CAMBRIDGE NORTH

ENVIRONMENTAL STATEMENT

VOLUME 3 : NON-TECHNICAL SUMMARY

JUNE 2022

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Introduction

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1.0 Introduction

1.1 This Non-Technical Summary (NTS) of the Environmental Statement (ES) has been prepared for Brookgate Land Ltd on behalf of The Chesterton Partnership (hereafter 'the Applicant) to accompany a hybrid planning application submitted to South Cambridge District Council (hereafter 'SCDC' or 'the Council') for mixed-use development on land off Cowley Road, Cambridge.

1.2 The Proposed Development includes the construction of up to 425 homes, five commercial buildings consisting of office space and laboratories for research and development, a multi storey car park and associated landscaping and infrastructure works.

1.3 The Proposed Development, known as Cambridge North Phase 2, is located in the north of Cambridge, within the administrative boundary of SCDC. Cambridge North Phase 1, comprising Cambridge North Station and associated development, has largely been implemented.

1.4 An Environmental Impact Assessment (EIA) process has been undertaken for the Proposed Development. This is reported in an ES, submitted to accompany the planning application.

1.5 The scope of the EIA has been agreed with the Council and its statutory consultees, and includes detailed studies on the following topics:

- Air Quality;
- Climate Change;
- Cultural Heritage;
- Ecology;
- Flood Risk and Drainage;
- Human Health;
- Landscape and Visual;
- Lighting;
- Noise and Vibration;
- Socio-Economics;
- Soils and Groundwater;
- Transport;
- Wind; and
- Cumulative Impacts.

1.6 This ES presents an assessment of the likely significant environmental effects, both positive and negative. The ES informs decision makers and the public as to the environmental implications of the Proposed Development. The ES contains detailed environmental information in two other volumes: Volume 1 is the Main Report and Volume 2 contains the Technical Appendices. This NTS (Volume 3) provides an easily accessible summary of the ES.

1.7 The planning application is also supported by a Planning Statement, which describes the Proposed Development and how it relates to relevant planning policy, together with other standalone reports required for planning purposes (some of which are also technical appendices to the ES).

Site Context

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2.0 Site Context

Site Location and Description

2.1 The Site is approximately 9.9 hectares (ha) in area and is shown in **Figure 2.1**.

2.2 The Site forms part of the former Chesterton Sidings site, adjacent to Cambridge North Station. It is located on the north-east edge of Cambridge, approximately 3km from the City centre, and lies to the north and west of the River Cam, east of the Cambridge Business Park and south of the A14 and the Cambridge Water Recycling Centre.

2.3 The Site is bound to the north by the remainder of the former Chesterton Sidings site, to the east by the railway line, to the south by the consented One Cambridge Square office building (also known as Building S03, currently under construction) and the consented Two Cambridge Square hotel building (also known as Building S04,operated by Novotel), and to the west and north-west by the Cambridge Guided Busway (CGB) and Cambridge Business Park.

2.4 The Site is previously developed land that comprises the existing ground-level railway station car park of 428 spaces, further areas of hardstanding and areas of scrub. The Site was partially cleared as part of the Site

Figure 2.1: Site Location

preparation works for Cambridge North Station to the south.

Geology and Hydrogeology

2.5 Geological mapping indicates that the majority of the Site is underlain by River Terrace Deposits described as 'sand and gravel, locally with lenses of silt, clay or peat'. Superficial Deposits are indicated to be absent from the northern and eastern parts of the Site.

2.6 Bedrock of the Gault Formation underlies the entirety of the Site and is generally described by the British Geological Survey (BGS) as 'pale to dark grey or blue-grey clay mudstone, glauconitic in part, with a sandy base'.

2.7 The River Terrace Deposits are classified by the Environment Agency (EA) as a Secondary A-Aquifer and the Gault Formation is classified as Unproductive Strata.

2.8 The Site is not located in a groundwater Source Protection Zone.

Landscape and Topography

2.9 The Site is located on the extreme eastern edge of the Bedfordshire and Cambridgeshire Claylands National Character Area (NCA), and also demonstrates the influence of the adjacent Fens NCA and East Anglian Chalk NCA. The Site's topography is relatively flat, with fluctuations in elevation between 6m and 7m Above Ordnance Datum (AOD).

Transport

2.10 Vehicular access to the Site is gained via Milton Avenue, which links Cambridge North Station with Cowley Road. Cowley Road provides access to the wider highway network, including the A10 and its junction with the A14 to the north.

2.11 The Site benefits from a number of sustainable transport links, including Cambridge North Station, Cambridgeshire Guided Busway, and the cycleway adjacent to the Guided Busway. The Site is also within walking distance of Chesterton, Abbey, King's Hedges and Milton.

Flood Risk and Drainage

2.12 The nearest surface water feature is the 'First Public Drain' drain, which adjoins the north western boundary of the Site.

2.13 The River Cam flows in a north easterly direction to the south and east of the Site, passing within approximately 450m of the southern site boundary at its closest point. The River Cam is classified as a Main River and is part of the Anglian River Basin District.

2.14 The Site is located wholly within Flood Zone 1, demonstrating that the Site has a low probability of flooding.

Air Quality

2.15 The Site is not located within an Air Quality Management Area (AQMA). The closest AQMA to the Site is the Cambridge AQMA, approximately 1.4km so the southwest, covering the City centre. The Cambridge AQMA was declared in 2005 due to exceedances of the nitrogen dioxide (NO2) annual mean Objective.

Archaeology and Cultural Heritage

2.16 There are no designated heritage assets within the Site, nor within 400m of its boundaries. The eastern edges of Fen Ditton Conservation Area and the north-eastern edge of the Riverside and Stourbridge Common Conservation Area are just within 500m of the Site boundary.

2.17 The Archaeological Desk Based Assessment prepared as part of the planning application has confirmed that the Site is thought to have been fields from the Medieval period until the mid-19th century, when the railway and its sidings were built. The periods from which finds are most likely to be made are the Late Iron Age and Roman periods, with the possibility of cremations and settlement remains being encountered on site.

Ecology and Nature Conservation

2.18 There are 13 statutorily designated sites for nature conservation within 2km of the Site. The closest of these is Bramblefields Local Nature Reserve (LNR) approximately 450m south west of the Site. Eleven non-statutory sites are located within 2km of the Site, the closest being Ditton Meadows City Wildlife Site, located 540m from the Site.

2.19 The Site consists of large areas of Open Mosaic Habitat (OMH). The OMH is considered to be of national value and is a UK Biodiversity Action Plan (UK BAP) Priority habitat listed in section 41 of the Natural Environment and Rural Communities (NERC) Act 2006. The quality of the habitat ranges from poor to good across the Site, where there is high species diversity. Other habitats on site comprise semi-improved neutral grassland, scattered scrub, ponds and woodland edge, which are considered to be of medium ecological value. Whilst OMH is of acknowledged national value, it is common within the area and therefore considered to be of no greater than local value for assessment purposes.

Proposed Development

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3.0 Proposed Development

Development Overview

3.1 The full description of development is:

"An outline application (all matters reserved apart from access and landscaping) for the construction of three new residential blocks, providing flexible Class E and Class F uses on the ground floor (excluding Class E (g) (iii)), and two commercial buildings for Use Classes E(g) i (offices), ii (research and development) providing flexible Class E and Class F uses on the ground floor (excluding Class E (g) (iii)), construction of basements for parking and building services, car and cycle parking and infrastructure works;

A full application for the construction of three commercial buildings for Use Classes E(g) i (offices) ii (research and development), providing flexible Class E and Class F uses on the ground floor (excluding Class E (g) (iii)), with associated car and cycle parking, a multi storey car and cycle park, construction of basements for parking and building services, car and cycle parking and associated landscaping and infrastructure works"

Outline Element

Residential Quarter

3.2 The residential quarter is located on the western part of the Site.

3.3 The residential quarter is proposed to comprise three perimeter blocks and will comprise the following mix of types, sizes and tenures:

- Block S11 – S12: 78 homes, all of which will be Build to Rent units.
- Block S13 – S16: 155 homes, all of which will be open market units.
- Block S17 – S21: 192 homes, all of which will be Build to Rent units.

3.4 The precise number of dwellings and housing mix will be confirmed through reserved matters applications; however, an indicative housing mix is provided in **Table 3.1** below. This mix, giving a maximum of 425 dwellings, has been assumed for assessment purposes.

Table 3.1 Indicative Housing Mix

	MARKET	BUILD TO RENT	TOTAL
1 Bed	62	127	189
2 Bed	79	134	213
3 Bed	14	9	23
TOTAL	**155**	**270**	**425**

Commercial Use

3.5 The commercial component of the outline element comprises two commercial buildings, referred to as Two Milton Avenue (S8) and One Chesterton Square (S9), on what is referred to as the 'triangle site'.

3.6 One Chesterton Square (S9) is proposed at the north of the triangle site and includes a maximum development zone of 24,100 sqm (GIA) and a typical floor plate of 3,670 sqm. One Chesterton Square is proposed to include a basement level linked to Two Milton Avenue (S8), to accommodate car parking, cycle parking, shower facilities and associated changing rooms and drying rooms and storage.

3.7 One Chesterton Square will also accommodate amenity provision at ground floor level, as follows;

- A large retail unit in the north-eastern corner, at the end of Station Row, to provide an active frontage on this corner; and
- A smaller retail unit along the western elevation, with frontage on to Milton Avenue.

3.8 Two Milton Avenue (S8) is proposed on the southern part of the triangle site and will provide a maximum development zone of 13,100 sqm (GIA) and typical floor plate would be approximately 1,850 sqm.

3.9 The roofs of both S9 and S8 will consist of a plant area surrounded by a plant screen at 3.8m – 4.5m in height.

Building Heights

3.10 Building heights will range between 4 and 8 storeys. Lower heights are proposed to be located on the eastern edge of the Site, along the railway edge, and on the western edge of the Site, with the tallest buildings to be located along Milton Avenue.

Transport and Access

3.11 Vehicular access to the Site is proposed from the eastern section of Cowley Road, via the road which has already been constructed to serve Cambridge North Station, the Novotel hotel, and the office building at One Cambridge Square currently under construction (known as Milton Avenue).

3.12 Whilst no changes are proposed to the carriageway of Milton Avenue, the footway/ cycleway spaces on the western side are proposed to be switched from the current situation so that the cycleway is located closest to the carriageway, in order to tie into the masterplan proposals.

3.13 Pedestrian and cyclist access to the Site is proposed from the following locations;

- Cowley Road – to the north of the Site;
- Cambridgeshire Guided Busway – to the north-west of the Site;
- Moss Bank – to the south-west of the Site.

Landscape and Public Realm

3.14 The Proposed Development includes a number of landscape and public realm areas. These include:

- Chesterton Gardens – a central park within the residential quarter which comprises extensive tree planting, lawn mounds, sinuous paths, planting, play areas, pergolas for gatherings and seating areas;
- Chesterton Square – a public square within the commercial quarter which comprises trees, water feature jets and 'sky mirror', raised beds, planting, seating, and a 'follow me' paving band that enlivens the space;
- Station Row/Swale Street – a linear swale with ecologically diverse planting, seating-steps and causeway crossings;
- Piazza – a pocket park at the termination of Station Row, with a wide crossing path to One Milton Avenue and the Residential Quarter;
- Milton Way – a pocket park and passageway for cyclists, office worker spill-out space and residents, comprising raised planters with integrated seating;
- Courtyards - west-facing residents' courtyards, with seating and tree planting; and
- Wild Park – areas of retained Open Mosaic habitat and new Open Mosaic seeding, balancing pond and areas of natural play.

Full Element

3.15 The hybrid application includes a full application for the following:

- One Milton Avenue (S4);
- Mobility Hub (S5); and
- One and Three Station Row (S6 and S7).

One Milton Avenue (S4)

3.16 One Milton Avenue is located at the south-western end of the application site, to the north of the consented One Cambridge Square office building (S3) which is currently under construction.

3.17 One Milton Avenue is a proposed office building (GEA of 18,575 sqm) and has been designed to achieve a BREEAM Excellent rating. Located at the building's centre is a central core, consisting of all regular and accessible WCs, as well as showers, lifts, cleaning stores, and central services.

3.18 The building includes for retail space at ground floor level (84 sqm GIA), accessed via Milton Avenue.

3.19 The building is seven storeys in height plus plant. An amenity terrace is provided at levels 5 and 6 and the roof level incorporates a biodiverse roof.

Mobility Hub (S5)

3.20 The Mobility Hub is located at the south-eastern end of the Site, to the north of the existing 'Novotel' hotel building and to the west of the railway line.

3.21 The mobility hub would accommodate 725 car parking spaces across 5 levels (including ground floor).

3.22 The mobility hub would accommodate 725 car parking spaces across 5 levels (including ground floor). 622 of these spaces would be provided for rail users, re-providing the existing 428 surface car parking spaces, and accommodating a further 194 spaces for future growth. The remaining 103 spaces of the parking capacity would be provided at basement level of the mobility hub for the use of the commercial development.

3.23 Access to the Mobility Hub will be via the new 'Cowley Road east' which will run along the eastern boundary of the Site.

One and Three Station Row (S6 and S7)

3.24 One and Three Station Row are laboratory buildings and have been designed to achieve a BREEAM Excellent rating. One Station Row has a GEA of 11,407 sqm and Three Station Row has a GEA of 12,061 sqm.

3.25 Both One and Three Station Row are five storeys in height. An amenity terrace is proposed at level 3 on both elevations.

3.26 Flexible retail provision (and other complementary ground floor uses) are proposed at ground floor level, accessed off 'Station Row' to the north (1,168 sqm GIA). The retail uses ensure an activated frontage to Station Row. The side passages contain pocket parks, and visitor cycle parking.

Construction

3.27 An indicative phasing plan has been prepared, on the basis of which it is anticipated that infrastructure works related to the Proposed Development could commence in 2023, with an anticipated completion date of the entire development site by 2027.

3.28 Although detailed phasing will be confirmed at a later stage, it is anticipated that the development will comprise the following five phases:

- Phase 1: Mobility Hub (S05) (expected 2023-2025), One Station Row (S06) (expected 2023-2025), Three Station Row (S07) (2024-2026);
- Phase 2 – Residential Quarter (2023-2026);
- Phase 3 – One Chesterton Square (S04) (2024-2026);
- Phase 4 – One Milton Avenue (S04) (2025-2027); and
- Phase 5 – Two Milton Avenue (S08) (2026-2028).

3.29 Environmental impacts during the construction phase will be managed in accordance with the details in the ES, and through a Construction Environmental Management Plan (CEMP), which is being submitted in support of the planning application. The CEMP will be a "live" document, and the final version will be agreed in advance of development commencing.

Alternatives

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4.0 Alternatives

4.1 The EIA Regulations require an outline of the reasonable alternatives considered by the Applicant in developing the Proposed Development, alongside an indication of the main reasons for the chosen scheme with regard to its environmental effects.

Site Suitability

4.2 The Site forms part of the Major Development Site allocation within the SCDC Local Plan (2018) under Policy SS/4. Policy SS/4 confirms that the area is allocated for “high quality mixed-use development, primarily for employment within Use Classes B1, B2 and B8 as well as a range of supporting uses, commercial, retail, leisure and residential uses (subject to acceptable environmental conditions)”. Given this, and the fact that the Proposed Development forms Phase 2 of a comprehensive regeneration scheme, no alternative site location options were considered by the Applicant.

Design Alternatives

Buildings S8 and S9

4.3 The original design for the triangle site in April 2021 consisted of two separate buildings on the northern edge of the Site, with a street cutting north-south between the buildings. Due to the requirement for a minimum 18m distance between buildings, the two buildings' typology was deemed inefficient in terms of its floor plate size. To fully utilise the northern plot, it is considered that a single building is a more viable approach.

4.4 Building S9 underwent various design iterations to ascertain the optimum footprint and articulation. The final design shows a building with four clear 'petals' on each corner with a deep recess between them. The final design, which comprises one building instead of two, is not considered to result in additional environmental effects.

4.5 Building S8 is a considerably smaller and slimmer building and its form has always been a triangular shape due to its location at the tip of the plot. The evolution of buildings S8 and S9 from April 2021 to May 2022 can be seen in **Figure 4.1**.

Figure 4.1: Design Evolution of Buildings S08 and S09

Mobility Hub

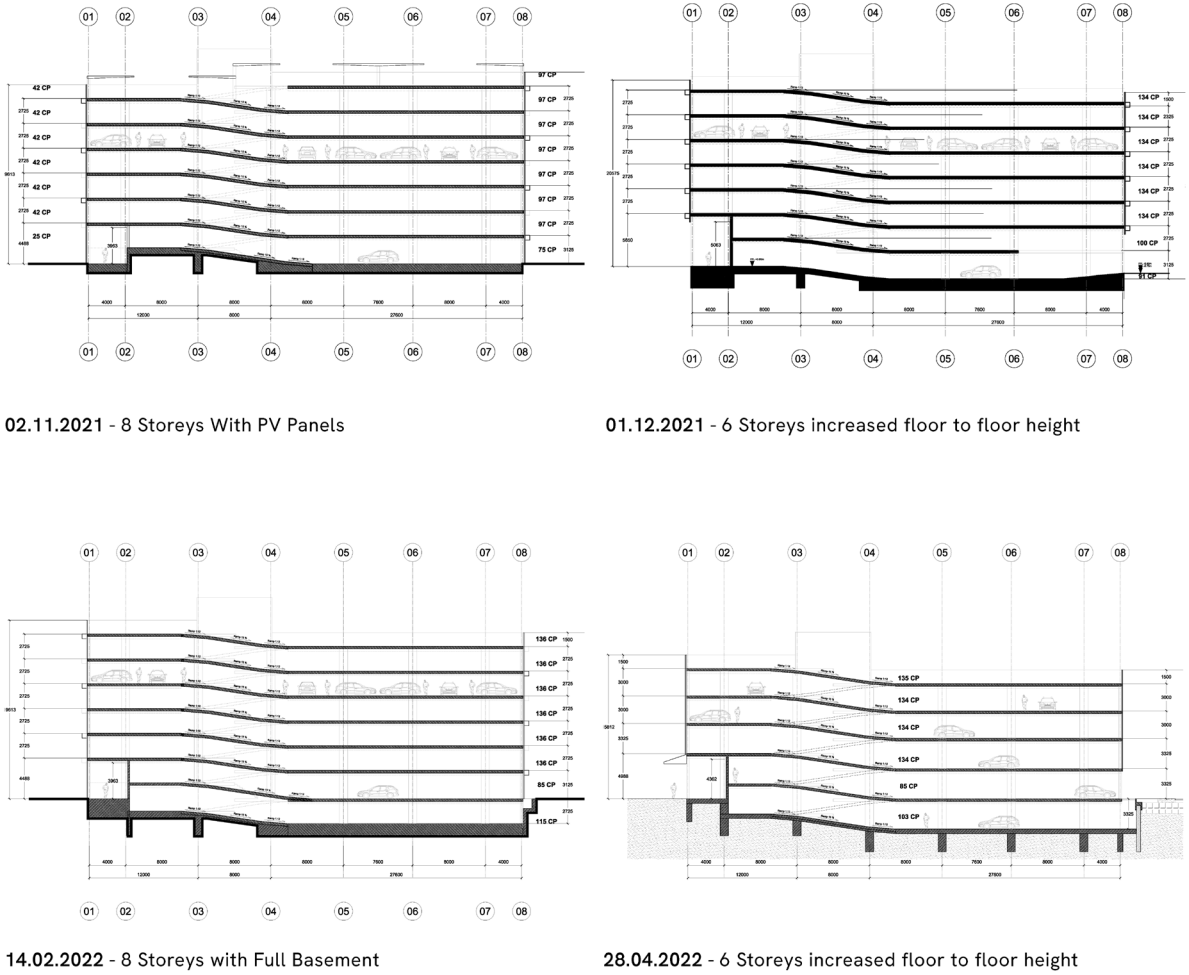
4.6 The mobility hub was originally designed to provide all parking requirements for both Network Rail commuters as well as the office buildings. As such, the capacity of the building was significantly greater and required eight storeys.

4.7 Early studies explored PV panel shelters for the roof level as well, but this was rejected due to potentially increasing visual impacts for sensitive receptors to the east of the Site.

4.8 Initially basement options were not considered, but due to the height concerns further opportunities were explored to lower the building into the ground, including consideration of full and half basement designs.

4.9 In its final iteration, the total number of storeys has been reduced to six, with most of the parking allocated to the offices to be housed within a basement beneath each of the office buildings.

4.10 The design evolution of the mobility hub can be seen in **Figure 4.2.**



02.11.2021 - 8 Storeys With PV Panels

01.12.2021 - 6 Storeys increased floor to floor height

14.02.2022 - 8 Storeys with Full Basement

28.04.2022 - 6 Storeys increased floor to floor height

Figure 4.2: Design Evolution of the Mobility Hub

Residential Quarter

4.11 The residential quarter has gone through a process of continuous development and refinement. The main revisions and changes are highlighted below and in Figure 4.3 and Figure 4.4.

4.12 Revision B – January 2021: Revision B was an initial feasibility study to analyse what can be achieved on the plot.

4.13 Revision C – January 2021: The southern edge connection was modified to improve the arrival experience from the south of the plot. Overall heights and form were also adjusted.

4.14 Revision D – January 2021: The massing was taken to the next stage of development and the internal accommodation schedule began to take shape.

4.15 Revision F - February 2021: A further recalibration of the overall massing height took place. Access to the residential garden was modified to follow the sequence of public spaces and pedestrian connections in the masterplan.

4.16 Revision G – May 2021: Internal layouts were further developed for the unit typologies and the amenity spaces.

4.17 Revision J – November 2021: A decision was taken to remove the residential quarter from the planning application.

Figure 4.3: Design Evolution of Residential Quarter in Early 2021

4.18 Revision N – February 2022: The residential quarter was reintroduced as part of the outline application. The overall plot was re-adjusted to a reduced size and internal layouts further developed.

4.19 Revision S - June 2022: Internal layouts are further developed. The amenities spaces and commercial offer are refined and the design of the residential central public space, Chesterton Gardens, further progressed.

4.20 The Scoping Opinion issued by SCDC was requested at the time the residential quarter was excluded from the scheme. However, the design iteration, which now includes a reinstated residential quarter, is not considered to have resulted in any materially different environmental effects (in terms of changes to the schedule of assessment topics), although it will have given rise to different socio-economic effects and to have introduced receptors who are sensitive to sources of impact such as noise and dust.

Figure 4.4: Design Evolution of Residential Quarter from May 2021 to June 2022

Environmental Impact Assessment

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5.0 Environmental Impact Assessment

5.1 The EIA has been carried out in accordance with the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 (as amended). The purpose of the EIA is to identify the likely significant environmental effects of the Proposed Development, and to provide measures that will avoid, minimise and offset any negative effects, and will maximise positive effects. The ES reports the outcome of this process.

5.2 EIA is required for the Proposed Development because it is within Schedule 2 Category 2(10) 'Infrastructure Projects' of the Regulations - Specifically 10(b) 'Urban Development Projects', where the Proposed Development exceeds the applicable thresholds – and because a likelihood of significant effects cannot be ruled out.

5.3 SCDC provided their formal Scoping Opinion establishing their requirements for the content of the EIA. This stated that the following topics should be considered in the EIA, a summary of the assessment for which is provided within this NTS:

- Air Quality;
- Climate Change;
- Cultural Heritage;
- Ecology;
- Flood Risk and Drainage;
- Human Health
- Landscape and Visual;
- Lighting;
- Noise and Vibration;
- Socio-Economics;
- Soils and Groundwater;
- Transport;
- Wind; and
- Cumulative Impacts.

Methodology

5.4 Expert consultants were appointed to assess the impacts of the Proposed Development using recognised methods for each topic. The following text summarises the findings of the topic specific assessments.

Summary of Effects

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6.0 Summary of Effects

Air Quality

6.1 This Air Quality Assessment assesses the impact that the Proposed Development may have on local air quality. Air Quality Objectives are thresholds for the main pollutants of concern, nitrogen dioxide (NO_2) and particulate matter (suspended solid and liquids in the air, labelled $PM_{2.5}$ for those less than 2.5 micrometres across and PM_{10} for those less than 10 micrometres across). To protect human health, these objectives should not be exceeded.

6.2 Currently, annual mean concentrations of NO_2 are well below the air quality objectives in the local area. NO_2 hourly concentrations, $PM_{2.5}$ and PM_{10} are also below the objectives. Local air quality is therefore suitable for the proposed uses, including the residential quarter.

6.3 There is a low risk to human health and medium risk of soiling from dust generated during construction. Following the implementation of the CEMP and adherence to best practice measures, as set out in guidance from the Institute of Air Quality Management, this would lead to a negligible residual effect.

6.4 No detailed assessment of air quality effects from construction traffic has been necessary, due to the low levels of construction traffic anticipated, which are below standard screening levels for undertaking an Air Quality Assessment.

6.5 During operation, there will be negligible residual effects as a result of vehicle emissions associated with the Proposed Development. There are no CHP or generators proposed for the commercial buildings. Heating and cooking in the residential element will be fully electric, and therefore direct building emissions would be minimal.

6.6 Design mitigation during the operation of the Proposed Development comprises best practice mitigation measures from IAQM guidance, significant cycle storage facilities on-site, and operational traffic mitigation measures recommended in the transport assessment. No additional mitigation measures are deemed to be necessary. Additionally, a Travel Plan will be implemented to encourage sustainable travel to and from the Proposed Development.

6.7 After the implementation of mitigation, no significant residual effects are predicted to occur, during either construction or operation of the Proposed Development.

6.8 The traffic data on which the operational phase assessment has been undertaken is inclusive of all allocated sites anticipated in the Local Plan, as well as other committed developments in the locality. The assessment has concluded that there will be no significant cumulative effects on air quality from the construction and operational phases of the Proposed Development.

Climate Change

Carbon Assessment

6.9 Carbon emissions for the Proposed Development have been calculated at 496,904 tonnes of carbon dioxide equivalents (CO2e), of which 78% is associated with the operation of the Site and the remaining 22% with construction related activities.

6.10 The construction related carbon footprint has considered multiple design options and identified which options would minimise carbon emissions. Further optioneering is planned as the Proposed Development design progresses.

6.11 An Energy Strategy and Energy Statement have been prepared for the Proposed Development, which includes on-site renewable energy generation, and a

combination of air source heat pumps and solar photovoltaics. The Site is expected to deliver a 10% in operational carbon emissions through low and zero carbon (LZC) technologies resulting in approximately 30% sitewide carbon reduction over a baseline/typical development.

6.12 The Proposed Development is expected to have a moderate adverse effect considered as significant. This is because the Proposed Development is consistent with applicable existing policy requirements, but not consistent with emerging policy requirements to meet net zero by 2050 and will likely hinder the UK's trajectory towards net zero. However, it should be noted that the project's impact can shift to minor adverse (considered as not significant) through further carbon mitigation measures as design progresses in subsequent stages of the development.

In-combination Climate Change Impact Assessment

6.13 In-combination climate change impact assessments have been undertaken for each topic scoped into the ES to understand how climate change will impact the results of each topic's assessment.

6.14 Potentially adverse significant effects because of climate change have been identified by the landscape and visual team and cultural heritage team in the operational phase. This is related to change in rainfall and wind speeds causing damage to trees required to screen the Site from viewpoints and designated landscapes offsite. The impacts on notable viewpoints will be monitored and existing planting will be used to soften some of the effects. As the areas impacted by climate change are buildings and land outside of the proposed scheme, there is therefore no control over these impacts within the scope of this project.

6.15 Potentially beneficial significant effects have been identified by the ecology team, highlighting that the open mosaic habitats on the Site are well adapted to stressed environments and will benefit by the increase in extreme weather events (droughts, floods etc).

6.16 No significant In-combination climate change impact effects have been identified by any other environmental topic as climate change has been accounted for in the design or in management plans.

Climate Change Resilience Assessment

6.17 A climate change resilience assessment has been undertaken to understand the impact of climate change on the development under future climate conditions. This involved understanding how climate change had been considered in the design including the development of flood risk assessments, overheating analysis and landscape management plans and using this information to understand the likelihood and magnitude of climate change impacts. The assessment has identified that there are no significant adverse climate change resilience impacts for any aspects of the design. This is because resilience has been achieved through design decisions, production of a flood risk assessment, overheating analysis and maintenance/management plans.

6.18 As some plots of the hybrid application are outline design, a list of design guide measures have been prepared. These measures should be included in the detailed design when these plots come forward to ensure there are no significant climate change resilience impacts.

Cultural Heritage

6.19 The Cultural Heritage Chapter addresses the potential effects of the Proposed Development on the historic built environment within a 5km radius of the Site boundary. 23 designated heritage assets were identified through scoping and pre-application discussions that warranted detailed assessment. These are:

- 6 Conservation Areas (Baits Bite Lock, Castle & Victoria Road, Fen Ditton, Horningsea, Milton, and Riverside and Stourbridge Common).

- 2 Scheduled Monuments (Cambridge Castle Mound and Milton multi-phased settlement).
- 2 Grade I Listed Buildings (Chapel of St Mary Magdalene Stourbridge Chapel, Cambridge; and, Church of St Peter, Horningsea).
- 1 Registered Park and Garden (Anglesey Abbey, Grade II*).
- 5 Grade II* Listed Buildings (The Old Rectory, Ditton Hall, Parish Church of St Mary Virgin, Barn to NW of Ditton Hall, and Biggin Abbey, Fen Ditton).
- 7 Grade II Listed Buildings (Poplar Hall, 4 Green End, Grassey Cottage, Riverside Cottage, Wildfowl Cottage, Lode Cottage, and Garden & Boundary Wall to Ditton Hall, Fen Ditton).

6.20 The architectural, archaeological, artistic and historic interests of the heritage assets listed above have been assessed and the contribution that their settings make to this interest or heritage significance has been described. The impact of the proposals on their surroundings and heritage significance was assessed using Historic England guidance and the harm or benefit of the development on their significance described.

6.21 The assessment also considers the cumulative effect of relevant committed developments in the area. It concludes that none of the other Proposed Developments would, in conjunction with the Proposed Development, have any additional material effect on the historic environment of the area. This is because of the distances between the cumulative projects, the orientation of the developments and/or intervening vegetation and built form.

6.22 The Cultural Heritage Assessment concludes that there would be non-significant adverse effects on the setting of two heritage assets: the Fen Ditton Conservation Area and the Riverside & Stourbridge Common Conservation Area. This would occur during the construction and operational phases. Mitigation measures are largely built into the Proposed Development as they relate primarily to the sensitive use of materials and palette and the careful articulation of heights. A comprehensive landscaping strategy also softens the edges of the Proposed Development and as it matures (by Year 15), its mitigating effects will become more effective.

6.23 Despite these mitigation measures, there remains a minor adverse residual effect on the two Conservation Areas due to the increased urbanising elements seen in limited views from within their boundaries, affecting their rural character.

Ecology

6.24 Information on ecological receptors within the area was collected through a desktop review of existing datasets and studies, whilst a range of Site surveys were undertaken.

6.25 One non- statutory site was recorded within 2km of the Site: Bramblefields Local Nature Reserve, which is approximately 450m from the Site boundary. Impacts as a result of disturbance and pollution events were considered to give rise to a minor adverse residual effect, which is not significant in EIA terms.

6.26 Open Mosaic Habitat on Previously Developed Land is present across the Site, which is considered to be of national value and is a UK BAP Priority habitat and listed in section 41 of the Natural Environment and Rural Communities (NERC) Act 2006. Whilst the Proposed Development would result in the loss of up to 1.84ha of open mosaic habitat, 2.38ha of replacement habitat would be created. This will result in a minor adverse residual effect which is not significant in EIA terms.

6.27 The habitats within the Site comprise semi-improved neutral grassland, scattered scrub, ponds and woodland edge, which are considered to be of medium ecological value. All of the habitats are common within the wider landscape and are not considered to have an ecological value beyond the local

level (i.e. low sensitivity). Therefore, the overall effect of the construction phase of the Proposed Development, taking the proposed mitigation into account, is deemed to be minor adverse, which is not significant in EIA terms.

6.28 A possible remnant population of reptiles was identified on-site. Mitigation to mitigate potential effects on reptiles is proposed and includes measures to move reptiles from construction areas and to create new habitat on-site. The residual effect on reptiles would be minor beneficial and not significant.

6.29 Breeding birds were identified on site. Proposed mitigation measures include retaining suitable nesting habitat and inclusion of a range of nest box types to support a wide range of species. The residual effect on breeding birds would be minor beneficial and not significant.

6.30 Foraging and commuting bats were identified on-site. Mitigating measures will include the use of directional lighting during construction to minimise the disturbance from light spillage on foraging and commuting bats. Taking account of the proposed habitat enhancement, the residual effect on bats would bet minor beneficial and not significant.

6.31 Invasive plant species were identified on-site. Mitigating measures will include the safe removal of invasive species from the Site and preventing their spread into the surrounding area. The residual effect would be minor adverse and not significant.

6.32 Any cumulative effects on ecology and nature conservation, taking account of other developments within approximately 2km, were predicted to be non-significant in EIA terms, following successful implementation of mitigation.

6.33 In summary, the ecological assessment concludes that the residual effects will range from minor beneficial to minor adverse, which would not be significant. The open space and landscaping proposals will provide a variety of habitat types, and once these are established the Proposed Development will deliver a 86.26% biodiversity net gain on-site.

Flood Risk and Drainage

6.34 The former uses of the Site have resulted in large areas being covered by contaminated Made Ground. The natural geology below the Made Ground supports the storage of groundwater, which is a valuable resource that is susceptible to pollution through the leaching of contaminants. Currently, rain that falls on the open ground across the Site soaks into the ground below and could therefore be causing pollution of the groundwater.

6.35 The First Public Drain (FPD) flows to the north and west of the Site as a predominantly open-channel watercourse that conveys run-off from the north Cambridge area to the River Cam. An overflow channel for the FPD crosses the Site. This overflow is mostly culverted below ground and also outfalls to the River Cam. Part of the FPD overflow crossing the Site will be diverted to accommodate the Proposed Development; the required consent will be obtained from Cambridgeshire County Council.

6.36 The FPD overflow currently receives surface water run-off from two drainage systems on-site. The larger of the two systems conveys surface water from the railway station, hotel, and office to the south of the Site into the FPD overflow at a controlled rate. Surface water passes through a gravel storage system beneath the temporary car park on the eastern part of the Site before being discharged to the FPD overflow. The drainage system in this car park is understood to be inadequate and there is anecdotal evidence of ongoing flooding issues, expected to be linked to the poor drainage infrastructure in this area.

6.37 The smaller of the two existing networks drains the access road to the Cambridge North Station temporary car park and a small section of Cowley Road. A flow control limits the discharge rate to the FPD overflow

culvert. This will be replaced as part of the Proposed Development.

6.38 The Proposed Development involves the construction of new buildings, roads, pedestrian/cyclist facilities and other supporting infrastructure, including Sustainable Drainage Systems (SuDS). Run-off from new roofs and paved areas will be discharged to the FPD overflow at rates agreed with SCDC to ensure that flood risk can be managed on-site while having a negligible effect on flood risk off-site. The introduction of impermeable surfaces will create a physical barrier, preventing the infiltration of rainfall into the ground within the developed areas of the Site, effectively disrupting pollution linkages between the contaminated ground and underlying aquifer and preventing pollution of the aquifer. SuDS will provide attenuation storage to ensure that flood risk is managed on-site for the life of the development, accounting for the effects of climate change. Many of the SuDS proposed will also provide treatment to surface water run-off (e.g. green roofs, rain gardens, swales, and tree pits).

6.39 Due to viability constraints, some parts of the Proposed Development will drain via below-ground pipe networks and attenuation tanks only (i.e. no above ground SuDS), thereby providing limited water treatment. This adverse impact is partially balanced by the beneficial impacts associated with the Proposed Development (e.g. management of flood risk and reducing the formation and perpetuation of pollution linkages between the existing contamination present with the Site and the underlying aquifer).

6.40 Potential adverse flood risk and drainage effects associated with the construction phase will be mitigated through measures set out in the CEMP.

6.41 Foul water from the Proposed Development will drain via gravity to a new pumping station on-site. This will pump foul water north to the existing Anglian Water foul sewer network in Cowley Road. The connection to the foul sewer is subject to approval by Anglian Water.

6.42 The assessment concludes that, with the mitigation measures identified, the Proposed Development will have a negligible effect in terms of flood risk and drainage, except for the following residual effects:

6.43 Minor beneficial effect on the Secondary A-Aquifer beneath the Site and the River Cam, due to the reduction of ground area exposed to direct rainfall, thereby disrupting pollution linkages between the contaminated ground and underlying aquifer and preventing pollution of the aquifer and nearby River Cam.

6.44 Moderate beneficial significant effect on human receptors as the Proposed Development will address surface water flood risk associated with poor drainage of the existing car park at the Site, and will provide new surface water drainage systems designed to manage the risk of flooding for the life of the development, accounting for the effects of climate change.

6.45 Minor adverse effect on the First Public Drain overflow and the River Cam, due to the limited surface water treatment provided to run-off from parts of the Proposed Development where viability constraints prevent the use of open-surface SuDS.

Human Health

6.46 An assessment has been undertaken with regard to the likely significant effects of the Proposed Development on the health and wellbeing of residential communities and other health-sensitive groups (referred to as ‘receptors’).

6.47 The assessment considers national and local policy and is based on the Healthy Urban Development Unit (HUDU) planning checklist which sets out key themes, including; Housing, Transport, the Environment and Neighbourhood dynamics, which can have a positive or negative effect on the health and wellbeing of the population. These are

referred to as the 'wider determinants of health'.

6.48 The assessment of construction has considered the following determinants of health:

- Active travel: including promoting walking/ cycling, reducing car use, connectivity and safety;
- Health environment: including air quality and dust, noise, vibration, ground contamination, access to green infrastructure and flood risk; and
- Vibrant neighbourhoods: including access to local employment, and access to amenities and local food.

6.49 The assessment of the operational development has considered the following determinants of health:

- Healthy housing: including access to affordable, high quality housing;
- Active travel: including promoting walking/ cycling, reducing car use, connectivity and safety;
- Health environment: including air quality and dust, noise, vibration, ground contamination, access to green infrastructure, flood risk, local food growing, and overheating; and
- Vibrant neighbourhoods: including access to healthcare services, education, social infrastructure, and local employment.

6.50 The assessment used a variety of sources to provide details of current health and wellbeing issues including local health profiles prepared by Public Health England, Cambridgeshire South Cambridgeshire District Joint Strategic Needs Assessment, Cambridgeshire Insight, NHS data, GP and Census data.

6.51 The review of data indicated that, overall, the population of Greater Cambridge has relatively good health. However, there are health issues that need to be reduced, including diabetes and dementia diagnosis rates, prevalence of asthma, emergency hospital stays for male self-harm, high blood pressure, depression, coronary heart disease, chronic obstructive pulmonary disease, stroke and high levels of mental disorders in 5 to 19 year olds.

6.52 When comparing the Study Area with the national average, there are significant differences between Cambridge City and South Cambridgeshire. Overall, health is good in South Cambridgeshire, although there are issues regarding emergency hospital admissions for children. However, within Cambridge there are further health issues regarding deaths from all causes, cancer and circulatory disease, as well as hospital admissions for self-harm, alcohol, hip fractures and Chronic Obstructive Pulmonary Disease. Life expectancy is worse for those in Cambridge compared to those in South Cambridgeshire.

6.53 With regards to wider determinants of health, Cambridge and South Cambridgeshire have been identified as areas of high affordability pressure, and it is an expensive place to buy or rent a home. The Site is well connected to the local cycle network and extensive network of existing and future pedestrian footways and public rights of way. It is served well by public transport and is in close proximity to a range of services and facilities. Overall, the Site has a low risk of flooding, and there have been no exceedances in air quality objectives for nitrogen dioxide in recent years.

6.54 During construction, a series of mitigation measures have applied including a construction Travel Plan, Construction Traffic Management Plan and Construction Environmental Management Plan. Meanwhile, uses will be available on-site during the phased construction, including a 'pop up park' that will include raised beds and community growing space.

6.55 During operation, mitigation measures include a Framework Travel Plan, providing 40% affordable housing with 20% Built to Rent housing will be affordable private

rent, providing cycle spaces on-site. The residential element is essentially car free with the exception of blue badge parking. A total of 2.056 ha of open space will be provided including informal open space, formal and informal children's play areas. It is anticipated that the commercial element will generate approximately 4,300 employees across a range of sectors.

6.56 Significant impacts are defined as those with a moderate or major adverse or beneficial impact. There is anticipated to be one significant adverse effect:

- Construction: noise and vibration.
- Operational: none anticipated.

6.57 Five aspects of the Proposed Development generate significant beneficial health effects.

- Construction: none anticipated.
- Operational: accessible housing; housing mix and affordability; walking and cycling, open space, play space and access to nature; and local employment.

Landscape and Visual

6.58 The Proposed Development involves the construction of large-scale buildings on the north-east edge of Cambridge, within an area identified for major change in the Local Plan. The development aspiration expressed in the draft North East Cambridge Area Action Plan (NECAAP) suggests that considerable architectural volumes will be delivered within the Site and its environs to support commercial and residential growth within the area. Notwithstanding the NECAAP intentions and the impact that it could have on the existing condition of the townscape and landscape within the Site's environs, the LVIA has considered the Proposed Development in its own right and provided a technical assessment of the potential impacts in terms of visual experience and changes to landscape/townscape character.

6.59 The baseline study undertaken within the LVIA acknowledges the sensitivity of the Site's eastern edge, which faces a highly valued riverine and rural landscape. The proposal will not directly impact this landscape resource, as it will not cause the loss of valued countryside or the distinctive river corridor. However, visual impacts will be experienced by ramblers on the network of Public Rights of Way, users of the public open spaces along the river and local residents.

6.60 The LVIA concluded that, with respect to these receptors, the Proposed Development will result in one significant effect. While existing vegetation and dense urban fabric provide screening in most views, the visual experience of ramblers on the Harcamlow Way (Footpath 85/6) to the north of Fen Ditton will change considerably, due to an increased urban influence over the currently intimate, rural landscape. It should be noted that the articulation of the architectural volumes and careful consideration of the cladding materials, including vegetation, will provide a degree of attenuation for the visual effects. The proposal will be further softened by the proposed trees on the eastern road when they will reach total growth (circa 30 years of maturity). In the meantime, it is also acknowledged that the design aspiration is for high-quality architecture, which could also contribute to the visual amenity of the view.

6.61 Despite the large-scale nature of the Proposed Development, the testing of long-distance views indicates that there would be no significant effects on the Cambridge skyline. The proposal sits separately from the historic core, preserving the intrinsic qualities of the skyline as described in Policy 60 of Cambridge City Local Plan (2018). At the same time, it provides opportunities to improve the emerging cluster of tall buildings around Cambridge North Station, complementing the currently isolated and prominent tall structures of the hotel and office blocks.

6.62 In conclusion, the Proposed Development will result in one significant visual effect associated with the erosion of the rural context of Cambridge, as experienced from the Public Right of Way to the north

of Fen Ditton. However, the proposal is largely appropriate to the urban context, responds creatively to the residential edges and existing tall buildings, includes positive landscape spaces and proposes architectural typologies that align with the concept of high-quality design. Therefore, the Proposed Development would be a positive contribution to the evolving railway corridor, which is an important part of the townscape character for Cambridge and a "gateway" experience for the numerous visitors to the city.

Lighting

6.63 The Assessment has considered three main subtopics:

- Daylight and sunlight availability, i.e., the effects of the Proposed Development on the amount and distribution of sunlight and diffuse light for the surrounding buildings and areas;
- Reflected solar glare, i.e, the effects of the cladding and glazing of the Proposed Development on glare to train drivers on the adjacent railway; and
- Obtrusive lighting, i.e, the assessment of the light spill and nuisance from the lighting of the Proposed Development to surrounding residential properties and natural areas.

6.64 These assessments have been carried out in accordance with industry standards. The methodology used is consistent with guidance and uses 3D computer simulations, desktop studies and field measurements to ensure that the results are accurate.

6.65 The Lighting Assessment concluded the following:

- The effects of the Proposed Development on sunlight and daylight availability to surrounding properties and areas are not significant. The existing distribution of sunlight and daylight will be retained for all receptors considered in the Assessment.
- The effects of the Proposed Development in relation to reflected solar glare are not significant. The assessment confirmed that the number of instances when reflections are visible to train drivers will be extremely limited throughout the year, and that in these situations the effects of such reflections are unlikely to cause glare, unless direct sunlight is also visible at the same time.
- The effects of the Proposed Development on obtrusive lighting have been assessed on the basis of a review of the proposed site strategy lighting document. This document includes a series of proposals which comply with industry standards. On the assumption that the detailed design of the Proposed Development adheres to the strategy document, it is concluded that the effects on obtrusive lighting will not be significant.

Noise and Vibration

6.66 The main sources of noise on the Site and surrounding receptors are traffic noise from the Cambridgeshire Guided Busway and Milton Avenue and rail noise from the Fen Line mainline railway, with some light aircraft also audible to a lesser degree.

6.67 Construction activities are predicted to give rise to temporary minor to moderate adverse effects at the nearest noise-sensitive receptors. Measures consistent with best practicable means would be adopted to minimise noise and vibration from the construction site. As a result, the residual effects of noise and vibration during construction are predicted to be negligible.

6.68 Changes in road traffic noise, as a result of construction activities, are predicted to have a minor effect on Cowley Road, the A14 EB on slip (near B1049) and A14 WB off slip (near B1049), and a negligible change on other roads in the surrounding road network.

6.69 For the operational phase, a Site Suitability Assessment has been completed in

accordance with the adopted criteria to determine whether the new sensitive receptors would be exposed to unacceptable levels of noise and vibration. The Assessment indicates that the required criteria can be met using appropriate glazing and sound insulation for walls and ventilation.

6.70 The majority of residential amenity areas within the Proposed Development, such as courtyards, are likely to meet the guideline external noise levels. External balconies overlooking the roads will be exposed to noise levels above the upper guideline level. Where the noise level requirements are not met, suitable alternative quieter areas are available.

6.71 SCDC will require the development to comply with the noise limits as set out in their Local Plan. It has been assumed that sufficient embedded mitigation will be employed, such that the limits are complied with, and on this basis no likely significant effects are likely to occur.

6.72 Other developments located within approximately 200m of the identified sensitive receptors can give rise to a potential cumulative noise and vibration impacts, should construction works take place simultaneously on all sites. Due to the distance of the other developments, circa 200m from the Site, with the Cowley Road Industrial Estate in between, adverse cumulative construction impacts are unlikely to occur.

6.73 Overall, the Noise Assessment has concluded that there will be minor short-term and negligible long-term effects from the Proposed Development along Cowley Road, whilst all other roads would experience negligible effects from operational traffic noise.

6.74 Vibration exposure from the Cambridgeshire Guided Busway and rail sources were measured during an attended survey to derive the vibration dose value during the daytime and night-time. The levels measured indicate that no adverse effects are anticipated.

6.75 Building services noise from the committed developments will be designed to achieve appropriate operational noise limits. Due to the distances between the committed developments and the nearest receptors, it is considered that the operational noise limits advised in the noise assessments for each scheme would not be exceeded with all developments in operation. Overall, it is considered that cumulative building services noise would be of negligible significance.

Socio-Economics

6.76 Overall, the Proposed Development is not predicted to result in any significant adverse socio-economic effects.

6.77 The Local Study Area appears to have had a declining population in recent years, most likely a result of an ageing population and limited additional housing development. The Proposed Development will introduce a new population that will help to stabilise this, particularly given that the private rented element will likely continue to regularly replenish the number of younger households in the area.

6.78 The Assessment found that there is an acute housing need in Greater Cambridge, evidenced by increasing affordability constraints, with house price inflation over the last twenty years being considerably greater than growth in earnings. As such, the provision of a mixed tenure residential development that is most likely to appeal to younger households is particularly beneficial.

6.79 In terms of education, the Assessment found that there was sufficient capacity in primary schools and nurseries in the local area to meet the needs of the Proposed Development. Capacity in secondary schools is currently limited, but this is expected to change in the future, with falling school rolls anticipated as the lower birth rates seen in

the past decade start to have an impact. Overall, the Proposed Development is not predicted to have an adverse impact on local schools.

6.80 In terms of open space provision, the Proposed Development will provide high quality, formal and informal children's play space and other informal open spaces to meet its own needs. The Proposed Development does not include any outdoor sport space or allotments, but there is evidence of an oversupply of these in the local area. Consequently, it is proposed to provide financial contributions towards their improvement, rather than providing additional facilities.

6.81 The Assessment found that there are high rates of employment in Greater Cambridge, and despite providing considerable employment opportunities, the Proposed Development is considered to be of only benefit in socio-economic terms. There will be minor beneficial residual effects for both construction and operational employment opportunities.

Soils and Groundwater

6.82 The Site is generally flat at an elevation of approximately 8 metres above Ordnance Datum.

6.83 Made Ground is anticipated to be present at the Site, associated with the its historical use. River Terrace Deposits are recorded across the majority of the Site, with the exception of the northern and eastern extents. Underlying bedrock comprises mudstone of the Gault Formation.

6.84 Ground stability hazards generally range from very low to no hazard potential, with the exception of shrinking or swelling clay, which has a moderate hazard potential at the Site.

6.85 The identified groundwater receptor comprises a Secondary A-Aquifer associated with the River Terrace Deposits. Surface water receptors include the 'First Public Drain' that runs adjacent to and beneath Cowley Road in the north-west of the Site, and the River Cam, located approximately 500m to the east of the Site, at its closest point.

6.86 Human receptors considered in the Assessment include future on-site residents, current users of the station car park, future workers and visitors to on-site commercial properties, occupants of and visitors to off-site residential and commercial properties, and members of the public using off-site areas of open space.

6.87 Potential sources of contamination at the Site include a former railway sidings and materials depot, Made Ground of unknown provenance associated with historical development, an electricity substation and existing highways. Potential off-site sources of contamination include an aggregate's facility, a former sewage farm and current water recycling centre, various depots, works and light industrial facilities, infilled pits and ponds, and licensed waste transfer and treatment facilities. Previous ground investigation in part of the Site has indicated that contaminant concentrations in soils may be largely conducive to retention in a mixed-use development based on risks to human health. Theoretical risks to controlled waters associated with inorganic and organic contaminants have been identified.

6.88 Without mitigation, construction of the Proposed Development has the potential to result in effects of negligible to moderate/ minor adverse significance, whilst the operational effects are predicted to range from moderate/minor adverse significance to minor beneficial significance.

6.89 Mitigation is proposed to reduce the identified impacts and effects, in accordance with current statutory guidance and best practice for the development of brownfield sites. Ground investigation, gas monitoring and groundwater sampling will be undertaken to inform an assessment of risks to human health and controlled waters and to characterise the engineering properties of the ground. Remediation will

be designed, completed and validated to mitigate any unacceptable contamination risks. The design of foundations and ancillary infrastructure will be based on the recorded engineering properties of the ground. The CEMP will set out the protocols to be implemented during construction of the Proposed Development to reduce risks to the identified receptors and to mitigate physical effects during construction, such as soil erosion. Excavation of sand and gravel in the Mineral Safeguarding Area (MSA) will be carried out to form basements within the Proposed Development.

6.90 With mitigation, residual physical effects associated with the Proposed Development, such as changes in topography and ground stability, are generally assessed to be of permanent negligible significance during construction and operation. There is considered to be a permanent effect of minor adverse significance associated with soil erosion and compaction during construction. Permanent effects of minor beneficial significance are assessed in relation to soil erosion and compaction by the time the Proposed Development is operational.

6.91 Permanent effects of minor beneficial significance are predicted during construction and operation in relation to the sand and gravel MSA. Whilst excavation of some of the sand and gravel resource will take place to form basements, the Proposed Development will result in sterilisation of a small portion of the resource.

6.92 Assuming that all additional mitigation is implemented, the effects associated with contamination are assessed as being of temporary negligible significance during construction. The effects associated with contamination by the time of operation of the Proposed Development are assessed to range from permanent minor beneficial to negligible significance.

Transport

6.93 An assessment of the effects of the Proposed Development on Traffic and Transport has been undertaken, in the context of national planning policy and guidance, local planning policy, legislation and informed by consultation with statutory consultees.

6.94 Traffic and transportation issues in terms of the number of vehicles likely to be on the road network and their effects on traffic flows and congestion are considered in a separate Transport Assessment which is appended to the ES (**Appendix 17.1**).

6.95 In accordance with industry guidance from the IEMA, the Transport Assessment has considered the following potential environmental effects:

- Severance - i.e. the perceived division that can occur within a community when it becomes separated by a major traffic artery.
- Driver Delay – i.e. increases in traffic causing junctions to operate over capacity and thus experience queues and delays.
- Pedestrian and Cyclist Amenity - broadly defined as the relative pleasantness of a journey.
- Pedestrians and Cyclists Delay – i.e. the effect of traffic associated with the Proposed Development causing additional delays to pedestrians and cyclists compared to the without development scenario.
- Fear and Intimidation - the effect of which is dependent upon the volume of traffic, its HGV composition, its proximity to people or the lack of protection caused by such factors as narrow pavement widths.
- Accidents and Safety – the potential for an increased number of collisions in the vicinity of the Proposed Development.

6.96 The Assessment has considered whether these effects would be likely to arise within both the construction and operational phases.

6.97 The Assessment identified a study area based on standard practice guidance

published by IEMA which sets out two rules relating to traffic flow increases.

6.98 Based on these two rules, the Assessment has identified that there will be an increase in HGV traffic visiting the Site during the construction period, which exceeds the threshold requiring assessment of Cowley Road, and a permanent increase in vehicular traffic on Cowley Road once the Site is operational. Beyond Cowley Road, changes in traffic flows on the wider highway network are forecast to be well below the thresholds identified in the IEMA guidelines as requiring assessment. Thus, the study area has been restricted to Cowley Road.

6.99 The Assessment has been based on existing traffic flow data, traffic models, local growth factors, estimates of construction traffic provided by the developer's contractor and forecasts of the Proposed Development traffic levels established by the Transport Assessment work.

6.100 A number of measures have been proposed in order to avoid, reduce or manage traffic generation and to create a safe and secure environment for cyclists and pedestrians during both the construction and operational phases, and for assessment purposes are assumed to be integral to the Proposed Development.

6.101 The increase in vehicular flows on Cowley Road during both the construction and operational periods is predicted to have a minimal effect on pedestrian and cyclist delay, amenity, fear and intimidation and severance. This is because pedestrians and cyclists are fully separated from the carriageway on all sections of the link. The degree of separation varies along the link from physical separation via a grass / concrete verge to full screening from the carriageway by vegetation. The residual transport effects of the Proposed Development would, therefore, be either negligible or minor adverse and not significant.

Wind

6.102 Windiness affecting pedestrians has been assessed based on an Environmental Wind Desk Study Assessment supported by a Computational Fluid Dynamics (CFD) analysis.

6.103 The Assessment considered windiness for the existing Site scenario in existing surroundings (the Baseline), and for the Proposed Development in existing surroundings; existing surrounding buildings within a radius of 400m from the centre of the Site have been considered for both scenarios. Future (planning approved) surroundings are several hundred (>400m) meters away, and as such, will have no impact on windiness in the areas most affected by the Proposed Development.

6.104 Wind conditions for the Baseline scenario, which includes the existing permanent buildings with existing landscaping elements and existing surroundings, are likely to be acceptable for the currently intended pedestrian use. The only exception to this is the main entrance to Block S3 (One Cambridge Square) immediately off-site, where the local conditions are likely to be in the 'Strolling' range, and in excess of the acceptable comfort limits for primary entrance use ('Standing').

6.105 With completion of the Proposed Development, on-site wind conditions are likely to remain acceptable for the intended pedestrian activities. As such, there are no requirements for on-site wind mitigation. The currently proposed landscaping will have a beneficial impact on the local windiness on-site and will mitigate the adverse conditions at the main entrance to One Cambridge Square.

6.106 With completion of the Proposed Development, the local windiness at the main entrance to Block S3 (One Cambridge Square), immediately off-site, is improved to 'Standing' levels, as acceptable for the intended use as a primary entrance. Once the Proposed Development is fully constructed, the residual effect at Building S3 (One Cambridge Square) will be moderate beneficial.

Residual Effects

7

7.0 Residual Effects

7.1 Through the undertaking of the EIA, mitigation has been proposed to reduce or eliminate potential adverse impacts as a result of the Proposed Development. All such mitigation will be secured through the use of planning conditions appended to the Decision Notice. The residual effects that will remain after this mitigation has been implemented are summarised below.

Air Quality

7.2 Following the implementation of mitigation, construction and operational residual effects will be negligible.

Climate Change

7.3 No significant residual effects on climate change were identified.

Cultural Heritage

7.4 There will be no significant adverse effects on the designated heritage assets during either the construction or operational phases of the development. All residual effects are minor adverse and not significant.

Ecology

7.5 During the construction phase, there will be minor adverse effects on invertebrates, open mosaic habitat and Bramblefields LNR. The residual effect on hedgerow will be negligible.

7.6 Once operational, there will be minor beneficial residual effects on open mosaic habitat, invertebrates, reptiles, breeding birds, bats, and invasive species.

Flood Risk and Drainage

7.7 The Flood Risk and Drainage Assessment confirms there will be a minor beneficial effect on the Secondary A-Aquifer beneath the Site, a moderate beneficial significant effect on human receptors and a moderate adverse significant effect on the First Public Drain overflow and the River Cam.

Human Health

7.8 The Health Assessment concludes construction residual effects range from moderate beneficial to moderate adverse. Regarding operational residual effects, these ranged from major beneficial to neutral.

Landscape and Visual

7.9 Following mitigation, residual effects on landscape features ranged from moderate beneficial to moderate adverse but were not significant. Regarding visual residual effects, there is a major adverse residual effect at Viewpoint 8 which is significant. No other significant residual effects were identified.

Lighting

7.10 The Lighting Assessment concludes that the effects of the Proposed Development on sunlight and daylight availability to surrounding properties and areas are not significant. The effects of the Proposed Development relating to solar glare and obtrusive lighting also are not significant.

Noise and Vibration

7.11 Residual effects at the construction phases range from moderate adverse (significant) to negligible.

7.12 Once operational, residual effects will be either minor adverse or negligible and not significant.

Socio-Economics

7.13 The Socio-Economic Assessment has concluded there will be moderate-major beneficial residual effects for housing provision in the local study area and moderate beneficial effects for housing provision within Greater Cambridge. These are both considered to be significant. There will be minor beneficial residual effects for construction and operational employment

opportunities which are not significant. All other residual socio-economic effects are negligible.

Soils and Groundwater

7.14 With the implementation of mitigation, the predicted construction effects will be of permanent and temporary minor adverse to negligible significance.

7.15 The operational effects will be of permanent minor adverse to minor beneficial significance.

Transport

7.16 During the construction phase, the Transport Assessment has concluded that all residual effects will be negligible.

7.17 Once the Proposed Development is operational, there will be minor adverse effects in terms of severance, pedestrian and cyclist amenity and fear and intimidation. There will be negligible effects on driver delay, and pedestrian and cyclist delay.

Wind

7.18 Once the Proposed Development is operational, there will be a moderate beneficial residual effect at the main entrance to One Cambridge Square. All other residual effects at identified receptors will be negligible.

7.19 A table summarising the mitigation and residual effects of the Proposed Development are contained in **Table 7.1**.

Table 7.1: Summary of Mitigation Measures and Residual Effects

ENVIRONMENTAL ASPECT	DESCRIPTION OF EFFECT	SIGNIFICANCE	MITIGATION MEASURES PROPOSED	MECHANISM OF CONTROL/DELIVERY	RESIDUAL EFFECT
Air Quality	**Construction**				
	Impact of Construction Dust on human health, amenity and ecological receptors.	Adverse	CEMP	Planning Condition	Negligible
	Operation (includes cumulative development traffic in future year scenarios)				
	Human health (impacts of scheme on local air quality).	Negligible	Provision of EV charging points and cycle parking. Pedestrian connections across the Site. Travel plan, recommendations for vehicle fleets using site	Design as Proposed	Negligible
Climate Change	Impact of Construction Dust and PM_{10}	Minor Adverse	As outlined in CEMP - Sheeting of loose aggregates; Use dust suppression tools; Regular inspection and cleaning of local highways; Ensure all construction plant and equipment is well maintained; No unauthorised burning of materials on site	Planning condition	Negligible
	Carbon Assessment				
	Carbon emissions	Moderate Adverse	N/A	N/A	N/A
	ICCI Assessment				
	Air Quality	Not Significant	None required	N/A	Not Significant
	Carbon	Not Significant	None required	N/A	Not Significant
	Contaminated Land	Not Significant	None required	N/A	Not Significant
	Cultural Heritage	Significant	Monitoring the impacts on notable viewpoints with existing planting to soften some of the effects. As the areas impacted by climate change are buildings and land outside of the proposed scheme, there is therefore no control over these impacts within the scope of this project. Woodland management on-site should include succession planting, as well as planting during favourable conditions Not possible to mitigate for impacts that may occur within the wider landscape	Design as proposed	Significant

ENVIRONMENTAL ASPECT	DESCRIPTION OF EFFECT	SIGNIFICANCE	MITIGATION MEASURES PROPOSED	MECHANISM OF CONTROL/DELIVERY	RESIDUAL EFFECT
Climate Change	Ecology	Not significant	Some micro-climates should be introduced on the roof top planting spaces, to provide shelter for invertebrates during high winds. This will include increasing both the height and the number of the deadwood piles and bee bank features and making sure the alignments are orientated to the SE and not the SW so there is shelter from the prevailing wind direction; and Ensure planting in and around balancing ponds accounts for drought and flooding by containing the right balance of species	Design as proposed	Not Significant
	Human Health	Not Significant	Outside furniture (benches, floor surfaces and handrails etc) should be suitable for changing temperatures for example they not be metal which could overheat Ensure there is connectivity to outside spaces within the boundary of the Site. Provide routes into buildings for site users when weather outdoors becomes uncomfortable/extreme	RMA applications	Not Significant
	Landscape and Visual	Significant	Monitoring the impacts on notable viewpoints with existing planting to soften some of the effects. As the areas impacted by climate change are buildings and land outside of the proposed scheme, there is therefore no control over these impacts within the scope of this project. Woodland management on-site should include succession planting, as well as planting during favourable conditions Not possible to mitigate for impacts that may occur within the wider landscape	Planning condition	Significant

ENVIRONMENTAL ASPECT	DESCRIPTION OF EFFECT	SIGNIFICANCE	MITIGATION MEASURES PROPOSED	MECHANISM OF CONTROL/DELIVERY	RESIDUAL EFFECT
Climate Change	Noise and Vibration	Not Significant	None required	N/A	Not Significant
	Socio-Economics	Not Significant	None required	N/A	Not Significant
	Traffic and Transport	Not Significant	None required	N/A	Not Significant
	Water Resources, Flood Risk and Drainage	Not Significant	None required	N/A	Not Significant
	CCR Assessment				
	Proposed Development	Negligible	The landscape management plan should Include the following measures: • The timing of the grassland cut may be increased if there are extended droughts/heatwaves anticipated; and • Include consideration of increased lightning strikes.	Planning Condition	Negligible
Cultural Heritage	Visual intrusion of Construction Activities on Fen Ditton Conservation Area including the presence of cranes in the skyline, the visibility of floodlighting in the rural river landscape and noise disturbance in the tranquil river areas.	Minor Adverse	CEMP to outline phasing of the works, careful management of the Site to maintain a tidy appearance and use of hoardings to create acceptable Site boundaries	Planning Condition	Minor Adverse
	Visual intrusion of Construction Activities on Riverside and Stourbridge Common Conservation Area including the presence of cranes in the skyline, the visibility of floodlighting in the rural river landscape and noise disturbance in the tranquil river areas.	Minor Adverse	CEMP to outline phasing of the works, careful management of the Site to maintain a tidy appearance and use of hoardings to create acceptable Site boundaries	Planning Condition	Minor Adverse

ENVIRONMENTAL ASPECT	DESCRIPTION OF EFFECT	SIGNIFICANCE	MITIGATION MEASURES PROPOSED	MECHANISM OF CONTROL/DELIVERY	RESIDUAL EFFECT
Cultural Heritage	Urbanising effect of completed development affecting limited views of and from Fen Ditton Conservation Area, detracting from rural character and setting.	Minor Adverse	Careful articulation of building form, height management, use of neutral/ muted material palette and sturdy materials which are characteristic of Cambridge. A robust soft landscaping strategy that includes significant tree planting to soften the development's edges, aiding the transition with the sensitive Fen Edge, assumed to be mature at 15 years	Design and Proposed	Minor Adverse
	Urbanising effect of completed development affecting limited views of and from Riverside and Stourbridge Common Conservation Area, detracting from rural character and setting.	Minor Adverse	Careful articulation of building form, height management, use of neutral/ muted material palette and sturdy materials which are characteristic of Cambridge. A robust soft landscaping strategy that includes significant tree planting to soften the development's edges, aiding the transition with the sensitive Fen Edge, assumed to be mature at 15 years	Design as Proposed	Minor Adverse
Ecology	**Construction**				
	Bramblefields LNR Noise levels generated from construction traffic	Minor Adverse	CEMP	Planning Condition	Minor Adverse
	Milton Hedgerows CiWS	Negligible	CEMP	Planning Condition	Negligible
	Open Mosaic Habitat on Previously Developed Land Temporary direct loss of habitat on site	Moderate Adverse	Retention and enhancement and the creation of replacement habitat	Design as Proposed	Minor Adverse
	Invertebrates Temporary direct loss of habitat on site	Moderate Adverse	Retention and enhancement and the creation of replacement habitat	Design as Proposed	Minor Adverse

ENVIRONMENTAL ASPECT	DESCRIPTION OF EFFECT	SIGNIFICANCE	MITIGATION MEASURES PROPOSED	MECHANISM OF CONTROL/DELIVERY	RESIDUAL EFFECT
Ecology	Reptiles Loss and disturbance to habitat	Minor Adverse	Move reptiles from construction areas and to create new habitat	Planning Condition and Design as Proposed	Minor Beneficial
	Breeding Birds Loss of nesting sites and temporary noise disturbance	Minor Adverse	CEMP and new habitat	Planning Condition and Design as Proposed	Minor Beneficial
	Bats Loss of foraging habitat	Minor Adverse	New habitat	Design as Proposed	Minor Beneficial
	Invasive Species Risk of spreading invasive species	Minor Adverse	Management of invasive species on site to be undertaken during construction (CEMP)	Planning Condition	Minor Beneficial
	Operation				
	Bramblefields LNR Visitor Pressure	Minor Adverse	Public open space proposed as part of design	Design as Proposed	Minor Adverse
	Milton Hedgerows CiWS	Negligible	None required	N/A	Negligible
	Open Mosaic Habitat on Previously Developed Land Habitat creation	Minor Beneficial	Habitat creation	Design as Proposed	Minor Beneficial
	Invertebrates Habitat creation	Minor Beneficial	Habitat creation	Design as Proposed	Minor beneficial
	Reptiles Habitat creation	Minor Beneficial	Habitat creation	Design as Proposed	Minor Beneficial

ENVIRONMENTAL ASPECT	DESCRIPTION OF EFFECT	SIGNIFICANCE	MITIGATION MEASURES PROPOSED	MECHANISM OF CONTROL/DELIVERY	RESIDUAL EFFECT
Ecology	Breeding Birds Habitat creation	Minor Beneficial	Habitat creation	Design as Proposed	Minor Beneficial
	Bats Habitat creation	Minor Beneficial	Habitat creation	Design as Proposed	Minor Beneficial
Flood Risk and Drainage	**Surface Water Run-off and Sediment Control.**				
	High (Principal Bedrock Aquifer)	Negligible	CEMP to be secured by planning conditions/necessary permitting and consents required from the EA/LLFA Design and management of the Proposed Development in accordance with industry standard practice, guidance and regulation Construction of development should be phased appropriately to protect permanent drainage system and SuDS	Planning Condition	Negligible
	Moderate (FPD)	Minor Adverse			Negligible
	Moderate (R. Cam)	Minor Adverse			Negligible
	Moderate (FPD Overflow)	Minor Adverse			Negligible
	Moderate (Secondary A Aquifer)	Moderate Adverse			Negligible
	Pollutive Activities from the Site Compound				
	High (Principal Bedrock Aquifer)	Negligible	CEMP	Planning Condition	Negligible
	Moderate (FPD)	Minor Adverse			Negligible
	Moderate (R. Cam)	Minor Adverse			Negligible
	Moderate (FPD Overflow)	Minor Adverse			Negligible
	Moderate (Secondary A Aquifer)	Moderate Adverse			Negligible

ENVIRONMENTAL ASPECT	DESCRIPTION OF EFFECT	SIGNIFICANCE	MITIGATION MEASURES PROPOSED	MECHANISM OF CONTROL/DELIVERY	RESIDUAL EFFECT
Flood Risk and Drainage	**Piling for Foundations**				
	High (Principal Bedrock Aquifer)	Negligible	CEMP	Planning Condition	Negligible
	Moderate (FPD)	Minor Adverse			Negligible
	Moderate (R. Cam)	Minor Adverse			Negligible
	Moderate (FPD Overflow)	Minor Adverse			Negligible
	Moderate (Secondary A Aquifer)	Moderate Adverse			Negligible
	Dewatering Operations, Over-Pumping and Excavations				
	High (Principal Bedrock Aquifer)	Negligible	CEMP	Planning Condition	Negligible
	Moderate (FPD)	Minor Adverse			Negligible
	Moderate (R. Cam)	Minor Adverse			Negligible
	Moderate (FPD Overflow)	Minor Adverse			Negligible
	Moderate (Secondary A Aquifer)	Moderate Adverse			Negligible
	Work on or Near Water	Major Adverse	CEMP	Planning Condition	Negligible
	Flood Risk				
	High (Principal Bedrock Aquifer)	Negligible	Surface water run-off attenuated to suitable max rates (agreed through consultation with SCDC) through use of SuDS, to manage flood risk on- and off-site Design to incorporate suitable groundwater flood risk mitigation measures including: waterproofing basements in accordance with BS 8102:2022; providing granular corridors underneath and around basement structures; setting FFLs 150mm above surrounding ground levels; and design of external levels to manage exceedance flows safely	Deign as Proposed	Negligible
	Moderate (FPD)	Negligible			Negligible
	Moderate (R. Cam)	Negligible			Negligible
	Moderate (FPD Overflow)	Negligible		Design as Proposed	Negligible
	Moderate (Secondary A Aquifer)	Moderate Adverse			Negligible
	Very High (Human) – groundwater	Moderate Adverse			Negligible
	Very High (Human) – surface water	Moderate Beneficial			Moderate Beneficial

ENVIRONMENTAL ASPECT	DESCRIPTION OF EFFECT	SIGNIFICANCE	MITIGATION MEASURES PROPOSED	MECHANISM OF CONTROL/DELIVERY	RESIDUAL EFFECT
Flood Risk and Drainage	**Surface Water Run-off**				
	High (Principal Bedrock Aquifer)	Negligible	The culverted FPD overflow passing through the Site will be diverted to support the proposed arrangement of new structures throughout the Proposed Development. The diversion will be controlled through the LDC process Surface water run-off will be discharged into the diverted FPD overflow culvert to avoid mobilising any contaminants present within the underlying ground. The FPD overflow culvert outfalls to the River Cam to the east of the Site Throughout the Site, a multi-functional SuDS network will be specified as part of the surface water drainage strategy design, to provide the necessary water quality improvements to surface water run-off before being discharged. SuDS will include green roofs, rain gardens, swales, tree pits, and attenuation tanks	Design as Proposed	Negligible
	Moderate (Secondary A Aquifer)	Minor Beneficial			Minor Beneficial
	Moderate (R. Cam) – run-off water quality	Moderate Adverse			Minor Adverse
	Moderate (R. Cam) – reducing pollution linkages	Minor Beneficial			Minor Beneficial
	Moderate (FPD)	Minor Adverse			Negligible
	Moderate (FPD Overflow)	Moderate Adverse			Minor Adverse
	Very High (Human)	Major Adverse			Negligible
	Foul Drainage				
	Moderate (R. Cam)	Negligible	Foul water from the Proposed Development to drain by gravity to a new foul pumping station in the southern corner of the Site. Development foul flows to be pumped north from the new pumping station, along Cowley Road, to discharge into the existing Anglian Water sewer network to the north-west of the Site Foul water discharge to public sewer system subject to Anglian Water approval	Design as Proposed	Negligible
Human Health	**Construction** **Active Travel During Construction**				
	Promote walking and cycling / Reduce car use	Minor Beneficial	Travel Plan CCTV for secure cycle parking	Planning Conditions	Minor Beneficial
	Safety	Neutral	CTMP Public site notice to provide contact details (accessible to all protected characteristics in the Equalities Act 2010) for raising concerns over safety.	Planning Condition	Neutral

ENVIRONMENTAL ASPECT	DESCRIPTION OF EFFECT	SIGNIFICANCE	MITIGATION MEASURES PROPOSED	MECHANISM OF CONTROL/DELIVERY	RESIDUAL EFFECT
Human Health	Connectivity	Neutral	CEMP	Planning condition	Neutral
	Healthy Environment During Construction				
	Air Quality	Neutral	As set out in Air Quality chapter	As set out in Air Quality Chapter.	Neutral
	Noise and Vibration	Moderate Adverse	As set out in noise chapter	As set out in Noise Chapter.	Moderate Adverse
	Contaminated Land	Neutral	As set out in contaminated land chapter	As set out in Contaminated Land Chapter.	Neutral
	Access to open space	Minor Beneficial	Non proposed	N/A	Minor Beneficial
	Flood Risk	Neutral	As proposed in flood risk and drainage chapter	As proposed in Flood Risk and Drainage Chapter.	Neutral
	Vibrant Neighbourhood During Construction				
	Local employment	Minor Beneficial	preparation of an Employment Skills Plan CEMP include requirement for contractors and construction companies to prepare and Implement a Mental Health Plan	Planning Conditions	Minor Beneficial
	Access to amenities and local food	Neutral	None proposed	N/A	Neutral
	Operation **Healthy Housing During Operation**				
	Accessible housing	Moderate Beneficial	None proposed	N/A	Moderate Beneficial
	Housing mix and affordability	Moderate Beneficial	Tenure and size mix to be determined through reserved matters to meet local needs	RMA Application	Moderate Beneficial
	Homes to age well	Minor Beneficial	Maintenance plan RMA to provide inclusive accessibility through design of buildings, landscaping and access	RMA Application	Minor Beneficial

ENVIRONMENTAL ASPECT	DESCRIPTION OF EFFECT	SIGNIFICANCE	MITIGATION MEASURES PROPOSED	MECHANISM OF CONTROL/DELIVERY	RESIDUAL EFFECT
Human Health	Active Travel During Operation				
	Walking and Cycling	Major Beneficial	Travel Plan	Planning Condition	Major Beneficial
	Safety	Neutral	None proposed	N/A	Neutral
	Connectivity	Neutral	None proposed	N/A	Neutral
	Minimising car use	Minor Beneficial	None proposed	N/A	Minor Beneficial
	Healthy Environment During Operation				
	Air quality	Neutral	RMA to considerations to internal air quality	RMA	Neutral
	Noise	Minor Adverse	Further assessment of the proposed mechanical services plant	RMA	Minor Adverse
	Contaminated Land	Neutral	None proposed	N/A	Neutral
	Open space, play space and access to nature	Moderate Beneficial	Landscape management and maintenance strategy should include consideration of space design to meet the needs of all age groups, residents and employees on site, including those protected characteristics in the Equalities Act	Planning Condition	Moderate Beneficial
	Local food growing	Minor Beneficial	A s106 will secure community growing on site of 1 Milton Avenue and triangle site and then to be relocated north of Cowley Road at later phases	S106 Agreement	Minor Beneficial
	Overheating	Minor Beneficial	Overheating risk assessment	Planning Condition at Reserved Matters	Minor Beneficial
	Flood risk	Neutral	Regular maintenance of SUDS features as set out in the Drainage Strategy	Planning Condition	Neutral
	Vibrant Neighbourhood During Operation				
	Healthcare services	Minor Adverse	Contribution to local services	S106 Agreement	Neutral
	Education	Neutral	None Proposed	N/A	Neutral
	Access to social infrastructure, public buildings, and spaces.	Minor Beneficial	None Proposed	N/A	Minor Beneficial
	Local Employment	Major Beneficial	Preparation of an Employment Skills Plan to prioritise local recruitment	Planning Condition	Major Beneficial

ENVIRONMENTAL ASPECT	DESCRIPTION OF EFFECT	SIGNIFICANCE	MITIGATION MEASURES PROPOSED	MECHANISM OF CONTROL/DELIVERY	RESIDUAL EFFECT
Landscape and Visual	**Landscape**				
	Introduction of the Proposed Development in 'NCA 88: Bedfordshire and Cambridge Clayland'	Minor Adverse	High quality design	Design as Proposed	Minor Adverse
	Introduction of the Proposed Development in 'LCA 9A Cam River Valley – Cambridge'	Moderate Adverse	High quality design	Design as Proposed	Moderate/Minor Adverse
	Introduction of the Proposed Development in the railway corridor	Moderate Adverse	High quality design	Design as Proposed	Moderate Beneficial
	Introduction of the Proposed Development in the context of the local residential area	Moderate Neutral	High-quality design and implementation of a 30 year landscape maintenance plan	Design as Proposed	Moderate Beneficial
	Introduction of the Proposed Development in the Cambridge's skyline	Moderate Adverse	High quality design	Design as Proposed	Moderate Neutral
	Introduction of the Proposed Development in the landscape setting of Fen Ditton CA	Major Adverse	High quality design	Design as Proposed	Moderate Adverse

ENVIRONMENTAL ASPECT	DESCRIPTION OF EFFECT	SIGNIFICANCE	MITIGATION MEASURES PROPOSED	MECHANISM OF CONTROL/DELIVERY	RESIDUAL EFFECT
Landscape and Visual	Introduction of the Proposed Development in the landscape setting of Riverside and Stourbridge Common CA	Minor Adverse	High quality design	Design as Proposed	Minor Neutral
	Visual				
	Introduction of the Proposed Development in the visual experience of visitors of the Bramblefileds LNR	Major Adverse	Propose a development appropriate to the Site's context in terms of scale, height and form	Design as Proposed	Moderate Adverse
	Introduction of the Proposed Development in the visual experience of visitors of the Limeklin Road West Pit LNR	Moderate/Minor Adverse	Propose a development appropriate to the Site's context in terms of scale, height and form	Design as Proposed	None
	Introduction of the Proposed Development in the visual experience of road users in proximity of the Site, including the guided busway.	Moderate/Minor Adverse	Propose a development appropriate to the Site's context in terms of scale, height, materiality and form	Design as Proposed	Moderate/Minor Neutral
	Introduction of the Proposed Development in the visual experience of road users on the A14	Moderate/Minor Adverse	High quality design	Design as Proposed	Moderate/Minor Neutral

ENVIRONMENTAL ASPECT	DESCRIPTION OF EFFECT	SIGNIFICANCE	MITIGATION MEASURES PROPOSED	MECHANISM OF CONTROL/DELIVERY	RESIDUAL EFFECT
Landscape and Visual	Introduction of the Proposed Development in the visual experience of ramblers on the public footpaths to the east of the Site	Major Adverse	Propose a development appropriate to the Site's context in terms of scale, height and form	Design as Proposed	Moderate/Major Adverse
	Introduction of the Proposed Development in the visual experience of ramblers in the green open spaces along the river	Major Adverse	High quality design	Design as Proposed	Minor Neutral
	Introduction of the Proposed Development in the visual experience of ramblers on footpaths in the wider landscape (long distance views, including relevant Policy 60 key views)	Major Adverse	High quality design	Design as Proposed	None
	Introduction of the Proposed Development in the visual experience of cyclists and pedestrians on the Chisholm Trail	Major Adverse	High quality design	Design as Proposed	Negligible
	Introduction of the Proposed Development in the visual experience of local residents to south-west of the Site	Major Adverse	High quality design	Design as Proposed	Moderate Adverse

ENVIRONMENTAL ASPECT	DESCRIPTION OF EFFECT	SIGNIFICANCE	MITIGATION MEASURES PROPOSED	MECHANISM OF CONTROL/DELIVERY	RESIDUAL EFFECT
Landscape and Visual	Introduction of the Proposed Development in the visual experience of local residents to the south-east	Major Adverse	High quality design	Design as Proposed	Minor/Moderate Neutral
Lighting	Impact of proposed massing on daylight and sunlight to surrounding buildings.	Not Significant	Not required	N/A	Not Significant
	Impact of proposed massing on daylight and sunlight to surrounding areas.	Not Significant	Not required	N/A	Not Significant
	Impact of Proposed Development lighting to surrounding areas.	Not Significant	Mitigation measures require the lighting systems to adhere to ILP guidance on obtrusive lighting	Design as Proposed	Not Significant
Noise and Vibration	**Construction**				
	Construction noise - Existing noise sensitive receptors (Dwellings on Discovery Way (R1), Dwellings on Long Reach / Bourne / Fairbairn Road (R2), Sunningdale Caravan Park (R3), Southgate's Caravan Park (R4), Dwellings on Grange Park / Sandy Lane (R5))	Moderate Adverse	Best Practice, CEMP	Planning Condition	Minor Adverse

ENVIRONMENTAL ASPECT	DESCRIPTION OF EFFECT	SIGNIFICANCE	MITIGATION MEASURES PROPOSED	MECHANISM OF CONTROL/DELIVERY	RESIDUAL EFFECT
Noise and Vibration	Construction noise - Existing noise sensitive receptors (Novotel Hotel (R7, Cambridge Commercial Park (R8), Cambridge Business Park (R9), and One Cambridge Square (R10))	Minor Adverse	Best practice, CEMP	Planning Condition	Minor Adverse
	Construction noise - Future residents of the Residential Quarter of the Proposed Development (R6)	Minor Adverse	Best practice, CEMP	Planning Condition	Minor Adverse
	Construction vibration - Existing and future sensitive residential receptors (Dwellings on Discovery Way (R1), Dwellings on Long Reach / Bourne / Fairbairn Road (R2), Sunningdale Caravan Park (R3), Southgate's Caravan Park (R4), Dwellings on Grange Park / Sandy Lane (R5), Residential Quarter of the Proposed Development (R6), Cambridge Business Park (R9))	Minor Adverse	Brest practice, CEMP	Planning Condition	Minor Adverse

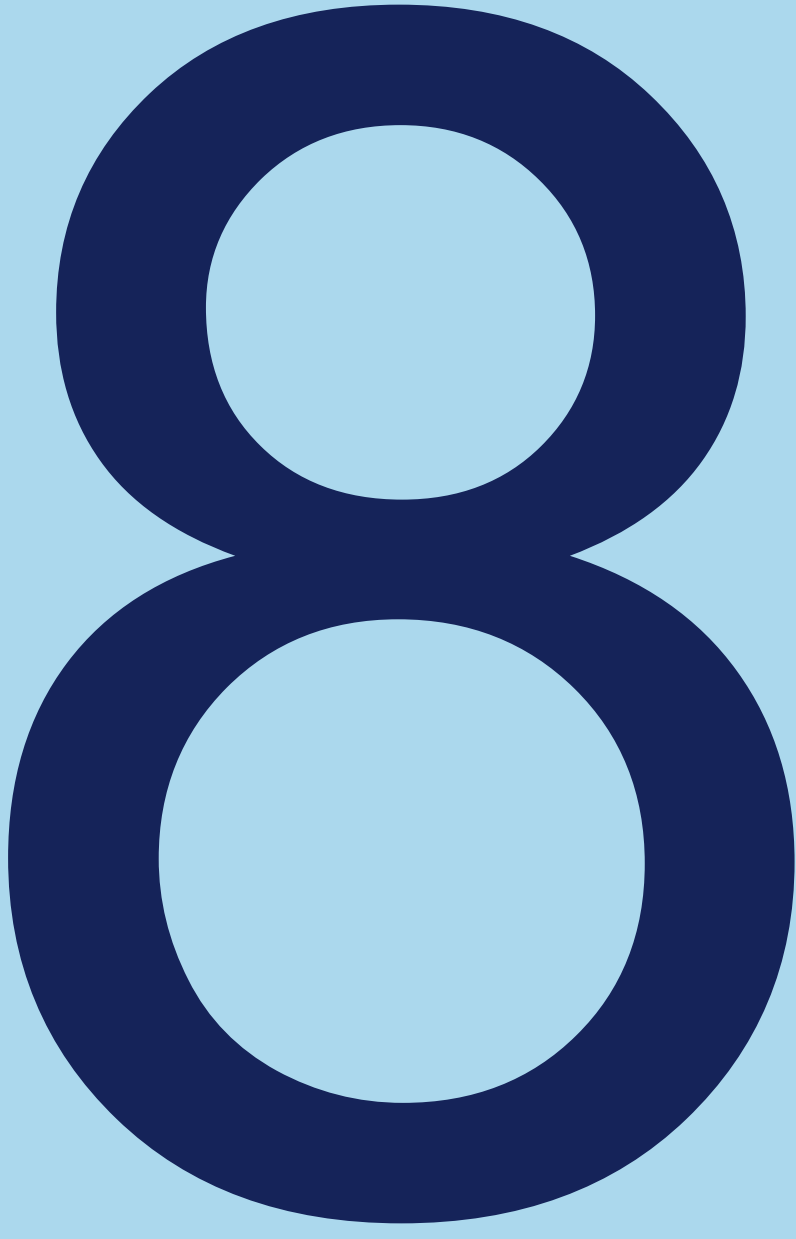
ENVIRONMENTAL ASPECT	DESCRIPTION OF EFFECT	SIGNIFICANCE	MITIGATION MEASURES PROPOSED	MECHANISM OF CONTROL/DELIVERY	RESIDUAL EFFECT
Noise and Vibration	Construction Vibration - Existing sensitive receptors (Novotel Hotel (R7), Cambridge Commercial Park (R8), and One Cambridge Square (R10))	Moderate Adverse	Best practice, CEMP	Planning Condition	Minor Adverse
	Construction Traffic - All existing and future noise sensitive receptors	Minor Adverse	Construction traffic management plan as part of CEMP	Planning Condition	Minor Adverse
	Operation				
	Operational mechanical plant – all existing and future noise sensitive receptors	Negligible	Plant noise limits	Design as Proposed	Negligible
	Operational traffic noise – all existing and future noise sensitive receptors	Minor Adverse	None	N/A	Minor Adverse
Socio-Economics	Provision of housing (Local)	Major Moderate Beneficial	None	N/A	Major/ Moderate Beneficial
	Provision of housing (Gt Camb)	Moderate Beneficial	None	N/A	Moderate Beneficial
	Impact of nursery and pre-school provision	Negligible	None	N/A	Negligible
	Impact on primary school provision	Negligible	None	N/A	Negligible
	Impact on secondary school provision	Negligible	None	N/A	Negligible

ENVIRONMENTAL ASPECT	DESCRIPTION OF EFFECT	SIGNIFICANCE	MITIGATION MEASURES PROPOSED	MECHANISM OF CONTROL/DELIVERY	RESIDUAL EFFECT
Socio-Economics	Impact on public open space (including children's play space)	Negligible	None	N/A	Negligible
	Impact on outdoor sport space	Minor Adverse	Financial contribution towards improvements of existing facilities	S106 Agreement	Negligible
	Impact on allotment space	Minor Adverse	Financial contribution towards improvements of existing facilities	S106 Agreement	Negligible
	Provision of construction employment opportunities	Minor Beneficial	None	N/A	Minor Beneficial
	Provision of operational employment opportunities	Minor Beneficial	None	N/A	Minor Beneficial
Soils and Groundwater	**Construction**				
	Changes in topography	Minor Adverse/ Negligible	No mitigation identified	N/A	Minor Adverse/ Negligible
	Soil compaction and erosion	Minor Adverse	Implementation of CEMP	Planning Condition	Minor Adverse
	Ground stability	Minor adverse/ Negligible	Ground investigation to characterise geotechnical engineering properties of the ground and inform detailed design Landscaping/tree planting design to take account of shrink-swell potential of Gault Clay Earthworks to prepare development plots to be undertaken and validated in accordance with appropriate works specification	Planning Condition	Negligible
	Contamination, reuse of soil, generation of waste soil arisings.	Minor Adverse/ Negligible	Ground investigation, gas monitoring and groundwater sampling; human health generic quantitative risk assessment, preliminary controlled waters risk assessment and gas risk assessment; completion of detailed risk assessment and/or remediation as required; completion of foundation works risk assessment	Planning Condition	Negligible

ENVIRONMENTAL ASPECT	DESCRIPTION OF EFFECT	SIGNIFICANCE	MITIGATION MEASURES PROPOSED	MECHANISM OF CONTROL/DELIVERY	RESIDUAL EFFECT
Soils and Groundwater	**Operation**				
	Changes in topography	Negligible	No mitigation identified	N/A	Negligible
	Soil compaction and erosion	Minor Beneficial	No mitigation identified		Minor Beneficial
	Ground stability	Moderate/Minor Adverse	No mitigation identified		Negligible
	Contamination, reuse of soil, generation of waste soil arisings	Minor Adverse/ Negligible	No mitigation identified		Minor Adverse/ Negligible
Transport	**Construction**				
	Severance	Negligible	CTMP linked to CEMP	Planning Condition	Negligible
	Driver Delay	Negligible	CTMP linked to CEMP		Negligible
	Pedestrian and Cyclist Delay	Negligible	CTMP linked to CEMP		Negligible
	Pedestrian and Cyclist Amenity	Negligible	CTMP linked to CEMP		Negligible
	Fear and Intimidation	Negligible	CTMP linked to CEMP		Negligible
	Collisions	Negligible	CTMP linked to CEMP		Negligible
	Operation				
	Severance	Minor Adverse	None	N/A	Minor Adverse
	Driver Delay	Negligible	None		Negligible
	Pedestrian and Cyclist Delay	Negligible	None		Negligible
	Pedestrian and Cyclist Amenity	Minor Adverse	None		Minor Adverse
	Fear and Intimidation	Minor Adverse	None		Minor Adverse
	Collisions	Negligible	None		Negligible

ENVIRONMENTAL ASPECT	DESCRIPTION OF EFFECT	SIGNIFICANCE	MITIGATION MEASURES PROPOSED	MECHANISM OF CONTROL/DELIVERY	RESIDUAL EFFECT
Wind	Entrance locations at the Proposed Development (on-site)	Negligible	Not required	N/A	N/A
	Access routes at the Proposed Development (on-site)	Negligible	Not required	N/A	N/A
	Outdoor Amenity areas at the Proposed Development (on-site)	Negligible	Not required	N/A	N/A
	Main entrance of Block S3 (off-site)	Moderate Beneficial	Not required	N/A	Moderate Beneficial

What Happens Next?



8.0 What Happens Next?

8.1 Following submission of the planning application, including the Environmental Statement, there will be an opportunity for any interested parties to make their views known to the Council as part of the formal consultation process.

8.2 The full Environmental Statement containing the results of the detailed Environmental Impact Assessment, and a set of documents supporting the planning application, will be available to view and comment on the Council's planning website at:

https://www.greatercambridgeplanning.org/planning-applications/view-and-comment-on-planning-applications/

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BROOKGATE
LAND LIMITED

ON BEHALF OF THE

CHESTERTON
PARTNERSHIP