

APPENDIX 2.1
EIA SCOPING REPORT

Homebase, Syon Lane Brentford

Environmental Impact Assessment Scoping Report

July 2019

Homebase, Syon Lane, Brentford

Environmental Impact Assessment Scoping Report

Prepared on behalf of St Edward Homes Ltd

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1 INTRODUCTION

- 1.1 This report has been prepared by Barton Willmore, IEMA qualified assessors, on behalf of St Edward Homes Ltd (the "Applicant"). The report accompanies a request for an Environmental Impact Assessment (EIA) Scoping Opinion from the London Borough of Hounslow (LBH) in accordance with Regulation 15 of the Town and Country Planning (Environmental Impact Assessment) Regulations 2017¹ (the "EIA Regulations").
- 1.2 In accordance with the EIA Regulations, a person who is minded to make an EIA application may ask the relevant planning authority to state in writing their opinion as to the information to be provided in the Environmental Statement (ES) (a "scoping opinion").
- 1.3 Regulation 15 (2) states that a scoping request must be accompanied by:
- (i) a plan sufficient to identify the land;
 - (ii) a brief description of the nature and purpose of the development, including its location and technical capacity;
 - (iii) an explanation of the likely significant effects of the development on the environment; and
 - (iv) such other information or representations as the person making the request may wish to provide or make.

The Site

Site Context

- 1.4 The site (see Site Location Plan at Appendix 1), is located within the administrative boundary of LBH. It is situated within the Osterley and Spring Grove Ward.
- 1.5 The site is bound to the north by the A4 Great West Road and to the west by Syon Lane. The eastern site boundary is shared with a Skoda car dealership. The south of the site is bound by an access road, beyond which is a railway line.
- 1.6 The land use in the immediate vicinity of the site is predominantly residential, commercial and industrial in nature. Residential use is located to the south and west of the site, beyond Syon Lane. To the north of the site, beyond of the A4 Great West Road, and to the east of

¹ SI 2017/571 as amended by SI 2018/695

the site is a mix of industrial sites, office uses, large scale retail and residential use.

- 1.7 Syon Lane station is located approximately 250m to the south of the site. This provides railway services into Central London to Waterloo and Vauxhall station as well as services out to Weybridge.
- 1.8 The River Thames is located approximately 1.6km to the south-east of the site. In addition, the Royal Botanic Gardens Kew, designated as a World Heritage Site and Grade I registered park and garden, is located approximately 1.5km southeast of the site.
- 1.9 Syon Park, designated as a Grade I Registered Park and Garden, is located approximately 500m south-east of the site. Syon Park includes a number of listed structures including the Grade I listed Syon House. The eastern boundary of Syon Park, located approximately 1.1km from the site, is also designated as a Site of Special Scientific Interest (SSSI). Osterley Park, a Grade II* registered park and garden is located approximately 1.5km to the north west of the site.
- 1.10 Although there are no listed building located on the site, there are a number located in the immediate surrounding area. The nearest listed building to the site is the Grade II listed part of former Coty Factory, located approximately 40m to the east of the site. There are also a number of listed buildings located to the north of the site, immediately beyond Great West Road. These include the Grade II listed National Westminster Bank, and the premises of Gillette UK Ltd. No. 891 Great West Road, located approximately 120m to the west of the site is a locally listed building.
- 1.11 The Isleworth Riverside Conservation Area is also located approximately 450m to the southeast of the site and the Grand Union Canal and Boston Manor Conservation Area is located approximately 450m to the northeast of the site. The nearest Local Nature Reserve (LNR) to the site is Blondin Nature Area LNR, located approximately 1.2km to the north of the site.
- 1.12 According to the Gov.UK website the site is located in Flood Zone 1 (at a low risk of flooding).
- 1.13 The site is located within an Air Quality Management Area (AQMA).

Site Description

- 1.14 The total site area is 1.5 hectares (ha). The site is locally known as the Homebase site, as it is currently occupied by a Homebase superstore that provides 4,180m² of retail floorspace

and 295 associated surface parking spaces and an undercroft car park. The site was designed by architect Sir Nicholas Grimshaw in 1987 and consists of a large industrial style shed with metal cladding. The building is approximately 2 storeys high with a tall central pylon to the front.

- 1.15 The site has some planting within the north of the site along the Great West Road and to the west of the site along Syon Lane. However, this is of a low quality and is poorly maintained.
- 1.16 In terms of topography, the site slopes from the Great West Road to the north, down towards the site's southern boundary towards the railway line. There is around a 4m level drop from the north-west corner of the site to the south of the site.
- 1.17 The primary vehicle access is from a wide junction halfway down Syon Lane to the west of the site. It currently provides access to the Homebase store car park and delivery area, as well as to the deck of car parking close to the railway. Pedestrian access is also available on to Syon Lane at the same point as the vehicular access, and at a number of locations along the Great West Road site frontage.

The Proposed Development

- 1.18 The proposed development will comprise the demolition of the existing Homebase store on the site and the construction of a new residential led mixed use development comprising up to 450 residential units, and up to 8,500 square metres (sqm) gross internal area (GIA) of commercial floorspace which will comprise a Tesco Extra store and some additional flexible commercial use.
- 1.19 The proposed development's Tesco Extra store will be located at ground floor level, with the customer car parking split across two parking levels above the store. Residential parking will also be provided above the Tesco Extra store.
- 1.20 The maximum height of the proposed development would be up to 71 metres (16 storeys) Above Ordnance Datum (mAOD), in the southwestern part of the site.

2 SCOPING

- 2.1 This scoping exercise has been informed by desk-based research, professional judgement and other information available for the site. The consultant team have also inputted into the scope of each topic. Table 1 provides a summary of the scoping exercise.
- 2.2 In accordance with the EIA Regulations, all assessments will be prepared by consultants considered to have competent expertise in their discipline.

Table 1: EIA Scoping Summary

Topics	Potential Construction Phase Effects	Potential Operational Phase Effects	Likely Significant Effects (Pre-Mitigation)	Comments
Population and Human Health	✓ - T	✓ - P	✓	Chapter to be prepared.
Built Heritage	✓ - T	✓ - P	✓	
Townscape and Visual Effects	✓ - T	✓ - P	✓	
Transport and Access	✓ - T	✓ - P	✓	
Noise and Vibration	✓ - T	✓ - P	✓	
Air Quality	✓ - T	✓ - P	✓	
Daylight, Sunlight, Overshadowing and Solar Glare	✓ - T	✓ - P	✓	
Wind Microclimate	✓ - T	✓ - P	✓	
Biodiversity	x	x	x	
Land Contamination	x	x	x	
Water Resources and Flood Risk	x	x	x	
Archaeology	x	x	x	
Agricultural Land	x	x	x	
Lighting	x	x	x	
Waste	x	x	x	
Climate Change and Greenhouse Gases*	x	x	x	
Accidents and Disasters	x	x	x	

Key: ✓ Likely Significant Effect / x No Likely Significant Effect.

T – Temporary Effect / P – Permanent Effect

* Climate change and greenhouse gases, as a separate chapter, has been scoped out of the ES, but consideration will be given in the introductory chapters.

Environmental Disciplines Scoped Out

- 2.3 Further information on the topics scoped out of the EIA in Table 1 is set out in the following sections.

Biodiversity

- 2.4 There are no ecological designations on or close to the site. As detailed above, the closest statutory ecological designation to the site is Syon Park SSSI, located approximately 1.1km southeast of the site. The site is of low ecological value, being comprised of buildings and hardstanding surrounded by introduced shrub planting. An ecological assessment has been undertaken for the site and is included at Appendix 2. The assessment states that no habitats or species of value were identified within the site and the site has been assessed as being of negligible ecological value. The loss of habitats present within the site is not therefore considered to represent a likely significant effect in the context of EIA. Indeed, the proposed development will include new areas of planting and vegetation and street tree planting, which will improve the extent and quality of habitat on the site.
- 2.5 In light of the above, there is a high level of certainty that the proposals would not lead to impacts on biodiversity which would constitute 'Likely Significant Effects' in the context of EIA. Therefore, Biodiversity has been scoped out of the ES. An ecological survey and biodiversity report will be submitted with the planning application.

Land Contamination

- 2.6 A Geo-Environmental Assessment Report has been prepared for the site which assesses the potential for contamination associated with the site's former and current land uses. The preliminary findings of the survey found that no significant levels of contamination are present at the site. The survey identified a residual slightly elevated concentration of hydrocarbons in soils at one borehole location and the presence of asbestos in soils at four exploratory borehole locations. Chemical analysis also indicated the presence of some residual hydrocarbon contamination in groundwater and perched water at the site. However, the report states that these samples pose a low residual risk to future site users. Further investigation will be carried out in order to fully characterise the ground conditions across the site and if necessary, a remediation strategy will be developed to ensure that there is no risk to future site users or the surrounding environment. The report states potential pollutant linkages can be managed by design of appropriate mitigation measures during the redevelopment of the Site. Following the implementation of the recommendations detailed in the report, post development, the Site would be of low risk and should not be capable of being determined as contaminated land under Part IIA of the Environmental Protection Act 1990 and the requirements of the NPPF would be met. Based on the above, likely significant effects are not anticipated and this topic can be scoped out of the ES.

Water Resources and Flood Risk

- 2.7 According to the Gov.uk website, the site is located in Flood Zone 1 and is at a low risk of flooding from rivers and the sea. A large part of the site is already covered in buildings and hardstanding and therefore significant effects are not anticipated in respect of flood risk or water resources. A Flood Risk Assessment (FRA) will be submitted with the planning application which will consider flooding from all sources. This topic has therefore been scoped out of the ES.

Archaeology

- 2.8 In terms of relevant designated heritage assets, no World Heritage Sites, Scheduled Monuments, Historic Wreck or Historic Battlefield sites are present within the site or its immediate vicinity. The site has been subject to extensive construction activities throughout the majority of the 20th century. It is therefore considered unlikely that any extensive features of an archaeological nature survive in situ. Overall, the archaeological resource within the site is considered to be of low importance, where it survives. On this basis, likely significant effects on archaeology are not anticipated to occur and this topic has therefore been scoped out of the ES.

Agricultural Land

- 2.9 The site has previously been developed and there will be no loss of agricultural land. This topic has therefore been scoped out of the ES.

Lighting

- 2.10 The site comprises an existing urbanised area that lies within Environmental Zone E3 (i.e. a medium district brightness area) as defined by the Institute of Lighting Professionals². The proposals are not anticipated to produce a significant lighting effects due to the nature of the proposed development and the site. As such, this topic has been scoped out of the ES.

Waste

- 2.11 Waste will be generated during the demolition phase of the proposed development from the removal of existing buildings and infrastructure; through the construction phase from disused construction materials; and through the operational phase from the proposed residential and

² Guidance Notes for the Reduction of Obtrusive Light (2005) Institute of Lighting Engineers

non-residential land uses. Existing buildings and infrastructure on the site would be removed with much of the materials either reused or recycled for use on or off the site and this would be identified during the design process.

- 2.12 A waste strategy would be prepared and submitted with the planning application and as significant effects are not anticipated, this topic has been scoped out of the ES.

Climate Change and Greenhouse Gases

- 2.13 Climate change and greenhouse gases, as a separate chapter, has been scoped out of the ES. The introductory chapters will, however, summarise the findings of the ES relevant to climate change and the climate change adaptation measures integrated into the proposed development. This will draw upon technical chapters and reports, including the Air Quality ES chapter, FRA, and Energy Strategy and summarise the sustainability and energy provisions included within the proposed development. For a development of this nature, this is considered a suitably proportionate approach.

Accidents and Disasters

- 2.14 The proposed development is primarily residential in nature and also includes retail uses. These uses are not considered to be hazardous and the site is not in a location which is at risk of disasters and instability or earthquakes.
- 2.15 During construction, which is considered the only element which could be considered as hazardous, all applicable health and safety legislation will be complied with. This topic has been scoped out of the ES.

Environmental Disciplines Scoped In

- 2.16 For each of the topics scoped into the assessment, further information on the details to be included in the assessment and the methodology to be employed are set out in the following sections.

3 POPULATION AND HUMAN HEALTH

3.1 An assessment of the potential effects of the proposed development on population and human health in relation to the local and wider area will be undertaken. This will include construction phase (temporary) and operational phase (permanent) effects. The issues to consider are anticipated to include changes to, and effects on:

- Population;
- Employment – direct and indirect job creation through supply chain multiplier effects;
- Education and training; and
- Human Health, including primary healthcare infrastructure.

Approach

3.2 Baseline information will be collated in relation to on population, housing, local expenditure, employment, education and primary healthcare facilities (namely GP and dental practice provision), wider public health and primary and secondary school capacities.

3.3 The assessment will be undertaken using the following methodology:

- Baseline review using accepted Government sources such as census, Labour Force Survey and NOMIS. In addition, a review will also be undertaken of information available from Department for Education, annual schools census data, NHS, Digital Annual GP census data;
- Review of the policy context - at local and national level;
- Assessment of the significance of impacts using professional judgement and, where appropriate, published guidance such as the Homes and Communities Agency Employment Density Guidance (2015) prepared by GVA Grimley Ltd and Additionality Guide Fourth Edition (2014), where applicable; and
- Development of mitigation measures, if and where appropriate.

3.4 Wider human health considerations that fall within the wider scope of the ES will be considered and summarised. This will draw on the conclusions of other ES chapters relevant to human health, including noise and transport.

Summary

3.5 Table 2 summarises the likely population and human health effects to be included ('scoped

in') in the assessment in the ES.

Table 2: Population and Human Health Effects

Receptor	Effects	Scoped In
Population	Long term increase in population	✓
Employment	Increase in short term construction employment and long-term operational employment. Effect on training.	✓
Local Expenditure	Increase in local expenditure due to construction workforce spending and an increase in occupational expenditure	✓
Education	Increased demand for education facilities in the operational phase. Effect on training.	✓
Human Health	Potential effects on human health from the proposed development including noise, air quality and transport.	✓
Healthcare	Demand for primary healthcare infrastructure during the operational phase.	✓

4 BUILT HERITAGE

- 4.1 An assessment will be undertaken of the likely significant effects of the proposed development on built heritage.

Baseline

- 4.2 As noted above, there are no designated or non-designated heritage assets within the site boundary. There are a number of heritage assets within proximity of the site, that have potential to be affected as a result of development within their setting.
- 4.3 Within 1km of the site, there are a number of designated heritage assets, including Grade I, II* and II listed buildings, conservation areas and registered parks and gardens. Syon Park is located approximately 500m southeast of the site, and is designated as a Registered Park and Garden at Grade I, and contains a number of listed structures including the Grade I Syon House. Syon Park also lies within the Kew World Heritage Site buffer zone. Osterley Park is a Grade II* registered landscape lying to the north west of the site, and contains a number of listed structures, including the Grade I Osterley House. The Isleworth Riverside Conservation Area is located approximately 400m to the southeast of the site. The Royal Botanic Gardens Kew World Heritage Site and Grade I registered park and garden is located approximately 1.5km south east of the site.
- 4.4 The nearest listed building to the site is the Grade II listed part of former Coty Factory, located approximately 40m to the east of the site. The locally listed building at 891 Great West Road is located approximately 120m to the west of the site.

Approach

- 4.5 Initial baseline information will be obtained using best practice guidelines, including the National Planning Policy Framework (NPPF) and Planning Practice Guidance (PPG), Historic England historic environment good practice advice in planning notes, LBH guidance and other guidance from statutory and non-statutory bodies. The baseline information examines the following:
- Relevant local planning policy and guidance;
 - Relevant guidance found in the NPPF and PPG;
 - Best practice guidance for assessing significance and impact, including Historic England and ICOMOS guidance notes;

- A search of the online National Heritage List for England (NHLE);
 - A search of the online Greater London Historic Environmental Record (HER);
 - A search of the Local Plan to identify Conservation Areas;
 - A search of the Local List maintained by the LBH;
 - Historical background (including published and unpublished sources), drawn from a variety of sources including historic Ordnance Survey Plans; and
 - Fieldwork within the site and wider study area.
- 4.6 In accordance with the NPPF and PPG, both designated and non-designated heritage assets will be considered, as follows:
- World Heritage Sites;
 - Listed Buildings;
 - Registered Parks and Gardens;
 - Conservation Areas; and
 - Locally Listed Buildings.
- 4.7 The study area will be drawn up to 1km from the site boundary for all heritage receptors, though allowing for the inclusion of receptors of particular high heritage significance beyond this perimeter.
- 4.8 An assessment will be undertaken of the likely significant effects of the proposed development during construction and at completion on the significance of designated and non-designated heritage assets. The methodology will consider the sensitivity of the receptor and the magnitude of effect using professional judgement to determine the overall significance of the effect. Cumulative impacts will also be considered with reference to appropriate schemes identified in agreement with the LBH.

Summary

- 4.9 Table 3 summarises the heritage receptors identified for inclusion in the assessment.

Table 3: Heritage

Receptor	Effects	Scoped In
Designated and non-designated built heritage assets within 1km of the site.	Effects on setting	✓

5 TOWNSCAPE AND VISUAL EFFECTS

- 5.1 An assessment will be undertaken of the likely significant effects of the proposed development on townscape and visual amenity (a Townscape and Visual Impact Assessment (TVIA)).

Baseline

- 5.2 The topography of the site generally falls from the Great West Road to the north, down towards the site's southern boundary towards the railway line. There is a 4m level drop from the north-west corner of the site to the south of the site along the entrance to Gate Centre.
- 5.3 The site is not covered by any national designations. The study area contains a number of listed buildings and lies in proximity to the Isleworth Riverside Conservation Area (located approximately 450m southeast of the site) and Grand Union Canal and Boston Manor Conservation Area (located approximately 500m to the northeast of the site) and the Spring Grove Conservation Area (located approximately 750m west of the site). The Isleworth Riverside Conservation Area coincides with publicly accessible areas of open and green space, including Syon Park. The area to the west of the site has been identified as an "area of special character" by the LBH. These heritage assets will assist in determining the value of the townscape character areas and visual receptor representative views to be assessed. The TVIA will not consider 'setting' in heritage terms.
- 5.4 The LBH's Urban Context and Character Study splits the borough into ten districts. The site falls within the Brentford district, the study area also includes the districts of Isleworth and Osterley & Spring Grove. The assessment will consider the findings of Urban Context and Character Study and build on this study to establish any further townscape/landscape character areas within the study area at the baseline stage, if required.
- 5.5 Due to the site and surrounding area's landform, vegetation and built form, it is considered that likely visual receptors, defined as individuals and/or groups of people who have the potential to be affected by the proposed development, which will be considered as part of the visual assessment will include:
- Residents in properties located adjacent to the site and within 500m of its boundary, where associated windows are orientated towards the site;
 - Users of public open space areas located within 2.5km of the site; and
 - Users of public highways and rights of way located within 2.5km of the site.

- 5.6 Consideration will be given to the location of these visual receptors in determining representative views along with regional and local planning policy and guidance.
- 5.7 The site is not located within any of the protected view corridors, as defined by the London View Management Framework, and is therefore unlikely to affect any strategic views across London.
- 5.8 At a local level, LBH Local Plan 2015-2030 recognises 'local views' within the spatial strategy diagrams for the ten districts within the borough and within the Urban Context and Character Study and conservation area appraisals. These will be considered accordingly in determining representative views.
- 5.9 Further views that will be considered within the TVIA are identified within Hounslow's Emerging Local Plan – Great West Corridor Masterplan. These include the following views that are orientated towards the site:
- Linear view towards the Gillette Building from Syon Lane Station (SS1);
 - Panoramic views from Syon Park (SP1, SP2 and SP3);
 - Panoramic and linear views from the Royal Botanical Gardens (BG4, BG7, BG9, BG10 and BG11);
 - Long view from Osterley Park (OP1);
 - Boston Manor, view from the rear of Boston Manor House (BM2); and
 - Panoramic views from Gunnersbury Cemetery (GP01).

Approach

- 5.10 The assessment will be undertaken in accordance with Landscape Institute and Institute of Environmental Management and Assessment, 'Guidelines for Landscape and Visual Impact Assessment' (Third Edition, 2013) and, An Approach to Landscape Character Assessment (2014). It will provide a review of the existing townscape planning policy context; published sources of townscape character; and, a visual appraisal of the study area through the use of representative views. An assessment of the likely townscape and visual effects of the proposed development, both at the construction and operational phases will be undertaken.
- 5.11 Baseline information for the study area will be collated, which will include topography; townscape planning policy designations; published sources of landscape and townscape character; photographs from representative viewpoints; and, other relevant information.

- 5.12 Assessments will be made at the baseline year 2019; during construction; and, on the first year of completion.
- 5.13 In accordance with current good practice, this assessment will address townscape and visual effects as separate issues. Townscape effects relate to both the effect on the physical features of the site, and on the townscape character of the site and surrounding area. Visual effects relate to typical views of the proposed development from the surrounding area's visual receptors.
- 5.14 The initial study area for the TVIA assessment includes both site and its wider context at a 2.5km radius, as with further long distant representative views being considered where established and relevant.
- 5.15 Appendix 3: Proposed Viewpoint Location Plan, provides an indication of the representative viewpoint locations that are intended to be utilised for the assessment. This is currently being consulted on with LBH Officers and includes:
- Representative viewpoint 1: Close to the entrance of Syon Lane Station – western footpath, Spur Road, Isleworth;
 - Representative viewpoint 2: View from the northwest corner of the junction of Northumberland Avenue and Redesdale Gardens;
 - Representative viewpoint 3: View from western pavement of the Syon Lane / Grant Way roundabout;
 - Representative viewpoint 4: View from northern pavement of the Great West Road, adjacent to the former Firestone Factory entrance gates;
 - Representative viewpoint 5: View south from northern pavement of the Great West Road, outside no.772;
 - Representative viewpoint 6: View from the central reservation of the Great West Road;
 - Representative viewpoint 7: View from Osterley Park, at the junction of the entrance road and a public right of way;
 - Representative viewpoint 8: View from the centre of Osterley Park;
 - Representative viewpoint 9: View from top of the steps of Osterley Park House;
 - Representative viewpoint 10: View from a bridleway within Osterley Park;
 - Representative viewpoint 11: View from Boston Manor Park;
 - Representative viewpoint 12: View from St Paul's Recreation Ground;
 - Representative viewpoint 13: View from Syon Park in between the Gate Lodges;
 - Representative viewpoint 14: View from Syon Park southern entrance footpath (north);
 - Representative viewpoint 15: View from Syon Park southern entrance footpath (south);

- Representative viewpoint 16: View from the riverside walk close to Nazareth House, Isleworth;
- Representative viewpoint 17: View from a seating area along the River Thames Path;
- Representative viewpoint 18: View taken from the northern footpath of the A316;
- Representative viewpoint 19: View from Botanical Gardens Kew, Cedar Vista east;
- Representative viewpoint 20: View from Botanical Gardens Kew, Syon Vista/Cedar Vista West;
- Representative viewpoint 21: View from Botanical Gardens Kew, to the west of the Palm House;
- Representative viewpoint 22: View from Botanical Gardens Kew, close to 'the Botanical' building;
- Representative viewpoint 23: View from Botanical Gardens Kew, to the west of Elizabeth Gates; and
- Representative viewpoint 24: View from junction of Great West Road and Jersey Road, close to Jersey Parade.

5.16 During the consultation and testing process, agreed representative views in which the proposed development is not visible will not be assessed in full and will instead be included within an appendix to the TVIA.

5.17 In summary, the assessment will:

- Define the study area for the site, the local townscape character areas and describe the existing visual amenity experience from visual receptors, which will be supported by representative views;
- Assess the value, susceptibility and sensitivity of the townscape character areas and visual receptor's representative views (the receiving environment);
- Assess the magnitude of townscape character areas and visual receptor's representative views effects;
- Assess the significance of townscape character areas and visual receptor's representative views effects; and
- Identify requirements for any mitigation measures.

Summary

5.18 Table 4 summarises the townscape and visual receptors identified for inclusion in the assessment.

Table 4: Townscape and Views

Receptor	Effects	Scoped In
Typical representative views from publicly accessible locations, including roads, footpaths and public open spaces	Visual effects on users	✓
Townscape features, including existing vegetation	Townscape effects on the townscape resource	✓
Townscape Character Areas	Effects on townscape character areas	✓

6 TRANSPORT & ACCESS

- 6.1 An assessment will be undertaken of the likely significant effects of the proposed development on the environment with respect to transport and access.

Baseline

- 6.2 The site is bound by the A4 Great West Road to the north and Syon Lane to the west. A rail line (running from Waterloo station) is located immediately to the south of the site.
- 6.3 The site is located approximately 250m north of Syon Lane Station. The site is also served by buses as the Gillette corner and West Cross Centre bus stops along the Great West Road have routes towards Hounslow West and Chiswick.
- 6.4 The majority of the site receives a Public Transport Accessibility Level (PTAL) of 2, meaning the site achieves a 'poor' score in terms of public transport accessibility.

Approach

- 6.5 The traffic and transport impact of the proposed development will be assessed in line with guidance contained in the Department for Transport (DfT) publication 'Guidance on Transport Assessment' (March 2007) and The Institute of Environmental Assessment (now IEMA) Guidelines for the Environmental Assessment of Road Traffic and scoping discussions with the LBH.
- 6.6 The extent of transport impact will be determined using pre-defined significance criteria. Those criteria will be based on the net change in journeys as a result of the proposed development of the site and any infrastructure improvements delivered as part of the proposals. The significance criteria will establish the magnitude of any beneficial or adverse effects the proposed development will have on the transport network.
- Highway network delay;
 - Driver stress and view from the road;
 - Pedestrian and cyclist delay;
 - Pedestrian and cyclist amenity;
 - Severance;
 - Fear and intimidation;
 - Accidents & Road Safety; and

- Hazardous loads.
- 6.7 The above topics will be assessed for the proposed development (construction and operational phases) as well as the for the assessment of cumulative effects. Hazardous loads will not be assessed as a cumulative effect as the risk is managed by safe working practices and preventative, protective measures and health and safety legislation.
- 6.8 A Transport Assessment (TA) will be established in light of stakeholder consultation and guidance. Although separate to the Transport and Access ES chapter, the TA will share the same technical base including baseline and modelling data, but it will be based on a different methodology and approach. The scope of the TA is not outlined in this EIA Scoping Report.
- 6.9 The analysis will follow the relevant Design Manual for Roads and Bridges (DMRB) (Highways England, 1992) guidance and Guidelines for the Environmental Assessment of Road Traffic (GEART) (Highways England, 1993) procedures.
- 6.10 GEART suggests the application of the following rules to define the extent and scale of the assessment required:
- Rule One – Include highway links where traffic flows are predicted to increase by more than 30% (or where the number of Heavy Good Vehicles (HGVs) is predicted to increase by more than 30%); and
 - Rule Two – Include any other specifically sensitive areas where traffic flows (or HGV component) are predicted to increase by 10% or more.
- 6.11 In justifying these rules, GEART examines the science of traffic forecasting and states:
- 'It is generally accepted that accuracies greater than 10% are not achievable. It should also be noted that the day to day variation of traffic on a road is frequently at least some + or -10%. At a basic level, it should therefore be assumed that projected changes in traffic of less than 10% create no discernible environmental impact...a 30% change in traffic flow represents a reasonable threshold for including a highway link within the assessment.'*
- 6.12 Locations which are predicted to fall below the assessment thresholds will not be assessed further. However, it is necessary to consider the study area screening thresholds for air quality and noise and vibration when determining the scale of the highway study area. The Noise and Vibration and Air Quality chapters of the ES will set out the thresholds to be incorporated into the highway study area.

Summary

- 6.13 The likely effects in relation to transport and access effects for inclusion in the assessment are summarised in Table 5.

Table 5: Transport & Access Effects

Receptor	Effects	Scoped In
Local Roads	Net change in traffic patterns; peak hour junction capacity; effect on personal injury accidents;	✓
Highway network	Net change in driver delay particularly during the peak hours; effect on personal injury accidents	✓
Pedestrians and cyclists	Changes in delay to journeys; impacts on amenity; effects on personal injury accidents	✓

7 NOISE & VIBRATION

- 7.1 An assessment of potential effects of the proposed development with respect to noise and vibration will be undertaken. This will include construction phase (temporary) and operational phase (permanent) effects.

Baseline

- 7.2 The main source of noise affecting the site is the road traffic generated by the A4 Great West Road to the north of the site.
- 7.3 The site may be exposed to vibration levels of the existing rail line to the south of the site.

Approach

- 7.4 Consultation will be undertaken with the LBH's Environmental Health Department to identify any particular areas of concern the Council may have and to agree the relevant policies, guidelines and approach to the assessment.
- 7.5 The suitability of the site for residential development will be assessed in accordance with BS 8233: 2014 *Guidance on sound insulation and noise reduction for buildings* and the World Health Organisation (WHO) *Guidelines for Community Noise*, and any other specific criteria required by the LBH's Environmental Health Department following consultation.
- 7.6 Noise from road traffic generated by the proposed development during the operational phase will be predicted using the methodology contained in the former Department of Transport/Welsh Office technical memorandum *Calculation of Road Traffic Noise (CRTN)*. The significance of predicted noise changes will be determined using relevant guidance, such as that contained in the DMRB: 2008: *Volume 11 Environmental Assessment, Section 3 Environmental Assessment Techniques, Part 7 Noise and Vibration*.
- 7.7 Noise emissions limits for any fixed plant and/or servicing areas associated with the proposed development will be derived in accordance with British Standard 4142: 2014 *Methods for rating and assessing industrial and commercial sound* and any relevant guidance stipulated by the LBH's Environmental Health Department.
- 7.8 Detailed vibration baseline work will be undertaken, and the impact of vibration from the passage of trains through the nearby line on the proposed residential uses assessed

accordingly.

- 7.9 The assessment of noise and vibration effects arising during the construction phase will be undertaken in accordance with the methodology outlined in British Standard 5228: 2009 + A1: 2014 *Code of practice for noise and vibration control on construction and open sites* (Part 1: Noise and Part 2: Vibration). Construction noise and vibration impacts can be limited through the use of appropriate methods of piling, ground works, etc., such that there are no off-site vibration impacts.

Summary

- 7.10 Table 6 summarises the likely noise and vibration effects to be included for assessment in the ES.

Table 6: Noise and Vibration Effects

Receptor	Effects	Scoped In
Existing residential receptors	Temporary noise and vibration effects during construction, and need for control/mitigation measures.	✓
Existing residential receptors surrounding the site and future occupants of the proposed development	Noise change due to traffic generated by the operational development and potential fixed plant sources from non-residential facilities.	✓
Proposed residential receptors	Vibration effects from surrounding railway line.	✓
Proposed residential receptors	Compliance with relevant external and internal noise standards.	✓

8 AIR QUALITY

- 8.1 An assessment will be undertaken of the likely significant effects of the proposed development on the environment with respect to local air quality.

Baseline

- 8.2 The LBH has declared an Air Quality Management Area (AQMA) across the entire Borough due to exceedances of the UK Air Quality Strategy objectives for nitrogen dioxide (NO₂) annual average concentrations. The main source of pollution in the AQMA is road traffic emissions.
- 8.3 The site lies within this AQMA, and nearby monitoring data indicates that air quality objectives are exceeded at roadside locations in the vicinity of the site.

Approach

- 8.4 It is proposed that air pollutant concentrations in the area will be assessed to identify current baseline levels and determine any constraints or impacts associated with the proposed development during both the operational and construction phases. It is therefore proposed that the following scope of works will be carried out:
- Consultation with the LBH Environmental Health Department to confirm the assessment methodology;
 - Qualitative assessment of dust and particulate impacts during the construction stage in accordance with the Greater London Authority (GLA) and Institute of Air Quality Management (IAQM) construction guidance to determine the likely impacts on sensitive receptors;
 - A quantitative assessment of predicted changes in concentrations of NO₂ and particulate matter (PM₁₀) at selected receptor locations during the construction and operational phases of the proposed development due to changes in traffic flows on the surrounding road network will be undertaken using ADMS-Roads extra. The need to conduct detailed modelling for construction traffic and operational traffic will be determined using the criteria set out in the Institute of Air Quality Management (IAQM) guidance '*Guidance on land-use planning and development control: Planning for Air Quality 2017*'. Where these criteria are not met, an assessment of traffic emissions will be scoped out;
 - A quantitative assessment of energy centre emissions will be undertaken using ADMS-Roads extra, to predict changes in concentrations of nitrogen dioxide at selected receptors. IAQM guidance provides criteria to determine the need to proceed to a detailed

assessment of energy centre emissions. Where these criteria are not met, an assessment of energy centre emissions will be scoped out. Any proposed combustion plant should achieve NOx emission limits as detailed in the GLA's Sustainable Design and Construction guidance;

- A quantitative assessment of the likely exposure of future site occupants to poor air quality will be carried out at proposed onsite sensitive receptor locations; and
- A quantitative assessment of the air quality neutrality of the proposed development will be undertaken in accordance with the GLA's Sustainable Design and Construction guidance and Air Quality Neutral Policy contained in the London Plan.

8.5 An air quality modelling exercise will be undertaken for three different scenarios, as follows:

- Baseline year;
- Opening year without the proposed development; and
- Opening year with the proposed development.

8.6 An assessment of the likely significant cumulative effects on the environment with respect to air quality with the identified committed developments would also be undertaken for the construction and operational phases.

8.7 For mitigation measures during the construction phase, the focus will be on mitigation measures to be included in a Construction Environmental Management Plan (CEMP). Construction mitigation will be proposed based on the level of risk assessed and in line with IAQM Guidance on the Assessment of Dust from Demolition and Construction.

8.8 Operational phase mitigation will be proposed in accordance with the GLA's Sustainable Design and Construction guidance and Air Quality Neutral Policy guidance, if required.

Summary

8.9 Table 7 summarises the likely air quality effects to be included for assessment in the ES.

Table 7: Air Quality Effects

Receptor	Effects	Scoped In
Existing residential receptors	Potential exposure to increased pollution levels during both construction and operational phases of the development.	✓
Future residents and users of the proposed development	Potential exposure to increased pollution levels during both construction and operation.	✓

9 DAYLIGHT, SUNLIGHT, OVERSHADOWING AND SOLAR GLARE

9.1 This chapter of the ES will assess the likely significant effects of the proposed development on the environment with respect to:

- Daylight and sunlight amenity within the surrounding residential properties;
- Overshadowing to the surrounding gardens, amenity areas and open spaces; and
- The potential for Solar Glare to occur to the nearby railway and road users.

Approach

9.2 The baseline daylight conditions, using the Vertical Sky Component (VSC) and No-Sky Line (NSL) tests, to the surrounding habitable properties will be assessed, as well as, the baseline sunlight conditions, using the Annual Probable Sunlight Hours (APSH) tests, of those properties which have windows which are oriented to within 90° of due south.

9.3 The baseline overshadowing conditions, using the 'Sun on Ground' test, of the surrounding public amenity spaces will be assessed on 21st March. Further studies on 21st June and 12th December will also be undertaken for reference.

9.4 The assessment will consider the potential loss or gain in existing daylight and sunlight levels at the surrounding sensitive uses and changes to overshadowing as a result of the proposed development, relevant to areas of both public and private open space for both existing and proposed spaces. A separate standalone report will consider the potential for achieving satisfactory levels of daylight and sunlight within the residential buildings and amenity spaces of the proposed development itself. Commercial properties that are not considered to have a reasonable expectation of daylight or sunlight, and will therefore not experience significant effects, will not be assessed.

9.5 The assessment of daylight and sunlight effects will be primarily based upon the Building Research Establishments (BRE) Site Layout Planning for Daylight and Sunlight; A Guide to Good Practice 2011 ("the BRE Guidelines"). The approach will however also be guided by the policy and guidance set out in the NPPF and the London Plan. The assessment will be based on a scale three-dimensional model of the existing and proposed development situations.

9.6 To assess the significance of any effect to the surrounding habitable rooms' windows, it is proposed to primarily undertake the VSC, NSL and APSH tests. If the internal arrangements of the surrounding properties are known, it may be considered appropriate to consider the

Average Daylight Factor (ADF) tests when considering the significance of any effect.

- 9.7 In accordance with the BRE Guidelines, NPPF and the London Plan, and where the reductions from the baseline condition are likely to be 'adverse', it is proposed to consider the retained daylight and sunlight values against alternative target value given the location and proposed density of the site. Factors such as the effect of any existing balconies or rear extensions will also be taken into account as set out in the BRE Guidelines³.
- 9.8 The overshadowing to the nearby surrounding gardens, amenity areas and open spaces will be considered using the sun on ground assessment and using the recommended assessment date of 21st March. All other surrounding amenity spaces will be considered with the use of transient overshadowing studies.
- 9.9 To assess the amount of daylight and sunlight to the proposed habitable rooms (which is to be reported on within a standalone report) it is proposed to undertake the ADF, NSL and APSH tests in accordance with the BRE Guidelines. Given the height of the proposed development, and the height of the surrounding buildings, it is proposed to assess the habitable rooms from ground floor level upwards until each room meets the recommended standards.
- 9.10 Following the assessment, mitigation measures required to prevent, reduce or offset any impacts (if identified) and the residual impacts remaining following mitigation will be considered.
- 9.11 An analysis of likely adverse solar glare effects will be undertaken using a three-dimensional computer model of the site and surrounding area. To understand the likelihood of whether solar glare could occur, assessments will be initially undertaken assuming the proposed development has a fully mirror finish (in order to understand the worst-case scenario). Assessments will be undertaken at the nearby road junctions and various points along the nearby railway tracks. Should the initial study reveal that the likelihood for solar glare to occur is high, an assessment of the significance will be undertaken taking into materials and façade design of the proposed development.

Significance Criteria

Daylight and Sunlight Effects Significance Criteria

- 9.12 With regards to the potential significance of any effect the results will first be considered

³ P Littlefair (2011) Site Layout Planning for Daylight and Sunlight: A Guide to Good Practice (BR 209)

against the BRE Guidelines criteria. It is primarily on this basis that the significance of the effect will be determined. Where the BRE Guidelines criteria are not met, and before an overall significance is concluded for a particular house or room, the retained levels of daylight and sunlight will be considered against the alternative target values set for this site. Based on the research already undertaken and as discussed at the pre-application meetings already held, it is considered that an alternative target VSC value of 15% and APSH of 15% to 20% is appropriate for this site.

- 9.13 The effects on each property will be considered against the significance of the reduction from the baseline condition and defined as being of negligible, minor, moderate or major magnitude and of adverse or beneficial significance. If appropriate, the retained daylight/sunlight levels will then also be compared against the alternative target values before a conclusion as to whether the effects can be considered acceptable will be made.
- 9.14 When assessing the results against the BRE Guidelines, the interpretation of the daylight, sunlight and sun on the ground results should be assessed in terms of the quantum of light lost or gained, not purely on the percentage of change. The percentage value may well be misleading, particularly where the baseline values are small. In these situations, a small change in the quantum of light could represent a high percentage change in the overall figure, implying that there would be a significant change in daylight and sunlight whereas in reality, the difference would be negligible.

Transient Overshadowing

- 9.15 The BRE Guidelines do not provide any criteria for the significance of transitory overshadowing, other than to suggest that by establishing the different times of day and year when shadow would be cast over adjacent areas, an indication is given as to the significance of the effect of the proposed development.
- 9.16 The assessment of transient overshadowing effects is therefore based on professional judgement, taking into consideration the effect of the existing site and comparing it with the likely transient overshadowing effect of the proposed development. The effects are defined as being of negligible, minor, moderate or major magnitude and of adverse or beneficial significance.

Solar Glare

- 9.17 An initial assessment will be undertaken to establish whether significant adverse solar glare effects are likely to occur to key viewpoints located at vehicular junctions and along the

nearby train track. Where significant adverse solar glare effects are adverse glare is potentially identified, more detailed studies at the key viewpoints will be undertaken.

- 9.18 The BRE Guidelines outline a brief methodology for evaluation of the scale of a solar glare issue:

'If it is likely that a building may cause solar dazzle the exact scale of the problem should be evaluated... by identifying key locations such as road junctions and windows of nearby buildings and working out the number of hours of the year that sunlight can be reflected to these points.'

- 9.19 The solar glare assessments will first simulate the path of the sun for the entire year around the proposed development in order to establish the locations, times, duration and direction of solar reflections and identify where these may affect sensitive locations, with a particular focus on road users or railways. This is known as the 'annual sequence'. The assessment will be carried out using a specialist software applied to a three-dimensional AutoCAD model of the building and its surrounding context.
- 9.20 From the annual sequence assessment, if sensitive receptor locations are identified, more detailed tests will be run using up to two types of calendar graphs. The first would show the angle at which the solar glare may occur from the reference point, when it will occur, and the duration. The second, if necessary, would use the Hassall Methodology, which considers the intensity of the glare that may occur.

Summary

- 9.21 Table 9 summarises the likely effects in relation to daylight, sunlight and overshadowing identified for inclusion in the assessment against the existing baseline conditions.

Table 9: Daylight, Sunlight, Overshadowing and Solar Glare Effects

Receptor	Effects	Scoped In
Residential properties on the western side of Syon Lane	Effects on daylight and sunlight levels.	✓
Residential properties to the south of the site within Brambles Close and Cherry Crescent		✓
Rear gardens to the residential properties on the western side of Syon Lane	Overshadowing effects	✓
Rear gardens to the south of the site within Brambles Close and Cherry Crescent		✓
Road users at the nearby road junction and train drivers	Solar Glare effects	✓

10 WIND MICROCLIMATE

- 10.1 An assessment will be undertaken of the likely significant effects of the proposed development on the environment with respect to Wind Microclimate.
- 10.2 This Chapter of the ES will report the outcome of the assessment of likely significant effects arising from the proposed development on the local wind environment in the context of the site and its surroundings. Buildings and terrain affect the speed and direction of wind flows. The anticipation of the likely wind conditions resulting from new developments are important considerations in the context of pedestrian comfort and the safe use of the public realm. While it is not always practical to design out all the risks associated with the wind environment, it is possible to provide local mitigation to minimise risk or discomfort where required.
- 10.3 The objective of the proposed wind studies will be to determine the impact of the proposed development on the pedestrian level wind environment of the site and its surroundings. The wind assessment will take into account the effect of the surrounding context and will pay particular attention to wind effects in open amenity spaces, building entrances and pedestrian routes to determine the level of compliance with the recommended standards.
- 10.4 The likely significant effects of the proposed development on the local wind environment will be assessed against best practice criteria for pedestrian comfort and safety. Where appropriate, the ES Chapter will identify mitigation measures to prevent, minimise or control likely negative effects arising from the proposed development. The residual effects will be assessed and presented in the ES. The proposed development includes the construction of tall buildings which will have an effect on wind conditions and microclimate.

Approach

- 10.5 The main interactions of wind with a building occur in relatively close proximity to a building, particularly when there are neighbouring buildings and streets along which the wind can be channelled. This means that the focus of the assessment will be within the site boundary and the immediately surrounding streets.
- 10.6 A "3D" computer model of the proposed development and adjacent areas will be constructed for the assessment comprising the following scenarios:
- Baseline: A quantified assessment of the existing wind environment at the site will be used to establish the 'Baseline Scenario';

- Proposed development: An assessment of the site with the proposed development surrounded by existing buildings will be modelled in order to determine the effect of the 'Proposed Scenario';
- Cumulative Scenario: The proposed development within the future surroundings will be assessed, i.e. including buildings which comprise part of other consented developments not yet built.

10.7 The method for the study combines the use of Computational Fluid Dynamics (CFD) to predict wind velocities and air flow patterns, with the use of wind data from the nearest suitable meteorological station and the recommended comfort and safety standards (Lawson Criteria). The extent of the model comprises the site and a surrounding context within a minimum radius of 350 metres. The study will take into account the following factors:

- The effect of the geometry, height and massing of the proposed development and existing surroundings on local wind speed and direction;
- The wind speed as a function of the local environment as topography, ground roughness and nearby obstructions (buildings, bridges, etc.); and
- The pedestrian activity to be expected (sitting, standing, strolling and fast walking). It should be noted that effects on pedestrian comfort and safety are only considered externally to the building. No assessment will be made of the potential effects of the wind environment inside buildings as microclimate studies are only intended to address external conditions.

10.8 The results of the assessment will be presented in the form of contours of the Lawson Criteria at ground level. This reference height is industry standard to assess comfort and safety at pedestrian level.

Criteria for Pedestrian Safety and Comfort

10.9 The Lawson Criteria (Table 10) will then be applied to determine the acceptability of wind conditions for pedestrian safety and comfort. The Lawson Criteria stipulate that for the comfort and safety assessment of wind effects, it is not only the velocity of wind that is considered but also the frequency of occurrence of these velocities as an indicator of the likely duration of certain wind speeds.

Comfort Criteria

10.10 The Lawson Criteria provides wind speed thresholds that should not be exceeded for more

than 5% of the time in a season to be acceptable for the stated pedestrian activity.

Table 10: Lawson's Comfort Criteria (LDDC)

Key	Comfort Category	Threshold	Description
	Sitting	0-4 m/s	Light breezes desired for outdoor restaurants and seating areas where one can read a paper or comfortably sit for long periods
	Standing	4-6 m/s	Gentle breezes acceptable for main building entrances, pick-up/drop-off points and bus stops
	Strolling	6-8 m/s	Moderate breezes that would be appropriate for window shopping and strolling along a city/town centre street, plaza or park
	Walking	8-10 m/s	Relatively high speeds that can be tolerated if one's objective is to walk, run or cycle without lingering
	Uncomfortable	>10 m/s	Winds of this magnitude are considered a nuisance for most activities, and wind mitigation is typically recommended

Table 11: Lawson's Pedestrian Safety Criteria

Safety Rating	Threshold Mean-hourly Wind Speed Exceeded Once Per Annum (0.025%)	Potential effects	Development Constraints
Unsuitable for the general public (S15)	>15 m/s	Less able and cyclists find conditions physically difficult.	Threshold not to be exceeded in areas accessible to the general public: sitting areas, standing areas, leisure walking areas.
Unsuitable for able-bodies (S20)	>20 m/s	Able-bodied persons find conditions difficult. Physically impossible to remain standing during gusts.	Threshold not to be exceeded in areas with limited public access e.g. maintenance areas, motorways.

Summary

10.11 Table 12 summarises the likely effects in relation to wind microclimate for inclusion in the assessment.

Table 12: Wind Effects

Receptor	Effects	Scoped In
Existing residential receptors – Building entrances Pedestrian circulation areas, open amenity spaces	Changes to wind microclimate conditions	✓

Receptor	Effects	Scoped In
Residents and users of the proposed development – Building entrances Pedestrian circulation areas, open amenity spaces	Changes to wind microclimate conditions	✓

11. CUMULATIVE EFFECTS AND CONSULTATION

- 11.1 The ES will consider the potential for likely significant effects on the environment resulting from committed developments in the area. PPGⁱ identifies that:

'...There are occasions where other existing or approved development may be relevant in determining whether significant effects are likely as a consequence of a proposed development...'

- 11.2 Table 13 sets out the committed schemes which have been identified for the assessment of likely significant cumulative effects on the environment. It is considered appropriate to include major schemes within 1km of the site that either have planning permission or are in the process of being implemented.
- 11.3 A separate planning application will be submitted for the demolition of the existing Tesco Extra store and the construction of a residential-led mixed-use development at the Osterley Park site, Brentford. Although this scheme does not have planning permission, it is considered appropriate to consider it as part of the cumulative assessment, as it is reasonably foreseeable that the scheme will come forward.

Table 13: Cumulative Schemes

Scheme Name & Application Number	Scheme Details	Planning Status	Approximate Distance from the site
4 and 8 Harlequin Avenue, Brentford, TW8 9EW (Ref: P/2017/5358)	Demolition of existing building and construction of a six-storey building for Class B1b /B1c office use with associated car parking.	Planning permission granted on 21 st December 2018	Approximately 250m north of the site.
Osterley Park, Brentford, London.	Demolition of the existing buildings and construction of a residential led mixed-use development.	Planning application to be submitted	Approximately 300m northwest of the site
1 Commerce Road, Brentford, London, TW8 8LE (Ref: P/2018/2011)	Redevelopment of the site involving the retention, restoration and alteration of the existing Art Deco facade, demolition of the remainder of the buildings on the site and redevelopment to provide a five to seven-storey building comprising 76 flats and 138 square metres of square metres flexible industrial, research and development or office floorspace in use classes B1a, B1b, or B1c, with associated parking and landscaping.	Planning permission granted on 10 th January 2019	Approximately 750m east of the site.

- 11.4 Guidance is sought from the LBH as to whether any other committed developments should be considered for the potential to lead to likely significant cumulative effects on the environment

with the proposed development.

Consultation

11.5 The following statutory and other consultees will be consulted through the EIA process:

- Highways England;
- EA;
- Historic England;
- Transport for London;
- GLAAS;
- LBH (various departments); and
- Any other stakeholder that LBH nominates.

11.6 Public consultation will be undertaken during the preparation of the planning application. The feedback received through the consultation will be summarised in the ES and written up in full in the Statement of Community Involvement submitted in support of the planning application.

12. ENVIRONMENTAL STATEMENT STRUCTURE

12.1 The ES will contain three main volumes as set out in Table 14 below.

Table 14: Environmental Statement Structure

Volume 1: ES Main Text and Figures		
Chapter No.	Chapter Title	Description
1	Introduction	Introduction to the ES, EIA requirements, details of project team, ES organisation and availability.
2	EIA Methodology	Methods used to prepare each chapter, description of ES structure and content, generic significance criteria, scoping and consultation and details of schemes included in the assessment of cumulative effects
3	Site and Development Description	Site description and details of the proposed development.
4	Alternatives and Design Evolution	Outline of the main alternatives considered by the Applicant.
5	Construction Methodology and Phasing	Details of anticipated programme for development and construction methodology.
6	Population and Human Health	Consideration of the potential effects on population and human health.
7	Built Heritage	Effects of the proposed development on above ground heritage assets.
8	Townscape and Visual Effects	Effects of the proposed development on townscape and visual amenity.
9	Transport & Access	Assessment of the effects on transport and access.
10	Noise and Vibration	Assessment of the effects of the proposed development on noise and vibration.
11	Air Quality	Assessment of the effects of the proposed development on air quality as a result of construction activities and construction vehicle movements. and during the operation phase, including from traffic movements and plant emissions.
12	Daylight, Sunlight, Overshadowing and Solar Glare	Effects relating to daylight, sunlight, overshadowing and solar glare.
13	Wind Microclimate	Effects from the operation of the proposed development relating to wind microclimate.
14	Summary and Residual Effects	Summary of the residual and interactive effects of the proposed development.
Volume 2		
	Technical Appendices	Technical data and reports to support the chapters in Volume 1.
Standalone Document		
	Non-Technical Summary	Summary of the ES in non-technical language.

12.2 The first five chapters of the ES would be introductory and provide essential information for the subsequent technical chapters. Further information on these chapters is set out below.

Introduction

12.3 This chapter will provide background to the EIA, describe the structure of the ES and identify

the project team.

EIA Methodology

- 12.4 This chapter will set out the methodology used in the EIA, state the assumptions applicable to all disciplines, summarise the EIA Scoping process undertaken and summarise the public consultation process. Bespoke methodologies, limitations and assumptions will be contained in the technical chapters of the ES where required.
- 12.5 The significance of an environmental effect is determined by the interaction of magnitude and sensitivity, whereby the effects can be positive or negative. Generic criteria to be used in carrying out this process are detailed below. Some technical chapters will use discipline-specific criteria with their own terms for magnitude, sensitivity and significance. This will be explained in the relevant chapter.

Prediction of Impact Magnitude

- 12.6 The methodology for determining the scale or magnitude of impact is set out below.

Table 15: Methodology for Assessing Magnitude

Magnitude of Impact	Criteria for assessing impact
Major	Total loss or major/substantial alteration to key elements/features of the baseline (pre-development) conditions such that the post development character/composition/attributes will be fundamentally changed.
Moderate	Loss or alteration to one or more key elements/features of the baseline conditions such that post development character/composition/attributes of the baseline will be materially changed.
Minor	A minor shift away from baseline conditions. Change arising from the loss/alteration will be discernible/detectable but not material. The underlying character/composition/attributes of the baseline condition will be similar to the pre-development circumstances/situation.
Negligible	Very little change from baseline conditions. Change barely distinguishable, approximating to a 'no change' situation.

- 12.7 The sensitivity of a receptor is based on the relative importance of the receptor using the scale set out below.

Table 16: Methodology for Determining Sensitivity

Sensitivity	Examples of Receptor
High	The receptor/resource has little ability to absorb change without fundamentally altering its present character, or is of international or national importance.
Moderate	The receptor/resource has moderate capacity to absorb change without significantly altering its present character, or is of high importance.
Low	The receptor/resource is tolerant of change without detriment to its character, is of low or local importance.

Assessment of Effect Significance

- 12.8 Effect significance will be calculated using the matrix in Table 17. This illustrates the interaction between impact magnitude and receptor sensitivity.

Table 17: Effect Significance Matrix

Magnitude	Sensitivity		
	High	Moderate	Low
Major	Major Adverse/Beneficial	Major - Moderate Adverse/Beneficial	Moderate - Minor Adverse/Beneficial
Moderate	Major - Moderate Adverse/Beneficial	Moderate – Minor Adverse/Beneficial	Minor Adverse/Beneficial
Minor	Moderate - Minor Adverse/Beneficial	Minor Adverse/Beneficial	Minor Adverse/Beneficial - Negligible
Negligible	Negligible	Negligible	Negligible

Site and Development Description

- 12.9 This chapter will describe the setting of the site and the existing conditions on the site, as well as explaining and setting out the proposed development. The detailed plans will be included as figures to the chapter.

Alternatives

- 12.10 This chapter would describe the evolution of the proposed development based on environmental constraints.

Construction Methodology and Phasing

- 12.11 This chapter will outline the anticipated construction programme, phasing and methodology and explain the assumptions made. This chapter will form the basis of the construction phase assumptions documented in each of the technical chapters of the ES.

Technical Assessments

- 12.12 Each ES chapter will follow the headings set out below to ensure the final document is transparent, consistent and accessible.

- Introduction;
- Planning Policy Context;

- Assessment Methodology;
- Baseline Conditions;
- Likely Significant Effects;
- Mitigation Measures;
- Residual Effects;
- Cumulative Effects; and
- Summary.

12.13 Each chapter sub-heading is explained in further detail below.

Table 18: Technical Chapter Format and Content

Sub-Heading	Content
Introduction	<ul style="list-style-type: none"> • This section will introduce the assessment discipline and the purpose for which it is being undertaken.
Planning Policy Context	<ul style="list-style-type: none"> • This section will include a summary of national, regional and local policies of relevance to the environmental discipline and assessment. Where applicable, relevant legislation will also be summarised.
Assessment Methodology	<ul style="list-style-type: none"> • This section will provide an explanation of methods used in undertaking the technical study with reference to published standards, guidelines and best practice. The application of significance criteria will also be discussed. • It will also outline any difficulties encountered in compiling the required information.
Baseline Conditions	<ul style="list-style-type: none"> • This will include a description of the environment as it is currently (2019) and as it is expected to change given the project were not to proceed (i.e. 'do-nothing' scenario). The method used to obtain baseline information will be clearly identified. Baseline data will be collected in such a way that the importance of the particular subject area to be affected can be placed in its context and surroundings so that the effects of the proposed changes can be predicted.
Likely Significant Effects	<ul style="list-style-type: none"> • This section will identify the likely significant effects on the environment resulting from the construction and operational phases of the proposed development.
Mitigation Measures	<ul style="list-style-type: none"> • Adverse effects will be considered for mitigation and specific mitigation measures put forward, where practicable. Mitigation measures considered may include modification of the project, compensation and the provision of alternative solutions (including alternative technology) as well as pollution control, where appropriate. • The extent of the mitigation measures and how these will be effective will be discussed. Where the effectiveness is uncertain or depends upon assumptions about operating procedures, data will be introduced to justify the acceptance of these assumptions. • Clear details of when and how the mitigation measures will be carried out will be given. When certainty of impact magnitude and/or effectiveness of mitigation over time exists, monitoring programmes will be proposed to enable subsequent adjustment of mitigation measures, as necessary. • The opportunity for enhancement measures will also be considered, where appropriate. • Information will be included on the mechanism by which the mitigation will be secured (e.g. by planning condition) with outline arrangements for monitoring and responsibilities for doing so, where necessary.
Residual Effects	<ul style="list-style-type: none"> • The residual effects, i.e. the effects of the proposed development assuming implementation of proposed mitigation, will be determined. The residual effects represent the overall likely significant effect of the proposed development on the environment having taken account of practicable/available mitigation measures.
Cumulative	<ul style="list-style-type: none"> • The cumulative effects of the proposed development and the identified

Sub-Heading	Content
Effects	committed developments will be assessed.
Summary	<ul style="list-style-type: none">• A summary of the assessment and conclusions will be provided at the end of each technical chapter.

Summary and Residual Effects

12.14 The residual effects of the proposed development will be summarised in one table at the end of the ES setting out the overall beneficial and adverse effects of the proposed development. This chapter will also identify any interactive effects that could result from the proposed development. i.e. multiple effects impacting on a single receptor.

APPENDIX 1
SITE LOCATION PLAN



The scaling of this drawing cannot be assured

Revision	Date	Drm	Ckd

LEGEND

 Site Boundary



Appendix 1

Project
**Syon Lane,
 Brentford**
 Drawing Title
Site Location plan

Date	Scale	Drawn by	Check by
23.07.2019	1:5,000 @ A3	MN	NP
Project No	Drawing No	Revision	
30220	LN-E-01	-	



Planning • Master Planning & Urban Design • Architecture •
 Landscape Planning & Design • Environmental Planning • Graphic
 Communication • Public Engagement • Development Economics

bartonwillmore.co.uk 

APPENDIX 2

ECOLOGICAL ASSESSMENT

Homebase Brentford

Ecological Assessment

December 2018

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Ecological Assessment

December 2018

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1 INTRODUCTION

1.1 Background

1.1.1 Derek Finnie Associates was commissioned by Berkeley Homes (Urban Renaissance) Limited (BHL) to undertake an ecological assessment of an area of land located at the juncture of Great West Road and Syon Lane in Brentford. The Site is currently in use as a Homebase superstore with associated car parking.

1.1.2 BHL are looking to re-develop the Site, hence wish to assess any potential adverse ecological impacts of the proposal, as well as identify areas where biodiversity enhancements can be achieved. To this end, a baseline ecological assessment of the Site was undertaken December 2018, comprising a Site walk over survey giving special attention to the Site's potential to support protected species.

1.1.3 The following report outlines the methodologies employed throughout the ecological assessment, describes the current ecological status of the site and discusses the ecological constraints to any future development, as well as options for biodiversity enhancement.

2 METHODOLOGY

2.1 Habitat survey

2.1.1 An 'extended' Phase 1 Habitat Survey was carried out on 8th December 2018; this followed the methodology presented by the JNCC (2010). The Phase 1 technique aims to classify each habitat into categories based on the assemblage of plant species present, with the dominant plant species for each habitat being noted. In some cases, sub-divisions or modifications of the standard categories can be made where this is useful in providing further detail.

2.1.2 An 'extended' form of the basic methodology was employed to determine whether any notable or protected species of fauna utilise the study area, in particular badgers, bats, amphibians, reptiles and birds. In the absence of direct evidence of these species, an assessment was made on the potential for the site to support such species.

2.2 Survey Constraints

2.2.1 Phase 1 survey can be undertaken at any time of the year, however species which may flower earlier in the year may have been missed or under recorded in December. Given the habitats present within the Site, this is not considered to be major constraint to the assessment.

2.2.2 Access was available to all areas of the Site.

2.2.3 The assessment was undertaken in line with the latest sectoral guidance produced by the Chartered Institute of Ecology and Environmental Management (CIEEM), as well as BS 42020: 2013 *Biodiversity – Code of Practice for Planning and Development*.

3 SITE DESCRIPTION

3.1 Phase 1 Survey

3.1.1 The Site is situated to the east of the Great West Road in Brentford with a rail line forming the south eastern boundary of the Site. The surrounding land is dominated by existing residential and commercial properties.

3.1.2 The following Phase 1 habitats were encountered within the Site:

- Scattered trees;
- Introduced shrub; and
- Building and hardstanding.

3.1.3 Each habitat is described in turn below and depicted on Figure 1.

Scattered trees

3.1.4 There are several individual semi-mature trees around the periphery of the Site, set amongst the introduced shrub. Species noted included cherry *Prunus* sp., ash *Fraxinus excelsior* and sycamore *Acer pseudoplatanus*. There is also a line of young oak *Quercus* sp. set within the pavement, outwith the Site boundary, along the south west boundary.

Introduced Shrub

3.1.5 There are various areas of introduced shrub around the periphery of the car park which comprise mainly non-native species, however the occasional patch of holly *Ilex aquilinum*, rose *Rosa* sp. and dogwood *Cornus sanguinea* was noted; butterfly bush *Buddleja davidii* was also recorded throughout the shrub beds.

3.1.6 Some native, ruderal species have begun to exploit the areas under the planted shrubs, with Yorkshire fog *Holcus lanatus*, ivy *Hedera helix*, dandelion *Taraxacum officinale* agg. common nettle *Urtica dioica*, creeping thistle *Cirsium arvensis* and bramble *Rubus fruticosus* agg being noted.

Building and hardstanding

3.1.7 The vast majority of the Site is given over to buildings and hardstanding. A large superstore constructed principally from prefabricated, corrugate metal sheet, occupies approximately half of the Site. Car parking areas, in the form of tarmacked hardstanding, surround the superstore structure on more or less three sides. The south eastern side of the store is given over to a delivery area and garden centre, below which is an underground car park which is currently used to store vehicles from the neighbouring car dealership.

Invasive species

3.1.8 No evidence of Japanese knotweed was encountered throughout the December 2018 survey. However, as this species dies back in winter with only mature stems being visible in winter, its presence within the Site can not be completely discounted.

3.2 Fauna

- 3.2.1 No specially protected species or species of a raised conservation status were encountered throughout the December 2018 survey and the Site was assessed as having negligible potential to support such species due to the domination by building and hardstanding. The store itself is constructed principally from metal; no potential features that could be exploited by roosting bats were noted.

4 EVALUATION

4.1 Definition of ecological value

- 4.1.1 While some level of subjectivity is unavoidable when apportioning value to ecological features and resources, certain parameters and points of reference can be used to help ensure consistency. Those used in this appraisal are explained below.
- 4.1.2 Sites already possessing statutory or non-statutory nature conservation designations will have been subjected to some form of evaluation process in the past, and their importance defined at a geographical scale (e.g. international, national, local). For these, evaluation will generally reaffirm their qualifying attributes, or in some cases may identify where designation may no longer be appropriate.
- 4.1.3 Factors such as extent, naturalness, rarity, fragility and diversity are all relevant to the determination of ecological value, and for the evaluation of sites and habitat features outside designated sites, these and other criteria as described by Ratcliffe (1977), may be applied. Ratcliffe's criteria are integral to the procedure for selecting both Sites of Special Scientific Interest and many non-statutory designation systems in the UK, and therefore remain an accepted standard for site evaluation.
- 4.1.4 In applying these criteria, attention may be drawn to the relative scarcity or abundance of features within the survey area and in the wider geographical context. Some criteria are however absolute and not relative to scale. Ancient woodland, for example, is fragile irrespective of whether it is being considered in an international or local context. Similarly, the value of an otherwise poor habitat may be elevated if it is central to the survival of a rare species.
- 4.1.5 Where evaluation is important for the purposes of informing decisions related to land-use planning and development control, the above approach needs to be supplemented by consideration of whether individual species are subject to legal protection, or whether habitats or species are present which have been identified as 'priorities' for biodiversity conservation in the UK. Planning authorities have a statutory duty to further biodiversity objectives and the presence of such resources may be material to the determination of development control decisions.
- 4.1.6 Further indications of conservation status for individual species are provided by reference to the Red Data Book system, the Vascular Plant Red Data List for Great Britain (Cheffings and Farrell 2006) or for birds by reference to the Birds of Conservation Concern (Eaton et al. 2015) This divides birds into three lists; Red List (birds of high conservation concern), Amber List (birds of moderate conservation concern) and Green List (not of conservation concern).
- 4.1.7 Scales of comparison varying from the international to the context of the local area may be used to define the measure of importance attached to individual features. The definition of geographic terms can vary, but in this evaluation the geographic frame of reference contained within the CIEEM guidelines (CIEEM 2018) is used.



4.2 Site evaluation

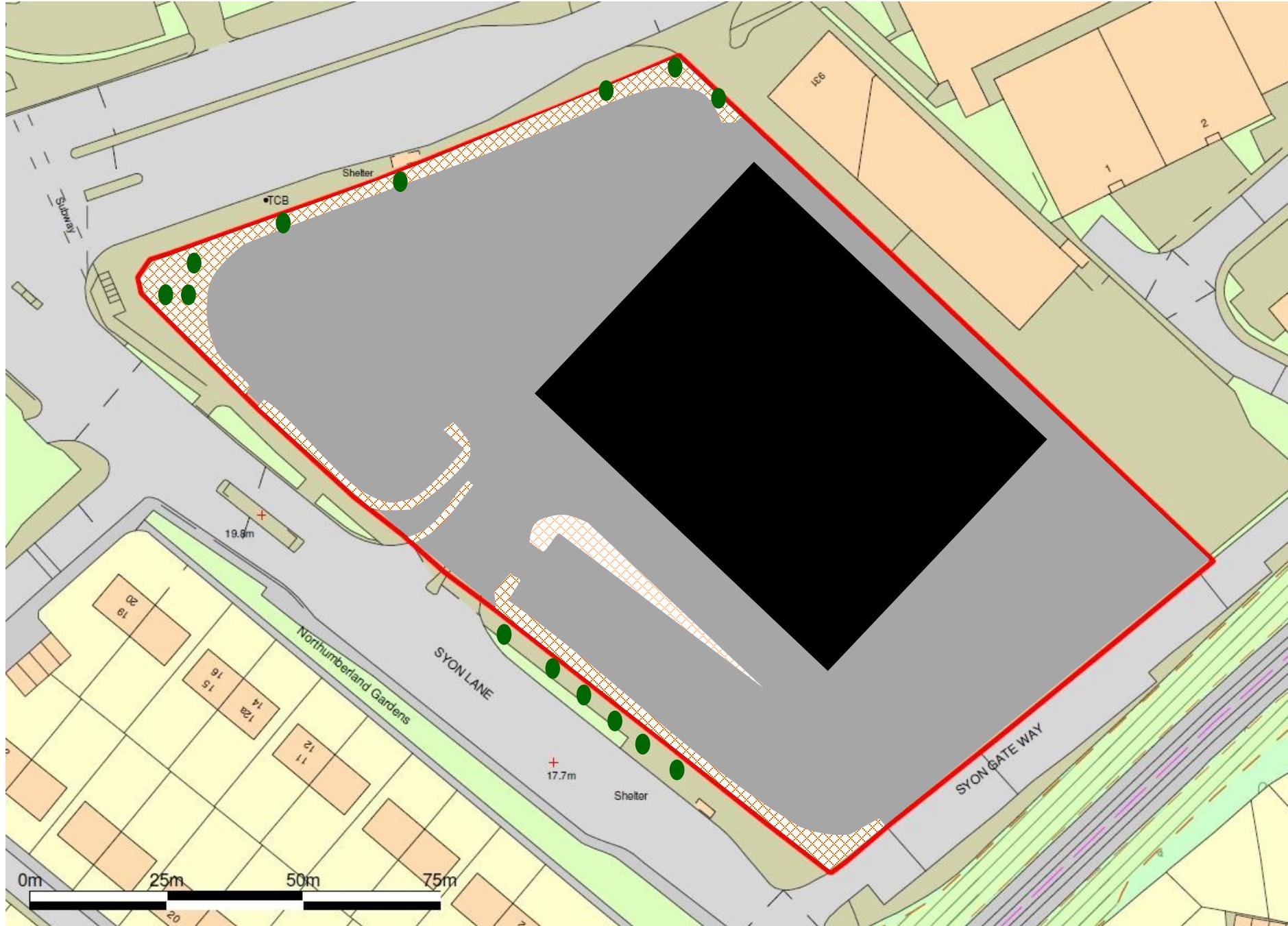
- 4.2.1 No part of the Site or the immediate surrounding area is designated on conservation grounds. Syon Park Site of Special Scientific Interest (SSSI), which is designated as a SSSI as it is the only known area of tall grass washland along the Thames in Greater London, is located some 1.1km to the south east. The Site is outside the SSSI Impact Risk Zone. Richmond Park Special Area for Conservation lies some 4km to the south east which is likely to be outside the zone of ecological influence of the proposed development. However, potential indirect impacts upon Richmond Park may need to be explored further through a Habitat Regulations Assessment.
- 4.2.2 No habitats or species of value were identified within the Site and the Site has been assessed as being of negligible ecological value.
- 4.2.3 No ecological constraints to re-development of the Site have been identified to date. It is likely that biodiversity gains can be delivered through appropriate landscaping within any future development.

5 SUMMARY

- 5.1.1 An ecological assessment, comprising an Extended Phase 1 Habitat survey, was undertaken across the Homebase site in Brentford. The Site was found to comprise building and hardstanding surround by introduced shrub planting.
- 5.1.2 Overall the Site was found to be of negligible ecological value with no ecological constraints to re-development being identified.

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Legend:

-  Introduced shrub
-  Hardstanding
-  Building
-  Scattered scrub
-  Site boundary



Do not scale

Drawing No: Figure 1

Title: Phase 1 Habitat Map

Date: December 2018

Project: Brentford

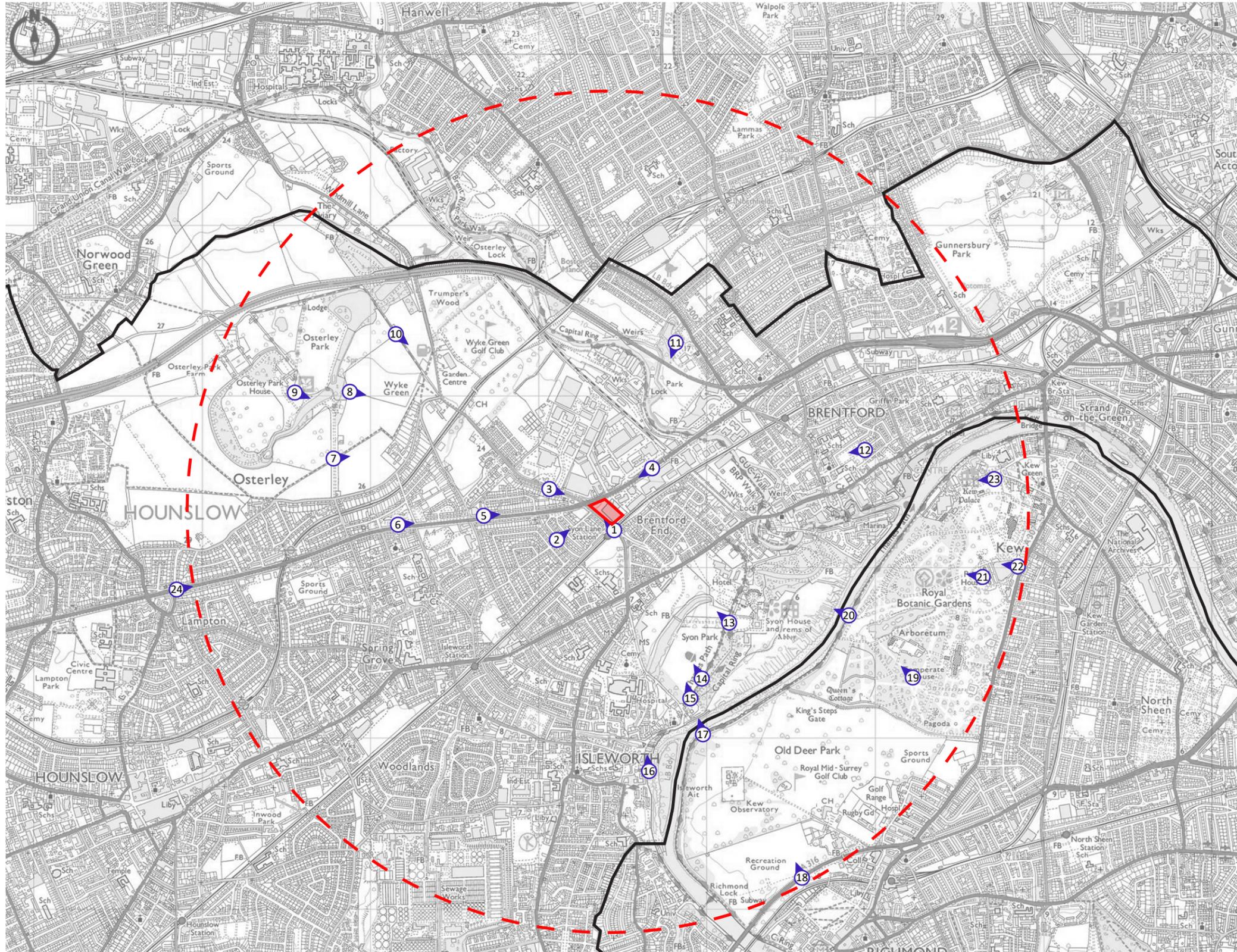
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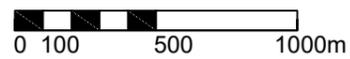
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APPENDIX 3
PROPOSED VIEWPOINT LOCATION PLAN



LEGEND

-  **Site Boundary** (refer to architects plan for definitive boundary)
-  2.5km Study Area
-  Borough boundaries
-  Representative view location



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**A247-Syon Lane, Brentford
REPRESENTATIVE VIEWS LOCATION**

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Dwg No. - A247-NT05 Scale - 1:25,000 @ A3 Date - 23-07-19
