



The Former Stag Brewery, Mortlake

Environmental Statement Addendum

May 2019

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Contents

1. Introduction

- 1.1. In February 2018, Reselton Properties Limited (the 'Applicant') submitted three separate planning applications (the '2018 Planning Applications') to the London Borough of Richmond Upon Thames (LBRuT) to facilitate the redevelopment of land predominantly on the former Stag Brewery, along with predominantly highway land to the west.
- 1.2. The 2018 Planning Applications were accompanied by one Environmental Statement (the '2018 ES') which considered all three separate planning applications together as one comprehensive redevelopment proposal (the '2018 Development'). The 2018 ES reports the key findings of the Environmental Impact Assessment (EIA) process in accordance with the Town and Country Planning (Environmental Impact Assessment) Regulations, 2011 (as amended 2015)¹ (the '2011 EIA Regulations').
- 1.3. The Applicant now intends to submit amendments (the 'May 2019 Amendments') to the 2018 Planning Applications. The 2018 ES has been reviewed in light of the May 2019 Amendments, and the findings of this review reported herein this ES Addendum. This document, prepared by Waterman Infrastructure & Environment (Waterman IE), should be read in conjunction with the 2018 ES and collectively constitute the ES. A replacement ES Non-technical Summary (NTS) has been provided that supersedes the one submitted with the 2018 ES.
- 1.4. In addition to a review of the May 2019 Amendments, since the submission of the planning application in 2018 further work has been undertaken in relation to noise and vibration, air quality and ecology, and this is also reported within this ES Addendum. Furthermore, since submission Boat Race House, located to the east of the former Stag Brewery, has received and implemented planning consent to convert B1 (offices) to C3 (dwelling houses) and extend by one storey to provide additional residential units. The presence of this new residential property has been considered within this ES Addendum where relevant.

¹ HMSO (2015) Town and Country Planning (Environmental Impact Assessment) Regulations 2011 (as amended 2015).

2. Summary of the May 2019 Amendments

Overview

- 2.1. The 2018 Planning Applications comprise three separate planning applications (Application A, Application B and Application C). **Figure 1** indicates the 2018 Planning Application boundaries and refers to two Development Areas (Development Area 1 and Development Area 2).
- 2.2. The 2018 Planning Applications are defined by planning application forms, detailed planning application drawings, Parameter Plans, relevant floor area schedules and accommodation schedules together with the Design and Access Statements (DAS) and Design Code. Some of these planning application materials have been substituted or an addendum prepared to reflect the May 2019 Amendments as follows, and are referenced as necessary within this ES Addendum:
 - Revised Landscape Design and Access Statement: Application A;
 - Revised DAS Volume 4 Secondary School Design 05 Landscape Proposals;
 - Revised Landscape Design and Access Statement: Application C;
 - Substitution landscape plans;
 - Revised Design and Access Statement Volume 3: Design Code;
 - Design Addendum;
 - Substitution detailed planning application drawings;
 - Substitution parameter plans;
 - Unit Size Study;
 - Compliance Schedules; and
 - Transport Assessment Addendum.
- 2.3. The following sections describe the amendments to the 2018 Applications that are relevant in terms of the EIA and ES.

Floor Areas and Accommodation Schedules

- 2.4. As a result of the May 2019 Amendments the proposed collective floorspace and unit numbers of Application A, Application B and Application C (the 'Development') has changed, that now proposed is set out in **Table 1**. Changes are represented by a ~~strike through~~ of the information presented within the 2018 ES and the amended (May 2019) information presented in **bold**, underlined, *italic* text.
- 2.5. Overall the residential unit provision has been reduced by 4 units and the overall non-residential use floor area by 6m² GEA as a result of the May 2019 Amendments.

Table 1: Proposed Floorspace Application A, Application B and Application C*

Land Use	Floorspace Area (m ²)	
	Gross External Area (GEA)	Gross Internal Area (GIA)
Residential	Up to 84,639 (Up to 667 units) Up to 84,639 (Up to 667 units) <u>Up to 84,621 (Up to 663 units)</u>	Up to 75,119 (Up to 667 units) Up to 75,119 (Up to 667 units) <u>Up to 75,079 (Up to 663 units)</u>
Office (including site management office)	2,674 <u>2,634</u>	2,457 <u>2,417</u>
Cinema	2,565	2,120
Gym	942 <u>932</u>	740
Flexible Uses - Restaurant / bar / retail / community / boathouse / financial & professional services / offices	5,308 <u>5,360</u>	4,664 <u>4,686</u>
Hotel	1,858 <u>1,863</u>	1,668
Assisted Living	Up to 16,246	Up to 14,738
Nursing and Care Home	Up to 10,293	Up to 9,472
School	11,430	9,319
Plant and storage.	Up to 4,536 (+ plant and storage included in school)	Up to 4,244 (+ 249 included in school)
Car parking spaces.	Up to 708 spaces	Up to 708 spaces
Cycle parking spaces.	Up to 1,611 spaces <u>Up to 1,924 spaces</u>	Up to 1,611 spaces <u>Up to 1,924 spaces</u>
Basement residential access / circulation	1,868	1,810
Private amenity space.	Up to 5,912 <u>Up to 6,000</u>	Not applicable
Public amenity space (including external and internal play space for residents and school play space).	Up to 38,943 <u>Up to 38,900</u>	Not applicable
Play space (including external and internal play space for residents and school play space).	Up to 14,353	Not applicable

*Changes are represented by a ~~strike through~~ of the information presented within the 2018 ES and the amended (May 2019) information presented in **bold**, underlined, *italic* text.

- 2.6. With regard to flexible uses outlined in **Table 1**, the 2018 ES stated that the maximum floorspace per land use within the overall flexible use space would not exceed 2,500m² GIA for retail. The May 2019 Amendments change this maximum floorspace for retail within the overall flexible use space to not exceeding 2,000m² GIA. Furthermore, the permitted office floorspace within the overall flexible use space has changed from a maximum of 2,000m² GIA to a minimum of 2,000m² GIA and the community (Class D1 use) may now potentially have a minimum cap of 468m² GIA conditioned / obligated, subject to demand (previously there was no minimum).

Building Layout and Levels

- 2.7. The May 2019 Amendments comprise the following internal reconfiguration to building layouts and levels:
- Building 2:
 - Removal of 4 residential units.
 - Unit 2.G.6 inclusion of an additional a habitable room resulting in internal reconfiguration of units either side.
 - Units 2.TY.5, 2.TY.6, 2.TY.7, 2.TY.8, 2.TY.13, 2.TY.14 and 2.TY.15 reconfigured to improve amenity (balcony) provision.
 - Units 2.6.5, 2.6.6 and 2.6.10 reconfigured to improve amenity space.
 - Building 3:
 - Units 3.TY.4 and 3.TY.5 reconfigured to introduce an extra habitable room.
 - Units 3.TY.1 and 3.TY.2 removal of projecting bays from north elevation.
 - Bottling Building (Building 6):
 - Entrance lobby reconfigured to increase flexible use frontage facing Bottleworks Square.
 - Building 8:
 - Unit 8.TY.10 inclusion of an additional a habitable room.
 - Unit 8.TY.5 reconfigured to serve as a M4(3) wheelchair accessible unit resulting in reconfiguration of Unit 8.TY.6.
 - Building 9:
 - Increase of the ground floor level of the club room to 6.7m Above Ordnance Datum (AOD).
 - Increase of the ground floor level of the flexible use area to 4.9m AOD.
 - Increase of the ground floor level of the office to 6.7m AOD.
 - Inclusion of steps between the club room and flexible use area.
 - Reconfiguration of entrances, residential entrance lobby, accessible WC, changing rooms, office, training club room and flexible use area as a result of level changes.
 - Access from the club room to a new raised terrace on the northern elevation fronting the River Thames.

Flood Defence and Landscaping

- 2.8. Responding to the Environment Agency (EA) requirement to include permanent passive flood defence design at Ship Lane the May 2019 Amendments include the following:
- Extending the northern façade of Building 9 by including a raised ground floor terrace incorporated into the flood wall, replacing ground level landscaping in this location.
 - Raising Building 9 internal ground floor levels (as previously reported).
- 2.9. Further details related to the flood defence design are set out within the Surface Water Drainage and Flood Risk part of Section 4 of this ES Addendum.
- 2.10. The May 2019 Amendments also include the following landscaping changes:
- Replacement climber planting is proposed at Chalkers Corner within Application C.
 - With the increase of 313 cycle parking spaces as part of the May 2019 Amendments as shown in **Table 2.1**, landscaping has been amended to accommodate these with additional cycle racks provided.
 - A minor increase of private amenity space of 88m².
 - A minor decrease of public amenity space of 57m².

Materials, Façade Treatment and Finishes

- 2.11. The May 2019 Amendments comprise the following alterations related to building materials, façade treatments, including architectural detailing and finishes:
- Turret elements of Buildings 2, 7 and 8 amended to provide a hierarchy of window openings and more refined top to the buildings.
 - Omission of the projecting bay window to the north façade of Building 3.
 - Amendment to the gable elements of Buildings 2, 3, 7, 8, 11 and 12 to provide a varied parapet line.
 - Changes to the to the façade of the Bottling building (Building 6), including the re-instatement of chimneys and windows. Replacement roof material to be made of slate.
 - Placement of double-height windows on the Maltings building (Building 4). The decorative balustrades to Juliette balconies of the Maltings building have been omitted and the existing columns re-located within the ground floor entrance area to the community use space.
 - Introduction of additional doors to access community use space and incorporation of historic columns on Maltings building (Building 4).
 - Inclusion and re-location of existing historic columns in Bottling building (Building 6).
 - Bottling building (Building 6) to have a timber infill instead of brick infill to the former hoist door.
 - Selected intermediate piers at ground floor at Bottling building (Building 6) omitted to increase the amount of glazing.
 - The Hotel (Building 5) windows that face Building 6 would be obscured.

2.12. The 2018 ES stated that existing memorial plaques and brewery gates associated with the Former Stag Brewery would be re-located within the Development. As part of the May 2019 Amendments the following additional details are provided:

- Two memorial plaques are to be positioned on the east wall of the Maltings building facing Maltings Plaza.
- The Stag sign is proposed to be positioned on the Bottling building.
- The Watney brewery gates to be positioned to the opposite end of Thames Street.
- The two Stag Brewery gates to Mortlake High Street (adjacent to the pedestrian crossing and entry to the Development between Buildings 5 and 10) and the northern end of the Green Link.

3. Assessment Methodology

- 3.1. A review was undertaken by Waterman IE and all technical specialists who contributed to the 2018 ES to determine whether the proposed May 2019 Amendments would result in any changes to the likely significant residual environmental effects reported in the 2018 ES, and whether any additional mitigation measures would be required. Furthermore, all technical specialists also considered changes to baseline conditions, policy and guidance, where relevant. The topics considered are:
- Socio-economics;
 - Transport and Access;
 - Noise and Vibration;
 - Air Quality;
 - Ground Conditions and Contamination;
 - Surface Water Drainage and Flood Risk;
 - Ecology;
 - Archaeology;
 - Built Heritage;
 - Townscape and Visual Assessment;
 - Wind Microclimate;
 - Daylight, Sunlight, Overshadowing and Light Pollution; and
 - Cumulative Effects.
- 3.2. The results of the review of the May 2019 Amendments and supplementary testing (where necessary) are described under the individual 2018 ES Chapter headings and have broadly been sub-divided into the following headings:
- **Introduction:** This describes the key design changes that have the potential to materially alter the environmental effect(s) as stated within the 2018 ES. Updates where relevant of any baseline data and changes in policy/guidance/assessment methods;
 - **Assessment:** This includes any updated baseline information, describes any changes to the predicted environmental effects and the proposed mitigation measures as reported in the 2018 ES. Where the May 2019 Amendments are not considered to materially affect the results and conclusions of the 2018 ES, justification is provided; and
 - **Conclusion:** This section confirms whether the May 2019 Amendments to the Development design have resulted in a material change to the impact assessment and conclusions of the 2018 ES.
- 3.3. Chapter 6: Development Programme, Demolition, Alteration, Refurbishment and Construction of the 2018 ES describes the anticipated programme of works and the key activities that would be undertaken to facilitate the Development (hereafter referred to as the 'Works'). As the programme of works and the key activities do not change as a result of the May 2019 Amendments this is not considered further within this ES Addendum, with the exception of Built Heritage. Built Heritage considers the alteration and refurbishment of existing built heritage assets as part of the Works as the alteration and refurbishment directly affects the built fabric of these assets. For all other

technical assessments, the conclusions of the 2018 ES in relation to demolition, alteration, refurbishment and construction remain unchanged.

- 3.4. It is acknowledged that new EIA Regulations came into force on 16 May 2017 (Town and Country Planning (Environmental Impact Assessment) Regulations 2017)² (the '2017 Regulations'). However, as a request for an EIA Scoping Opinion was made to the LBRuT on 30 March 2017 (refer to Appendix 2.1 of the 2018 ES), in accordance with the transitional arrangements set out in the 2017 Regulations which came into force on 16 May 2017, the EIA for the 2018 Development was undertaken in line with the 2011 EIA Regulations. As such, the 2011 EIA Regulations remain applicable for this ES Addendum.

² HMSO (2017); Town and Country Planning (Environmental Impact Assessment) Regulations 2017.

4. Assessment Review

Socio-Economics

Introduction

- 4.1. This assessment review has been prepared by Hatch Regeneris who undertook the socio-economic assessment of the 2018 ES.
- 4.2. The methodology used within this assessment review is the same as Chapter 7: Socio-Economics of the 2018 ES. The housing Scenarios 1a, 1b, 2a and 2b have been updated to reflect the May 2019 Amendments.
- 4.3. The key changes of the May 2019 Amendments that are of relevance to the socio-economic assessment are as follows:
 - A reduction in the overall total number of proposed residential units from 667 to 663. This excludes the Assisted Living units.
 - A change in the indicative mix of units as set in **Table 2**.
 - Minor changes to the design of the commercial floorspace as set out in **Table 3**.

Table 2: Changes to Proposed Mix of Units

Scheme	Flats				Houses		Total
	1 bed	2 bed	3 bed	4 bed	3 bed	4 bed	
2018 Planning Applications	97	319	212	15	12	12	667
May 2019 Amends	82	331	204	22	12	12	663

Table 3: Minor Changes to Commercial Space

Land Use	Change (SQM GIA)
Flexible use	+22
Hotel	+5
Management	-33
Gym	+20

- 4.4. In addition to the minor design amendments listed above, the changes to the flexible use minimums and maximums as outlined in **Section 2** have resulted in minor alterations to the worst-case scenario assessed as part of the 2018 ES (refer to **Table 4**).

Table 4: Flexible Floorspace Assumptions

Use	Maximum GIA/NIA	Worst case scenario (GIA/NIA)
Retail	2,000	1,000
Financial and Professional Services	200	0
Restaurant	2,200	0
Bar	1,600	0
Office (Minimum)	2,000	2,187
Community	1,148	1,148
Boathouse	351	351
Overall Maximum Flexible	4,686	4,686
High Street Zone (within overall max flexible):		2,000
No < than 50% within high street zone to be flexible retail		1,000

Assessment

Completed Development

Population and Labour Market

- 4.5. The reduction in 4 units from a total of 667 to 663, together with the changes to the indicative proposed mix of units (as set out in **Table 2**) results in an estimated population of between 1,750 (Under Scenario 1) and 1,850 (Under Scenario 2). The estimated population range is the same as that stated in the 2018 ES. No mitigation measures are considered necessary and therefore the likely residual effects of the Development on the population and labour market remain as stated in the 2018 ES, i.e. **direct, long-term, beneficial and of minor significance at the local and district level.**

Housing Supply

- 4.6. The provision of 663 new residential units represents an increase of around 1% to the Local Impact Area's (LIA) housing stock and less than 1% of LBRuT's housing stock. Contributions towards the draft London Plan (2017)³ housing target for LBRuT (811 per annum) equate to around 10% under Scenario 1 and around 12.5% under Scenario 2.
- 4.7. These effects are in line with those stated in the 2018 ES. No mitigation measures are considered necessary and therefore the likely residual effects remain as stated in the 2018 ES under Scenario 1 and Scenario 2:
- **long-term, local, beneficial and of moderate significance;** and
 - **long-term, district, beneficial and of minor significance.**

Employment and Local Spend

- 4.8. The changes in commercial floorspace set out in **Table 3** and **Table 4**, together with the changes in household expenditure as a result of the revised indicative mix of units set out in **Table 2**, culminate in a minor downward revision of circa 5 Full Time Equivalent (FTE) jobs to the overall FTE jobs supported by the Development under each Scenario.

³ Greater London Authority (GLA) (2017). Draft New London Plan.

However, there is no material change to the impact assessment as stated in the 2018 ES. No mitigation measures are considered necessary and the likely residual effects of the Development remain as stated in the 2018 ES across all scenarios:

- **long-term, local, beneficial** and of **moderate significance**; and
- **long-term, district, beneficial** and of **minor significance**.

Capacity of Education Facilities

- 4.9. **Table 5** provides a summary of the child yield under each Scenario taking account of the revised number and mix of units as set out in **Table 2**. There is minimal variance from the child yield derived under each scenario within the 2018 ES and as such there is no material change to the impact assessment.

Table 5: Child Yield of the Development including May 2019 Amendments (Variance from 2018 ES Chapter in brackets)

Scenario	Under 5	5-11	12+
Scenario 1a	174 (+25)	147 (+13)	93 (+6)
Scenario 1b	69 (-1)	36 (0)	15 (0)
Scenario 2a	181 (-2)	159 (+2)	102 (+2)
Scenario 2b	98 (+14)	51 (+1)	22 (0)

Early Years Education Capacity

- 4.10. On the basis of the child yield estimates set out above, there is no material change to the assessment of the significance of effects for education capacity. As stated in the submitted 2018 ES, owing to the existing pressures on Early Years capacity within the LIA and District, mitigation in the form of financial contribution via a Section 106 agreement of Community Infrastructure level may be a matter for negotiation to off-set the potential pressures faced by existing providers in accommodating the additional demand arising from the Development. With mitigation, the residual effect from the Development on Early Years providers remains as stated in the 2018 ES, i.e. **insignificant** at both the **local** and **district** level.

Primary Education Capacity

- 4.11. On the basis of the child yield estimates set out previously, there is no material change to the assessment of the significance of effects for education capacity. As stated in the 2018 ES, owing to the existing pressures on primary school capacity within 2 miles of the Development and the within the District, mitigation in the form of financial contribution via a Section 106 agreement of Community Infrastructure level may be a matter for negotiation to off-set the potential pressures faced by existing providers in accommodating the additional demand arising from the Development. With mitigation, the residual effect from the Development on Early Years providers remains as stated in the 2018 ES i.e. **insignificant** at both the **local** and **district** level

Secondary Education Capacity

- 4.12. On the basis of the child yield estimates set out previously, there is no material change to the assessment of the significance of effects for education capacity.

As stated in the 2018 ES, the Development includes provision of a six form entry Secondary School with sixth form with capacity for up to 1,200 pupils. It is therefore considered the additional demand arising from the Development could be absorbed by the existing surpluses together with the new provision within the Development and the likely residual effect remains as **insignificant** as reported in the 2018 ES.

Primary Healthcare Capacity

- 4.13. The estimated population range resulting from the Development is the same as that stated in the 2018 ES. The likely effect of the Development on GP facilities under Scenarios 1 and 2 therefore also remains the same as that stated in the 2018 ES.
- 4.14. As stated in the 2018 ES, owing to existing pressures on the capacity of primary healthcare facilities within the LIA and District, mitigation in the form of Community Infrastructure Levy funds from the Development or via s106 planning obligations is likely to be required to off-set the potential pressures faced by existing providers. With mitigation, the likely residual effect from the Development on primary healthcare providers would be the same as stated in the 2018 ES, i.e. **insignificant** at both the **local** and **District** level.

Demand for Open and Play Space

- 4.15. The requirement for children's play space has been calculated using the GLA's SPG Play Space Calculator⁴ and taking account of the updated child yield in **Table 5**. On this basis, **Table 6** sets out the expected requirement for play space. This suggests a resulting play space requirement of between 1,200m² (scenario 1b) and 4,430m² (scenario 2a).

Table 6: Play Space Requirements (m²)

Scenario	Total
Scenario 1a	4,135
Scenario 1b	1,200
Scenario 2a	4,430
Scenario 2b	1,699

- 4.16. The revised Development includes provision of up to 4,084m² GEA of children's play space with a further 10,305m² GEA of play space provided as part of the 6FE Secondary School bringing total on-Site provision of up to 14,353m². This is more than sufficient to accommodate additional demand arising from the Development.
- 4.17. In terms of open space, the baseline analysis in the 2018 ES indicated the local area already has above average levels of provision per head of population when compared to the LBRuT average. The Development would result in the loss of 2.06 ha of private open space (Watney's Sports Ground playing fields) but would provide a total of 3.06 ha new green space and a total of 3.89 ha of total publicly accessible amenity space. When considering the additional population arising from the Development (up to 1,850) this level of provision (3.89 ha) amounts to around 2.0 ha per 1,000 population.
- 4.18. Taking into account the revised estimates of demand and provision, the significance of effects remains as stated in the 2018 ES. No mitigation measures are considered necessary and the likely residual effects of the Development on open space and play space capacity are considered to remain **direct, long-term, beneficial at local to district level and of minor significance**.

⁴ Greater London Authority – SPG Child Yield and Play Space Calculator; <https://www.london.gov.uk/what-we-do/planning/implementing-london-plan/supplementary-planning-guidance/play-and-informal>

Demand for Community Facilities

- 4.19. The May 2019 Amendments do not result in any changes to the assessment of demand for community facilities. The likely residual effects therefore remain the same as stated in the 2018 ES across all scenarios:
- **direct, long-term, beneficial, local** and of **minor significance**; and
 - **insignificant** at the **district** level.

Community Safety and Wellbeing

- 4.20. The May 2019 Amendments do not result in any changes to the assessment of community safety and wellbeing. The likely residual effects of the Development on community safety and wellbeing therefore remain the same as stated in the 2018 ES across all scenarios:
- **direct, long-term, beneficial, local** and of **minor significance**; and
 - **insignificant** at the **district** level.

Conclusion

- 4.21. A review of the May 2019 Amendments and an assessment of the socio-economic impacts of the Development (with the May 2019 Amendments) has been undertaken. In conclusion, there are no new likely significant effects compared to those identified in the 2018 ES. Similarly, there is no change to the nature and significance of the environmental effects reported. Therefore, the May 2019 Amendments would not alter the conclusions of the socio-economic assessment as reported in the 2018 ES. As such, no additional mitigation measures are required and those identified in the 2018 ES remain valid.

Transport and Access

Introduction

- 4.22. This assessment review has been prepared by Peter Brett Associates who undertook the transport and access assessment of the 2018 ES.
- 4.23. The May 2019 Amendments pertinent to the assessment of transport and access relate to the reduction of 4 residential units, very minor changes to floor areas for non-residential uses, changes to the minimum and maximum land use mix for the flexible land uses, and changes to the number of cycle parking spaces (the latter resulting from an emerging change in policy, which is not yet adopted). Notwithstanding this, the Applicant has sought to amend the Development in line with draft standards. There are no changes to the proposed car parking arrangements as part of the May 2019 Amendments.
- 4.24. Since the 2018 ES was submitted there have been a number of changes to transport policy. There have also been discussions held with Transport for London and with Network Rail regarding the potential impacts of the Development and proposed mitigation. The emerging changes to policy and the discussions with Transport for London (TfL) and Network Rail have been reported in full within a Transport Assessment (TA) Addendum to the February 2018 Transport Assessment (Appendix 8.1 of the 2018 ES) (refer to **Appendix A** of this ES Addendum).
- 4.25. As set out in the TA Addendum (**Appendix A**), the main emerging policy change is to the required cycle parking, as set out in the draft London Plan⁵ (not yet adopted).

⁵ Greater London Authority (GLA) (2017). Draft New London Plan.

Although this is still in draft, it has been agreed with TfL that the increased cycle parking requirements will be adhered to for the Development. As set out in the TA Addendum, this results in the May 2019 Amendments increasing the number of cycle parking spaces from 1,611 to 1,924.

- 4.26. The discussions with TfL have not resulted in any other changes to the Development or to the proposed mitigation.
- 4.27. As a result of discussions with Network Rail a package of potential improvements has been agreed in principle at the Mortlake level crossing to enhance the experience of pedestrians and cycles waiting to cross the level crossing. These are described in detail within the TA Addendum, however, they do not form part of the May 2019 Amendments to the planning applications and therefore are not considered further within this ES Addendum.

Assessment

- 4.28. The Chapter 9: Transport and Access of the 2018 ES assessed the following elements:
- Severance;
 - Driver Delay;
 - Pedestrian Delay;
 - Pedestrian and Cycle Amenity;
 - Fear and Intimidation; and
 - Accidents and Road Safety.
- 4.29. The May 2019 Amendments include the reduction of 4 residential units, very minor changes to the floor areas of non-residential land uses and changes to the minimum and maximum land use mix for the flexible land uses. These changes would result in a very small reduction in the overall predicted trip generation for the Development and no material change in the mode share. These changes are within the limits of accuracy of the trip generation predictions and would not materially affect the assessed impacts of the Development on the transport networks.

Conclusion

- 4.30. A review of the May 2019 Amendments in relation to transport and access has been undertaken. In conclusion, there are no new likely significant effects compared to those identified in the 2018 ES. Similarly, there is no change to the nature and significance of the environmental effects reported. Therefore, the May 2019 Amendments would not alter the conclusions of the transport and access assessment as reported in the 2018 ES. As such, no additional mitigation measures are required and those identified in the 2018 ES remain valid.

Noise and Vibration

- 4.31. This assessment review has been prepared by Waterman IE who undertook the noise and vibration assessment reported in the 2018 ES.

- 4.32. As indicated in the Transport and Access section above, the May 2019 Amendments would have no material traffic impact and therefore the traffic data used in the noise and vibration assessment remain unchanged. Furthermore, there is no change to the location of land uses proposed by the Development, including residential uses or areas used for servicing. Given this, the May 2019 Amendments would not change the effects of the Development in relation to noise and vibration as reported in the 2018 ES.
- 4.33. Whilst the May 2019 Amendments do not change the predicted effects presented in Chapter 9: Noise and Vibration, further assessment modelling was undertaken to support the 2018 ES assessment as requested by the Environmental Health Officer (EHO) at LBRuT. This is presented within **Appendix B**. This further assessment modelling does not alter the conclusions of the noise and vibration assessment as reported in the 2018 ES. As such, no additional mitigation measures are required and those identified in the 2018 ES remain valid.
- 4.34. In conclusion, there are no new likely significant noise and vibration effects as a result of the May 2019 Amendments compared to those identified in the 2018 ES. Similarly, there is no change to the nature and significance of the environmental effects reported. Therefore, the May 2019 Amendments would not alter the conclusions of noise and vibration assessment as reported in the 2018 ES. As such, no additional mitigation measures are required and those identified in the 2018 ES remain valid.

Air Quality

Introduction

- 4.35. This assessment review has been prepared by Waterman IE who undertook the original air quality assessment reported in the 2018 ES.
- 4.36. As outlined in the Transport and Access section above, the May 2019 Amendments would have no material traffic impact and therefore the traffic data used in the air quality assessment remained unchanged. In addition, there is no change proposed to the location of and/or the type of plant to be included in the Energy Centre. Given this, there are no changes to the predicted emissions generated by the Development.
- 4.37. Furthermore, the location of the on-site air quality sensitive uses (including the location of the school and residential units) remains unchanged. Internal changes to the room layouts of the residential units included within Buildings 2, 3 and 8 do not impact the air quality assessment, which has focused on the façade of each building.
- 4.38. Given the above, the May 2019 Amendments would not change the effects of the Development in relation to air quality as reported in the 2018 ES.
- 4.39. Whilst the May 2019 Amendments do not change the predicted effects presented in Chapter 10: Air Quality of the 2018 ES; between July 2018 and January 2019 Waterman IE has undertaken project specific air quality monitoring at Chalkers Corner and on Lower Richmond Road (**Appendix C**). The purpose of the air quality monitoring was to supplement LBRuT's own monitoring and to determine existing baseline conditions at Chalkers Corner and at the proposed school site, as well as to further check the performance of the air quality model (referred to as model verification).

This ES Addendum presents the project specific air quality monitoring results, as well as the updated model verification (**Appendix D**).

- 4.40. In addition, as considered in Chapter 10: Air Quality of the 2018 ES, changes to Chalkers Corner are proposed as part of the Development, which include the introduction of a 2 metre high wall and two landscaping areas of new planting (including min 6 metres high semi-mature trees) outside Chertsey Court. Since the time of undertaking the air quality assessment new guidance and research has been published on green infrastructure. This guidance is considered under the 'Assessment' section below.
- 4.41. Included in **Appendix E** of this ES Addendum, the Air Quality Neutral Assessment has been updated to account for the changes in the area schedule of the Development as outlined in Section 2 above.

Assessment

Project Specific Air Quality Monitoring

- 4.42. A short-term air quality monitoring study for nitrogen dioxide (NO₂) was undertaken within boundary of Application C around Chalkers Corner and on Lower Richmond Road, for a 6-month period, from July 2018 to January 2019. The technical details of the monitoring are provided in **Appendix C** and the location of the monitors are shown on **Figure 4.1**.
- 4.43. The results from this monitoring are presented in **Table 7**.

Table 7: Project Specific NO₂ Monitoring Results (µg/m³)

ID	Site Description	Monitor Classification ^(a)	Relevant AQS Objective ^(b)	Annual Average 2018 Result
DT1	Lower Richmond Road	Kerbside	60µg/m ³	43.0
DT2	Chertsey Court metal railings	Roadside	60µg/m ³	36.9
DT3	Chertsey Court Lower Richmond Road	Façade	40µg/m ³	34.2
DT4	Chalkers Corner Junction	Kerbside	60µg/m ³	42.7
DT5	Chertsey Court	Carpark	60µg/m ³	40.4
DT6	Clifford Avenue	Kerbside	60µg/m ³	49.1
DT7	Clifford Avenue metal railings	Roadside	60µg/m ³	42.1
DT8	Chertsey Court Clifford Avenue	Façade	40µg/m ³	32.8
School 1	Stag Brewery Sports Club (future school façade)	Roadside	40µg/m ³	30.2
School 2	Stag Brewery Sports Club (future school façade)	Roadside	40µg/m ³	30.1

Note: ^(a)Kerbside = monitor 1m from kerb of a road;
 Roadside = monitoring within 1-5m from kerb of a road;
 Façade = monitor on residential property and at a location of relevant residential and school exposure;
 Carpark = monitor located within an open-air car park
^(b)As set out in Box 1.1 of LAQM.TG(16)

Results for Kerbside and Roadside Monitoring

- 4.44. As shown in **Table 7**, the highest concentrations measured at all of the diffusion tubes in the study are located on the kerbside (monitored concentrations of $43.0\mu\text{g}/\text{m}^3$, $42.7\mu\text{g}/\text{m}^3$ and $49.1\mu\text{g}/\text{m}^3$). The NO_2 results at these locations relate to these monitors being located directly above vehicle tailpipe emissions at Chalkers Corner.
- 4.45. As presented in Table 10.11 of Chapter 10: Air Quality of the 2018 ES, these kerbside results in **Table 7** are similar to LBRuT kerbside monitoring results at Chalkers Corner (ranging between $32\mu\text{g}/\text{m}^3$ to $57\mu\text{g}/\text{m}^3$, with an average concentration across all sites of $48.6\mu\text{g}/\text{m}^3$). Consequently, both the LBRuT and the project specific monitoring show all kerbside locations are below the hourly equivalent annual mean NO_2 concentration of $60\mu\text{g}/\text{m}^3$ and therefore the AQS objective is met at these monitoring locations.
- 4.46. Similar to the kerbside locations, as shown in **Table 7**, monitored concentrations at the diffusion tubes located on the roadside at Chalkers Corner (as $36.9\mu\text{g}/\text{m}^3$ and $42.1\mu\text{g}/\text{m}^3$) and in the carpark of Chertsey Court (as $40.4\mu\text{g}/\text{m}^3$) are below the hourly equivalent annual mean NO_2 concentration of $60\mu\text{g}/\text{m}^3$ and as such the AQS objective is also met at these monitoring locations. These roadside results are similar to LBRuT's roadside monitoring result on Lower Richmond Road (as $39\mu\text{g}/\text{m}^3$) undertaken in 2016 and presented in Table 10.11 of Chapter 10: Air Quality of the 2018 ES.
- 4.47. Overall, the project specific monitoring is comparable with LBRuT's roadside and kerbside monitoring.

Results for Monitored Conditions at Chertsey Court

- 4.48. The results in Table 6 show monitored concentrations at the façade of Chertsey Court are below the relevant annual mean NO_2 AQS objective of $40\mu\text{g}/\text{m}^3$, as $34.2\mu\text{g}/\text{m}^3$ and $32.8\mu\text{g}/\text{m}^3$, and as such existing conditions at Chertsey Court are considered to be good as the AQS objective is met.
- 4.49. The monitoring results in **Table 7** and **Figure 2** show there is an average decrease in NO_2 concentrations from the kerbside and roadside monitors (DT1, DT2, DT6, DT7) to the Chertsey Court façade (DT3, DT8) of $9.3\mu\text{g}/\text{m}^3$. This is considered to relate to the existing wall/railings and vegetation located at the boundary of Chertsey Court which will restrict dispersion and act as a buffer to vehicle emissions.
- 4.50. This data differs to the baseline detailed dispersion modelling results presented in Appendix 10.4 of Chapter 10: Air Quality of the 2018 ES which shows 49 out of 150 modelled receptors at the façade of Chertsey Court are above the annual mean NO_2 AQS objective. However, the dispersion model assumes a flat terrain and cannot take account of different landforms such as the existing wall and vegetation acting as a buffer. In addition, the traffic data used in the air quality assessment assumes, at all times of the day, the traffic queue lengths at Chalkers Corner are those when the junction is congested and not operating effectively. In reality the queue lengths are only applicable to peak times, and not every hour of every day throughout the year.
- 4.51. Given the above, the modelled results used in the air quality assessment to determine impacts at Chertsey Court are considered to be worst-case and conservative. The monitoring results show existing conditions at Chertsey Court meet the AQS objective.

- 4.52. As part of the Development, the existing green screen is to be removed and a revised landscaping strategy proposed at Chertsey Court to include a 2m high brick wall and two landscaping areas of new mature planting, including min 6-metre high semi-mature trees. Comparing the existing green screen (which includes a low brick wall and iron railing; and intermittent planting) against the proposed landscape strategy; given the proposed 2m high brick wall is non-permeable and is denser than the existing porous green screen, the revised landscape strategy is likely to provide greater improvement to air quality at Chertsey Court as the ability of air and traffic emissions to travel to Chertsey Court will be reduced. As discussed below, the use and benefits of the green screen are promoted in relevant guidance. The improved green screen is likely to ensure future conditions at Chertsey Court are to remain below the AQS objective.
- 4.53. For the purposes of the air quality assessment, the worst-case / conservative results from the dispersion model are presented at receptor locations for Chertsey Court because the dispersion model is not able to take account of adjacent landforms i.e. the green screen. Therefore, the results presented in the AQA are worst case.

Results for Monitored Conditions at the Proposed School Site

- 4.54. As shown in **Table 7**, existing NO₂ concentrations at the location of the proposed school are below the annual mean NO₂ AQS objective of 40µg/m³, as 30.1µg/m³ and 30.2µg/m³, and as such existing conditions at the school site are considered to be good.
- 4.55. The monitoring results at the proposed school are similar to the modelled result for sensitivity NO_x and NO₂ sensitivity analysis of the location of the school (as 28.2µg/m³) presented in Table 10.15 of Chapter 10: Air Quality of the 2018 ES. On comparing the results of the modelling against the project specific monitoring, it is considered the modelled results are applicable and valid and future users of the school are unlikely to be exposed to poor air quality.

Model Verification

- 4.56. Model verification is the process of comparing monitored and modelled pollutant concentrations and, if necessary, adjusting the modelled results to reflect actual measured concentrations, to improve the accuracy of the modelling results.
- 4.57. The dispersion model used for the 2018 ES was re-run to predict annual mean NO_x concentrations at the project specific kerbside and roadside diffusion tube monitoring locations (as presented in **Table 7**) to determine the accuracy of the 2018 ES model with the new monitoring data. The results of this are presented in **Appendix C**. The methodology used for the model verification is the same as that presented in Appendix 10.2 of Chapter 10: Air Quality of the 2018 ES.
- 4.58. As identified in **Appendix D**, on re-running, the model is performing well, and no adjustment factor needs to be applied to the modelled results. This is the same process as detailed in Appendix 10.2 of Chapter 10: Air Quality of the 2018 ES, whereby no adjustment factor was applied as the model was considered to be performing well. Consequently, the results of the detailed dispersion modelling of the air quality assessment as presented in Chapter 10: Air Quality of the 2018 ES remain applicable and valid.

Green Infrastructure

- 4.59. As considered in Chapter 10: Air Quality of the 2018 ES, changes to Chalkers Corner are proposed, which includes the introduction of a 2 metre high wall and two landscaping areas of new planting (including min 6 metre high semi-mature trees) outside Chertsey Court.
- 4.60. Since the time of the air quality assessment in the 2018 ES the guidance documents presented in **Table 8** have been published on the use of green infrastructure to protect human health from traffic emissions. The guidance along with relevant details which support the landscape proposals included as part of the Development at Chertsey Court are presented in **Table 8**.

Table 8: Green Infrastructure Guidance Documentation

Guidance	Supporting Evidence
Ministry of Housing, Communities and Local Government, 2019, National Planning Policy Framework	<ul style="list-style-type: none"> • ‘Opportunities to improve air quality or mitigate impacts should be identified, such as through traffic and travel management, and green infrastructure provision and enhancement. So far as possible these opportunities should be considered at the plan-making stage, to ensure a strategic approach and limit the need for issues to be reconsidered when determining individual applications.’
Mayor of London, 2019, Using Green Infrastructure to Protect People from Air Pollution	<ul style="list-style-type: none"> • ‘Where priority is to protect people immediately at the roadside - a hedge or green wall between vehicles and people can as much as halve exposure in their immediate wake’; • ‘Where priority is to protect people further away (e.g. children in a school playground bordering the street) - a combination of hedge and dense line of trees can provide a taller vegetation barrier, offering protection over a greater distance downwind’ • ‘Vegetation barriers, hedges and green walls should: extend from ground level to a height of at least 2m; and be as thick and dense as possible to ensure effective blocking of air flow from vehicles to people. Green walls must also be suitably maintained to remain effective at blocking the flow of air’.
Air Quality Expert Group (AQEG), 2018, Impacts of Vegetation on Urban Air Pollution	<ul style="list-style-type: none"> • ‘main value of green infrastructure for urban air quality does not lie in its ability to remove pollutants, but in its ability to control their distribution’; • ‘urban vegetation can greatly reduce the amount of emissions people are exposed to. It does this by changing the distance they must travel from the source to reach people, and the extent to which they are diluted with cleaner air along the way’ • ‘a vegetation barrier can as much as halve the levels of pollutants just behind the barrier. The benefit largely comes from forcing the main flow of air over and around the barrier.’
Kings College, 2018, The Impact of a Green Screen on Concentration of Nitrogen Dioxide at Bowes Primary School, Enfield	<ul style="list-style-type: none"> • 23% improvement in NO₂ identified when a green wall was placed between a busy road and a school playground
University of Birmingham and Lancaster University, 2018, First Steps in Urban Air Quality for Built Environment Practitioners	<ul style="list-style-type: none"> • ‘As part of the urban infrastructure, Green Infrastructure influences pollution dispersal and deposition. If strategically designed, Green Infrastructure can mitigate poor air quality on a local-scale.’

- 4.61. Whilst the monitoring in **Table 7** shows existing conditions at Chertsey Court are below the NO₂ AQS objective, the guidance documents presented in **Table 8** provide evidence that the introduction of a 2 metre high wall and two landscaping areas of new mature planting (including 6 metres high mature trees) outside Chertsey Court as part of the Development will protect users of Chertsey Court against changes in vehicle emissions.
- 4.62. Further to this, the May 2019 Amendments include the introduction of climber planting on the street frontage at Chalkers Corner. The use of a climber is considered to further benefit air quality through the greater surface coverage, which is likely to entrap pollutants and acts as an additional barrier against traffic emissions.
- 4.63. Consequently, the benefit of the green infrastructure on local air quality, as presented in Chapter 10: Air Quality of the 2018 ES, remains applicable and valid.

Conclusion

- 4.64. Given the May 2019 Amendments make no changes to the traffic data; Energy Centre details; or modelled receptor locations, the air quality effects and the conclusions as reported in the Chapter 10: Air Quality of the 2018 ES remain applicable and valid.
- 4.65. Project specific air quality monitoring has been undertaken at Chalkers Corner and on Lower Richmond Road. The results show:
- The project specific monitoring at kerbside and roadside monitoring sites are comparable to LBRuT's own monitoring data as presented in Chapter 10: Air Quality of the 2018 ES;
 - Existing air quality conditions at Chertsey Court are below the relevant AQS objective and as such air quality is good at Chertsey Court;
 - Existing air quality conditions at the school site are below the relevant AQS objective and as such future users of the school are unlikely to be exposed to poor air quality, despite the proposed Development.
- 4.66. Using the project specific monitoring, the model is considered to be performing well against monitoring results. No adjustment factor has been applied. This is the same approach as presented in Chapter 10: Air Quality of the 2018 ES, and therefore the ES remain applicable and valid.
- 4.67. Further guidance documents have been published on the effectiveness of green infrastructure in improving air quality. The latest guidance provides evidence that the landscape proposals included in the Development (a 2 metre high wall and two landscaping areas of new mature planting, including 6 metre high mature trees) outside Chertsey Court, and the proposed Amendments (to include a climber planting on the street frontage at Chalkers Corner) will improve air quality conditions at Chertsey Court. As such the benefit of the green infrastructure on local air quality, as presented in Chapter 10: Air Quality of the ES 2018, remains applicable and valid.
- 4.68. On the basis of the reassessment presented above, there are no new likely significant air quality effects compared to those identified in the 2018 ES. Similarly, there is no change to the nature and significance of the environmental effects reported in that document. Therefore, the May 2019 Amendments and the reassessment above would not alter the conclusions of the air quality assessment as reported in the 2018 ES. As such, no additional mitigation measures are required and those identified in the 2018 ES remain valid.

- 4.69. Included in **Appendix E** of this ES Addendum, the conclusions of the Air Quality Neutral Assessment (as 'Air Quality Neutral' with respect to transport emissions and not 'Air Quality Neutral' with respect to building emissions) remains the same as those presented in Chapter 10: Air Quality of the ES.

Ground Conditions and Contamination

- 4.70. This assessment review has been prepared by Waterman IE who undertook the original ground conditions and contamination assessment reported in the 2018 ES.
- 4.71. No significant structural changes are associated with the May 2019 Amendments and no changes to foundations or basement design, or building footprint, are proposed. Therefore, the May 2019 Amendments would not affect by ground conditions contamination.
- 4.72. Therefore, the May 2019 Amendments would not alter the conclusions of the ground conditions and contamination assessment as reported in the 2018 ES. As such, no additional mitigation measures are required and those identified in the 2018 ES remain valid.

Surface Water Drainage and Flood Risk

Introduction

- 4.73. This assessment review has been prepared by Waterman IE, who prepared the original surface water drainage and flood risk Chapter, reported in the 2018 ES, and who undertook the original surface water drainage strategy for the 2018 Applications.
- 4.74. Since submission of the 2018 Planning Applications consultation with the Environment Agency (EA) regarding Building 9 (now referred to as the Water Sports Centre) and the Ship Lane and Bulls Alley flood defences has been undertaken.
- 4.75. In response to the EA's comments, changes were made to the layout of Building 9 and to how the future Ship Lane flood defence would operate. All other aspects that relate to the River Thames defences (e.g. access, alignment, offsets etc.) remain as per the 2018 ES.
- 4.76. Changes were also made to the drainage strategy post-submission in response to comments from the Greater London Authority (GLA) and the LBRuT arboricultural officer. A Drainage Strategy Addendum (**Appendix F**) has been prepared to summarise the changes made to the drainage strategy post-planning and to assess the impact on drainage of the May 2019 Amendments. A summary of the Drainage Strategy Addendum is included in the Assessment section below.
- 4.77. The May 2019 Amendments would not alter the footprint of buildings within the Development, areas of hard and soft landscaping (other than amendments to the Water Sports Centre) and there would be no change to foundation or basement design are proposed. As such, effects in respect of flood risk in relation to groundwater would remain as reported in ES Chapter 12: Surface Water Drainage and Flood Risk and ES Appendix 12.1: Flood Risk Assessment (prepared by Hydro-logic). The reduction of 4 residential units as part of the May 2019 Amendments and therefore potable water demand and foul water drainage capacity are considered further within the Assessment section below.

- 4.78. In summary, the Assessment below focuses on changes to surface water drainage and pluvial flood risk, foul water drainage capacity, potable water demand, and tidal flood risk.

Assessment

Breach Flood Risk

- 4.79. In response to the EA's comments regarding Ship Lane a permanent passive flood defence can be incorporated in the future and the May 2019 Amendments include for this. This has been achieved by:
- Extending the northern façade of Building 9 by including a raised ground floor terrace incorporated into the flood wall, replacing ground level landscaping in this location.
 - Raising Building 9 ground floor levels (as previously reported).
 - Ensuring that ground levels on Ship Lane could be raised to 6.70m AOD (in line with the future requirements of the TE2100 Plan).
- 4.80. Drawings provided in Appendix E of Waterman's River Wall Environment Agency Briefing Note (**Appendix G** of this ES Addendum) show how the required ramping to achieve the necessary flood defence level in Ship Lane would be at a maximum of a 1 in 12 gradient and would not be inhibited by the proposed development (i.e. access would remain achievable with the Development in place).
- 4.81. Through the May 2019 Amendments, a permanent passive line of defence to 6.70m AOD has been provided along the front (river side) edge of Building 9, please refer to drawings included in Appendix F of Waterman's River Wall Environment Agency Briefing Note (**Appendix G**). This has been achieved by ramping up finished floor levels internally towards the River Thames where the edge of the building forms part of the defence. There are no windows, doors or other openings in the line of defence below 6.70m AOD.
- 4.82. The wall of Building 9 would tie into the existing Bulls Alley defence. The existing Bulls Alley defence is outside of the Applicant's ownership and therefore no works would be undertaken to this asset. As requested by the EA, to ensure future options for raising the Bulls Alley defence would not be limited as a result of the proposals, no access routes have been provided from Building 9 that front onto Bulls Alley. A ramp, wall or gate could therefore be installed in the future without affecting the proposed Building 9.
- 4.83. The baseline breach flood risk data has not changed, however active (temporary) defences proposed in Building 9 and proposed in the future across Ship Lane have been replaced by passive (permanent) defences. This has the benefit of removing the risk of defences being left open, however the risk of tidal flooding remains negligible.

Surface Water Drainage

- 4.84. The May 2019 Amendments do not alter the footprint of buildings within the Development, areas of hard and soft landscaping. The surface water drainage strategy is therefore not affected. Appropriate treatment of runoff would be provided by green roofs, rainwater harvesting, permeable paving, and pollutant-intercepting biomats in the geo-cellular tanks.

- 4.85. Following submission of the 2018 Planning Applications, the GLA and the LBRuT arboricultural officer provided a number of comments relating to the drainage strategy. A Briefing Note (Appendix B of **Appendix F**) was prepared demonstrating the changes to the drainage strategy that were made in response. The changes included the following:
- The 3G sports pitch was removed from the surface water drainage catchment on the basis that it would drain freely (requested by the GLA despite the infiltration rate likely being poor/unsuitable, to be confirmed during detailed design);
 - Permeable paving extents and the rain garden would be added to the drainage strategy drawing with attenuation volumes quantified to demonstrate a reduction in runoff beyond the 50% mark; and
 - A summary of all Sustainable Drainage Systems (SuDS) included within the scheme was provided to demonstrate how these provide multiple benefits to the Development.
- 4.86. The Briefing Note provides details of the updated drainage strategy including surface water calculations. The amended drainage strategy (Appendix B of **Appendix F**) demonstrates that a 69% betterment in surface water flows is achieved compared to the existing case and that the drainage strategy is integrated with the landscape proposals to provide wider amenity benefits to the Development.
- 4.87. The GLA subsequently confirmed (Appendix C of **Appendix F**) that the drainage strategy was in line with their aspirations.
- 4.88. A Pre-Planning Enquiry was submitted to Thames Water shortly after submission of the planning application. Thames Water confirmed (Appendix D of **Appendix F**) that at the time of their response (May 2018) there was sufficient capacity to accommodate the proposed surface water flows within their network. The rates submitted to Thames Water were higher than the rates currently proposed (due to the further reductions provided by the changes to the strategy). It is therefore anticipated that there would still be capacity. The letter is valid for 12 months, i.e. due to expire in May 2019. Thames Water have been re-consulted to confirm that their response is still valid, with a response currently outstanding.
- 4.89. As the Development would still include SuDS and the management of surface water, with a reduction in runoff beyond 50% of the existing rate, the likely residual effect of pluvial flooding would be as reported in the 2018 ES, i.e. long-term, local, beneficial and of minor significance. The risk of surcharging sewers is also considered to remain insignificant once the Development is completed and operational, given the further reductions provided by the changes to the drainage strategy and Thames Water have been re-consulted to confirm that there is still capacity within their network to accommodate the proposed foul flows.

Foul Water Drainage Capacity

- 4.90. The May 2019 Amendments include a reduction of four residential units, reducing the total number of residential units from 667 to 663. The proposed foul flow calculations have been amended to reflect this reduction (Appendix D of **Appendix F**), resulting in the same proposed foul flows (25.5 l/s). This means that the amendments have resulted in a negligible reduction in flows. The proposed reduction in non-residential floor space would have negligible effects on the proposed foul flows and has therefore not been considered further.

- 4.91. The proposed connections into the Thames Water sewer network are as per the previous strategy set out in the 2018 ES, shown on the drainage strategy plan (Appendix B of **Appendix F**).
- 4.92. Thames Water's response to the Pre-Planning Enquiry (Appendix D of **Appendix F**) confirms that at the time of the letter (May 2018) there was sufficient capacity to accommodate the proposed foul flows. The proposed number of units has decreased as a result of the amendments, and therefore it is anticipated that there would still be capacity. Thames Water have been re-consulted to confirm that their response is still valid, with a response currently outstanding.
- 4.93. Given the negligible reduction in proposed foul flows and Thames Water have previously confirmed that there is capacity within their network to accommodate the proposed flows, the Development is likely to result in an insignificant effect in respect of the capacity of foul water drainage, as reported in the 2018 ES.

Potable Water

- 4.94. In terms of potable water supply, the reduction of four residential units would not significantly alter the water supply demand rates of the Development (estimated to be 2.5 l/s for Buildings 1 to 4). As such, the effect of the Development on potable water demand would remain as reported in the 2018 ES (i.e. insignificant).

Conclusion

- 4.95. The May 2019 Amendments do not give rise to any new likely significant surface water drainage or flood risk effects compared to those identified in the 2018 ES. Similarly, there is no change to the nature and significance of the effects reported.
- 4.96. However, the May 2019 Amendments have provided further detail in respect of drainage and breach flood risk to take into consideration the comments provided by the Lead Local Flood Authority (LLFA), Greater London Authority (GLA) and the EA. Nevertheless, the May 2019 Amendments would not alter the conclusions of the 2018 ES. As such, no additional mitigation measures are required and those identified in the 2018 ES remain valid.

Ecology

- 4.97. This assessment review has been prepared by Waterman IE who undertook the original ecology assessment reported in the 2018 ES.
- 4.98. Although there is replacement climber planting proposed at Chalkers Corner a part of the May 2019 Amendments, there are no significant changes to the proposed areas of soft landscaping, green and brown roofs or lighting strategy as part of the May 2019 Amendments. On this basis the May 2019 Amendments would not change the effects of the Development in relation to ecology as reported in the 2018 ES.
- 4.99. Whilst the May 2019 Amendments do not change the predicted effects presented in Chapter 13: Ecology of the 2018 ES; further surveys of the existing river wall for roosting bats has been undertaken following comments from the LBRuT. On 18th and 25th October 2018 as agreed with LBRuT two separate endoscope inspections of those potential bat roosting features present were carried out. In summary, no evidence of roosting bats was recorded during either survey and consequently it is considered that results of these surveys would not materially alter the environmental effect(s) as stated within the 2018 ES.

4.100. Full details of the methodologies employed, and results of these surveys are provided within **Appendix H**.

4.101. In conclusion, the May 2019 Amendments and further surveys would not alter the conclusions of the ecology assessment as reported in the 2018 ES. As such, no additional mitigation measures are required and those identified in the 2018 ES remain valid.

Archaeology

4.102. This assessment review has been prepared by CgMs Heritage (part of RPS) who undertook the original archaeology assessment reported in the 2018 ES.

4.103. In respect of policy, since the 2018 ES was produced, the NPPF has been updated, (2019)⁶, however, policy relating to archaeology has not significantly changed. A new London Plan⁷ has been prepared in draft (not yet adopted). Policy in the adopted and draft London Plan would be adhered to by the agreed archaeological strategy already in place for the Development.

4.104. No significant structural changes are associated with the May 2019 Amendments and no changes to foundations or basement footprint are proposed.

4.105. The May 2019 Amendments would not alter the conclusions of the ecology assessment as reported in the 2018 ES. and the conclusions of the 2018 ES remain valid in relation to archaeology. As set out in the 2018 ES further archaeological mitigation measures are anticipated following the granting of planning consent and are anticipated to be secured by appropriately worded conditions. This strategy has been confirmed by the Greater London Archaeological Advisory Service who provide archaeological advice to LBRuT. As such, no additional mitigation measures are required and those identified in the 2018 ES remain valid.

Built Heritage

Introduction

4.106. The May 2019 Amendments include a number of changes to the built heritage (above ground) assets within the Development, including the Maltings Building, the Former Bottling Building and Former Hotel Building, as outlined in Section 2. These changes include the re-instatement of historic features, the retention and relocation of elements of historic fabric and the reconfiguration of internal spaces, which have the potential to materially alter the likely significant direct effects of the Development during the Works. Once completed and operational, the May 2019 Amendments would not change the conclusions and likely significance of effects reported within the 2018 ES Chapter 15, as the May 2019 Amendments relate solely to the Works to the heritage assets. Furthermore, the May 2019 Amendments would not result in any change to the likely indirect effects to heritage assets within and surrounding the Site as the May 2019 Amendments would not alter the indirect effects as set out in the 2018 ES Chapter 15, i.e. the demolition of the existing modern Stag Brewery structures, the potential for noise, vibration dust and additional traffic and change to the setting of heritage assets. The assessment below therefore focusses on the potential change to the likely significant direct effects during the Works as a result of the May 2019 Amendments.

4.107. Since the production of the ES a new version of the NPPF⁶ (2019) has been published. This has not changed the conclusions of the ES.

⁶ Ministry of Housing, Communities & Local Government (2019). National Planning Policy Framework. Available at: <https://www.gov.uk/government/publications/national-planning-policy-framework--2>

⁷ Greater London Authority (GLA) (2017). Draft New London Plan.

4.108. The assessment methodology used for this addendum is the same as that used in the ES.

Assessment

Likely Significant Effects

The Works - Direct Effects

The Former Hotel Building (BTM)

4.109. The May 2019 Amendments to the former Hotel Building include the reinstatement of the two chimneys to the south side of the building and the retention of the chimney to the north side of the building, as well as a revision to the materiality of the roof, which would be finished in slate. These changes would allow the historic appearance of the roofscape, which contributes to the aesthetic value of the heritage asset, to be retained. It is also proposed to retain the brick window arches, which are a characteristic feature of the curved façade of the building and which contribute to the asset's aesthetic value. It is considered that these amendments would result in an improvement to the proposals for the former Hotel building. However, these changes result in no change to the likely significance of effects of the Works.

The Former Bottling Building (BTM)

4.110. It is proposed that a number of the internal cast iron columns within the former Bottling Building would now be retained as part of the Development and relocated across the ground, first and second floors of the building. These surviving characteristic architectural features contribute to the aesthetic and evidential values of the heritage asset and their retention would allow an understanding of the building's former industrial use. On the south façade of the building, the May 2019 Amendments include the insertion of new timber doors to replicate the historic hoist doors, this would allow the asset's former use to be appreciated and understanding of its context enhanced. In addition, the Stag sign is proposed to be relocated and positioned on the former Bottling building. Overall, it is considered that these amendments would enhance the proposals for the former Bottling building, although they do not alter the conclusions pertaining to the likely significance of effects of the Works.

The Maltings Building (BTM)

4.111. The May 2019 Amendments to the Maltings Building include changes to the number and placement of double height windows. To the east and south elevations of the building a number of additional double height windows are proposed, as well as a further column of windows on the east elevation. In addition, two new double doors to the ground floor on the south elevation are proposed in order to provide access to the flexible use space. To the significant north elevation, however, it is proposed to reduce the number of double height windows and to the west elevation it is proposed to completely remove the double height windows which previously formed part of the Development. As identified in the 2018 ES, the introduction of double height windows would diminish the appreciation of the heritage asset's significance, as the existing windows are illustrative of the shallow floor to ceiling heights that existed historically. Therefore, the May 2019 Amendments are considered to lessen this adverse effect and is considered to better preserve the aesthetic value of the building.

4.112. The works to the Maltings building also include the omission of the originally proposed balustrades to the balconies on the north elevation. This revision to the proposal would result in an aesthetic more in keeping with the industrial history of the building. It is also proposed to retain some of the internal cast iron columns, which would be relocated to the entrance area to the flexible use space. These surviving historic features contribute to the evidential and aesthetic value of the heritage asset and their retention would allow an appreciation and better understanding of the building's former industrial use. The memorial plaques would be relocated to the east elevation of the Maltings building.

Conclusion

4.113. It is overall considered that the May 2019 Amendments would improve the proposals for the Maltings building, however it is assessed that these revisions do not result in a change to the likely significance of effects of the Works.

4.114. **Table 9** re-provides a summary of the likely direct effects of the Works and their significance on the Former Hotel Building, Former Bottling Building and Maltings Buildings. This is consistent with Table 15.5 of ES Chapter 15: Built Heritage.

Table 9: Likely Direct Effects of the Works and their Significance (2018 ES Built Heritage)

Heritage Asset	Level of Heritage Significance	Magnitude of Impact	Significance of Direct Effect
Former Hotel Building (BTM).	Low.	Major adverse.	Direct, permanent, local, adverse effect of minor to moderate significance.
Former Bottling Building (BTM).	Low.	Major adverse.	Direct, permanent, local, adverse effect of minor to moderate significance.
Maltings Building (BTM).	Medium.	Moderate adverse.	Direct, permanent, local, adverse effect of moderate significance.

Townscape and Visual

Introduction

4.115. This assessment review has been prepared by Waterman IE who undertook the original townscape and visual impact assessment reported in the 2018 ES.

4.116. As outlined in Section 2 of this ES Addendum, the May 2019 Amendments have changed the exterior of the proposed built form of the Development. To determine the potential impact, the visual amenity and townscape character were reassessed in relation to these changes.

Assessment

Visual Assessment

4.117. While the May 2019 Amendments have potential to be visible from several of the viewpoint locations, when assessing the May 2019 Amendments, it is considered that viewpoints 4 and 6 would be most likely to be affected. Photomontages of these views are shown in Figure 1 and Figure 2 in **Appendix I**. These show the original photomontages produced for the 2018 ES and the updated photomontages produced for this ES Addendum including for the May 2019 Amendments. Visible changes include variations in façade design and the layout of window frontages as well as the relocation or omission of chimneys. Specifically, amendments to Building 9, which include the redesign of its roof top and changes to the northern elevation of the building could become visible. Furthermore, the windows on the Maltings building (Building 4) have been partially relocated and the associated balconies redesigned to have less disruptive effect on the existing building. The changes that can be seen from viewpoints 4 and 6 are considered negligible and do not alter the original findings of the 2018 ES. Assessments of all other viewpoints are unaffected by the May 2019 Amendments.

Townscape Character Assessment

4.118. From a townscape perspective the overall siting and appearance of the proposed built form would not be altered as a result of the May 2019 Amendments. As a result, the assessment of the effects on townscape character are considered to be in accordance with the 2018 ES.

Conclusion

4.119. Overall, the scale and massing of the Development would remain as per the 2018 Planning Applications. Whereas there are some changes to the facades and location of vertical elements such as chimneys, the overall appearance of the Development remains similar. The May 2019 Amendments do not give rise to any new likely significant townscape and visual effects compared to those identified in the 2018 ES. Similarly, there is no change to the nature and significance of the effects reported. Therefore, the May 2019 Amendments would not alter the conclusions of the 2018 ES. As such, no additional mitigation measures are required and those identified in the 2018 ES remain valid.

Wind Microclimate

Introduction

4.120. This assessment review has been prepared by RWDI who undertook the original wind microclimate assessment reported in the 2018 ES.

4.121. The assessment of the May 2019 Amendments has been undertaken using professional judgement as they do not constitute significant amendments to the scheme massing as assessed in the 2018 ES or the intended uses within the Development.

Assessment

- 4.122. The changes to entrance layouts as described in Section 2 of this ES Addendum associated with the Maltings building (Building 4) and Bottling building (Building 6) occur in areas where conditions were at worst suitable for standing during the windiest season, which would all be appropriate for entrances (Figure 17.5 of the 2018 ES: Pedestrian Wind Comfort Conditions – Ground Floor, Configuration 2, Windiest Season). As such, these changes do not alter the conclusions of the 2018 ES.
- 4.123. The Watney's Brewery gates were not modelled within the 2018 ES, as their railing-type construction presents a highly porous structure to the wind. In addition, pedestrian thoroughfare routes are unaffected by their relocation. As such, these changes do not alter the conclusions of the 2018 ES.
- 4.124. Within the 2018 ES, Figure 17.9 (Pedestrian Wind Comfort Conditions - Balconies and Roof View, Configuration 2, Summer Season) all conditions on balconies for Building 2 and Building 3 (measured locations 285 - 293) were shown to be suitable for sitting during the summer season. As such, these changes do not alter the conclusions of the 2018 ES.
- 4.125. The Juliette balconies on the Maltings Building (Building 4) do not protrude from the façade line and were not assessed in respect of the wind microclimate. Their removal therefore does not alter the conclusions of the 2018 ES.
- 4.126. Within the 2018 ES, Figure 17.8 (Pedestrian Wind Comfort Conditions – The Development with existing surrounding buildings (Ground Floor Summer Season) indicates the area to the north of Building 9 (measured locations 244, 295 and 245) is suitable for standing and sitting during the summer season. It is not anticipated these conditions would change as a result of the changes to Building 9 as part of the May 2019 Amendments, i.e. raising ground levels at the northern façade of this building to 6.7m AOD and incorporating this area as a terrace. Should the areas of the terrace which have standing conditions be required for seating the wind microclimate would likely not be ideal for the intended pedestrian uses. As such, localised shelter (i.e. planters and shrubs and/or screens up to around 1.5m tall) would be required. This would likely improve wind conditions at these locations so that sitting conditions are achieved during the summer and therefore not changing the conclusions of the 2018 ES.

Conclusion

- 4.127. The 2018 ES concluded that notwithstanding two areas of tentative use, the Development was expected to be suitable for the desired uses. The May 2019 Amendments do not alter the findings of the 2018 ES.
- 4.128. The May 2019 Amendments do not give rise to any new likely significant wind effects compared to those identified in the 2018 ES. Similarly, there is no change to the nature and significance of the wind effects reported. Therefore, the May 2019 Amendments would not alter the conclusions of the 2018 ES. As such, no additional mitigation measures are required and those identified in the 2018 ES remain valid.

Daylight, Sunlight, Overshadowing and Light Pollution

Introduction

- 4.129. This assessment review has been prepared by EB7 who undertook the daylight, sunlight, overshadowing and light pollution assessment of the 2018 ES. As set out in the 2018 ES, internal daylight and sunlight of the residential units within the Development is not considered an EIA issue. Consideration of the May 2019 Amendments in relation to internal daylight and sunlight of the residential units within the Development is considered in a separate standalone document.
- 4.130. The methodology used for this assessment review is the same as Chapter 18: Daylight, Sunlight, Overshadowing and Light Pollution of the 2018 ES.
- 4.131. Since the 2018 ES the neighbouring planning consent at Boat Race House has been implemented. Boat Race House is situated immediately to the east of the Site, across Bulls Alley and is the subject of permitted development for the conversion of B1 (offices) to C3 (dwelling houses) under planning application reference no. 16/2087/GPD15. In addition, consent for the erection of one additional storey was also granted under planning application reference no. 16/4794/FUL. Given the residential use, this property is now considered to be a potentially sensitive receptor in relation to the Development and a daylight and sunlight assessment to the Boat Race House has been undertaken.
- 4.132. As the May 2019 Amendments in terms of the bulk and mass are not material, the 2018 ES massing has been utilised for the technical assessment. Similarly, because the changes to the bulk and mass are not material, further consideration of the sensitive receptors set out in the 2018 ES is not necessary and the conclusions of the 2018 ES in relation to them remain valid.
- 4.133. Appendix A of **Appendix J** provides a revised assessment of the 2018 ES Appendix 18.1: Drawings of the Baseline Condition and Development Scenario. Appendix B of **Appendix J** provides the detailed results of the daylight (VSC, NSC and ADF) and sunlight (APSH) analysis for the Boat Race House only and Appendix C of **Appendix J** provides the detailed mirror baseline results of the daylight and sunlight analysis for the Boat Race House.

Assessment

Baseline Conditions

- 4.134. **Tables 10 to 13** present the baseline daylight and sunlight results for the Boat Race House receptor.

Table 10: Baseline Daylight (VSC) Summary

Surrounding Properties	Total Number of Windows	Total number of windows that achieve VSC levels above those suggested in the BRE Guidance	Total number of windows that achieve VSC levels below those suggested in the BRE Guidance
Boat Race House	59	53	6

Table 11: Baseline Daylight (NSC) Summary

Surrounding Properties	Total Number of Rooms	Total number of rooms above 50% well lit	Total number of rooms below 50% well lit
Boat Race House	32	32	0

Table 12: Baseline Daylight (ADF) Summary

Surrounding Properties	Total Number of rooms	Total number of rooms above BRE suggested targets	Total number of rooms below BRE suggested targets
Boat Race House	32	20	12

Table 13: Baseline Sunlight (APSH) Summary

Surrounding Properties	Total Number of windows facing the Site and within 90° of due south	Total number of windows above BRE suggested targets for total and winter APSH	Total number of windows below BRE suggested targets for total and winter APSH
Boat Race House	57	48	9

- 4.135. The relevant façade of Boat Race House under the existing scenario overlooks a vacant part of the former Stage Brewery and as such, enjoys unusually high light levels for its urban context.

Likely Significant Effects

- 4.136. In relation to the likely effects of the completed Development, the new receptor, being Boat Race House has been assessed in regard to daylight and sunlight to the habitable rooms. The results are summarised in the **Tables 14 to 17**.

Table 14: Completed Development – VSC in relation to the BRE Guidance

Existing Property	Total Number of Windows	Total number of windows that achieve VSC levels in excess of 27% or a reduction of less than 20% from the baseline level	Total number of windows that see VSC reductions suggested as noticeable in the BRE Guidance			Total
			20% - 29.9% reduction	30% - 39.9% reduction	>40% reduction	
Boat Race House	48	33	0	5	10	15

Table 15: Completed Development – NSC in relation to the BRE Guidelines

Existing Property	Total Number of rooms	Total number of rooms that see a reduction of less than 20% baseline level in NSC	Total number of windows that see NSC reductions suggested as noticeable in the BRE Guidance			Total
			20% - 29.9% reduction	30% - 39.9% reduction	>40% reduction	
Boat Race House	32	21	3	2	6	11

Table 16: Completed Development – ADF in relation to the BRE Guidelines

Surrounding Properties	>2%	1.5-1.99%	1-1.49%	0.5-0.99%	<0.49%	Total number of rooms	Total number of rooms above suggested levels for use	Total number of rooms below suggested levels for use
Boat Race House	2	8	9	12	1	30	11	21

Table 17: Completed Development – APSH in relation to the BRE Guidelines

Surrounding Properties	Total Number of windows facing the Site and within 90° of due south	Total number of windows above BRE suggested targets for total and winter APSH	Total number of windows below BRE suggested targets for total and winter APSH
Boat Race House	57	47	10

Boat Race House

Daylight

- 4.137. The VSC results suggest that with the Development in place (accounting for the May 2019 Amendments), 33 (69%) of the 48 windows assessed within Boat Race House would see no noticeable change in the daylight received at the window face. Of the remaining windows, 5 would see moderate adverse reductions and 10 would see substantial adverse reductions.
- 4.138. The reductions are primarily driven by the high daylight levels in the baseline condition and therefore causes this property to experience unusually high percentage reductions.
- 4.139. In addition, a number of windows indicating potential noticeable reductions serve dual aspect rooms, with the additional primary windows situated within the northern or southern elevation. The results show 5 windows indicating adverse impacts, are served by at least one other window experiencing little or no noticeable impact with the Development (with the May 2019 Amendments) in place with retained VSC levels in excess of 27%. As the main windows serving these rooms experience little material change and retain compliant levels of VSC, the daylight levels within these rooms are likely to remain acceptable. The remaining windows serve 10 rooms, 1 being a Living/Kitchen/Dining (LKD) (R8 First floor) and the remaining being bedrooms.
- 4.140. The results of the NSC assessment have shown that 21 (63%) of the 32 rooms assessed would experience no noticeable alteration in daylight. Of the remaining rooms, 3 would see minor adverse reductions, 2 would see moderate adverse reductions and 6 would see major adverse effects. As with VSC, high daylight levels in the baseline condition leave this building open to relatively high proportional reductions.
- 4.141. Boat Race House was subject to recent consent/permitted development and the design includes a number of single aspect rooms in proximity to the proposed Development and therefore increases its sensitivity and reliance on light from across the Development.

To illustrate this point, a hypothetical additional 'mirror-image' analysis has been undertaken, which compared the daylight and sunlight levels that will be left by the Development against a building of identical height and size as the neighbour on the site opposite. This approach is recommended in Appendix F of the BRE guidelines for existing buildings with windows "*unusually close to the site boundary...taking more than their fair share of light*" and "*to ensure that new development matches the height and proportions of existing buildings*".

- 4.142. The Development has been sensitively designed to be a similar scale as this neighbouring property and this is reflected in the generally minor absolute change in daylight levels. Whilst the results show some minor reductions in VSC, NSC and ADF levels, the overall levels are broadly in line with those shown by the 'mirrored' baseline position.
- 4.143. Considering the 10 single aspect Development facing rooms, the LKD is situated on the first floor and can be identified as R8. The results of the mirrored baseline approach show a reduction from 16.2% to 14.3%, with the absolute change being minor at 1.9% VSC. The remaining 9 rooms are single aspect bedrooms and show a slight change in VSC levels ranging between an improvement to 5.1% VSC. It should be noted that bedrooms, whilst relevant for assessment have a lower requirement for daylighting than main living spaces and this should be considered when applying the targets.
- 4.144. Finally, as the room layouts are known, the ADF assessment may be useful in understanding the daylight impacts. The results show that the ADF levels are within 0.1% of the proposed values under the mirrored baseline confirming broadly similar impacts.
- 4.145. The effect to daylight at Boat Race House with the Development in place is considered to be of **long-term, local** and of **moderate to major adverse** significance (purely based on reduction from the current unobstructed view). The element of the Development in proximity to this neighbour has been designed to be of a similar scale and distance from the boundary, in line with the suggestions of the BRE guidance.
- 4.146. In summary, the BRE guidelines acknowledge and advocate flexibility in precisely the context described above. Therefore, the potential daylight effects arising from the Development are considered acceptable.

Sunlight

- 4.147. The results of the APSH sunlight assessment have shown that 47 (82%) of the 57 windows assessed would experience no noticeable reduction in sunlight levels. The remaining 10 windows would experience levels below the suggested targets.
- 4.148. The remaining 10 windows are situated within the western flank elevation. Of these rooms, 1 serves a L/K/D, with the remaining 9 serving bedrooms. Generally main living spaces are considered the most important for sunlight.
- 4.149. As these windows are primarily west facing, the sunlight potential is limited compared with windows orientated directly towards due south. In addition, a number of these windows are overhung by balconies and the use of an external amenity area does limit daylight potential to the room set beneath.

- 4.150. Given the small number of constrained windows affected the overall likely effect to sunlight at Boat Race House with the Development in place is considered to be of **long-term, local** and of **minor adverse** significance.

Conclusion

- 4.151. The daylight results for the Boat Race House are not unusual where windows face an underdeveloped site and reasonable development can cause high proportional changes in daylight levels. The absolute retained VSC levels remain at 'mid teens' at its lowest, which is in line with the recent Monmouth House Hearing and Whitechapel Appeal precedent. The proposal also provides for additional Housing and therefore the targets can be applied flexibly and sensitively in line with the Greater London Authority's Housing SPG to the London Plan (2016) and the National Planning Policy Framework 2019.
- 4.152. With regard to Boat Race House, the Development has been sensitively designed with the building most proximate to this neighbouring being of a similar scale and this is reflected in the generally minor absolute change in daylight levels under the alternative assessments. Given the isolated nature of the deviations, no mitigation measures are considered necessary.
- 4.153. In conclusion the consideration of the sensitive receptors set out in the 2018 ES is not necessary and the conclusions of the 2018 ES in relation to them remain valid. There are no new likely significant daylight, sunlight, overshadowing and light pollution effects as a result of the May 2019 Amendments compared to those identified for the receptors considered in the 2018 ES. Similarly, there is no change to the nature and significance of the environmental effects reported. Therefore, the May 2019 Amendments would not alter the conclusions of the daylight, sunlight, overshadowing and light pollution assessment as reported in the 2018 ES.
- 4.154. However, one new receptor, Boat Race House, has been considered within this ES Addendum. As outlined above, the effect to daylight at Boat Race House with the Development in place is considered to be of **long-term, local** and of **moderate to major adverse** significance and the effects to sunlight at Boat Race House with the Development in place is considered to be of **long-term, local** and of **minor adverse** significance. These effects are outside the range of significance of effects for daylight and sunlight concluded within the 2018 ES, and therefore, the assessment provided within this ES Addendum does introduce new likely significant daylight and sunlight effects as a result of the Development.
- 4.155. For ease, the overall results of the daylight, sunlight, overshadowing and light pollution are summarised below in **Table 18**, with the Boat Race House receptor included.

Table 18: Summary of Likely Significant Effects, Mitigation Measures and Likely Residual Effects

Description of Effect	Likely Significant Effect	Mitigation Measures	Likely Residual Effect
The Works			
<i>Demolition of existing buildings on-Site.</i>			

Description of Effect	Likely Significant Effect	Mitigation Measures	Likely Residual Effect
Daylight, sunlight and overshadowing to surrounding receptors.	Local, short to medium-term and of minor to moderate beneficial.	None required.	Local, short to medium-term and of minor to moderate beneficial.
Light Pollution	Insignificant.	None required.	Insignificant.
<i>Construction of proposed buildings</i>			
	Insignificant. Local, long-term, adverse and of minor significance (Butler House, Aynescombe Cottage). Local, long-term, adverse and of minor to moderate significance (Rann House, 2 to 6 Williams Lane, Churchill Court and Jolly Gardeners).	Not applicable.	Insignificant. Local, long-term, adverse and of minor significance (Butler House, Aynescombe Cottage). Local, long-term, adverse and of minor to moderate significance (Rann House, 2 to 6 Williams Lane, Churchill Court and Jolly Gardeners).
Sunlight to surrounding receptors.	Insignificant.	None required.	Insignificant.
Overshadowing (Surrounding amenity areas).	Insignificant.	None required.	Insignificant.
Light Pollution.	Insignificant.	None required.	Insignificant.
Completed Development			
Daylight to surrounding receptors	Insignificant. Local, long-term, adverse and of minor significance (Butler House, Aynescombe Cottage). Local, long-term, adverse and of minor to moderate significance (Rann House, 2 to 6 Williams Lane, Churchill Court and Jolly Gardeners). Local, long-term, adverse and of moderate to major significance (Boat Race House).	Not applicable.	Insignificant. Local, long-term, adverse and of minor significance (Butler House, Aynescombe Cottage). Local, long-term, adverse and of minor to moderate significance (Rann House, 2 to 6 Williams Lane, Churchill Court and Jolly Gardeners). Local, long-term, adverse and of moderate to major significance (Boat Race House).

Description of Effect	Likely Significant Effect	Mitigation Measures	Likely Residual Effect
Sunlight to surrounding receptors	Insignificant. Local, long-term, adverse and of minor significance (Boat Race House).	None required.	Insignificant. Local, long-term, adverse and of minor significance (Boat Race House).
Overshadowing (surrounding amenity areas).	Insignificant.	None required.	Insignificant.
Overshadowing (proposed amenity areas).	Insignificant to local, long-term, adverse and of moderate significance	None required. Detailed design during reserved matters application may result in reduced maximum extents. Effects to be verified through further testing at the reserved matters stage.	Insignificant to local, long-term, adverse and of moderate significance. Potentially reduced to insignificant to minor adverse significance for the proposed amenity areas within the outline component of the Development
Light Pollution.	Insignificant.	None required.	Insignificant.

5. Cumulative Effects

- 5.1. Given that there are no proposed changes to the Works as part of the May 2019 Amendments, the assessments remain as reported in the 2018 ES and therefore so do the in-combination cumulative effects as reported in Chapter 19: Cumulative Effects of the 2018 ES.
- 5.2. With respect to the combined effects arising from the Development together with other reasonably foreseeable schemes, as reported in the 2018 ES there are no applications at the time of submission of the 2018 Planning Applications before the LRBuT, or with extant permissions in place, within 1 km of the proposed Development that would give rise to significant environmental effects owing to their proximity, nature, scale and / or location within areas. Therefore, cumulative effects arising from the completed and operational Development (with the May 2019 Amendments) and any such permissions are not considered further within this ES Addendum.

6. Summary of Residual Effects

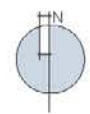
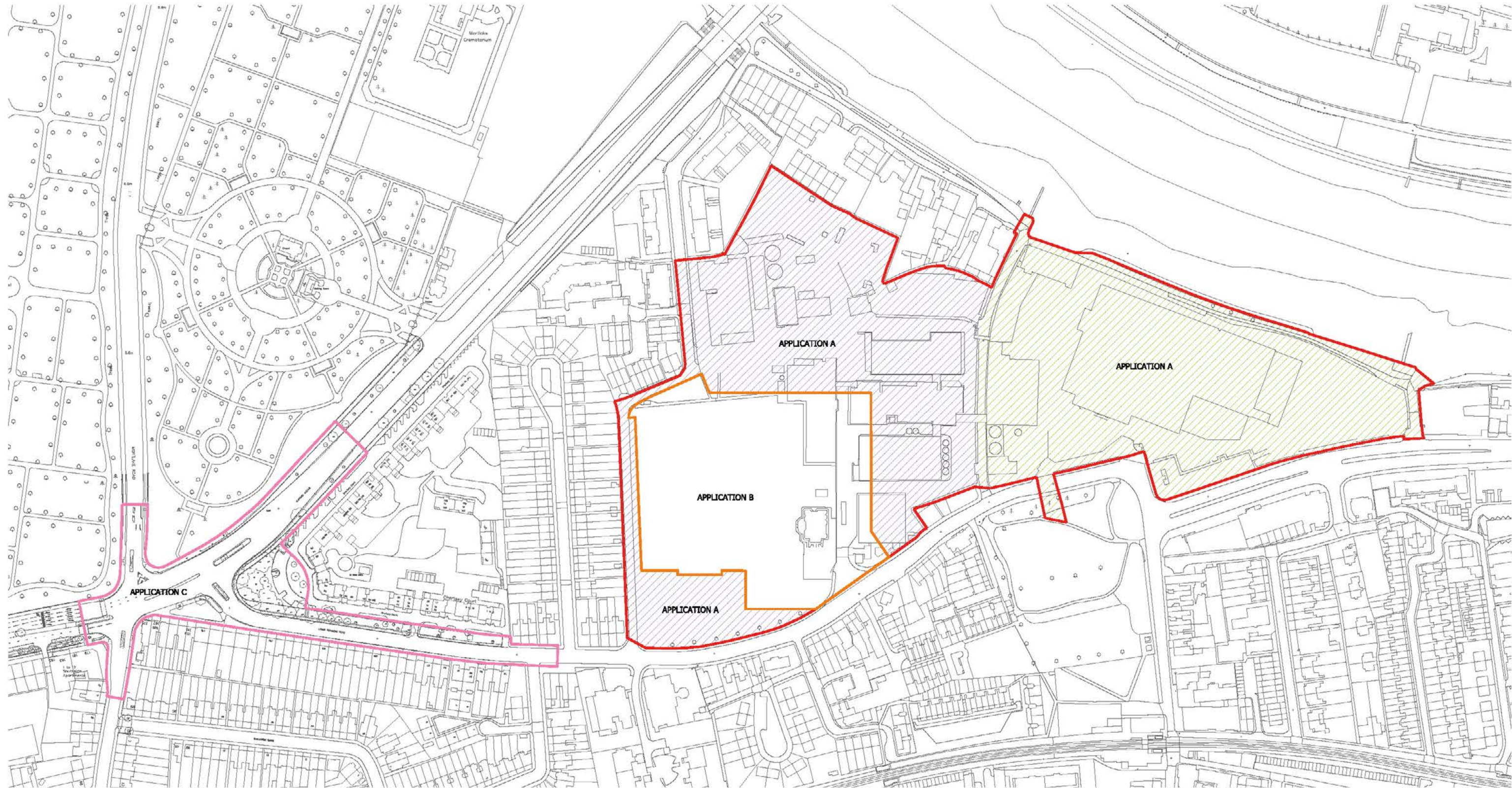
- 6.1. As indicated in Section 4, the Development would give rise to new significant daylight and sunlight effects outside the range of significance of effects reported in the 2018 ES. However, these effects are due to the presence of a new sensitive receptor (Boat Race House), and not the May 2019 Amendments. A summary of Daylight, Sunlight, Overshadowing and Light Pollution residual effects is presented as **Table 17** - the effect to daylight at Boat Race House with the Development in place is considered to be of **long-term, local** and of **moderate to major adverse** significance and the effect to sunlight at Boat Race House with the Development in place is considered to be of **long-term, local** and of **minor adverse** significance. In respect of all other technical assessments the residual effects remain as reported in the 2018 ES.




7. Conclusion

- 7.1. As set out within Section 4 and 5, the May 2019 Amendments do not give rise to any new likely significant effects and there is no change to the nature and significance of the environmental effects compared to those identified in the 2018 ES, in respect of the following technical assessments:
- Socio-economics;
 - Transport and Access;
 - Noise and Vibration;
 - Air Quality;
 - Ground Conditions and Contamination;
 - Surface Water Drainage and Flood Risk;
 - Ecology;
 - Archaeology;
 - Built Heritage;
 - Townscape and Visual Assessment;
 - Wind Microclimate;
 - Daylight, Sunlight, Overshadowing and Light Pollution; and
 - Cumulative Effects.
- 7.2. For these technical assessments no additional mitigation measures are required as a result of the May 2019 Amendments and those identified in the 2018 ES remain valid.
- 7.3. However, as set out in Section 4 and 5, Boat Race House, a new sensitive receptor, is situated immediately to the east of the Site, and is now in residential use. The Development would give rise to new significant daylight and sunlight effects outside the range of significance of effects reported in the 2018 ES, at Boat Race House. However, these effects are due to the presence of a new sensitive receptor (Boat Race House), and not the May 2019 Amendments.

FIGURES

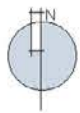
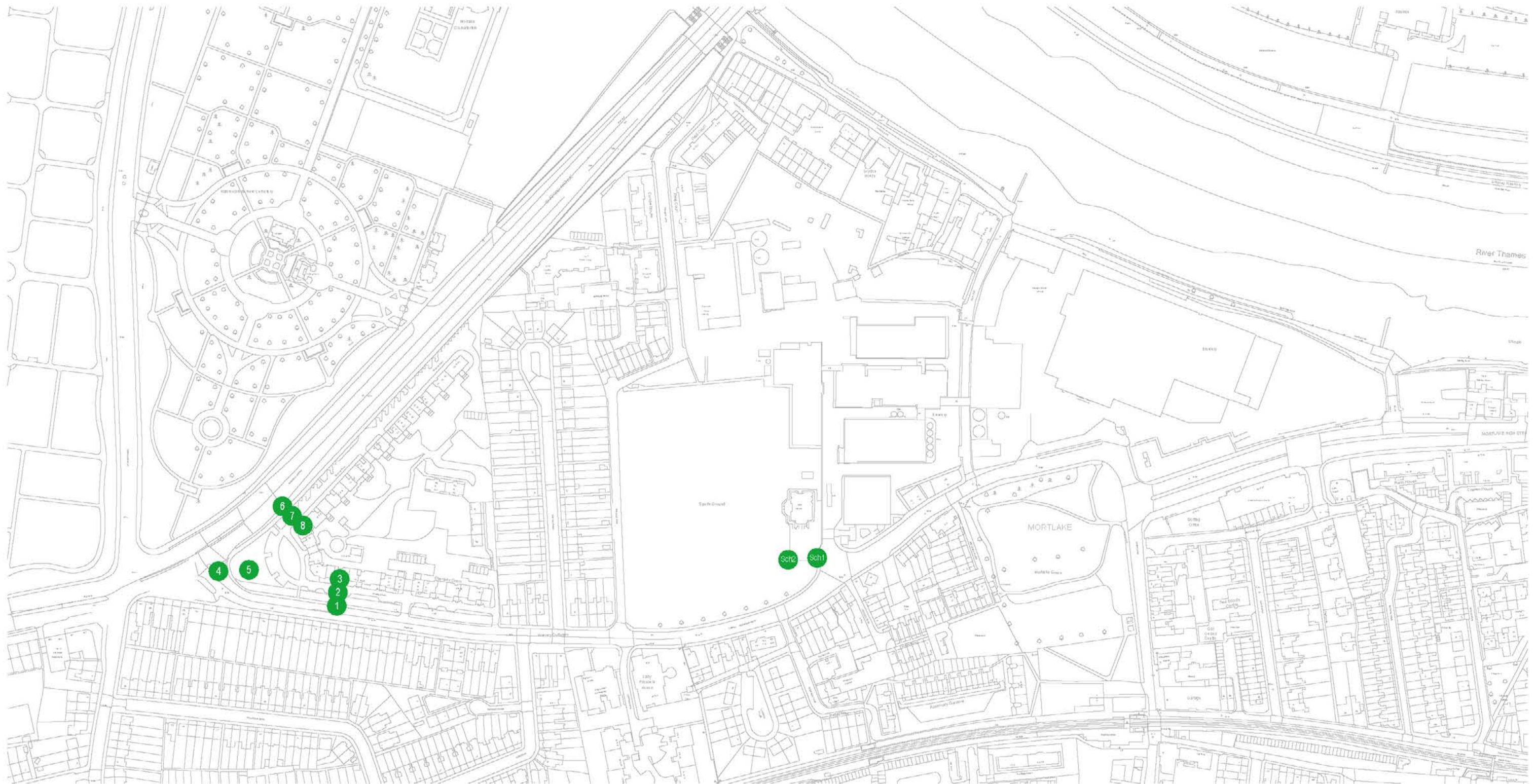
Figures



-  Application A Boundary
-  Application B Boundary
-  Application C Boundary

-  Development Area 1
-  Development Area 2

Project Details	WIE10667-105: Stag Brewery, Mortlake
Figure Title	Figure 1: Planning Application Boundaries
Figure Ref	WIE10667-105_GR_ESA_1A
Date	2019
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Diffusion Tube Monitoring Locations

Project Details	WIE10667-105: Stag Brewery, Mortlake
Figure Title	Figure 2: Diffusion Tube Monitoring Locations
Figure Ref	WIE10667-105_GR_ESA_2A
Date	2019
File Location	\\h-incs\wiel\projects\wie10667\105\graphics\esa\issued figures



APPENDICES

Appendices

The Former Stag Brewery, Mortlake
Project Number: WIE10667-105

A. Transport Assessment Addendum



now part of



Stag Brewery, Mortlake

Transport Assessment Addendum

On behalf of **Reselton Properties**

Project Ref: 38262/5507 | Rev: AA | Date: April 2019

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For and on behalf of Peter Brett Associates LLP				

Revision	Date	Description	Prepared	Reviewed	Approved
1.1	1/05/19	Revised with changes to non-residential floor areas	MB	PW/RP	GC
1.2	03/05/19	Revision with changes to flexible land uses	MB	PW/RP	GC
1.3	07/05/19	Final Issue	MB	PW/RP	GC

This report has been prepared by Peter Brett Associates LLP ('PBA') on behalf of its client to whom this report is addressed ('Client') in connection with the project described in this report and takes into account the Client's particular instructions and requirements. This report was prepared in accordance with the professional services appointment under which PBA was appointed by its Client. This report is not intended for and should not be relied on by any third party (i.e. parties other than the Client). PBA accepts no duty or responsibility (including in negligence) to any party other than the Client and disclaims all liability of any nature whatsoever to any such party in respect of this report.

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1 Introduction

1.1 Overview

- 1.1.1 This Transport Assessment Addendum has been produced by Peter Brett Associates, now part of Stantec (PBA), on behalf of Reselton Properties Limited. The Addendum has been prepared in order to reflect the changes to the scheme design and planning policy updates which have occurred during the consultation period to date in respect of the three linked planning applications for the redevelopment of the former Stag Brewery site in Mortlake, London Borough Richmond upon Thames (LBRuT).
- 1.1.2 The applications (Refs: 18/0547/FUL, 18/0548/FUL, 18/0549/FUL) from February 2018 included a Transport Assessment (TA) which set out the likely impacts of the proposed development on the surrounding transport network. This TA included a detailed transport strategy aimed at ensuring the development was sustainable from a transport perspective and was consistent with prevailing policies at the time of the application.
- 1.1.3 Since the application was submitted various meetings have been held with stakeholders, including TfL, LBRuT and Network Rail to discuss the submitted TA. In addition, a number of key policy documents have been revised.
- 1.1.4 The purpose of this addendum therefore includes the following:
- to provide an update on the potential transport impacts arising from minor changes proposed to the previously submitted scheme.
 - to set out any changes to the proposed mitigations as a result of the post application discussions with the relevant stakeholders.
 - to set out the changes in transport policy that have occurred and to identify their implications for the proposals.
- 1.1.5 The addendum is set out as follows:
- Chapter 1 Introduction
 - Chapter 2 Policy Changes
 - Chapter 3 Key Stakeholder Update
 - Chapter 4 Scheme Update
 - Chapter 5 Summary and Conclusion

2 Policy Changes

2.1 Overview

- 2.1.1 Chapter 3 of the TA set out the key transport policies at a national, regional and local level. Since the submissions of the three Stag Brewery applications in February 2018, alterations have been made to both regional and local policy with regards to transport. This chapter will discuss the differences between the policy at the time of submission of the previous TA and current / new policy.
- 2.1.2 It is considered that there have been no significant changes to transport policy at a national level that would materially impact upon the development proposals or associated mitigations.
- 2.1.3 At a regional level the following updates need to be considered:
- The Mayor's Transport Strategy (2018), which was previously only published in draft has now been issued.
 - A new Draft London Plan (2018) has been issued. Whilst this does not carry the same weight as an approved Plan, TfL has asked that the transport policies and particularly the revised cycle parking standards provided within the new Draft be applied to the proposed development.
 - At a local level London Borough of Richmond upon Thames (LBRuT) have now adopted their new Local Plan (July 2018).
- 2.1.4 The remainder of the chapter will discuss the changes as a result of the updated policies.

2.2 The 2018 Draft London Plan

- 2.2.1 The 2018 Draft London Plan will, once adopted, replace the current London Plan. The London Plan is an emerging plan, not yet adopted and carries very limited weight. Notwithstanding this, the Applicant has sought to amend the scheme in line with the draft standards. The changes to the London Plan affecting the transport aspect of the development mainly centre around parking. Any relevant updates are described below and are supported by policies from the Mayor's Transport Strategy.

Maximum Vehicle Parking Standards

- 2.2.2 For residential development, the current London Plan bases the maximum provision of car parking spaces on the density, number of habitable rooms/unit and location of the proposed development, with more dense and central developments allowed less parking than those less dense and more suburban. In comparison, the Draft London Plan bases maximum car parking provision on the location of the proposed development.
- 2.2.3 Table 2.1 and Table 2.2 show the maximum required number of car parking spaces for residential units for both the current and Draft London Plan, respectively.

Table 2-1 Current London Plan Maximum Residential Vehicle Parking Standards

Current London Plan	
No. of beds	Parking Spaces
1-2	Less than 1 per unit
3	Up to 1.5 per unit
4 or more	Up to 2 per unit

Table 2-2 Draft London Plan Maximum Residential Vehicle Parking Standards

Draft London Plan	
Location	Maximum parking provision
Central Activities Zone Inner London Opportunity Areas Metropolitan and Major Town Centres All areas of PTAL 5-6 Inner London PTAL 4	Car-free
Inner London PTAL 3	Up to 0.25 spaces per unit
Inner London PTAL 2 Outer London PTAL 4 Outer London Opportunity Areas	Up to 0.5 spaces per unit
Inner London PTAL 0-1 Outer London PTAL 3	Up to 0.75 spaces per unit
Outer London PTAL 2	Up to 1 space per unit
Outer London PTAL 0-1	Up to 1.5 spaces per unit

Non-Residential Parking

- 2.2.4 The following tables demonstrate the new Non-Residential parking standards that impact the site and the uses it contains. Previously non-residential parking was calculated using LBRuT standards, but the new adopted Local Plan (2018) now references the following standards in the tables below.
- 2.2.5 Maximum office parking is shown in Table 2.3.