APPENDIX 2.1 EIA SCOPING REPORT

Richmond upon Thames College, Twickenham

Environmental Impact Assessment Scoping Report

January 2021





Richmond upon Thames College, Twickenham

Environmental Impact Assessment Scoping Report

Prepared on behalf of Clarion Housing Group

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CONTENTS

1	INTRODUCTION	1
2	SCOPING	5
3	TOWNSCAPE AND VISUAL	10
4	TRANSPORT AND ACCESS	13
5	AIR QUALITY	16
6	NOISE	18
7	CUMULATIVE EFFECTS AND CONSULTATION	20
8	ENVIRONMENTAL STATEMENT STRUCTURE	22

APPENDICES

APPENDIX 1: SITE LOCATION PLAN

1 INTRODUCTION

- 1.1 This report has been prepared by Barton Willmore, Institute of Environmental Management and Assessment (IEMA) qualified assessors, on behalf of Clarion Housing Group (the Applicant). The report accompanies a request for an Environmental Impact Assessment (EIA) Scoping Opinion from the London Borough of Richmond upon Thames (LBRuT) in accordance with Regulation 15 of the Town and Country Planning (EIA) 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 (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.

Planning Context

- Outline Planning Permission was granted by LBRuT in August 2016 for the demolition of existing college buildings, removal of hard surfacing, site clearance and groundworks together with the redevelopment of the Richmond College site to provide a new campus for education and enterprise purposes, a new Secondary School, a new Special Educational Needs (SEN) School, a new ancillary 'Technical Hub', a replacement on-site sports centre, upgrading of existing Craneford Way playing fields and a new residential development of up to 180 units (LPA Ref: 15/3038/OUT). This planning application was supported by an Environmental Statement (ES).
- 1.5 A subsequent reserved matters approval was granted by LBRuT on 2nd August 2019 for 180 residential units within the Richmond College site (LPA Ref: 18/4157/RES). Following review

28156/A5/EIAScoping 1 January 2021

¹ The Town and Country Planning (Environmental Impact Assessment) Regulations 2017 (2017 SI No.571) (as amended in 2018 by SI No. 695 and in 2020 by SI No.505)

of the reserved matters approval, the Applicant is proposing a number of amendments to the approved scheme, including a minor uplift in residential units of 25. No significant changes to the height and massing of the previously approved development are proposed. A full planning application will be submitted for the revised scheme and will be supported by a new ES.

The Site

Site Context

- 1.6 The site (shown at Appendix 1) is located to the northwest of Twickenham town centre, within the administrative area of LBRuT. The site is bound by the new Richmond College secondary school and future sports centre to the north (associated with the previously consented development (LPA Ref: 15/3038/OUT)), Egerton Road to the east, residential properties located on Craneford Way to the south and Marsh Farm Lane, a Public Right of Way (PRoW) to the west.
- 1.7 The A316 Chertsey Road runs in an east to west direction approximately 200m to the north of the site. Craneford Way Playing Fields (which are designated as Metropolitan Open Land) are located to the south of the site (beyond Craneford Way). The River Crane is located to the immediate south of the Craneford Way Playing Fields, approximately 150m from the Site. Twickenham Stoop rugby stadium (home of Harlequins Rugby Club), is located approximately 100m to the west of the site, between Langhorn Drive and the Duke of Northumberland's River. Nuffield Health and Fitness Club and Challenge Court are also located to the west of the site, beyond Marsh Farm Lane.
- 1.8 The wider surrounding area is largely residential in nature. Twickenham Rugby Stadium is located approximately 375m to the north of the site and Twickenham Train Station is located approximately 650m to the east of the site.
- 1.9 There are no statutory ecological or landscape designations located on the site. The Grade II York House Registered Park and Garden is located approximately 1km to the east of the site and the Grade II* Listed Marble Hill is located approximately 1.5km to the east of the site. Ham Lands Local Nature Reserve (LNR) is located approximately 1km to the southeast of the site. Richmond Park, which is designated as a Site of Special Scientific Interest (SSSI), Special Area of Conservation (SAC), and National Nature Reserve (NNR) is located approximately 2.75km to the east of the site.
- 1.10 There are no historical designations located on the site. The nearest listed building to the site

is the Grade II Listed Heatham House, Walls, Entrance Gates and Piers, located approximately 400m to the east of the site. The Grade II Listed Knowle House is located approximately 450m to the south of the site and the Grade I Listed Church of All Hallows is located approximately 500m to the north east of the site. The site is not located within a Conservation Area. The nearest Conservation Area to the site is Rosecroft Conservation Area, located approximately 250m to the west of the site.

- 1.11 The site is located in Flood Zone 1 (at a low risk of flooding from rivers). The site is not located within a Source Protection Zone SPZ (i.e. an area where groundwater is vulnerable to contamination).
- 1.12 LBRuT has declared an Air Quality Management Area (AQMA) across the entire Borough due to exceedances for particulate matter (PM₁₀) annual and 24-Hour mean concentrations and nitrogen dioxide (NO₂) annual mean concentrations.
- 1.13 The site is not located within an Archaeological Priority Area.

Site Description

- 1.14 The site extends to 1.94ha and comprises a number of functioning Richmond College buildings which were constructed in the 1930s, with a further expansion in the 1970s.
- 1.15 The buildings include the main College building and tower within the east of the site, academic/supported learning blocks within the south of the site, workshops within the west of the site and a refectory blocks within the centre and north of the site. The buildings vary from one to three storeys in heights, with the exception of the main building tower which is 5 storeys in height.
- 1.16 The majority of the site comprises buildings and hardstanding, with the exception of scattered trees and amenity grassland across the south of the site and within the east of the site, adjacent to Egerton Road.
- 1.17 Access to the site is via Egerton Road to the east of the site.

The Proposed Development

1.18 Detailed permission is sought for the demolition of existing buildings and development of up to 205 residential dwellings, with associated parking, infrastructure, landscaping and access.

- 1.19 The proposed maximum height of the buildings will be up to 5 storeys (25.2m Above Ordnance Datum (AOD)).
- 1.20 Permanent access to the Development will be to the north east, via Marsh Farm Lane with temporary access to the east, via Egerton Road, during the construction works.

2 SCOPING

2.1 This scoping exercise has been informed by desk-based research, professional judgement and other information available for the site. Table 1 provides a summary of the scoping exercise.

Table 1: EIA Scoping Summary

Topics	Potential Construction Phase Effects	Potential Operational Phase Effects	Likely Significant Effects (Pre-Mitigation)	Comments
Townscape & Visual Effects	√ - T	√ - P	√	Tania seemed in to
Transport & Access	✓ - T	√ - P	✓	Topic scoped in to the ES.
Air Quality	✓ - T	√ - P	✓	tile ES.
Noise	✓ - T	√ - P	✓	
Population and Human Health	Х	Х	Х	
Cultural Heritage	Х	Х	Χ	
Biodiversity	Х	Х	Х	
Water Resources and Flood Risk	Х	Х	Х	
Land Contamination	Х	Х	Х	
Wind Microclimate	Х	Х	Χ	
Daylight, Sunlight and Overshadowing	Х	Х	Х	Topic scoped out of the ES.
Agricultural Land	Х	Х	Х	
Lighting	Х	Х	Χ	
Vibration	Х	Х	Χ	
Waste	Х	Х	Х	
Climate Change and Greenhouse Gases	Х	Х	Х	
Accidents and Disasters	Х	Х	Х	

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

Climate Change and Greenhouse Gases

2.2 Climate change and greenhouse gases will be covered in a dedicated section in the introductory chapters of the ES. It is difficult to assign significance to effects on climate change, as it is a global issue with an infinite spatial scope. Therefore, the ES will focus on the climate change mitigation and adaptation measures incorporated into the proposed development to maximise positive climate change effects. This will draw upon technical chapters and reports, including the Flood Risk Assessment (FRA), Energy Report and Air Quality Assessment, and will summarise the sustainability and energy provisions included within the proposed development.

T – Temporary Effect / P – Permanent Effect

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.

Population and Human Health

2.4 The proposed development will provide housing and construction employment opportunities. The scale of the proposed development is such that no significant effects on population and human health are anticipated. Standard mitigation measures, implemented through a Construction Environmental Management Plan (CEMP) to be secured through a precommencement planning condition would also minimise potential health effects during the construction phase. Any requirement to mitigate effects of the development on the demand for school places and/or primary healthcare services would be mitigated through developer contributions and are not expected to be significant. Therefore, it is proposed to scope this topic out of the ES.

Cultural Heritage

- 2.5 As stated above, the site is not located within an Archaeological Priority Area. Given the developed nature of the site, it is likely that any potential archaeology would have previously been removed from the site or destroyed by existing foundations. Therefore, the potential for significant effects on archaeology is very unlikely. An Archaeological Desk-based Assessment will be undertaken and submitted in support of the planning application.
- In terms of built heritage, as noted above, there are no historical designations located on the site. The nearest listed building to the site is the Grade II Listed Heatham House, Walls, Entrance Gates and Piers, located approximately 400m to the east of the site. The Grade II Listed Knowle House is located approximately 450m to the south of the site and the Grade I Listed Church of All Hallows is located approximately 500m to the north east of the site. The site is not located within a Conservation Area. The nearest Conservation Area to the site is Rosecroft Conservation Area, located approximately 250m to the west of the site. Due to the distance from heritage assets there would be no direct effects.
- 2.7 On this basis, significant environmental effects in relation to cultural heritage are not anticipated and it is proposed to scope this topic out of the ES.

Biodiversity

- 2.8 An Extended Phase 1 Habitat survey as well as detailed species surveys (including bat, birds and invertebrate surveys), were undertaken in 2015 as part of the ES for the outline planning application for the wider Richmond College site (Ref: 15/3038/OUT). There are no statutory or non-statutory nature conservation sites on or near to the site. As stated above, the site largely comprises existing College buildings with some scattered trees and small areas of amenity grassland within the south and east of the site. The habitats within the site are of limited ecological value, being of no more than local importance for nature conservation and supporting relatively common species. The previous bat surveys identified negligible bat activity within the College grounds and confirmed the habitat as relatively inhospitable to bats and that the buildings on the site do not support roosting bats. Furthermore, none of the mature trees within the site were found to have significant roosting potential, due to a lack of suitable features.
- 2.9 A Biodiversity and Ecology Statement will be submitted with the planning application, including an updated Phase 1 Habitat Survey and a Biodiversity Net Gain Assessment. It is considered that a net biodiversity gain will be achieved on the site through habitat creation. Based on the above, likely significant effects relating to biodiversity are not expected, and this topic has been scoped out of the ES.

Water Resources and Flood Risk

2.10 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. The site is also not located within a Source Protection Zone SPZ and there are no waterbodies on the site. 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) and Drainage Strategy will be submitted with the planning application, which will demonstrate the management of surface water runoff on-site. This will include an allowance for climate change in accordance with the NPPF. This topic has therefore been scoped out of the ES.

Land Contamination

2.11 A data search, desk study and site walkover were undertaken as part of the ground conditions assessment which informed the ES undertaken for the outline planning application for the wider Richmond College site (Ref: 15/3038/OUT). The assessment identified some soil contaminants but levels were below screening criteria for residential use of the site indicating that the site is not heavily contaminated. However, prior to redevelopment of the site, further

site investigation and soil testing would be undertaken to characterise the nature and extent of contamination followed by excavation and removal of contaminated soil for treatment offsite. All landscape areas would also be excavated and material replaced with clean sub-soil and topsoil. This would ensure that there would be no risk to future occupants and visitors to the proposed development from potential contamination sources. Any necessary remediation work would be secured through planning conditions. As such, this topic has been scoped out of the ES.

Wind Microclimate

2.12 Due to the low-rise nature of proposed buildings, likely significant wind effects are not anticipated and it is proposed to scope this discipline out of the ES.

Daylight, Sunlight and Overshadowing

2.13 The scale and massing of the proposed development will not cause changes to daylight or sunlight availability or cause overshadowing of residents or amenity space. It is therefore proposed to scope this discipline out of the ES.

Agricultural Land

2.14 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

2.15 The site is located in Twickenham and adjacent to residential areas which are already well lit. In addition, lighting will be designed carefully in accordance with relevant British Standards and Institute of Lighting Professionals (ILP) (2011) Guidance Notes for the Reduction of Obtrusive Light. Therefore, the proposed development is not anticipated to produce a significant lighting impact. Where appropriate, lighting will be considered within the ES, including the Townscape and Visual chapter, which is discussed later in this report. It is proposed to scope this discipline out of the ES as a separate chapter.

Vibration

2.16 Due to the nature of the proposed development, there are not expected to be any significant sources of vibration, neither is the site subject to any existing sources of vibration that could have amenity implications. Nevertheless, standard best practice mitigation measures would

be implemented during construction in accordance with the CEMP, to minimise potential temporary vibration from construction plant and activities. It is proposed to scope this discipline out of the ES.

Waste

2.17 The proposed development is not anticipated to produce significant amounts of waste, either as a result of any need for significant land engineering or demolition, or as a result of the end use (residential). Construction waste would be reused and recycled where possible. Operational waste would be disposed of in line with LBRuT requirements and managed in accordance with legislation. This topic has been scoped out of the ES.

Accidents and Disasters

- 2.18 The proposed development is residential in nature and does not include uses which are considered to be hazardous, nor is the site in a location which is at risk of disasters such as land instability, flooding or earthquakes.
- 2.19 During construction, which is considered the only part of the proposed development which could be considered as hazardous, all applicable health and safety legislation will be complied with and standard mitigation measures implemented through a CEMP to be secured by a planning condition. it is proposed to scope this topic out of the ES.

Environmental Disciplines Scoped In

2.20 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 TOWNSCAPE AND VISUAL

3.1 Given that the Applicant is proposing some amendments to the approved scheme (Ref: 15/3038/OUT) and the surrounding baseline has changed (including to the north of the site), a townscape and visual assessment would be undertaken. The townscape and visual assessment will assess the likely effects of the proposed development on the townscape, including townscape character and townscape features; and on views and visual amenity.

Baseline

- 3.2 The site lies within two landscape character areas (Langhorn Drive and the Crane Corridor Local Character Areas) and adjacent to three further character areas (Chertsey Road North, Chertsey Road South and Rosecroft Gardens) which lie within the wider Whitton and Heathfield Borough Character Area.
- 3.3 The public open space at Craneford Way and Craneford Way Playing fields (designated Metropolitan Open Land) supports a public footway which in part has views towards the site, including from an elevated pedestrian crossing over the railway south of the River Crane. This public footway route crosses Craneford Way and continues north, running alongside the site where views become more expansive.
- 3.4 A further area of public open space directly west of the site has views towards the site with limited vegetation screening. Views from Langhorn Drive are also possible, albeit intermittently.
- 3.5 Residential streets situated to the east and west of the site are suburban in character with generous front gardens and rear gardens with scattered mature trees. Streets are generally tree-lined, often impeding long-distance views towards the site.
- 3.6 An established tree-line to the edge of Egerton Road offers further visual screening of the site during summer months in addition to some coniferous, evergreen existing tree specimens.
- 3.7 The site is visible from surrounding residential properties with an outlook over the Site as well as from local roads running in an east-westerly direction towards the site. Some visual containment of the site is afforded by the 'Twickenham Stoop' Stadium which is located between the site and the Rosecroft Gardens character area.

Approach

- 3.8 The assessment would be undertaken in accordance with Landscape Institute and Institute of Environmental Management and Assessment, 'Guidelines for Landscape and Visual Impact Assessment' (Third Edition, 2013).
- 3.9 In accordance with current good practice, the assessment will address landscape / townscape and visual effects as separate issues. Landscape / townscape effects relate to both the effect on the physical features of the site, and on the landscape / townscape character of the site and surrounding area. Visual effects relate to typical views of the proposed development from the surrounding area.
- 3.10 Baseline information for the study area will be collated, which will include topography, landscape / townscape planning policy designations, published sources of landscape / townscape character, desktop review of historic landscape features, a zone of theoretical visibility (ZTV), typical photograph viewpoints and any other relevant information. To provide a finer level of detail to the published character assessments, Townscape Character Areas (TCAs) will be identified through desk-based study and field work.
- 3.11 The townscape and visual assessment will:
 - Assess the value, susceptibility and sensitivity of the townscape and visual receptors (the receiving environment);
 - Assess the magnitude of townscape and visual effects;
 - Assess the significance of townscape and visual effects; and
 - Identify requirements for any mitigation measures.
- 3.12 Assessments will be made at the baseline year 2021, during construction; on completion; in the winter without the benefit of effective new planting; and 15 years thereafter, in summer, with the benefit of effective planting mitigation.
- 3.13 A list of representative viewpoints for assessment would be separately agreed with the landscape officer at LBRuT.

Summary

3.14 Table 2 summarises the townscape and visual receptors identified for inclusion in the assessment.

Table 2: Townscape and Visual Effects

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

4 TRANSPORT AND ACCESS

- 4.1 An assessment will be undertaken of the likely significant effects of the proposed development on the environment with respect to transport and access, considering both the construction and operational phases of the development.
- 4.2 Data used in the assessment will be drawn from the Transport Assessment (TA) and Travel Plan (TP). The TA will provide a detailed assessment of the traffic impact and road safety implications of the proposals and identify measures to mitigate the impact of the proposed development, it will present access arrangements and describe measures to provide access by all modes of transport. The TP will identify measures to which reduce car-based travel to a minimum.

Baseline

- 4.3 There are a number of local roads which have been identified as key access points or routes to the site, including the A316 Chertsey Road, Langhorn Drive, Egerton Road and Craneford Way.
- 4.4 The surrounding area is predominately residential in nature, with vehicle access to nearby residential roads.
- 4.5 The site receives a Public Transport Accessibility Level (PTAL) of 2/3 representing a 'medium' level of accessibility.
- 4.6 Local bus stops located on Whitton Road (under 500m from the site) whilst Twickenham Rail Station is located within 750m to the east of the site and have been identified as key public transport modes.

Approach

- 4.7 The traffic and transport impact of the proposed development will be assessed in line with guidance contained in the DfT publication 'Guidance on Transport Assessment' (March 2007) and The Institute of Environmental Assessment (now IEMA) Guidelines for the Environmental Assessment of Road Traffic.
- 4.8 The extent of transport impact will be determined using pre-defined significance criteria for each mode of travel. Those criteria will be based on the net change in journeys as a result of

the development of the site and any infrastructure improvements delivered as part of proposals. The significance criteria will establish the magnitude of any beneficial or adverse effects the proposed development will have on the transport network.

- 4.9 The scope of the assessment will be agreed with LBRuT and Transport for London (TfL) and is likely to include the following study area:
 - Langhorn Drive access with the A316 Chertsey Road;
 - Egerton Road access with the A316 Chertsey Road;
 - Proposed residential access via Egerton Road and the surrounding residential streets, including Court Way, Heathfield North and Heathfield South;
 - All junctions of Court Way, Heathfield North and Heathfield South with Whitton Road to the east would also be reviewed.
- 4.10 The following assessment criteria will be utilised for the construction and operational phases:
 - Driver severance and delay;
 - Pedestrian/ cyclist severance and delay;
 - Pedestrian/ cyclist amenity;
 - Accidents and safety;
 - · Hazardous and dangerous loads; and
 - Dust and dirt (albeit, this will be assessed within the Air Quality chapter of the ES).
- 4.11 Effects will be compared to baseline conditions to assess the impact of the proposed development. Mitigation will then be proposed as necessary and the impact re-assessed to indicate the overall impact of the development on these indicators.

Summary

4.12 The likely effects in relation to transport and access effects for inclusion in the assessment are summarised in Table 3.

Table 3: Transport & Access Effects

Receptor	Effects	Scoped In
Local Roads	Net change in traffic patterns; peak hour junction capacity; peak hour link capacity; traffic delay; effect on personal injury accidents.	√
Public Transport	Net change in public transport patronage; duration and frequency of bus services.	✓

Receptor	Effects	Scoped In
Pedestrians and cyclists	Net change in pedestrian and cycle journeys; on- street cycle facilities; effect on personal injury accidents.	✓

5 AIR QUALITY

An assessment will be undertaken of the likely significant impacts of the proposed development on local air quality, including dust. This will consider both the potential impacts of existing sources of pollution on the proposed development as well as the impact of the proposed development on existing local air quality.

Baseline

- 5.2 The LBRuT has declared an Air Quality Management Area (AQMA) across the entire Borough due to exceedances for particulate matter (PM₁₀) annual and 24-Hour mean concentrations and nitrogen dioxide (NO₂) annual mean concentrations. The main source of pollution in the AQMA is road traffic emissions.
- 5.3 There are no designated ecological sites of relevance to the site in relation to air quality impacts and therefore this topic has been scoped out of the ES.

Approach

- 5.4 The assessment will include the following:
 - Detailed consultation with LBRuT;
 - Review of relevant local air quality monitoring data and Defra's background pollutant maps;
 - Risk based assessment of the potential impacts during construction using the approach provided in IAQM guidance;
 - Detailed air quality dispersion modelling of emissions from the traffic associated with the proposed development to identify the impact on existing communities;
 - Detailed air quality dispersion modelling of air quality within the site to identify whether air quality for future residents is suitable; and
 - The cumulative impacts with other development will also be assessed, during both construction and operation.
- The aim of the risk assessment of the construction impacts on dust and particulate matter (PM_{10}) concentrations is to identify appropriate mitigation measures to be included in a CEMP.
- 5.6 The air quality impact assessment will predict concentrations of NO_2 and particulate matter (PM_{10} and $PM_{2.5}$) as these are the pollutants of concern from road traffic.

- 5.7 The modelling of the traffic emissions will be undertaken for three different scenarios, as follows:
 - Baseline year (to complete model verification);
 - Opening year without the proposed development; and
 - Opening year with the proposed development.
- 5.8 The modelling exercise will utilise Annual Average Daily Traffic flows for all affected roads from the TA produced for the site. The model will predict the annual mean concentrations for comparison with the relevant UK air quality objectives and the results will be verified using monitoring data.
- 5.9 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

5.10 Table 4 provides a summary of the key issues to be considered in relation to Air Quality.

Table 4: Air Quality Effects

Receptor	Effects	Scoped In
	Potential exposure to increased pollution levels during both construction and operation.	✓
	Potential exposure to unacceptable dust and particulate matter during construction.	✓
Future residents and visitors to the proposed development	Potential exposure to unacceptable air quality (i.e. levels above the national objectives) during operation.	✓

6 NOISE

- An assessment of potential effects of the proposed development with respect to noise will be undertaken. This will include construction phase (temporary) and operational phase (permanent) effects.
- 6.2 The key considerations in relation to the noise assessment is as follows:
 - Identification of existing noise sensitive receptors adjacent to the site and relevant highways;
 - The baseline noise conditions in the study area;
 - Identification of the significant sources of noise within the vicinity of the study area;
 - Acoustic modelling of noise sources to predict likely noise levels across the site;
 - Assessment of the predicted noise levels against relevant standards and guidance including British Standard (BS) 8233¹, BS 4142² and World Health Organisation (WHO) Community Noise³;
 - The assessment under the above standards and guidance will determine the significance of any effect; and
 - Suitability of the site for proposed noise sensitive uses.

Baseline

6.3 Environmental noise surveys will be undertaken to establish the source strength of existing noise sources in the vicinity of the site and prevailing noise levels at the site. Baseline traffic data for relevant highways will be obtained from the appointed transport consultant.

Approach

- 6.4 Consultation will be undertaken with LBRuT'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.
- 6.5 The effects of noise during the construction phase will be assessed qualitatively in accordance with the British Standard 5228-1:2009+A1:2014 'Code of Practice for Noise and Vibration Control on Construction and Open Sites Part 1: Noise'. The focus will be on mitigation measures to be included in a CEMP.
- 6.6 The change in noise levels resulting from additional traffic flows associated with the proposed

development will be evaluated. The magnitude of the impact will then be assessed in accordance with guidance contained in Design Manual for Roads and Bridges Volume 11 Section 3 Part 7 – HD213/ 11 Noise and Vibration.

6.7 Site suitability for residential development will be assessed in accordance with the NPPF, and the associated PPG and the Noise Policy Statement for England. British Standard 8233:2014 'Guidance on Sound Insulation and Noise Reduction for Buildings' is the appropriate standard for the design of new dwellings.

Summary

6.8 Table 5 summarises the likely noise effects to be included for assessment in the ES.

Table 5: Noise Effects

Receptor	Effects	Scoped In
Existing residential receptors and community uses	Temporary noise effects during construction, and need for control/mitigation measures.	√
Existing noise sensitive receptors	Permanent noise effects of change in traffic flows associated with the proposed development.	√
Proposed noise sensitive receptors	Permanent noise effects from existing noise sources in the vicinity of the proposed development.	√

7 CUMULATIVE EFFECTS AND CONSULTATION

- 7.1 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..."
- 7.2 Table 6 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 2km of the site that either have planning permission or are in the process of being implemented, as well as major planning applications which have been submitted but not yet determined [LBRuT to confirm approval of proposed cumulative schemes].

Table 6: Cumulative Schemes

Scheme Name & Application Number	Scheme Details	Planning Status	Approximate Distance from the site
	Approved Applications		
Lockcorp House, 75 Norcutt Road, Twickenham, TW2 6SR (Ref: 19/2789/FUL)	Demolition of existing commercial building and erection of building to provide 15 affordable residential units, together with 12 parking spaces and communal amenity space.	Granted in June 2020	Approximately 100m south of the site.
Ryde House, 391 Richmond Road, Twickenham, TW1 2EF (Ref: 16/2777/FUL)	Demolition of existing building. Construction of a new mixed use development comprising a food store (1,123m2 sales area) and primary school with associated car parking (55 spaces allocated to food store and 1 space allocated to school); alterations to site entrance, landscaping and associated works.	Granted in September 2017	Approximately 2km east of the Site.
	Pending Consideration		
Old Station Forecourt Railway Approach, Twickenham, TW1 4LJ (Ref: 19/3616/FUL)	Proposed redevelopment of existing car park to provide a new building of 5 to 6 storeys, comprising 46 no. residential units (Use Class C3), disabled car parking, cycle parking, landscaping, enhancements to public realm and associated works.	Pending Consideration	Approximately 600m south east of the site.

Consultation

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

- Highways England;
- Environment Agency;
- Natural England;
- · Historic England;
- GLA;
- LBRuT (various departments); and
- any other stakeholder that LBRuT nominates.
- 7.4 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 Engagement submitted in support of the planning application.

8 ENVIRONMENTAL STATEMENT STRUCTURE

8.1 The ES will contain two main volumes as set out in Table 7 below.

Table 7: Environmental Statement Structure

Volume 1	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.			
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 Programme	Details of anticipated programme for development and construction methodology.			
6	Townscape and Visual Effects	Effects of the proposed development on townscape and visual amenity.			
7	Transport and Access	Assessment of the effects on transport and access.			
8	Air Quality	Assessment of effects relating to air quality.			
9	Noise	Assessment of the effects of the proposed development on noise.			
10	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-Techi	nical Summary	Summary of the ES in non-technical language.			

^{*}Climate change and greenhouse gases will be covered in a dedicated section in the introductory chapters of the ES.

8.2 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

8.3 This chapter will provide background to the EIA, describe the structure of the ES and identify the project team.

EIA Methodology

8.4 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.

8.5 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

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

Table 8: 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.	

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

Table 9: 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

8.8 Effect significance will be calculated using the matrix in Table 10. This illustrates the interaction between impact magnitude and receptor sensitivity.

Table 10: Effect Significance Matrix

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

Site and Development Description

- 8.9 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.
- 8.10 This chapter will also outline the climate change mitigation and adaptation measures to be incorporated into the proposed development.

Alternatives

8.11 This chapter would provide an outline of the reasonable alternatives studied by the Applicant and an indication of the reasons for the choice made, including a comparison of environmental effects. This would draw on the environmental constraints, opportunities and consultation responses that informed the evolution of the planning application. The comparison of environmental effects would be qualitative and commensurate with the level of detail available for discounted alternatives.

Construction Methodology and Phasing

8.12 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

- 8.13 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.
- 8.14 Each chapter sub-heading is explained in further detail below.

Table 11: Technical Chapter Format and Content

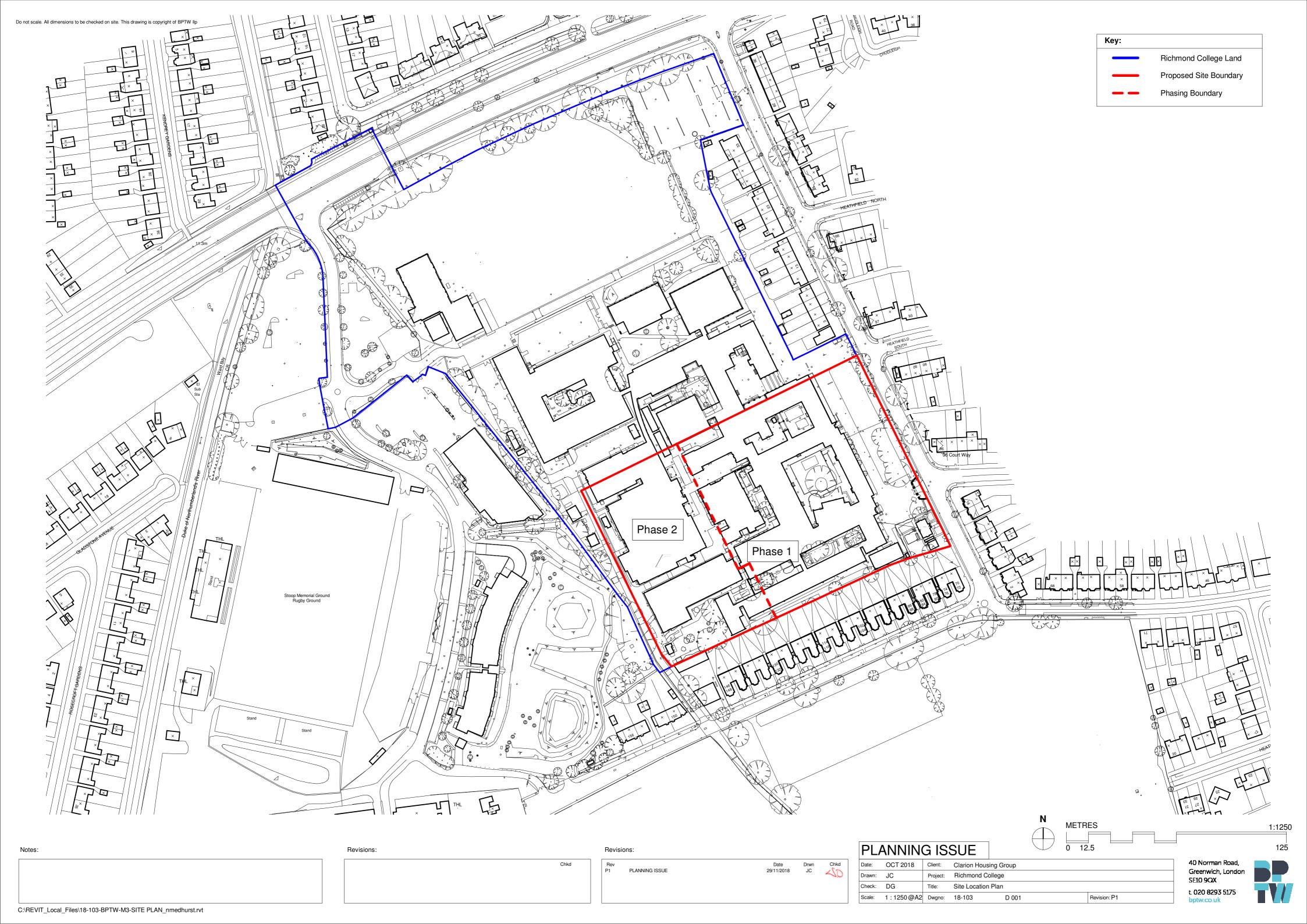
Sub-Heading	Content			
Introduction	This section will introduce the assessment discipline and the purpose for which			
	it is being undertaken. It will also confirm the author and their credentials as a competent expert in accordance with the EIA Regulations.			
Planning Policy Context	This section will 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	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	• This will include a description of the environment as it is currently (2021) and as it is expected to change given the project were not to proceed (i.e. 'donothing' 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	This section will identify the likely significant effects on the environment resulting from the construction and operational phases of development.			
Mitigation Measures	 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	• The residual effects, i.e. the effects of the proposed development assuming implementation of proposed mitigation, will be determined. The residual effects			

Sub-Heading	Content	
	represent the overall likely significant effect of the proposed development on the environment having taken account of practicable/available mitigation measures.	
Cumulative Effects	• The cumulative effects of the proposed development and the identified committed developments will be assessed.	
Summary	• A summary of the assessment and conclusions will be provided at the end of each technical chapter.	

Summary and Residual Effects

8.15 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. Interactive effects will also be assessed, qualitatively, in matrix format using the conclusions of the technical assessments.

APPENDIX 1 SITE LOCATION PLAN



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