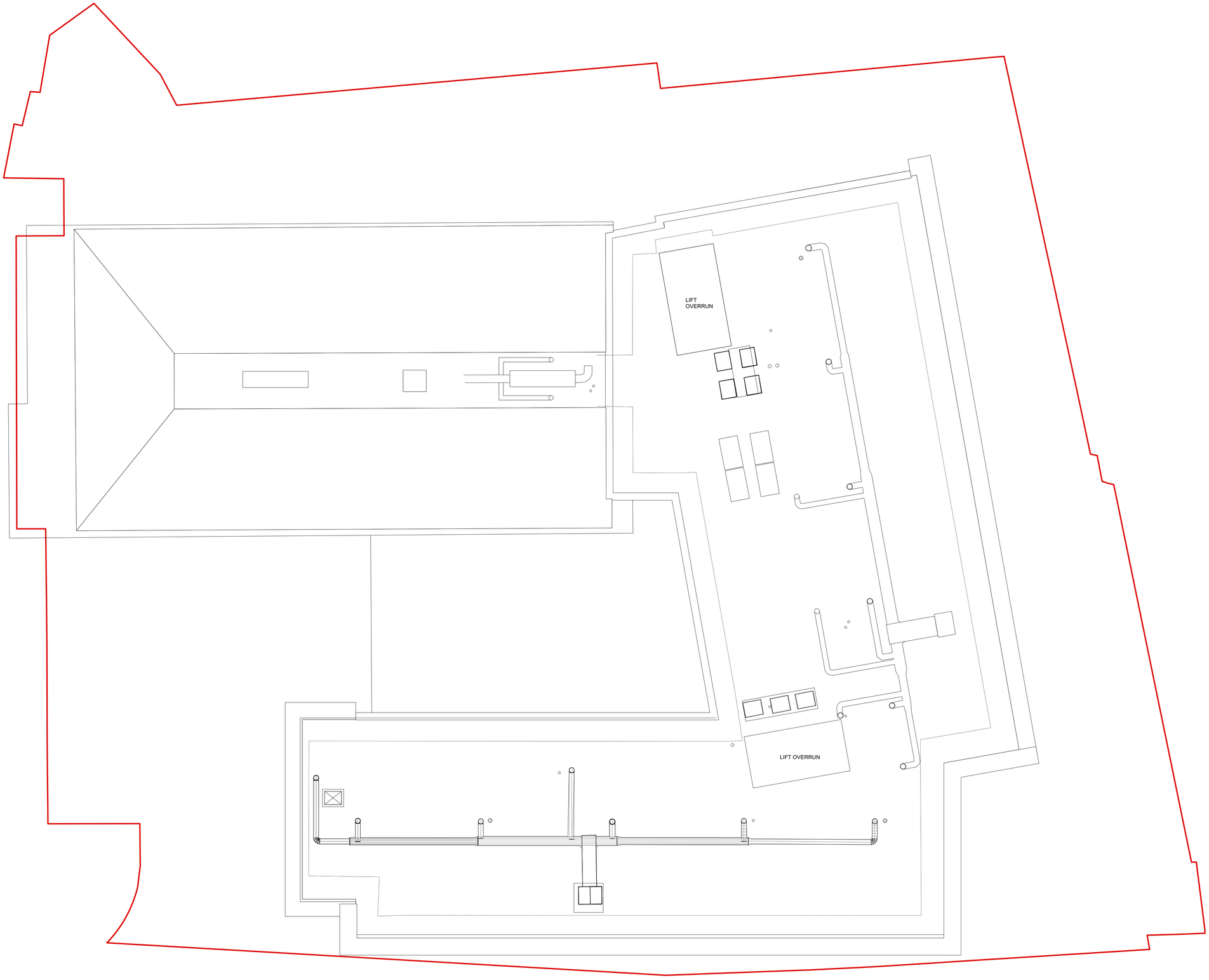
**Project**
HOLIDAY INN EXPRESS WIMBLEDON
COLLIERS WOOD
LONDON SW19 2BH

**Drawing**
**EXISTING THIRD FLOOR PLAN**

| Scale | Date | Drawn | Checked |
|---|---|---|---|
| 1:100 @ A1 | 18/11/24 | AJ | AB |

**Drawing No.** **Revision**
**5823-P3- 104**

**Status**
PLANNING




01 EXISTING ROOF LEVEL
Scale: 1:100

0 5 8 10 13 15 M

| Rev | Date | Description | By | Chk |
|---|---|---|---|---|

AXIOM ARCHITECTS
1 Brooklands Yard Southover High Street Lewes East Sussex BN7 1HU
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**Client**
**CARTER LAUREN CONSTRUCTION**

**Project**
HOLIDAY INN EXPRESS WIMBLEDON
COLLIERS WOOD
LONDON SW19 2BH

**Drawing**
**EXISTING ROOF LEVEL PLAN**

| Scale | Date | Drawn | Checked |
|---|---|---|---|
| 1:100 @ A1 | 18/11/24 | AJ | AB |

**Drawing No.** **Revision**
**5823-P3- 105**

**Status**
PLANNING

**APPENDIX C**
EXISTING DRAINAGE CHARACTERTISTICS PLAN


## NOTES

1. This drawing is to be read in conjunction with all relevant Architects, Engineers and Subcontractors drawings and details.
2. This drawing is based on topographical survey Maltby Surveys LTD:

   Drawing Number 23/028/100
   Dated February 2023

   Underground utilities survey by Subsight Surveys Ltd:

   Drawing Number 56830
   Dated February 2023

   Measured building surveys by Maltby Surveys Ltd:

   Drawing Numbers 23028- 200,201,202,203,204 and 300
   Dated January 2023

   Line and level survey by Plowman Craven:

   Drawing Number 49192-PCL-UT-XX-DR-Y-00001 S3 rev. P01
   Dated August 2024

   As-built existing drainage drawing by MLM:

   Drawing Number 662948/100 rev. C1
   Dated December 2011

   Services and drainage not surveyed have been shown in estimated locations based on utility companies published record drawings & as-built drawing records. The extent of services and drainage shown on this drawing may not be accurate or complete. The contractor must treat these locations with caution and make their own investigations on site.
3. All levels relate to levels given on survey drawings and CCTV survey report.
4. Location of all services in close proximity to works should be confirmed by means of trial pits under supervision of statutory undertaker & in accordance with HSE document "Avoiding Danger from Underground Services"

## LEGEND

- Existing private surface water drainage – Taken from utility survey & as-built records.
- Existing private foul water drainage – Taken from utility survey & as-built records.
- Existing Thames Water combined sewer – Taken from records.
- Existing Thames Water surface water sewer – Taken from records.
- Existing Thames Water foul water sewer – Taken from records.

| | | | |
|---|---|---|---|
| P1 | FIRST ISSUE. | GL | 02.12.24 |
| MK | REVISION | BY | DATE |

DRAWING STATUS

PLANNING

DRAWING TITLE

EXISTING DRAINAGE CHARACTERISTICS PLAN

PROJECT

HOLIDAY INN EXPRESS, WIMBLEDON, COLLIERS WOOD, SW19 2BH

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W: www.simpsoneng.com
London, Henley-on-Thames and Gloucester

| Drawn | Ch'kd | Scales | Date |
|---|---|---|---|
| MW | JJH | 1:250@A1 | NOV'2024 |

Purpose of Issue: FOR PLANNING

| Drawing Number | Revision |
|---|---|
| P23-001-SK100 | P1 |

A1

**APPENDIX D**
ENVIRONMENT AGENCY FLOOD RISK DATA

# Product 4 (Detailed Flood Risk) for: Holiday Inn Express, 200 High Street, Colliers Wood, London, SW19 2BH
Requested by: Louis Le Bellego
Reference: KSL 297110 RL
Date: Friday 3rd February

## Contents



The information provided is based on the best data available as of the date of this letter.

You may feel it is appropriate to contact our office at regular intervals, to check whether any amendments/improvements have been made to the data for this location. Should you re-contact us after a period of time, please quote the above reference in order to help us deal with your query.

This information is provided subject to the enclosed notice which you should read.


Orchard House, Endeavour Park, London Road, Addington, West Malling, Kent, ME19 5SH.
Customer services line: 020 8474 6848
Email: kslenquiries@environment-agency.gov.uk
Website: https://www.gov.uk/government/organisations/environment-agency

# Flood Risk Assessments: Climate Change Allowances

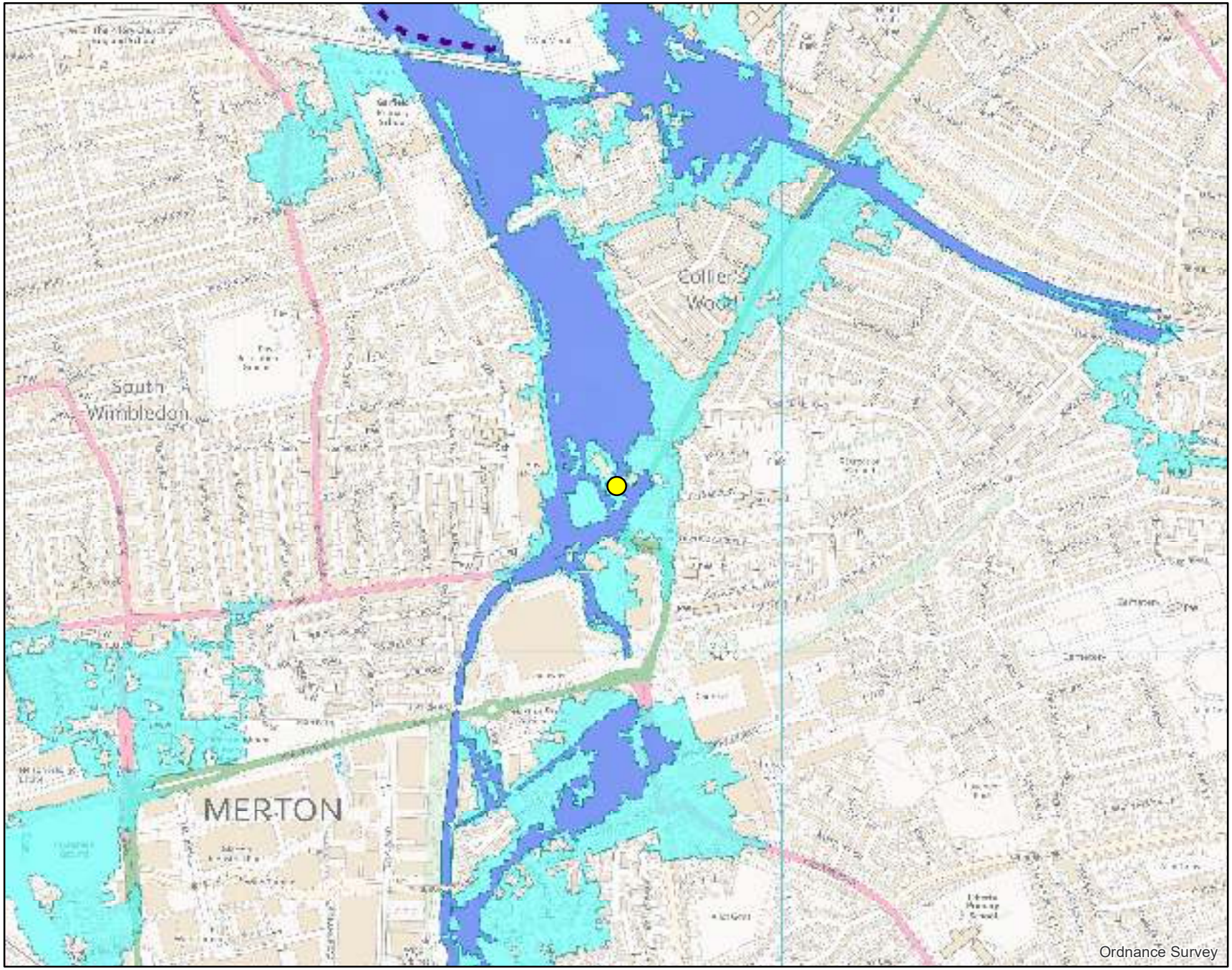
On 20/07/2021 the ‘Flood risk assessments: climate change allowances’ were updated and published on gov.uk. You can view the updated allowances at ‘Flood risk assessments: climate change allowances’.

You will need to consider this data and factor in the new allowances to demonstrate the development will be safe from flooding.

It remains the applicant’s responsibility to demonstrate through their proposals and flood risk assessments that a new development will be safe in flood risk terms for its lifetime.

Orchard House, Endeavour Park, London Road, Addington, West Malling, Kent, ME19 5SH.
Customer services line: 020 8474 6848
Email: kslenquiries@environment-agency.gov.uk
Website: https://www.gov.uk/government/organisations/environment-agency

# Detailed FRA Map centred on SW19 2BH created 03 February 2023 (Ref: KSL297110 RL)




Environment Agency

N

## Legend

- Site
- Main River
- Flood Defences
- Flood Storage Areas
- Flood Zone 3
- Flood Zone 2

**Flood Map for Planning (assuming no defences)**

**Flood Zone 3** shows the area that could be affected by flooding:
- from the sea with a 0.5% or greater chance of occurring each year
- or from a river with a 1% or greater chance of occurring each year.

**Flood Zone 2** shows the extent of an extreme flood from rivers or the sea with up to a 0.1% chance of occurring each year.

Scale 1:10,000

0 250 500

Meters

# Flood Map for Planning (Rivers and Sea)

The Flood Map for Planning (Rivers & Sea)

Our Flood Map shows the natural floodplain for areas at risk from river and tidal flooding. The floodplain is specifically mapped ignoring the presence and effect of defences. Although flood defences reduce the risk of flooding they cannot completely remove that risk as they may be over topped or breached during a flood event.

The Flood Map indicates areas with a 1% (0.5% in tidal areas), Annual Exceedance Probability (AEP) - the probability of a flood of a particular magnitude, or greater, occurring in any given year, and a 0.1% AEP of flooding from rivers and/or the sea in any given year. The map also shows the location of some flood defences.

The Flood Map is intended to act as a guide to indicate the potential risk of flooding. When producing it we use the best data available to us at the time, taking into account historic flooding and local knowledge. The Flood Map is updated on a quarterly basis to account for any amendments required. These amendments are then displayed on the internet at www.environment-agency.gov.uk.

At this Site:

The Flood Map shows that this property/site;

lies within the outline of Flood Zone 3, this zone comprises land assessed as having a 1% chance of flooding from rivers in any given year.

Enclosed is an extract of our Flood Map which shows this information for your area.

Method of production

The Flood Map at this location has been derived using our detailed fluvial model of the River Wandle Modelling Study completed in May 2015 by JBA Consulting.

Orchard House, Endeavour Park, London Road, Addington, West Malling, Kent, ME19 5SH.
Customer services line: 020 8474 6848
Email: kslenquiries@environment-agency.gov.uk
Website: https://www.gov.uk/government/organisations/environment-agency

# Model Output Data

You have requested flood levels for various return periods at this location.

2D

The modelled flood levels for the closest most appropriate model grid cells, any additional information you may need to know about the modelling from which they are derived and/or any specific use or health warning for their use are set out below.

Using a 2D TuFLOW model the floodplain has been represented as a grid. The flood water levels have been calculated for each grid cell.

A map showing the location of the points from which the data is taken is enclosed. Please note you should read the notice enclosed for your specific use rights.

Table 1: Modelled Defended Node Levels excluding climate change allowances

| | | | Modelled Flood Level for Annual Exceedance Probability (mAOD) | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Node ID** | **Easting** | **Northing** | **20% AEP** | **5% AEP** | **2% AEP** | **1.3% AEP** | **1% AEP** | **0.4% AEP** | **0.1% AEP** |
| 1 | 526686 | 170324 | Nil return | Nil return | Nil return | Nil return | Nil return | Nil return | 12.40 |
| 2 | 526692 | 170318 | Nil return | Nil return | 11.50 | 11.74 | 11.82 | 12.04 | 12.40 |
| 3 | 526683 | 170309 | Nil return | Nil return | Nil return | 11.74 | 11.82 | 12.04 | 12.40 |
| 4 | 526710 | 170297 | Nil return | Nil return | 11.78 | 11.82 | 11.91 | 12.11 | 12.45 |
| 5 | 526671 | 170294 | Nil return | Nil return | Nil return | Nil return | 11.89 | 12.08 | 12.43 |
| 6 | 526725 | 170291 | Nil return | Nil return | 11.82 | 11.85 | 11.91 | 12.12 | 12.46 |
| 7 | 526686 | 170282 | Nil return | Nil return | Nil return | Nil return | 11.91 | 12.10 | 12.46 |
| 8 | 526722 | 170282 | Nil return | Nil return | 11.82 | 11.85 | 11.91 | 12.12 | 12.46 |
| 9 | 526707 | 170276 | Nil return | Nil return | Nil return | Nil return | 11.92 | 12.12 | 12.46 |
| 10 | 526716 | 170276 | Nil return | Nil return | 11.82 | 11.86 | 11.92 | 12.12 | 12.46 |

Data taken from our River Wandle Modelling Study, completed in 2015 by JBA Consulting.

Orchard House, Endeavour Park, London Road, Addington, West Malling, Kent, ME19 5SH.
Customer services line: 020 8474 6848
Email: kslenquiries@environment-agency.gov.uk
Website: https://www.gov.uk/government/organisations/environment-agency

Table 2: Modelled Defended Node Levels including climate change allowances

| | | | Modelled Flood Level for Annual Exceedance Probability (mAOD) | | |
|---|---|---|---|---|---|
| **Node ID** | **Easting** | **Northing** | **1% AEP +25% CC** | **1% AEP +35% CC** | **1% AEP +70% CC** |
| 1 | 526686 | 170324 | Nil return | Nil return | Nil return |
| 2 | 526692 | 170318 | 11.98 | 12.01 | 12.14 |
| 3 | 526683 | 170309 | 11.98 | 12.02 | 12.15 |
| 4 | 526710 | 170297 | 12.12 | 12.15 | 12.25 |
| 5 | 526671 | 170294 | 12.09 | 12.12 | 12.21 |
| 6 | 526725 | 170291 | 12.13 | 12.16 | 12.26 |
| 7 | 526686 | 170282 | 12.12 | 12.15 | 12.25 |
| 8 | 526722 | 170282 | 12.13 | 12.16 | 12.26 |
| 9 | 526707 | 170276 | 12.14 | 12.16 | 12.27 |
| 10 | 526716 | 170276 | 12.13 | 12.16 | 12.26 |

Orchard House, Endeavour Park, London Road, Addington, West Malling, Kent, ME19 5SH.
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Email: kslenquiries@environment-agency.gov.uk
Website: https://www.gov.uk/government/organisations/environment-agency

Table 3: Modelled Undefended Node Levels

| | | | Modelled Flood Level for Annual Exceedance Probability, Shown in Metres AOD | | |
|---|---|---|---|---|---|
| **Node ID** | **Easting** | **Northing** | **5 % AEP** | **1% AEP** | **0.1% AEP** |
| 1 | 526686 | 170324 | Nil return | Nil return | 12.24 |
| 2 | 526692 | 170318 | Nil return | 11.70 | 12.24 |
| 3 | 526683 | 170309 | Nil return | 11.70 | 12.25 |
| 4 | 526710 | 170297 | Nil return | 11.91 | 12.39 |
| 5 | 526671 | 170294 | Nil return | 11.89 | 12.33 |
| 6 | 526725 | 170291 | Nil return | 11.91 | 12.41 |
| 7 | 526686 | 170282 | Nil return | 11.91 | 12.40 |
| 8 | 526722 | 170282 | Nil return | 11.91 | 12.40 |
| 9 | 526707 | 170276 | Nil return | 11.92 | 12.41 |
| 10 | 526716 | 170276 | Nil return | 11.92 | 12.41 |

Data taken from our River Wandle Modelling Study, completed in 2015 by JBA Consulting.

NOTE: At some locations it is possible that the modelled levels might be higher in the 'Defended' scenario than the 'Undefended' scenario. This could be due to a number of reasons including: defences keeping water in bank at certain areas and raising in-channel levels; restriction of flow at defence structures; redirection of flow etc.

Orchard House, Endeavour Park, London Road, Addington, West Malling, Kent, ME19 5SH.
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Website: https://www.gov.uk/government/organisations/environment-agency

Table 4: Modelled Undefended Node Levels including climate change allowances

| | | | Modelled Flood Level for Annual Exceedance Probability (mAOD) | | |
|---|---|---|---|---|---|
| **Node ID** | **Easting** | **Northing** | **1% AEP +25% CC** | **1% AEP +35% CC** | **1% AEP +70% CC** |
| 1 | 526686 | 170324 | Nil return | Nil return | Nil return |
| 2 | 526692 | 170318 | 11.82 | 11.87 | 12.00 |
| 3 | 526683 | 170309 | 11.82 | 11.87 | 12.01 |
| 4 | 526710 | 170297 | 12.12 | 12.15 | 12.25 |
| 5 | 526671 | 170294 | 12.09 | 12.12 | 12.20 |
| 6 | 526725 | 170291 | 12.13 | 12.16 | 12.26 |
| 7 | 526686 | 170282 | 12.12 | 12.15 | 12.25 |
| 8 | 526722 | 170282 | 12.13 | 12.16 | 12.26 |
| 9 | 526707 | 170276 | 12.14 | 12.16 | 12.26 |
| 10 | 526716 | 170276 | 12.13 | 12.16 | 12.26 |

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**1D**

The modelled flood levels for the most appropriate cross sections taken from our 1D modelling of the River Wandle, any additional information you may need to know about the modelling from which they are derived and/or any specific use or health warning for their use are set out below.

Table 1: Modelled Defended Node Levels

| | | | Modelled Flood Level for Annual Exceedance Probability, Shown in Metres AOD | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Node ID** | **Easting** | **Northing** | **20% AEP** | **5% AEP** | **2% AEP** | **1.3 % AEP** | **1% AEP** | **0.5% AEP** | **0.1% AEP** |
| 15.152 | 526537 | 170144 | 12.17 | 12.59 | 12.81 | 12.87 | 12.91 | 13.05 | 13.23 |
| 15.149 | 526610 | 170197 | 11.98 | 12.26 | 12.38 | 12.44 | 12.49 | 12.63 | 12.76 |
| 15.148D | 526597 | 170291 | 11.90 | 12.23 | 12.35 | 12.38 | 12.40 | 12.43 | 12.67 |
| 15.147 | 526585 | 170384 | 11.83 | 12.17 | 12.28 | 12.31 | 12.32 | 12.36 | 12.64 |
| SWG_008 | 526577 | 170435 | 11.83 | 12.17 | 12.30 | 12.34 | 12.36 | 12.41 | 12.71 |
| SWG_006 | 526570 | 170478 | 11.79 | 12.14 | 12.26 | 12.29 | 12.31 | 12.36 | 12.67 |
| 15.138 | 526557 | 170583 | 11.27 | 11.44 | 11.60 | 11.70 | 11.76 | 11.93 | 12.02 |
| 25.006D | 526651 | 170090 | 12.08 | 12.51 | 12.75 | 12.85 | 12.92 | 13.10 | 13.35 |
| 25.004D | 526646 | 170125 | 12.08 | 12.51 | 12.75 | 12.85 | 12.92 | 13.10 | 13.35 |
| 25.001 | 526616 | 170168 | 12.08 | 12.51 | 12.75 | 12.85 | 12.92 | 13.10 | 13.34 |

Data taken from our River Wandle Modelling Study, completed in 2015 by JBA Consulting.

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Table 2: Modelled Undefended Node Levels

| | | | Modelled Flood Level for Annual Exceedance Probability, Shown in Metres AOD | | |
|---|---|---|---|---|---|
| **Node ID** | **Easting** | **Northing** | **5 % AEP** | **1% AEP** | **0.1% AEP** |
| 15.152 | 526537 | 170144 | 12.59 | 12.91 | 13.23 |
| 15.149 | 526610 | 170197 | 12.26 | 12.49 | 12.76 |
| 15.148D | 526597 | 170291 | 12.23 | 12.40 | 12.67 |
| 15.147 | 526585 | 170384 | 12.17 | 12.32 | 12.64 |
| SWG_008 | 526577 | 170435 | 12.17 | 12.36 | 12.71 |
| SWG_006 | 526570 | 170478 | 12.14 | 12.31 | 12.67 |
| 15.138 | 526557 | 170583 | 11.42 | 11.61 | 12.02 |
| 25.006D | 526651 | 170090 | 12.51 | 12.92 | 13.35 |
| 25.004D | 526646 | 170125 | 12.51 | 12.92 | 13.35 |
| 25.001 | 526616 | 170168 | 12.51 | 12.92 | 13.34 |

Data taken from our River Wandle Modelling Study, completed in 2015 by JBA Consulting.

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Table 3: Modelled Defended Node Levels including climate change allowances

| | | | Modelled Flood Level for Annual Exceedance Probability (mAOD) | | |
|---|---|---|---|---|---|
| **Node ID** | **Easting** | **Northing** | **1% AEP +25% CC** | **1% AEP +35% CC** | **1% AEP +70% CC** |
| 15.152 | 526537 | 170144 | 13.01 | 13.04 | 13.12 |
| 15.149 | 526610 | 170197 | 12.61 | 12.63 | 12.68 |
| 15.148D | 526597 | 170291 | 12.54 | 12.56 | 12.61 |
| 15.147 | 526585 | 170384 | 12.50 | 12.52 | 12.57 |
| SWG_008 | 526577 | 170435 | 12.53 | 12.55 | 12.62 |
| SWG_006 | 526570 | 170478 | 12.49 | 12.51 | 12.58 |
| 15.138 | 526557 | 170583 | 11.88 | 11.90 | 11.98 |
| 25.006D | 526651 | 170090 | 13.05 | 13.09 | 13.20 |
| 25.004D | 526646 | 170125 | 13.05 | 13.09 | 13.20 |
| 25.001 | 526616 | 170168 | 13.05 | 13.09 | 13.20 |

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Table 4: Modelled Undefended Node Levels including climate change allowances

| | | | Modelled Flood Level for Annual Exceedance Probability (mAOD) | | |
|---|---|---|---|---|---|
| **Node ID** | **Easting** | **Northing** | **1% AEP +25% CC** | **1% AEP +35% CC** | **1% AEP +70% CC** |
| 15.152 | 526537 | 170144 | 13.01 | 13.04 | 13.12 |
| 15.149 | 526610 | 170197 | 12.61 | 12.63 | 12.68 |
| 15.148D | 526597 | 170291 | 12.54 | 12.56 | 12.61 |
| 15.147 | 526585 | 170384 | 12.50 | 12.51 | 12.57 |
| SWG_008 | 526577 | 170435 | 12.53 | 12.55 | 12.62 |
| SWG_006 | 526570 | 170478 | 12.49 | 12.51 | 12.58 |
| 15.138 | 526557 | 170583 | 11.72 | 11.76 | 11.87 |
| 25.006D | 526651 | 170090 | 13.05 | 13.09 | 13.20 |
| 25.004D | 526646 | 170125 | 13.05 | 13.09 | 13.20 |
| 25.001 | 526616 | 170168 | 13.05 | 13.09 | 13.20 |

NOTE: At some locations it is possible that the modelled levels might be higher in the 'Defended' scenario than the 'Undefended' scenario. This could be due to a number of reasons including: defences keeping water in bank at certain areas and raising in-channel levels; restriction of flow at defence structures; redirection of flow etc.

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Table 5: Modelled Defended Flows

| | | | Modelled Discharge for Annual Exceedance Probability, Shown in $m^3/s$ | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Node ID** | **Easting** | **Northing** | **20% AEP** | **5% AEP** | **2% AEP** | **1.3 % AEP** | **1% AEP** | **0.4% AEP** | **0.1% AEP** |
| 15.152 | 526537 | 170144 | 14.97 | 19.60 | 22.89 | 23.90 | 24.76 | 27.33 | 30.43 |
| 15.149 | 526610 | 170197 | 18.23 | 24.03 | 29.32 | 30.92 | 32.02 | 33.92 | 40.58 |
| 15.148D | 526597 | 170291 | 17.53 | 23.22 | 28.82 | 31.42 | 33.28 | 38.74 | 44.15 |
| 15.147 | 526585 | 170384 | 17.49 | 23.21 | 28.41 | 30.77 | 32.46 | 37.23 | 41.54 |
| SWG_008 | 526577 | 170435 | 17.49 | 23.20 | 27.56 | 29.44 | 30.78 | 34.71 | 38.00 |
| SWG_006 | 526570 | 170478 | 17.49 | 23.19 | 27.55 | 29.34 | 30.61 | 34.17 | 36.50 |
| 15.138 | 526557 | 170583 | 21.08 | 26.81 | 29.65 | 30.81 | 33.40 | 37.95 | 42.49 |
| 25.006D | 526651 | 170090 | 1.38 | 2.68 | 4.32 | 4.91 | 5.81 | 11.54 | 23.92 |
| 25.004D | 526646 | 170125 | 1.39 | 2.69 | 4.32 | 4.88 | 5.75 | 11.25 | 25.53 |
| 25.001 | 526616 | 170168 | 1.40 | 2.77 | 4.37 | 4.93 | 5.88 | 11.40 | 21.75 |

Data taken from our River Wandle Modelling Study, completed in 2015 by JBA Consulting.

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Table 6: Modelled Undefended Flows

| | | | Modelled Discharge for Annual Exceedance Probability, Shown in $m^3/s$ | | |
|---|---|---|---|---|---|
| **Node ID** | **Easting** | **Northing** | **5 % AEP** | **1% AEP** | **0.1% AEP** |
| 15.152 | 526537 | 170144 | 19.60 | 24.77 | 30.42 |
| 15.149 | 526610 | 170197 | 24.03 | 32.02 | 40.59 |
| 15.148D | 526597 | 170291 | 23.21 | 33.27 | 44.17 |
| 15.147 | 526585 | 170384 | 23.21 | 32.47 | 41.55 |
| SWG_008 | 526577 | 170435 | 23.20 | 30.79 | 38.12 |
| SWG_006 | 526570 | 170478 | 23.20 | 30.62 | 36.63 |
| 15.138 | 526557 | 170583 | 26.86 | 31.80 | 40.66 |
| 25.006D | 526651 | 170090 | 2.68 | 5.81 | 23.91 |
| 25.004D | 526646 | 170125 | 2.69 | 5.75 | 25.54 |
| 25.001 | 526616 | 170168 | 2.76 | 5.87 | 21.70 |

Data taken from our River Wandle Modelling Study, completed in 2015 by JBA Consulting

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Table 7: Modelled Defended Node Flows including climate change allowances

| | | | Modelled Flood Flows for Annual Exceedance Probability (m3/s) | | |
|---|---|---|---|---|---|
| **Node ID** | **Easting** | **Northing** | **1% AEP +25% CC** | **1% AEP +35% CC** | **1% AEP +70% CC** |
| 15.152 | 526537 | 170144 | 26.48 | 27.03 | 28.84 |
| 15.149 | 526610 | 170197 | 32.51 | 33.34 | 36.44 |
| 15.148D | 526597 | 170291 | 34.59 | 35.63 | 39.09 |
| 15.147 | 526585 | 170384 | 33.52 | 34.39 | 37.25 |
| SWG_008 | 526577 | 170435 | 31.87 | 32.56 | 34.79 |
| SWG_006 | 526570 | 170478 | 31.47 | 32.07 | 33.94 |
| 15.138 | 526557 | 170583 | 35.11 | 35.97 | 38.86 |
| 25.006D | 526651 | 170090 | 9.43 | 10.60 | 15.54 |
| 25.004D | 526646 | 170125 | 9.08 | 10.34 | 15.16 |
| 25.001 | 526616 | 170168 | 9.41 | 10.53 | 14.39 |

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Table 8: Modelled Undefended Node Flows including climate change allowances

| | | | Modelled Flood Flows for Annual Exceedance Probability (m3/s) | | |
|---|---|---|---|---|---|
| **Node ID** | **Easting** | **Northing** | **1% AEP +25% CC** | **1% AEP +35% CC** | **1% AEP +70% CC** |
| 15.152 | 526537 | 170144 | 26.48 | 27.03 | 28.84 |
| 15.149 | 526610 | 170197 | 32.51 | 33.34 | 36.43 |
| 15.148D | 526597 | 170291 | 34.61 | 35.64 | 39.11 |
| 15.147 | 526585 | 170384 | 33.55 | 34.42 | 37.31 |
| SWG_008 | 526577 | 170435 | 31.91 | 32.60 | 34.88 |
| SWG_006 | 526570 | 170478 | 31.52 | 32.12 | 34.04 |
| 15.138 | 526557 | 170583 | 33.91 | 34.53 | 36.75 |
| 25.006D | 526651 | 170090 | 9.44 | 10.60 | 15.55 |
| 25.004D | 526646 | 170125 | 9.09 | 10.34 | 15.16 |
| 25.001 | 526616 | 170168 | 9.42 | 10.54 | 14.39 |

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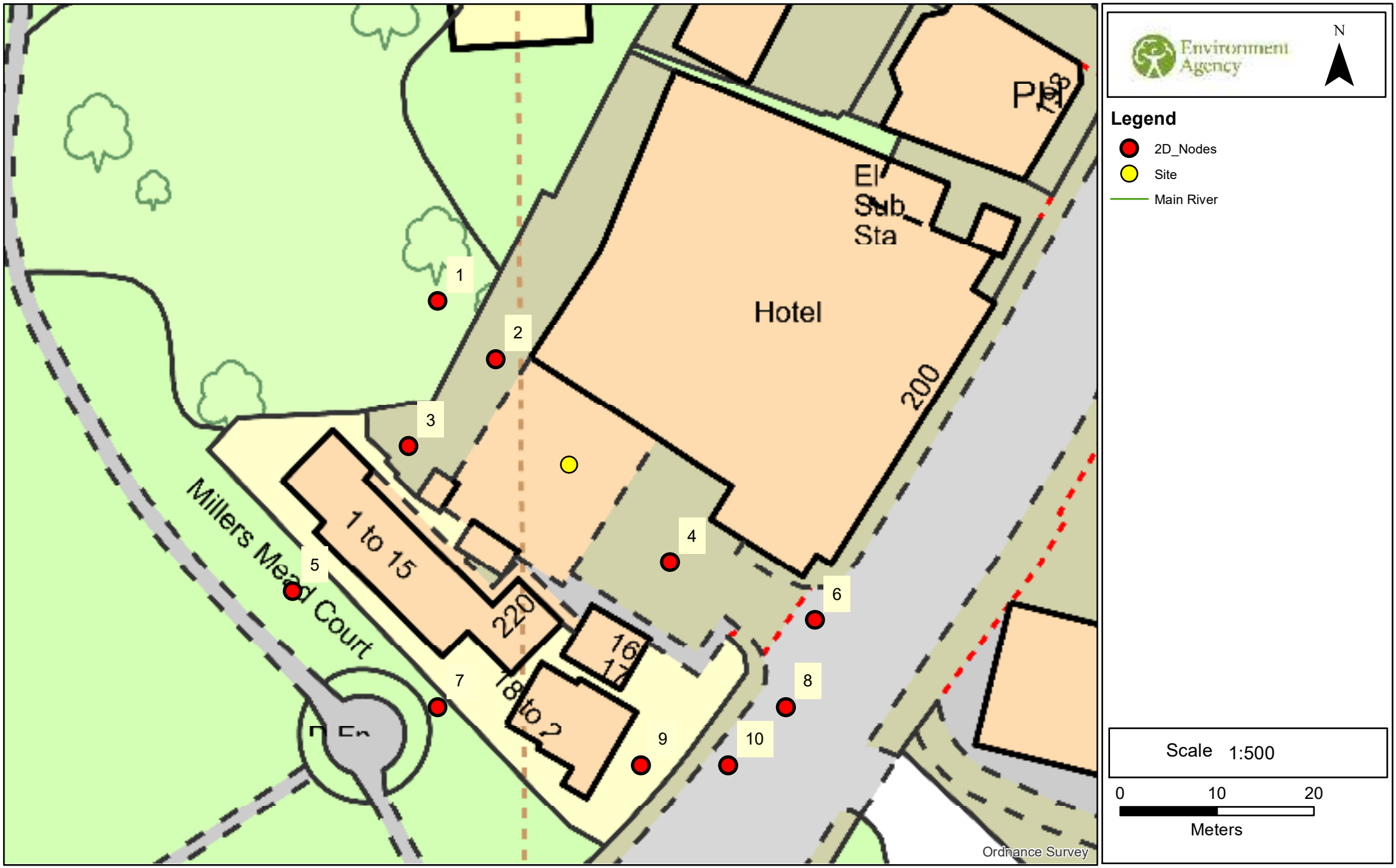
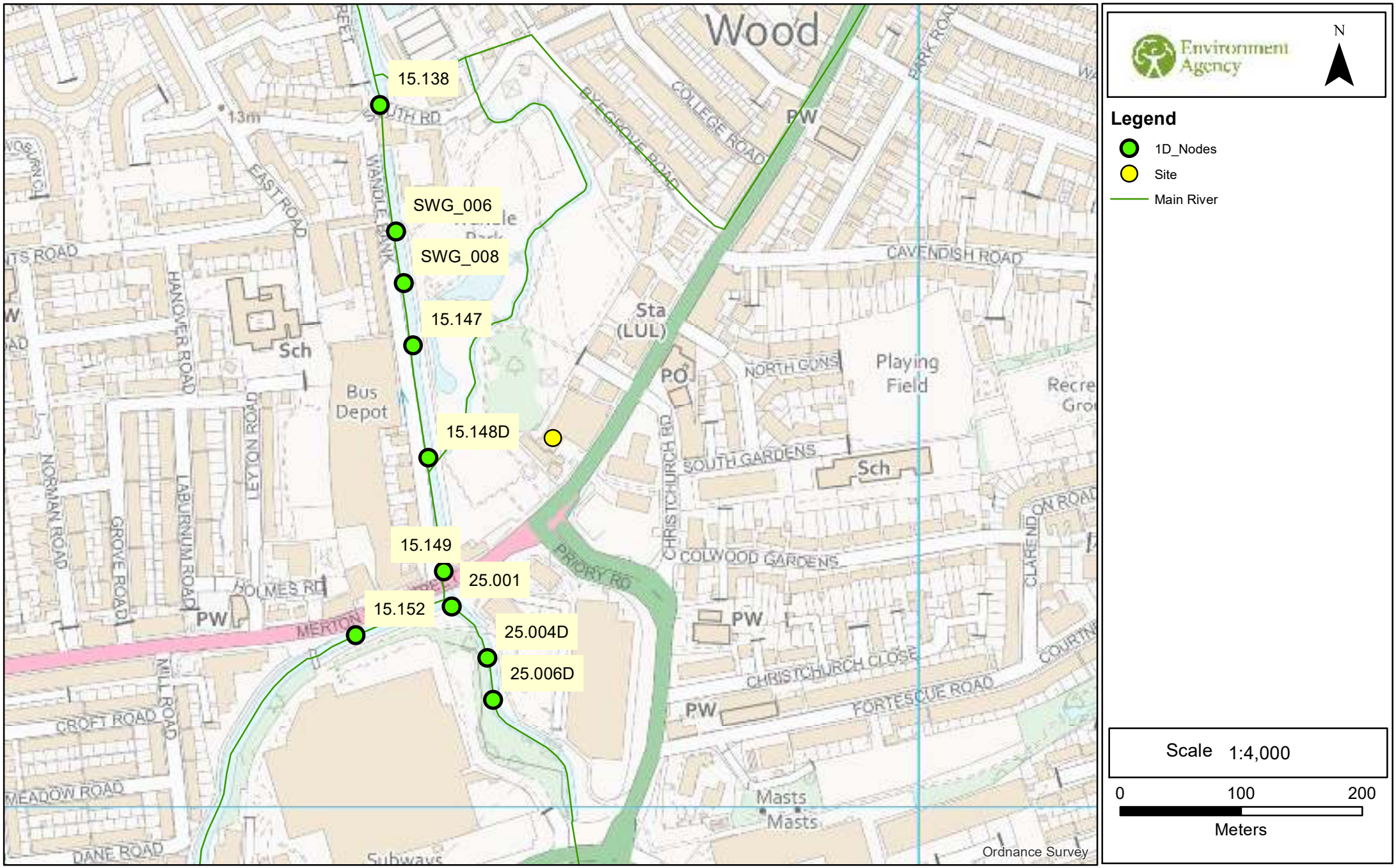
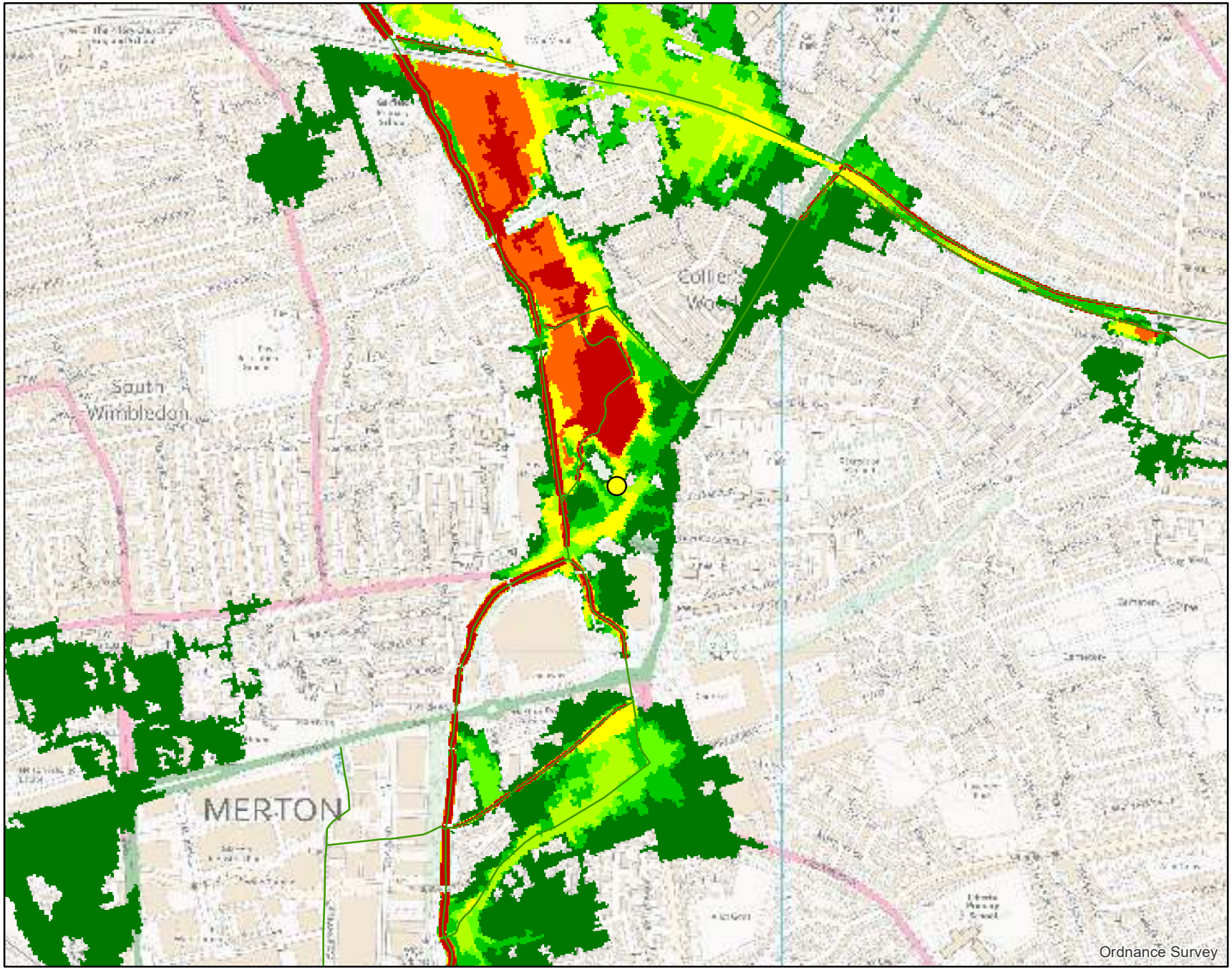
# 2D Node map centred on SW19 2BH created 03 February 2023 (Ref: KSL297110 RL)



# 1D Node map centred on SW19 2BH created 03 February 2023 (Ref: KSL297110 RL)



# Modelled defended flood extents map centred on SW19 2BH created 03 February 2023 (Ref: KSL297110 RL)




Environment Agency

N

## Legend

- Site
- Main River

**Wandle Extents**

**RP_Yrs**

- 20% AEP
- 5% AEP
- 2% AEP
- 1.3% AEP
- 1% AEP
- 0.4% AEP
- 0.1% AEP

Annual Exceedance Probability (AEP) The probability of a flood of a particular magnitude, or greater occuring in any given year.

Scale 1:10,000

0 250 500

Meters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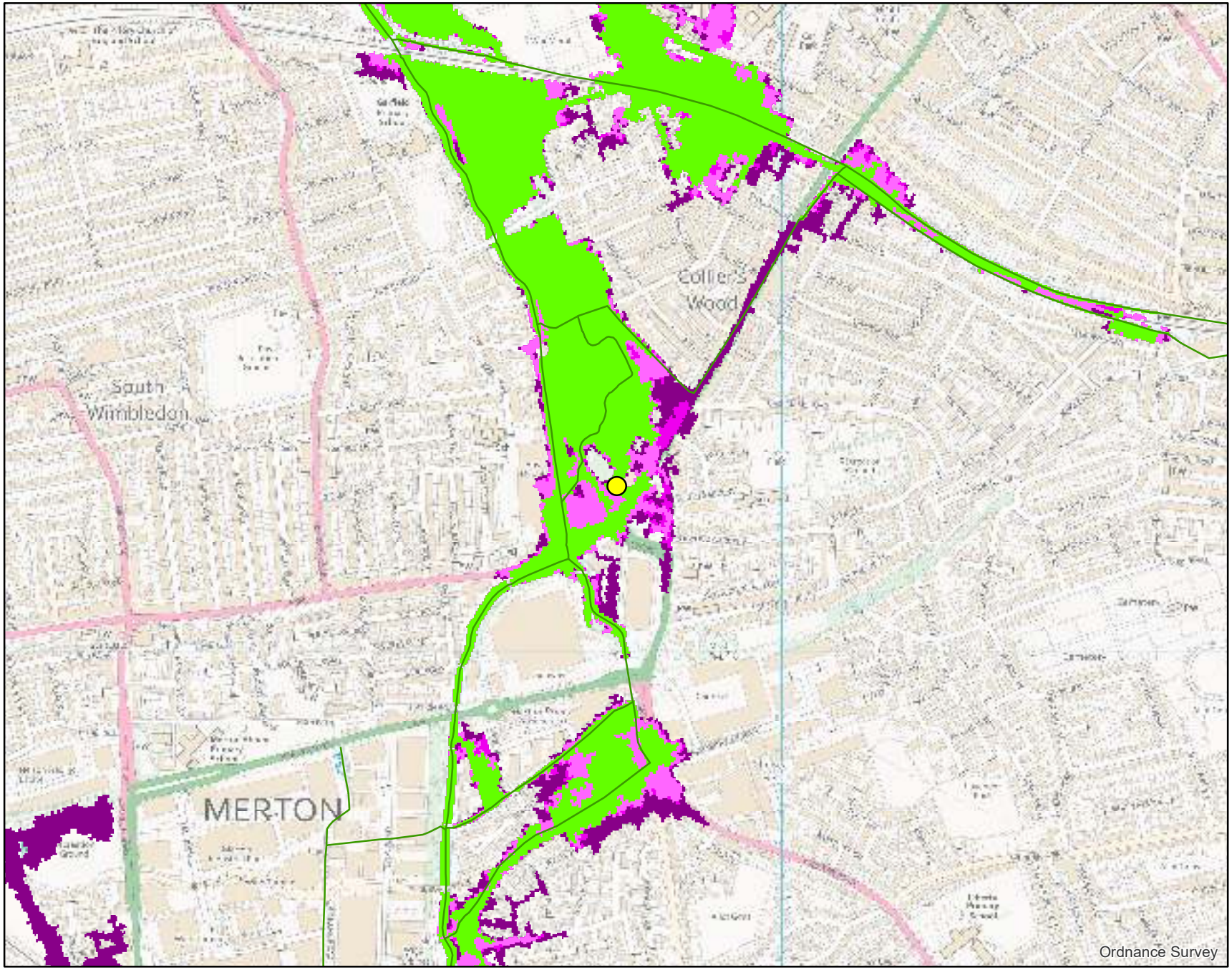
# Modelled defended flood extents map with climate change centred on SW19 2BH created 03 February 2023 (Ref: KSL297110 RL)




Environment Agency

N

## Legend

Site

Main River

**Wandle Climate Change**

**RP**

1% AEP

1% AEP + 25% CC

1% AEP + 35% CC

1% AEP + 70% CC

Annual Exceedance Probability (AEP) The probability of a flood of a particular magnitude, or greater occuring in any given year.

Climate Change (CC) extents based on an increase of 25%, 35% or 70% in river flows.

Scale 1:10,000

0 250 500

Meters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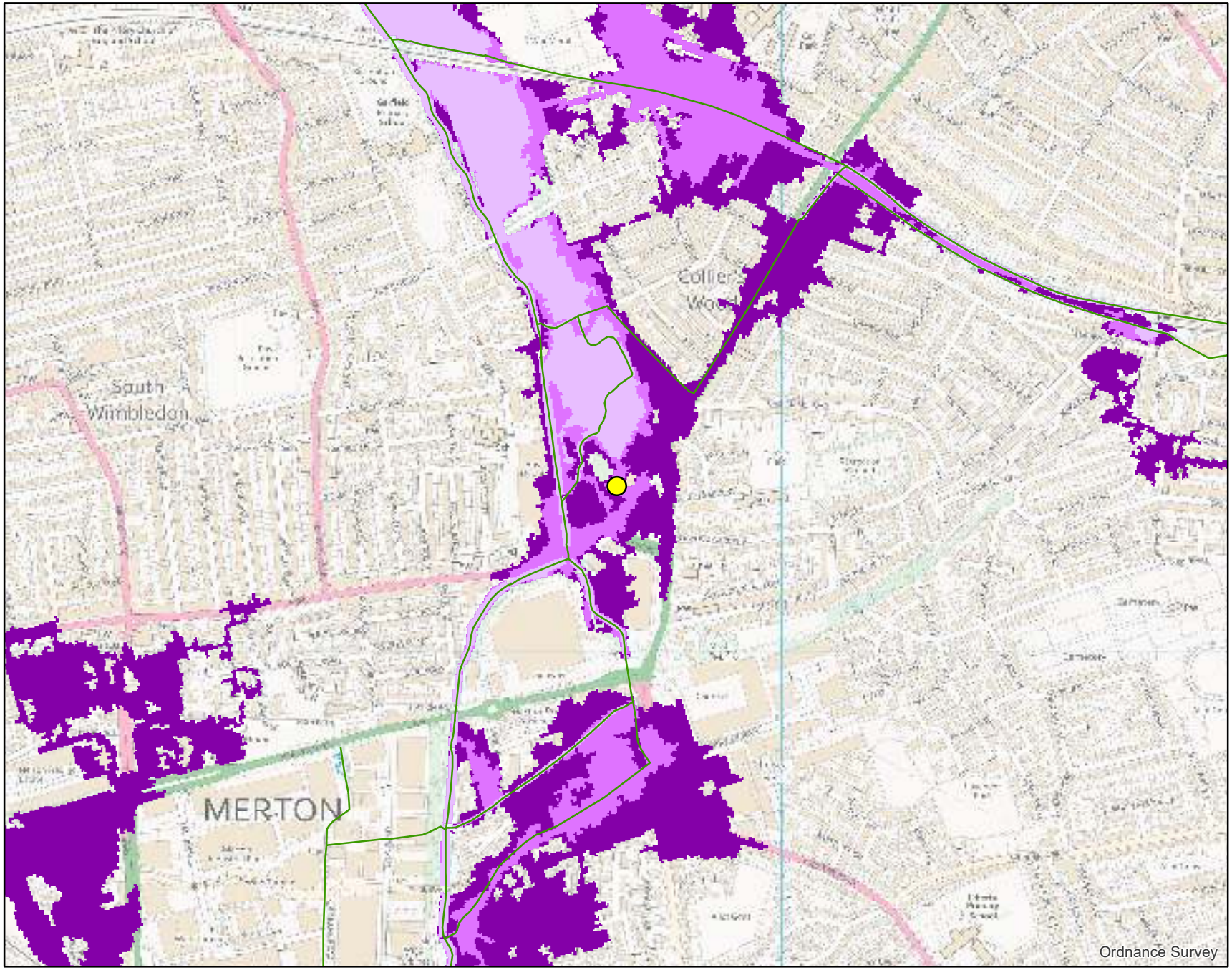
**Modelled undefended flood extents map centred on SW19 2BH created 03 February 2023 (Ref: KSL297110 RL)**




Environment Agency

N

**Legend**

- Site
- Main River

**RP_Yrs**

- 5% AEP
- 1% AEP
- 0.1% AEP

Annual Exceedance Probability (AEP) The probability of a flood of a particular magnitude, or greater occuring in any given year.

Scale 1:10,000

0 250 500

Meters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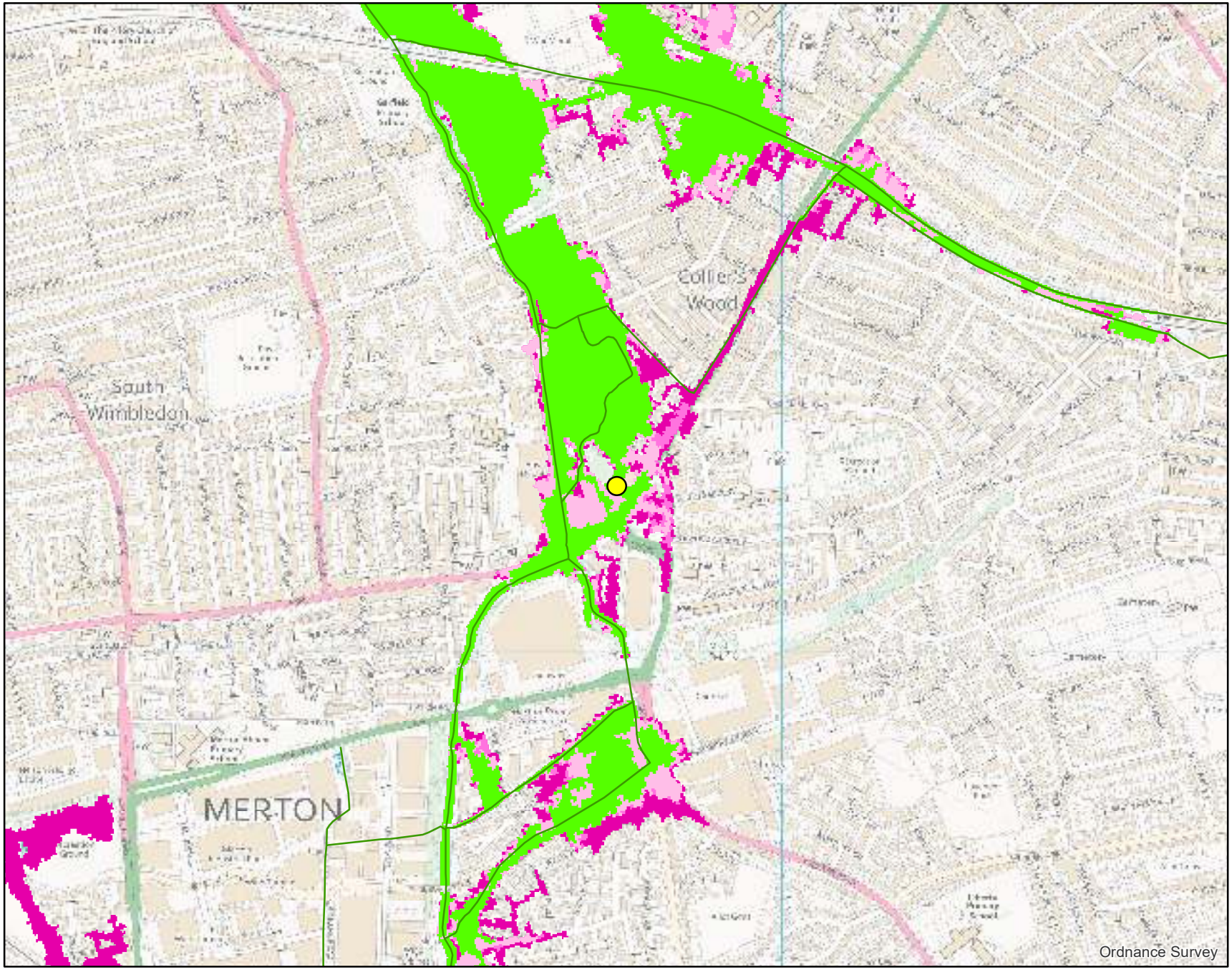
# Modelled undefended flood extents map with climate change centred on SW19 2BH created 03 February 2023 (Ref: KSL297110 RL)




Environment Agency

N

## Legend

- Site
- Main River

**RETURNPERI**

- 1% AEP
- 1% AEP + 25% CC
- 1% AEP + 35% CC
- 1% AEP + 70% CC

Annual Exceedance Probability (AEP) The probability of a flood of a particular magnitude, or greater occuring in any given year.

Climate Change (CC) extents based on an increase of 25%, 35% or 70% in river flows.

Scale 1:10,000

0 250 500

Meters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# Defence Details

There are no formal flood defences owned or maintained by the Environment Agency in the area of this site/ property.

**Areas Benefiting from Flood Defences**

The Environment Agency has taken the decision to retire this dataset and remove it from the Flood Map for Planning portal. This is because we have determined that it no longer meets the customer needs and creates a false sense of security for users.

To understand the long-term risk of flooding to an area, you can use the Check Your Long Term Flood Risk portal: this will provide an understanding of flood risk from rivers and sea, taking into account the presence and condition of defences, and other sources of flood risk such as from surface water and reservoirs.

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# Historic Flood Events Data

We do not hold records of historic flood events from rivers affecting the area local to this property. However, please be aware that this does not necessarily mean that flooding has not occurred here in the past, as our records are not comprehensive.

Please note that our records are not comprehensive. We would therefore advise that you make further enquiries locally with specific reference to flooding at this location. You should consider contacting the relevant Local Planning Authority and/or water/sewerage undertaker for the area.

We map flooding to land, not individual properties. Our historic flood event record outlines are an indication of the geographical extent of an observed flood event. Our historic flood event outlines do not give any indication of flood levels for individual properties. They also do not imply that any property within the outline has flooded internally.

Please be aware that flooding can come from different sources. Examples of these are:

- from rivers or the sea;
- surface water (i.e. rainwater flowing over or accumulating on the ground before it is able to enter rivers or the drainage system);
- overflowing or backing up of sewer or drainage systems which have been overwhelmed,
- groundwater rising up from underground aquifers

Currently the Environment Agency can only supply flood risk data relating to the chance of flooding from rivers or the sea. However you should be aware that in recent years, there has been an increase in flood damage caused by surface water flooding or drainage systems that have been overwhelmed.

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# Additional Information

**Information Warning - OS background mapping**

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**Planning advice and guidance**

The Environment Agency are keen to work with partners to enable development which is resilient to flooding for its lifetime and provides wider benefits to communities. If you have requested this information to help inform a development proposal, then we recommend engaging with us as early as possible by using the pre-application form available from our website:
https://www.gov.uk/government/publications/pre-planning-application-enquiry-form-preliminary-opinion

Complete the form in the link and email back to kslplanning@environment-agency.gov.uk

We recognise the value of early engagement in development planning decisions. This allows complex issues to be discussed, innovative solutions to be developed that both enables new development and protects existing communities. Such engagement can often avoid delays in the planning process following planning application submission, by reaching agreements up-front. We offer a charged pre-application advice service for applicants who wish to discuss a development proposal.
We can also provide a preliminary opinion for free which will identify environmental constraints related to our responsibilities including flooding, waste, land contamination, water quality, biodiversity, navigation, pollution, water resources, foul drainage or Environmental Impact Assessment.

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**Flood Risk Assessments guidance**

**Flood risk standing advice for applicants**

In preparing your planning application submission, you should refer to the Environment Agency's Flood Risk Standing Advice and the Planning Practice Guidance for information about what flood risk assessment is needed for new development in the different Flood Zones. This information can be accessed via:

https://www.gov.uk/flood-risk-assessment-standing-advice

http://planningguidance.planningportal.gov.uk/

https://www.gov.uk/guidance/flood-risk-assessment-for-planning-applications

https://www.gov.uk/guidance/flood-risk-and-coastal-change

You should also consult the Strategic Flood Risk Assessment and flood risk local plan policies produced by your local planning authority.

You should note that:

1. Information supplied by the Environment Agency may be used to assist in producing a Flood Risk Assessment where one is required, but does not constitute such an assessment on its own.
2. This information covers flood risk from main rivers and the sea, and you will need to consider other potential sources of flooding, such as groundwater or overland runoff. You should discuss surface water management with your Lead Local Flood Authority.
3. Where a planning application requires a FRA and this is not submitted or deficient, the Environment Agency may well raise an objection due to insufficient information

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**Surface Water**

We have provided two national Surface Water maps, under our Strategic Overview for flooding, to your Lead Local Flood Authority who are responsible for local flood risk (i.e. surface runoff, ground water and ordinary watercourse), which alongside their existing local information will help them in determining what best represents surface water flood risk in your area.

Your Lead Local Flood Authority have reviewed these and determined what it believes best represents surface water flood risk. You should therefore contact this authority so they can provide you with the most up to date information about surface water flood risk in your area.

You may also wish to consider contacting the appropriate relevant Local Planning Authority and/or water/sewerage undertaker for the area. They may be able to provide some knowledge on the risk of flooding from other sources. We are working with these organisations to improve knowledge and understanding of surface water flooding.

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**APPENDIX E**
THAMES WATER CORRESPONDENCE

# Sewer Flooding
## History Enquiry

Property Searches

Simpson Associates

Friday Street

| | |
|---|---|
| **Search address supplied** | Holiday Inn Express<br>200<br>High Street Colliers Wood<br>London<br>SW19 2BH |
| **Your reference** | P23-001 |
| **Our reference** | SFH/SFH Standard/2024_5076744 |
| **Received date** | **6 November 2024** |
| **Search date** | **6 November 2024** |

Thames Water Utilities Ltd
Property Searches, PO Box 3189, Slough SL1 4WW

searches@thameswater.co.uk
www.thameswater-propertysearches.co.uk

0800 009 4540

# Sewer Flooding
## History Enquiry

Property Searches

**Search address supplied:** Holiday Inn Express,200,High Street Colliers Wood,London,SW19 2BH

**This search is recommended to check for any sewer flooding in a specific address or area**

TWUL, trading as Property Searches, are responsible in respect of the following:-

(i) any negligent or incorrect entry in the records searched;

(ii) any negligent or incorrect interpretation of the records searched;

(iii) and any negligent or incorrect recording of that interpretation in the search report

(iv) compensation payments

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# Sewer Flooding
## History Enquiry

Thames Water Property Searches

**History of Sewer Flooding**

**Is the requested address or area at risk of flooding due to overloaded public sewers?**

The flooding records held by Thames Water indicate that there have been no incidents of flooding in the requested area as a result of surcharging public sewers.

For your guidance:

- A sewer is "overloaded" when the flow from a storm is unable to pass through it due to a permanent problem (e.g. flat gradient, small diameter). Flooding as a result of temporary problems such as blockages, siltation, collapses and equipment or operational failures are excluded.
- "Internal flooding" from public sewers is defined as flooding, which enters a building or passes below a suspended floor. For reporting purposes, buildings are restricted to those normally occupied and used for residential, public, commercial, business or industrial purposes.
- "At Risk" properties are those that the water company is required to include in the Regulatory Register that is presented annually to the Director General of Water Services. These are defined as properties that have suffered, or are likely to suffer, internal flooding from public foul, combined or surface water sewers due to overloading of the sewerage system more frequently than the relevant reference period (either once or twice in ten years) as determined by the Company's reporting procedure.
- Flooding as a result of storm events proven to be exceptional and beyond the reference period of one in ten years are not included on the At Risk Register.
- Properties may be at risk of flooding but not included on the Register where flooding incidents have not been reported to the Company.
- Public Sewers are defined as those for which the Company holds statutory responsibility under the Water Industry Act 1991.
- It should be noted that flooding can occur from private sewers and drains which are not the responsibility of the Company. This report excludes flooding from private sewers and drains and the Company makes no comment upon this matter.
- For further information please contact Thames Water on Tel: 0800 316 9800 or website www.thameswater.co.uk

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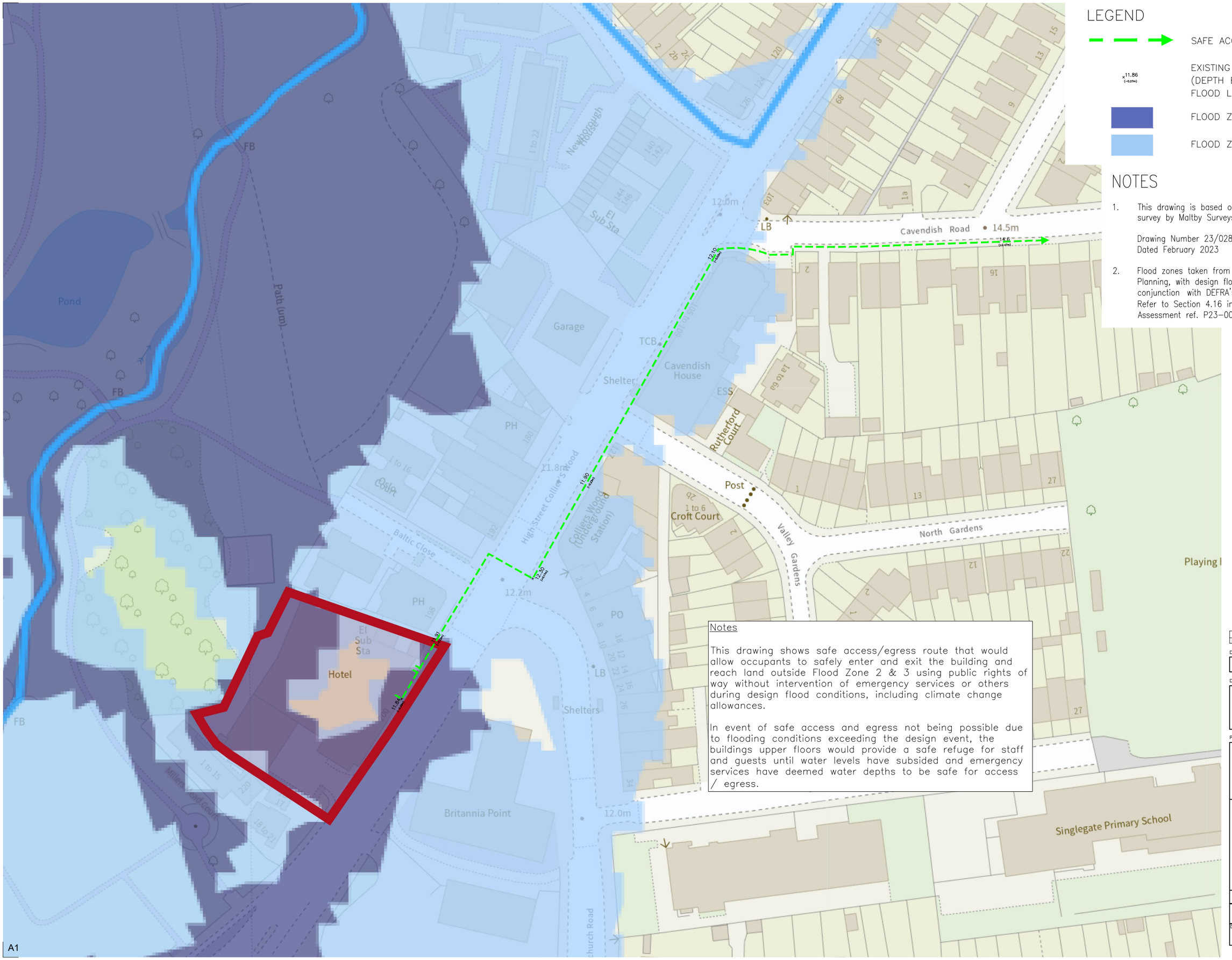
**APPENDIX F**
SAFE ACCESS EGRESS ROUTE PLAN




## LEGEND

SAFE ACCESS EGRESS ROUTE

EXISTING GROUND LEVEL (DEPTH BELOW 1% AEP + 17% CC FLOOD LEVEL OF 12.13m AOD)

FLOOD ZONE 3

FLOOD ZONE 2

## NOTES

1. This drawing is based on levels shown on topographical survey by Maltby Surveys LTD:

   Drawing Number 23/028/100
   Dated February 2023

2. Flood zones taken from EA's Flood Zone Map for Planning, with design flood level calculated in conjunction with DEFRA's Peak River Flow Allowances. Refer to Section 4.16 in Simpson TWS's Flood Risk Assessment ref. P23-001.

Notes

This drawing shows safe access/egress route that would allow occupants to safely enter and exit the building and reach land outside Flood Zone 2 & 3 using public rights of way without intervention of emergency services or others during design flood conditions, including climate change allowances.

In event of safe access and egress not being possible due to flooding conditions exceeding the design event, the buildings upper floors would provide a safe refuge for staff and guests until water levels have subsided and emergency services have deemed water depths to be safe for access / egress.

| | | | |
|---|---|---|---|
| P1 | FIRST ISSUE. | JJH | 02.12.24 |
| MK | REVISION | BY | DATE |

DRAWING STATUS

PLANNING

DRAWING TITLE

SAFE ACCESS EGRESS ROUTE

PROJECT

HOLIDAY INN EXPRESS,
WIMBLEDON,
COLLIERS WOOD,
SW19 2BH

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| Drawn | Ch'kd | Scales | Date |
|---|---|---|---|
| JJH | AR | 1:500@A1 | NOV'2024 |

Purpose of Issue: FOR PLANNING

Drawing Number: P23-001-SK101

Revision: P1

A1

**APPENDIX G**
FLOOD RISK MANAGEMENT MEASURES PLAN

## LEGEND

DENOTES EXTENT OF FOUR STOREY EXTENSION WITH GROUND FLOOR LEVEL TO BE SET AT THE EXISTING UPPER GROUND FLOOR LEVEL OF 13.08m AOD TO 13.27m AOD FOR PROTECTION FROM FLOOD RISK AS PER TABLE 5.1, ITEM 1 OF FRA.

DENOTES EXTENT OF CONVERTED GYMNASIUM & MEETING ROOMS INTO BEDROOM ACCOMMODATION WITH GROUND FLOOR LEVEL RAISED TO MATCH THE EXISTING UPPER GROUND FLOOR LEVEL OF 13.08m AOD TO 13.27m AOD FOR PROTECTION FROM FLOOD RISK AS PER TABLE 5.1, ITEM 2 OF FRA.

DENOTES EXTENT OF REFURBISHED LOBBY/RECEPTION AREAS DESIGNED TO BE RESILIENT TO FLOODING IN ACCORDANCE WITH TABLE 5.1, ITEM 3 OF THE FLOOD RISK ASSESSMENT.

DENOTES EXTENT OF RELOCATED SUB-STATION, NEW PLANT AREA AND ELECTRICAL INTAKE ROOM TO BE SET AT A MINIMUM FLOOR LEVEL 12.13m AOD, OR 300mm ABOVE WHERE PRACTICABLE, FOR PROTECTION FROM FLOOD RISK AS PER TABLE 5.1, ITEM 4 OF FRA.

DENOTES EXTENT OF EXISTING BUILDING PROTECTED FROM FLOOD RISK IN EXISTING SITUATION DUE TO RAISED UPPER GROUND FLOOR SET AT 13.08m AOD TO 13.27m AOD.

DEMOUNTABLE FLOOD BARRIER

Chambers to be re-constructed with sealed roddable cast iron fittings to prevent floodwater escaping in accordance with paragraph 5.15 of the Flood Risk Assessment.

Ground Floor & Basement Car Park Areas

Significant flood depths could be experienced in the sites ground floor parking and basement parking areas in both fluvial and surface water flooding conditions. It is recommended that these areas are operated under a flood response plan, requiring the areas to be vacated on issue of a flood warning by the EA's flood warning service, with the areas only returned to operation once flooding has subsided and the areas have been deemed safe following a structural survey.

Plant area to be raised to min. level of 12.13m AOD on podium with 300mm access hatch provided for existing foul water manhole to remain.

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Sta

Hotel

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|---|---|---|---|
| P2 | UPDATED TO SUIT NEW GROUND FLOOR PLAN. | MW | 10.12.24 |
| P1 | FIRST ISSUE. | JJH | 02.12.24 |
| MK | REVISION | BY | DATE |

DRAWING STATUS

PLANNING

DRAWING TITLE

FLOOD RISK MANAGEMENT MEASURES PLAN

PROJECT

HOLIDAY INN EXPRESS, WIMBLEDON, COLLIERS WOOD, SW19 2BH

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London, Henley-on-Thames and Gloucester

| Drawn | Ch'kd | Scales | Date |
|---|---|---|---|
| MW | JJH | 1:200@A1 | NOV'2024 |

Purpose of Issue

FOR PLANNING

| Drawing Number | Revision |
|---|---|
| P23-001-SK102 | P2 |

A1

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