Table 11.14: Cumulative Noise Limits for Building Services Plant Associated with the Proposed Development

RECEPTOR	LIMITING PLANT NOISE RATING LEVEL (DB $L_{AR,TR}$)	
	DAYTIME (07:00 – 23:00)	NIGHT-TIME (23:00 – 07:00)
R1	41	35
R2	41	35
R3	41	35
R4	43	41
R5	43	41

11.76 It is expected that compliance with the proposed limits will be controlled through a suitably worded planning condition. Consequently, the noise impact from building services plant is assessed as being of **neutral to minor adverse** magnitude.

11.77 Detailed assessments of plant proposals will be brought forward as part of any reserved matters applications. Spatial allowance has been made for localised noise control measures such as attenuation packs, in-duct silencers, and acoustic screens to satisfy the limits in **Table 11.14**.

Noise Emissions from the Newly Formed Events Space / Public Square

11.78 The scope of events is not currently known, but it is envisaged that noise will largely comprise patrons gathering and conversing in the outdoor areas, and occasional internal events.

11.79 The proposed event space and public square are located towards the centre of the Proposed Development, at least 100 metres from all receptors. The massing of the Proposed Development has also been arranged in such a way that the surrounding buildings can be expected to acoustically screen the event space and public square. However, a conservative approach has been taken and, for the purposes of this assessment, any additional screening provided by the Proposed Development has been ignored.

11.80 On the assumption that events will only normally occur during daytime hours (07:00 -23:00), an internal limit of NR25 will need to be targeted at receptors. This is equivalent to 35 dB $L_{Aeq,T}$ with specific limits at each octave band centre frequency.

11.81 Allowing for attenuation over distance (40 dB) and a conservative level difference of 5 dB for an open window, noise levels outside the event space and in the public square would have to exceed 80 dB $L_{Aeq,T}$ before there is a risk of breaching the daytime limit. This level of activity noise is equivalent to a busy bar/restaurant and approximately 100 people talking simultaneously at normal effort. In practice, this would require an external capacity in excess of 200, assuming that typically only 50% of people talk at any one time during polite conversation.

11.82 The construction of the façades of the event space can be expected to readily provide a level difference of 30 dB or greater, enabling internal noise levels in excess of 100 dB $L_{Aeq,T}$. This level of activity noise is roughly equivalent to a night club, and it is anticipated that event noise will be far lower than this.

11.83 Operational noise from events will require further assessment as part of any Reserved Matters application, but it is expected that relatively high noise levels can be readily controlled in line with CCC's planning requirements. On this basis, the impact of event noise is assessed as being of **neutral to minor adverse** magnitude.

Site Suitability

11.84 Exposure to environmental sound has the potential to adversely impact upon the intended function of the Proposed Development. The suitability of the Site has been assessed by demonstrating that suitable internal sound levels can be achieved.

11.85 To rationalise the assessment of the Site, the north-eastern boundary has been identified as the worst-case location in terms of noise. Both road traffic on Coldhams Lane and trains travelling to and from Cambridge station are expected to contribute to noise levels at east facing facades.

11.86 Based on the measurement data from the baseline survey, a worst-case ambient sound level of 67 dB $L_{Aeq,1hour}$ can be expected during normal working hours (09:00 - 17:00).

11.87 Following the simplified calculation methodology of BS 8233, it would be possible to achieve the most onerous internal noise criteria set out in **Table 11.6** with a composite façade performance of R_w 37 dB. It is understood that ventilation and cooling requirements throughout the development will be provided mechanically and therefore façade openings have been excluded.

11.88 This composite façade sound insulation performance is not considered particularly onerous and could be readily achievable with masonry facades or lightweight façade systems with internal plasterboard linings.

11.89 Areas of glazing would also need to uphold the composite sound insulation performance and R_w 37 dB could be readily achieved with commercially available double glazing incorporating a pane of acoustically laminated glass.

11.90 Facades towards the centre and west of the Site will be subject to significantly lower levels of environmental sound and it is therefore reasonable to assume that suitable internal conditions can also be achieved in these locations.

11.91 On the basis that suitable internal noise levels can be achieved through the use of relatively conventional construction forms, the Site is considered suitable for the Proposed Development.

Evaluation of Predicted Impacts

Noise from Demolition and Construction Activities

11.92 The assessment indicated that a limited number of construction activities would result in a moderate adverse impact magnitude at existing receptors R1, R3 and R4. As these receptors are considered to be “High” sensitivity, these activities will result in moderate adverse effects which are considered to be potentially significant.

11.93 The assessment also indicated that a limited number of construction activities would result in a moderate adverse impact magnitude at receptor S1 (potentially occupied buildings within the Proposed Development). As this receptor is considered to be “Low” sensitivity, these activities will result in minor adverse effects which are not significant in the context of this ES chapter.

Noise from Construction Traffic

11.94 Noise impacts associated with construction traffic were assessed as being of neutral magnitude. These activities will result in **temporary negligible effects** which are **not significant** in the context of this ES chapter.

Vibration from Demolition and Construction Activities

11.95 Vibration impacts associated with most demolition and construction activities were assessed as being of neutral to minor adverse magnitude. it is concluded that construction vibration will result in **temporary negligible to minor adverse effects**, which are **not significant** in the context of this ES chapter**.**

Noise Emissions from the Introduction of New Building Services Plant

11.96 Noise impacts associated with building services plant were assessed as being of neutral to minor adverse magnitude. These activities will result in **permanent negligible to minor adverse effects** which are **not significant** in the context of this ES chapter.

Noise Emissions from the Newly Formed Events Space / Public Square

11.97 Noise impacts associated with events and the public square were assessed as being of neutral to minor adverse magnitude. These activities will therefore result in **permanent negligible to minor adverse effects** which are **not significant** in the context of this ES chapter.

Site Suitability

11.98 The Site was assessed as being suitable for the Proposed Development.

Mitigation

Construction Phase

11.99 The assessment of demolition and construction noise has highlighted the potential for some demolition and construction activities to result in significant adverse impacts upon receptors R1, R3 and R4.

11.100 As required under Section 72 of the Control of Pollution Act 1974, the Principal Contractor for the Site will adopt *"Best Practicable Means"* to minimise noise and vibration associated with demolition and construction works. Guidance on suitable control measures shall be drawn from BS 5228 Parts 1 and 2 and are likely to include:

11.101 Limiting works to less sensitive daytime hours. (Normal working hours would be 07:00 to 19:00 Monday to Friday, 08:00 to 13:00 on Saturday and no construction on Sunday or bank holidays. Permission to undertake works outside of these hours may be required on occasion and permission should be agreed on a case by case arrangement.)

11.102 Defining access routes, reducing speeds and routing site traffic away from sensitive receptors where possible.

- Adopting quieter methods of working and equipment. Careful consideration should be given to the methods of piling in particular.
- Ensuring equipment, vehicles and plant are regularly maintained and operated in an appropriate manner.
- Installing noise barriers and hoarding to control noise breakout at low level.
- Liaison with local residents to inform them of particularly high noise and vibration generating activities, setting out when and for how long these are likely to occur. This will be of particular importance where receptors are located at very small distances (less than 10m).

11.103 Further details of possible control measures can be found within the Outline CEMP submitted in support of the application (**Appendix 4.1**).The contents of the CEMP will be agreed with CCC and secured by planning condition.

Operational Phase

11.104 The design of fixed building services plant will need to carefully consider the noise limits set out in **Table 11.12**. Although the design information is not yet progressed, it is reasonable to expect that fairly conventional noise control measures such as acoustic packs, in-duct silences and screens will be required to ensure that the proposed limits can be achieved. Ultimately, the need to control plant noise emissions can be controlled through a suitably worded planning condition.

11.105 For the event space, it is envisaged that noise breakout from internal events can be sufficiently controlled through suitable design of the building envelope.

11.106 Noise within external spaces and the public square will require careful consideration and a Noise Management Plan (NMP) will need to be developed by the incoming operator once the types of activities are better understood. The NMP can be secured by planning condition and could include management policies such as:

- Limiting the capacity of external spaces, operating hours, and use of amplified music;
- Fitting external furniture with soft rubber footings;
- Installing acoustic screens around external spaces;
- Installing signs to remind patrons to be mindful of surrounding neighbours;
- Establishing clear lines of communication with the local community to report issues relating to event noise; and
- Maintaining and regularly reviewing the Noise Management Plan to accommodate feedback from receptors and adapting to the specific need of events.

11.107 As with building services noise, the need to control noise from events can also be controlled through a suitably worded planning condition.

Residual Impacts

Demolition and Construction Noise

11.108 It is not possible to accurately quantify the reduction in noise levels achieved by adopting best practicable means, but it is reasonable to assume that site hoarding and localised acoustic screens could offer up to 10 dB of attenuation with further reductions possible through the careful selection of equipment and techniques.

11.109 On this basis, it can be concluded that demolition and construction activities will have **temporary negligible to minor adverse effects** which are **not significant.**

Demolition and Construction Vibration.

11.110 The predicted levels of vibration associated with demolition and construction works readily fall within the threshold values of a minor adverse magnitude of impact. Employing best practicable means is expected to reduce this further.

11.111 Demolition and construction vibration is therefore still considered a **temporary negligible to minor adverse effect** which is **not significant.**

Noise Emissions from the Introduction of New Building Services Plant

11.112 On the basis that noise will be controlled to appropriate limits and secured through a planning condition, noise from building services plant is considered to have a **minor adverse effect** which is **not significant.**

Noise Emissions from The Newly Formed Events Space / Public Square

11.113 On the basis that noise from the event space and public square can be controlled through a Noise Management Plan and secured via planning condition, it is considered to have a **minor adverse effect** which is **not significant.**

Site Suitability

11.114 It can be concluded that the Site remains **suitable for the Proposed Development**.

Monitoring

11.115 Ongoing monitoring of noise and vibration over the lifespan of the development is not considered necessary. Temporary noise and vibration monitoring during the construction phase will likely be required, this would be detailed in the CEMP. Relevant British Standards and Local Noise Policy should be suitably referenced in the CEMP.

Summary of Impacts

11.116 **Table 11.15** summarises the predicted noise and vibration impacts associated with the Proposed Development.

Table 11.15: Summary of Impacts: *Noise and Vibration*

DESCRIPTION OF IMPACT	IMPACT BEFORE MITIGATION							MITIGATION	IMPACT AFTER MITIGATION (RESIDUAL)			
	GEOGRAPHICAL IMPORTANCE	RECEPTOR SENSITIVITY	MAGNITUDE	ADVERSE/BENEFICIAL	REVERSIBLE/ IRREVERSIBLE	SHORT-TERM/LONG TERM	SIGNIFICANCE		ADVERSE/BENEFICIA	REVERSIBLE/ IRREVERSIBLE	SHORT-TERM/LONG TERM	SIGNIFICANCE
Construction noise	Loc	Low - High	Neu - Mod	Adv	Rev	T.	Neg - Mod	Employment of Best Practicable Means to reduce noise levels at source.	Adv	Rev	ST	Min to Min
Construction traffic noise	Loc	High	Neu	Adv	Rev	T.	Neg	Employment of Best Practicable Means to reduce noise associated with construction traffic.	Adv	Rev	ST	Neg
Construction vibration	Loc	High	Min	Adv	Rev	T.	Min	Employment of Best Practicable Means to reduce vibration levels at source.	Adv	Rev	ST	Min
Operational noise from building services plant	Loc	High	Min	Adv	Rev	LT.	Min	Plant noise limits and localised attenuation of equipment.	Adv	Rev	LT	Min
Operational noise from events	Loc	High	Min	Adv	Rev	ST.	Min	Noise limits and implementation of a Noise Management Plan.	Adv	Rev	LT	Min

Key:

Loc: Local	Min: Minor	Adv: Adverse	Neg: Negligible	LT: Long-Term
Mod: Moderate	Neu: Neutral	Rev: Reversible	ST: Short Term	

Socio-Economics

12

12.0 Socio-Economics

Introduction

12.1 This chapter addresses the socio-economic impacts of the Proposed Development. It has been prepared by Volterra Partners LLP to assess the impacts of the Proposed Development in relation to the effects it would have on:

- **Current and future residents**: for effects relating to employment, including local jobs and skills, and access to and provision of housing, existing businesses, leisure and open space/ public realm;
- **Current and future workers**: for effects relating to employment and local jobs and skills, and displacement of existing businesses on Site; and
- **Current and future businesses**: for effects relating to the displacement of current businesses, commercial floorspace provision, impact on retail and increased local expenditure from operational workers.

12.2 A Health Impact Assessment (HIA) has been prepared and is appended to the ES (**Appendix 12.1**).

Potential Impacts

12.3 The potential impacts scoped into this assessment include the following:

Demolition and Construction

- Displacement of existing businesses at the Site.

Completed Development

- Operational employment and resulting indirect and induced employment at the district level;
- Local jobs and skills at the local area level;
- Additional contribution towards commercial floorspace (including laboratory and office floorspace);
- Impact on the provision of retail;
- Additional expenditure supported from operational workers at the local area level;
- Provision of open space and public realm at the local area level;
- Impact on local leisure facilities;[1] and
- Potential impact of employment on housing need and affordability.[2]

Methodology

Defining the Baseline

Existing Baseline Conditions

12.4 Existing baseline socio-economic conditions have been established through the interpretation of nationally recognised research, data and survey information. The current calendar year or most recent data period is presented to reflect the current baseline position. The sources are referenced throughout the Environmental Statement (ES) Chapter and the data is sourced from the Office of National Statistics (ONS) where possible.

1 Additional impact requested by Cambridge City Council (CCC) see **Appendix 2.2 – CCC Scoping Opinion**.
2 Additional impact requested by CCC see **Appendix 2.2 – CCC Scoping Opinion.**

Future Baseline Conditions

12.5 Where information is available and where relevant, the baseline quantifies how the socio-economic conditions are likely to change from current levels to the full completion of the final phase of the Proposed Development (2034). This aims to provide a more relevant future baseline against which to assess the effects arising as a result of the fully completed Proposed Development. Most effects – with the exception of the displacement of existing businesses and the impact on retail – are assessed against the future baseline.

12.6 Publicly available information has been used to inform this future baseline. This includes data from the ONS and sub-regional and district level statistical forecasts and/or the local evidence base. For example, the future baseline reviews levels of job growth to understand the levels of employment that will likely exist when the Proposed Development is operational.

Evolution of the Baseline

12.7 The conditions in the area can be expected to change over time. There is likely to be continued population and employment growth in the area leading to changing pressures on open space and housing. These are summarised in the future baseline, which shows how population, employment and demand for such spaces are expected to change in the coming years. The receptor sensitivities presented discuss and take the evolution into account.

Geographical Study Areas

12.8 **Table 12.1** defines the study areas selected for this assessment. The study areas vary for each effect according to the nature of the effect and the aspect of the Proposed Development that gives rise to that effect – this is set out in **Table 12.2**.

Table 12.1: Study Areas Definitions

GEOGRAPHICAL LEVEL	DEFINITION
The Site	Site boundary illustrated in **Appendix 4.1**
Local Area (ward)	The Cambridge wards: Abbey, Petersfield and Romsey
District	Greater Cambridge (Cambridge and South Cambridgeshire)
Sub-regional	2011 Census Travel to Work Area (TTWA) Cambridge
Regional	East
National	England

Impact Assessment Methodology

Geographical Areas of Assessment of the Relevant Baselines

12.9 Effects have been considered at various geographical scales known as study areas, as determined by the relevant evidence base listed in **Table 12.2**.

Table 12.2: Geographic Area of Assessment for Socio-Economic Effects

POTENTIAL EFFECTS	GEOGRAPHICAL AREA	SOURCES OF EVIDENCE BASE
Demolition and Construction		
Displacement of existing businesses	The Site	Valuation Office Agency (VOA) (2023) and information provided by the Applicant
Completed Development		
Operational employment and resulting indirect and induced employment	District; Sub-regional	TTWA derived from Census (ONS[a], 2011); Homes and Community Agency (HCA) Employment Density Guide (HCA, 2015) ; HCA Additionality Guide (HCA, 2014)
Local jobs and skills	District	Appendix C7: Skills, Training & Local Employment Topic Paper (CCC and South Cambridgeshire District Council (SCDC), 2020) Annual Population Survey (APS) (ONS, 2022); Department for Education (DfE), (2021), Apprenticeships and traineeship data
Additional contribution towards commercial floorspace (including laboratory and office floorspace)	District	Cambridge office and laboratory occupational market update – The Beehive Centre Redevelopment (Bidwells, 2023) Cambridge Arc Market Databook – Summer 2023 (Bidwells[b], 2023)
Impact on retail	District	Town Centre Use/Retail Planning Statement (Alder King, 2023); Greater Cambridge Retail and Leisure Study (Hatch Regenerisa, 2021), Cambridge Retail and Leisure Study Appendix 1 (Hatch Regeneris[b], 2021)
Additional expenditure supported from operational workers	Local Area	2005 YouGov Survey
Provision of open space and public realm	Local Area	Cambridge Local Plan (2018); Open Space and Recreation Strategy (CCC, 2011); OS, 2021, Greenspace
Impact on local leisure services	District	Indoor Sports Facilities Strategy (ISFS) (CCC and SCDC, 2016)
Potential impact of employment on housing need and affordability	District	Greater Cambridge Employment and Housing Evidence Update (Iceni, 2023)

12.10 Socio-economic effects are compared against different baselines. These are either the current baseline (i.e. current calendar year of 2023 or most recent data period available) or the future baseline 2034, reflecting the completion of the final phase of the Proposed Development. It is noted that the Proposed Development will be completed in a number of phases. Given there are no residential aspects of the development, it is not expected that the phasing would have

an impact on the potential effects, therefore the phasing of the Proposed Development is not included within the future baseline and impacts are assessed after the final phase of the assessment is completed.

12.11 Assessing effects against 2023 or 2034 baseline ensures that the Proposed Development is assessed against the most up-to-date relevant socio-economic conditions that considered anticipated growth in employment, expenditure, commercial space, open space, leisure space, and housing. Projections are used to calculate the future baseline in most cases. This projected baseline (at the time of the assessment year) likely provides a more accurate reflection of the baseline conditions at that time than the latest baseline available through historic data.

12.12 Most effects are assessed against the future baseline year, when the Proposed Development is expected to be fully operational. The exceptions to this are:

- Displacement of existing businesses – the number of existing businesses on Site is unlikely to change in this period, with full vacant possession of the existing site taking place in Q4 2025, which is more relevant to the current baseline year (2023); and
- Impact on the provision of retail – this effect is assessed against the current baseline as data on the changes in the provision of retail is not available.

Demolition and Construction

12.13 Other than the potential displacement of existing businesses, all other effects during the demolition and construction stage have been scoped out of the EIA as significant socio-economic effects are not likely to occur. This approach is described in further detail within section 11 of the Scoping Report (**Appendix 2.1**) and was agreed by CCC as part of the EIA scoping process (see Scoping Opinion in **Appendix 2.2**).

Displacement of Existing Businesses

12.14 Existing businesses will be displaced by the demolition of the existing property and the construction of the Proposed Development. A qualitative assessment is undertaken, focused on the potential displacement and relocation requirements imposed on occupiers located on the Site directly.

12.15 The impact on retail provision has been requested within the CCC Scoping Opinion (**Appendix 2.2**). This effect also considers the loss of affordable retail options due to the Proposed Development, and the potential displacement of retail to less accessible locations. This impact will be assessed at the current baseline level as the displacement of retail uses will occur in 2025, which is closer to the current baseline rather than the future baseline 2034.

Completed Development

Operational Employment and Resulting Indirect and Induced Employment

12.16 Operational employment generation at the Proposed Development is considered relative to the TTWA (sub-regional level) as this is the principal catchment for the labour market. TTWAs represent the population that may reasonably be expected to travel to, and benefit from (in terms of employment), the Proposed Development.

12.17 Local authorities also have targets to be met in terms of increasing employment opportunities for local residents. Therefore, it is useful to understand the effect that operational employment generated by the Proposed Development can have at the district level. Hence, in addition to the sub-regional level, the effect of operational employment generation – for residents – is assessed at the district level.

Direct Employment Generation

12.18 The HCA Employment Density Guide (2015) is a widely recognised framework for identifying and estimating the employment generation of schemes. Jobs have been estimated using the standard assumption of one full time equivalent employee (FTE) is equivalent to two part time workers, and using the part time split of employees for each industry reported by the Business Register and Employment Survey (BRES) (ONS, 2021).

12.19 All estimates for employment generation are rounded to the nearest five FTEs to reflect uncertainty in estimates. When presenting the breakdown of employment figures, this has the result that some totals may not directly sum from the numbers presented in this assessment.

12.20 The Proposed Development would provide space for several different uses, including office, laboratory, retail, community, and commercial active use. The HCA Employment Density Guide (2015) provides a wide range of employment densities for each of the types listed. To assess the worst-case scenario, conservative densities are assumed for all use classes.

12.21 As part of the reasonable worst-case scenario, it is assumed that the Proposed Development will deliver blocks C, D, F, and G as lab space, which equates to 46,612 square meters (sqm) (net internal area (NIA)). The lab space is then split equally into lab and lab-enabled office space, with appropriate densities applied to these spaces. The equal split is a conservative assumption based on similar developments and the Applicant's experience. It is intended to reflect the most likely end-user fit out for the lab-enabled blocks. The lab spaces typically require office space (or write up space) alongside the lab space for result entry, analysis, and other office uses in the company (such as admin). Under this scenario the total commercial floorspace delivered is 93,009 sqm. Lab uses tend to support employment at a lower density than office so this analysis conservatively assumes a higher proportion of lab space within the Proposed Development in the worst-case scenario.

12.22 There is also a best-case scenario which assumes that the Proposed Development is entirely office without any lab provision. Under these plans the total commercial floorspace delivered is 98,693 sqm (NIA). This is considered as the best-case scenario assessment which is presented as a sensitivity test. Office floorspace has a much higher employment density than the lab space which drives the best-case employment scenario.

Additional Employment Generation

12.23 It is standard practice to compare the Proposed Development to the current use to understand the extent to which economic activity created by the Proposed Development would be additional to the existing economic activity on-site and how the types of economic activity might change. The additional jobs are estimated by removing the number of existing jobs from the number of jobs created by the Proposed Development.

12.24 The Site consists of primarily retail floorspace. The exact number of existing jobs currently supported by the Beehive Centre are unknown, although estimates, provided by JLL, find there are around 730 existing jobs. As there is uncertainty in this estimate, the existing employment levels at the Site have also been estimated using the HCA Employment Densities Guide (2015) and the existing floorspace areas. This estimate finds that there are approximately 670 existing FTEs, equivalent to 855 jobs when accounting for part-time working patterns.

12.25 The assessment also considers the net additional impacts of employment generation. Net additional jobs are those supported above and beyond what would have happened if the Proposed Development was not built. The HCA Additionality Guide (2014) provides framework

for estimating the additional impacts of a Proposed Development, based on the direct employment calculation. This framework considers:

- **Displacement** – the proportion of jobs that would otherwise have been supported elsewhere. The HCA Additionality Guide (2014) notes that "displacement arises where the intervention takes market share from existing local firms and organisations". There is a wide range of jobs provided at the Proposed Development, from low to high-skilled. This employment may be displaced from elsewhere in the district or the sub-region. However, there has been huge demand for office and lab space within the sub-region in recent years, particularly in Cambridge. At the end of H1 2023, there was around 7,000 square feet (sqft) of available lab space and demand for 1.2 million sqft (Bidwells, 2023). Unemployment across the district is higher (3.4%) in comparison to the regional level (2.9%), which suggests jobs at the Proposed Development could go to some of the unemployed, rather than being displaced from elsewhere. These factors combine to suggest a low displacement rate of 25% at the sub-regional level.
- **The multiplier impact** – the indirect benefit to other sectors supported by the Proposed Development, generated through both the supply chain and worker expenditure. It is expected that supply chain activity and income effects are felt within the sub-regional area. Given the types of employment located at the Proposed Development, the expenditure of the primary office and lab workers would be high given income levels at other similar office and lab employment locations and the scale of the offer for local spend available. Additionally, the location of the Proposed Development is close to the City Centre, further evidencing local spend options, at least within the District level if not the Local Area. A high sub-regional level composite multiplier of 1.5 has been selected for this assessment. The Additionality Guide does suggest a composite sub-regional multiplier of 1.25 but this is deemed to be too low for this assessment given the high level of self-containment of the sub-region's economy within the context of the wider regional economy. A sense check on this high level of self-containment (in the form of workforce retention) has been undertaken based on 2011 Census commuting patterns to determine this. Based on these patterns, it is estimated that approximately 77% of the regional multiplier effect would be reflected within the sub-region (ONS[a], 2011). Combining this proportion with the standard high regional multiplier of 1.7, as per the Additionality Guide, this implies a sub-regional multiplier of 1.54. The 1.5 multiplier used in this assessment is therefore thought to provide a reasonable worst-case assessment of indirect and induced employment generation at the sub-regional TTWA level.
- At the district level, the Additionality Guide (HCA, 2014) provides a composite neighbourhood-level multiplier of 1.1. This is deemed too low for the district level given Greater Cambridge's extensive life sciences cluster which has a strong supply chain linkage within the district itself. To account for this, the neighbourhood level multiplier is adjusted by estimating the proportion of the 1.5 sub-regional multiplier that takes place across the district. This is based on the proportion of residents in the TTWA who live in the District (30%) compared to the proportion of the TTWA workforce that live in the TTWA (73%) (ONSa, 2011). Based on this, approximately 0.2 of total 0.5 multiplier directly impacts district residents, and the remaining 0.3 would go to residents of the TTWA who live outside of the district.
- Leakage: a leakage is applied to estimate how many of these jobs would be retained by people living in different study areas. Two different leakage factors are applied. The

proportion of district workers who also live in the district (61%) is applied to estimate indirect and induced jobs within the district. And the proportion of the district workforce who live in the TTWA (81%) (ONSa, 2011) is used to estimate indirect and induced jobs in the rest of the TTWA.

Contribution to Local Employment and Skills

12.26 This effect assesses the contribution of the Proposed Development in providing employment and skills opportunities for local residents, and hence is assessed at the district level. This is a qualitative and quantitative assessment summarising the **Employment and Skills Strategy** (ESS) which responds to local issues in the labour market.

Additional Expenditure Supported from Operational Workers

12.27 A 2005 YouGov Survey found that workers in the UK spent on average £6.00 a day in the Local Area around their place of work.[3] This value is uplifted for earnings growth between 2005 and 2022 – a 58% increase to £9.47. The 5% higher earnings in the East compared to the country as a whole are accounted for taking the daily spend to £9.94. Finally, this figure is adjusted based on the earnings differential between the different industries, with the final results shown in **Table 12.3**.

Table 12.3: Expenditure per Day Assumptions

INDUSTRY	EXPENDITURE PER WORKER
Office	£13.47
Laboratory	£14.09
Retail	£6.00
Food and beverage (F&B)	£4.56
Community	£7.39
Gym/commercial active	£7.39

12.28 The range of spending estimated per day for the different jobs at the Proposed Development is presented in the relevant section. To be conservative, it is assumed that only 60% of workers would spend these amounts per day, for 220 days of the year. Additional worker expenditure is compared to existing spending within the Local Area.

Additional Contribution Towards Commercial Floorspace (Including Laboratory and Office Floorspace)

12.29 Commercial floorspace is assessed at the district level. This effect considers the demand vs supply balance for both office and laboratory space, including the pipeline. The contribution of the Proposed Development is assessed in this context. This effect utilises evidence from Bidwells' report supporting this planning application, Office and Laboratory Occupational Market Update (Bidwells, 2023).

Impact on Provision of Retail

12.30 This effect considers the impact of the provision of the new local centre. The loss of retail on-site is considered in demolition and construction effect. The Greater Cambridge Retail Study and its appendices (Hatch Regeneris, 2021) and Alder King Retail Report (2023), submitted as evidence for the planning application are used to assess the effect of the Proposed Development on retail.

3 Although this study dates back to 2005 it is the most up to date and most frequently used assumption concerning what employees spend in their local area of work. Conservative assumptions have been applied when using this figure.

Provision of Open Space and Public Realm

12.31 The assessment considers the provision of open space and public realm in the Local Area compared to the Cambridge Local Plan (2018) standards of types of open space per 1,000 population. These targets assess provision for the resident population and are different for the various categories for types of open space. It should be noted that these standards are set for new residential developments, there are no open space requirements for commercial developments. Therefore, this assessment considers the current level of open space provision in the Local Area compared to the number of residents within the Local Area. As the effect is based on the 2034 population, local population growth is considered, but the assessment conservatively assumes the provision of open space in the Local Area will remain unchanged. It is assumed the Proposed Development would contribute to informal open space provision,[4] which relates to a 2.2 hectares (ha) per 1,000 residents standard.

12.32 The impact of the Proposed Developments contribution to this type of space will be assessed against the population of the Local Area by 2034. The Open Space and Recreation Strategy (CCC, 2011) is used to provide the details on the strengths and weaknesses of the open space by each ward within the Local Area. In addition to this quantitative assessment, this effect provides a qualitative assessment of the quantum and quality of the open space and public realm and the provision for each worker.

Impact on Local Leisure Provision

12.33 The impact on local leisure provision focuses on the loss of swimming facilities on site. The ISFS (CCC and SCDC, 2016) and local reports provide the evidence base for this effect. The effect is assessed at the district level, which is the same level as the ISFS assessment.

Potential Impact of Additional Workers on Housing Need and Affordability

12.34 The potential impact of additional workers on housing need and affordability at district level has been requested to be included as stated in the Scoping Opinion **(Appendix 2.2)**. The impact of additional employment on housing need and affordability is carried out at a district level, to align with the most recent housing needs update (Iceni, 2023).

12.35 The following method is initially used to analyse the number of homes required within the district to support jobs growth occurring as a result of the Proposed Development:

- Jobs growth in the district, which is equivalent to the gross or net additional jobs growth at the Proposed Development. To account for uncertainty and present transparent calculations, both the net direct jobs and net additional jobs created are analysed. To be conservative, the maximum job estimates (referred to as the best case scenario **paragraph 12.20**) is applied to present a reasonable worst case impact on housing need and affordability;
- The changes to economically active population from the net additional jobs is estimated by accounting for double jobbing (the fact some people have more than one job) and commuting patterns;
- The population projection from the change in the economically active population is based on a demographic model produced by Iceni; the underlying assumptions is that one economically active person represents 1.81 residents; and
- Household representative rates are then applied to the resulting population projection and a vacancy allowance is used to calculate the number of dwellings required.

4 Informal open space includes: recreation grounds, parks, natural greenspaces and, in town centres or urban locations, usable, high quality, public hard surfaces.

12.36 The Iceni (2023) report does not provide the exact method to calculate the conversion of jobs to number of homes. However, the report's findings have been used to work out (through backwards induction) the underlying assumptions and methods, so that the model can be reproduced as best as possible. The assumptions used are listed in the table below; this includes the includes the figures that Iceni (2023) provide in their report. The relevant page number of the report are included for reference.

Table 12.4: Assumptions used by Iceni (2023) to Calculate Number of Homes from Jobs Forecasts

STEP	DESCRIPTION	ICENI (2023) METHOD	REFERENCE
Jobs growth in the district after accounting for unemployment	Jobs created at the Greater Cambridge level	Greater Cambridge: 64,179	**See page 117 for statistics (Iceni, 2023)**
Changes to economically active population	Accounting for double jobbing. 5.72% of workers in Greater Cambridge are working two jobs	Greater Cambridge: 60,511	
	Accounting for commuting by applying a 1:1 commuter ratio above the standard method: Greater Cambridge, equivalent to a reduction of 8.4%.	Greater Cambridge: 55,400	
Economically active population in 2020 and 2041	Finding the economically active population in 2041 by adding the change in economically active to the 2020 economic active population	Economically active Greater Cambridge 2020: 165,498 Change in economically active population: 55,400 Greater Cambridge 2041: 220,898	**See page 108 for economic activity in Greater Cambridge 2020 and page 117 for change in economically active (Iceni, 2023)**
Estimating the population based on the economically active population.	Using Iceni (2023) data we find the population per economically active is a ratio of 1.83 in 2020 and 1.81 in 2041	Greater Cambridge 2020 population/ Economic activity in 2020: 165,498 * 1.83 = 303,603 Greater Cambridge 2041 population / Economic activity 220,898 * 1.81 = 400,471	**See Page 106 for Greater Cambridge 2020 and 2041 population statistics (Iceni, 2023)** ***Volterra calculations applied for 2041 to estimate the 400,471 population.***

STEP	DESCRIPTION	ICENI (2023) METHOD	REFERENCE
Applying a population per household rate to the total population	Using the Iceni model, population per household in 2020 is **2.53** and population per household in 2041 is **2.35**. Using these we can work out the number of households in 2020 and 2041.	Population 2020 / **2.53** = number of households in 2020 303,603 / **2.53** = 120,371 Population 2041 / **2.35** = number of households in 2041 400,471 / 2.35 = 170,592 Change in the number of households: 50,221 Equating to 2,391 per annum	**See page 119 (Iceni, 2023)**
Applying a vacancy rate to obtain the number of dwellings per annum	A vacancy rate of 3% to the number of households gives the number of dwellings required per annum.	Number of dwellings required: 51,723 Number of dwellings required per annum: 2,463	**See page 119 (Iceni, 2023)**

Source: (Iceni, 2023); Volterra calculations

12.37 The key steps to be applied to the Proposed Development jobs are:

- Gross direct and net additional jobs generated at the Proposed Development;
- Applying double jobbing (5.72%) and accounting for commuting (8.4%) to obtain the change in the economically active population;
- From this, generating the population that would be brought in per economically active using a factor of 1.81;
- Obtaining the number of households required from this through the population per household 2.35; and
- Then applying a 3% vacancy rate to obtain the number of dwellings required over the period.

12.38 The resulting impact on housing need and affordability is discussed, although it should be recognised that any impact of new development on affordability is highly uncertain and will depend on a variety of different variables. Isolating the impact of the Proposed Development on the housing market is difficult as there are many different things driving house price affordability. This assessment conservatively assumes that there will be an impact on house prices but recognises that this will likely be across Greater Cambridge. The assessment also acknowledges that the Beehive Centre is allocated as an Opportunity Area to bring forward (commercial)[5] development in the Greater Cambridge emerging local plan, which is the policy document that the Iceni (2023) report underpins.

5 The Iceni (2023) report recognises that the Beehive Centre is being promoted for conversion into urban lab space.

Assumptions and Limitations

12.39 The assessment of socio-economic impacts and effects is carried out against a benchmark of current socio-economic baseline conditions prevailing in the area of the site and other relevant geographies. As with any data set, the baseline data will change over time. The most recent published data sources are used in this assessment, which is usually data from 2019 – 2023, but where this is not available, the next best alternative (i.e the most up to date) is used as a proxy. For some data, the 2011 Census is the most recent source which is over 10 years old, and could be considered to have limitations with regards to its representativeness of today's population. Wherever future baseline is available (for example projections for growth in employment), this is used to update the position from the current to the future baseline.

Cumulative Effects Assessment

12.40 A blended approach has been undertaken for the cumulative assessment depending on the effect being assessed. In the case of effects where the future baseline is informed by projections (all effects apart from the open space/public realm and retail effects), the assessment distinguishes between other development schemes that have a high likelihood of coming forward before 2034 (termed as 'opening year baseline schemes' in this ES chapter) and other development schemes coming forward after 2034. Opening year baseline schemes are assumed to be part of the aggregated future baseline projections of employment, expenditure and floorspace.

12.41 The assessment is therefore inherently cumulative with respect to these opening year baseline schemes and so they are excluded from the cumulative effects assessment to avoid double counting. Due to the nature of the effects assessed in this ES Chapter (almost all beneficial), this is considered to present a reasonable worst-case assessment.

12.42 There are three cumulative schemes that have been scoped into the EIA: Land North of Cambridge North Station Milton Avenue (planning reference 22/02771/OUT),Land North of Cherry Hinton (planning reference 18/0481/OUT) and 230 Newmarket Road Plot 1. To assess whether these are opening year schemes depends on if they meet the following criteria:

- They are complete but not yet occupied;
- They are currently under construction and due to be completed prior to the opening year of the fully completed Proposed Development (2034); or
- They are schemes (with either approval or registered planning application) and are expected to be operational by 2034, according to their construction programmes submitted with their planning applications.

12.43 Based on this criteria, the three cumulative schemes scoped into this EIA are considered to be opening year developments as they are expected to become operational prior to the opening year of the Proposed Development (2034), and hence there are no further schemes that need to be taken forward into the cumulative effects assessment for the majority of effects. A description of the opening year baseline schemes is provided below, this includes the opening year and distance from the Proposed Development.

Table 12.5: Developments Considered in the Opening Baseline

PROJECT AND PLANNING REFERENCE	DESCRIPTION OF DEVELOPMENT	STATUS	OPENING YEAR	DISTANCE FROM PROPOSED DEVELOPMENT
22/02771/OUT - Land North of Cambridge North Station Milton Avenue Cambridge Cambridgeshire	A hybrid planning application for: a) An outline application for the construction of three new residential blocks providing for up to 425 residential units and two commercial buildings b) A full application for the construction of three commercial buildings.	Not yet been granted planning permission	2027	1.8km
18/0481/OUT - Land North of Cherry Hinton Coldhams Lane, Cambridge, Cambridgeshire	Outline planning application for a maximum of 1,200 residential dwellings, a local centre, primary and secondary schools, community facilities, open spaces, allotments, landscaping and associated infrastructure.	Granted outline planning permission	2027	1.5km
230 New Market road, plot 1	The Applicant is in ownership of 230 New Market Road plot 1 which is close by to the Site. An application for a mixed use site is yet to be submitted. The expected uses of the site are likely to be 3,711 sqm (NIA) of retail space, 367 sqm of F&B, and 6,210 sqm of office space.	Not yet submitted	Pre-2034	Just under 500m

12.44 For the other two effects with no projections – open space/public realm and retail – the assessment of cumulative effects has been carried out by determining whether the development schemes identified above would effect open space/public realm and/or retail in the relevant study area. For open space and the public realm, the study area is the Local Area. The first two cumulative schemes are located outside of the Local Area, and the 230 New Market Road development will not provide any open space, therefore none have any material impact on the provision of open space and public realm at the Local Area level.

12.45 The assessment of the cumulative effects on the provision of retail is considered at the district level. All three schemes are within the district. The retail provision of these schemes is not considered in the future baseline level. A cumulative effects assessment is provided which assesses the effects of the new developments on the following effects, displacement of existing businesses and the impact on retail.

Methodology for Defining Effects

Receptors and Receptor Sensitivity

12.46 The sensitivity of receptors considered in this assessment have been defined as high, medium, low or very low. In the context of socio-economics, the level of sensitivity depends upon the baseline condition (e.g. the extent to which unemployment, skills deficit, or social infrastructure issues etc. are present in an area), and thus how many jobs and how much spending or infrastructure is needed in that area.

12.47 The receptor sensitivity is assessed on a case-by-case basis, using professional judgement, although broad definitions of the receptor sensitivities are given in **Table 12.6**.

Table 12.6: Receptor Sensitivities for Socio-Economics

SENSITIVITY OF RECEPTOR	DESCRIPTION
Very High	Extremely rare (endangered), potentially extremely vulnerable to change, of international importance or recognition, very limited potential for substitution.
High	Representative of where a receptor has limited ability to respond to change, possibly due to no surplus capacity / high scarcity.
Moderate	Representative of where changes to the receptor would bring about noticeable changes in conditions in the area.
Low	Representative of where a receptor is particularly responsive to change or able to cope with change without substantial effects on existing status or viability.
Very low	It is performing well and/or does not represent a socio-economic problem.

Magnitude of Impact

12.48 The assessment of the magnitude of potential impacts has been undertaken based on professional judgement as there are no industry standard criteria relating to the assessment of socio-economic impact magnitude. The assessment has aimed to be objective, quantifying the magnitude of impacts wherever possible. Where quantification has not been possible, qualitative assessments (professional judgement) have been made and justified.

12.49 The magnitude of impacts is classified as high, medium, low or neutral. **Table 12.7** outlines how the impact magnitude on baseline socioeconomic conditions are assessed. The impact magnitude is defined based on the change to either the existing or future baseline conditions, dependent on data availability. For some effects, such as open space, there is no information on how the existing baseline is likely to change before 2034. Some assessments also account for policy targets and local requirements.

Table 12.7: Impact Magnitude on Baseline Socio-Economic Conditions

MAGNITUDE OF IMPACT	DESCRIPTION
Major	The Proposed Development would cause a major change to baseline socio-economic conditions.
Moderate	The Proposed Development would cause a moderate change to baseline socio-economic conditions.
Minor	The Proposed Development would cause a small change to baseline socio-economic conditions.

MAGNITUDE OF IMPACT	DESCRIPTION
Neutral	The Proposed Development would cause a very small change to baseline socio-economic conditions.

Effect Nature

12.50 In terms of effect nature, effects are defined as either:

- **Beneficial** - advantageous effects on the relevant study area, such as creation of local jobs; or
- **Adverse** - detrimental effects on the relevant study area, such as displacement of existing business and residents

Effect scale

12.51 The magnitude of the impact and the sensitivity of the receptor combine to provide a scale of effect, as set out in **Table 12.8**.

Table 12.8: Scale of Effect

MAGNITUDE OF IMPACT	SENSITIVITY OF RECEPTOR				
	VERY HIGH	HIGH	MODERATE	LOW	VERY LOW
Major Beneficial	Major Beneficial	Major/Moderate Beneficial	Moderate Beneficial	Moderate/ Minor Beneficial	Minor Beneficial
Moderate Beneficial	Major/Moderate Beneficial	Moderate Beneficial	Moderate/Minor Beneficial	Minor Beneficial	Minor/ Negligible
Minor Beneficial	Moderate Beneficial	Moderate/Minor Beneficial	Minor Beneficial	Minor/ Negligible Beneficial	Negligible
Neutral	Negligible	Negligible	Negligible	Negligible	Negligible
Minor Adverse	Moderate Adverse	Moderate/Minor Adverse	Minor Adverse	Minor/ Negligible Adverse	Negligible
Moderate Adverse	Major/Moderate Adverse	Moderate Adverse	Moderate/Minor Adverse	Minor Adverse	Minor/ Negligible Adverse
Major Adverse	Major Adverse	Major/Moderate Adverse	Moderate Adverse	Moderate/ Minor Adverse	Minor Adverse

Duration of Effect

12.52 The timescale relating to the length of time that the impacts prevail needs to be defined as follows:

- Temporary (e.g. construction phase);
- Short Term (e.g. less than 5 years);
- Medium Term (e.g. 5-10 years); and
- Long Term (e.g. for the duration of the operational phase of the development).

Categorising Likely Significant Effects

12.53 Effects that are classified as moderate or major in scale (either beneficial or adverse in nature) are considered significant effects. Those that are classified as negligible or minor are not deemed significant.

Existing Baseline Conditions

12.54 This section summarises the existing socio-economic conditions of the Site and the wider study areas (as defined in **Table 12.2**).

Displacement of Existing Businesses Baseline

12.55 The Site is a mid-sized retail park with mixed uses and associated ground level car park. The total Site area is 7.58 hectares (ha), which supports approximately 21,791 sqm (NIA), predominantly retail floorspace.

12.56 As shown in **Table 12.9**, there are 17 units within the Beehive Centre. **Table 12.9** presents two estimates for the number of jobs at the stores, one from JLL provided by the Applicant and estimates which HCA (2015) employment densities to VOA (2023) floorspaces for units at the Proposed Development. The latter method results in an estimated 855 jobs, which is higher than the JLL estimates of 730 jobs. The largest discrepancy is due to employment in the Asda. To ensure a reasonable worst-case assessment of the loss of jobs, this assessment uses the higher estimate of 855 jobs to assess this impact.

Table 12.9: Employment Estimates for Existing Businesses on Site

TENANT NAME	FLOORSPACE TYPE	JOBS (VOLTERRA ESTIMATES)	JOBS (JLL ESTIMATES)
Subway	Food and Beverage (F&B)	5	10
Everlast Fitness	Gym/leisure	25	25
Gymfinity Kids	Gym/leisure	30	30
Dreams	Retail Warehouse	15	10
Tapi Carpets & Floors	Retail Warehouse	10	10
Carpetright	Retail Warehouse	15	15
Next Home	Retail Warehouse	25	30
Go Outdoors	Retail Warehouse	25	40
B&M	Retail Warehouse	45	50
Hobbycraft	Retail Warehouse	15	30
Pets at Home	Retail Warehouse	25	30
Costa Coffee	F&B	10	15
M&S food	Retail Food store	85	100
Asda	Retail Food store	415	200
Homesense TK Maxx	Retail Warehouse	50	80
Wren Kitchens	Retail Warehouse	35	30
Porcelenosa	Retail Warehouse	15	15
G4S Security	Security	5	5
Total		855	730

Source: HCA, 2015, Employment Density Guide; NB: Figures may not sum due to rounding

12.57 **Table 12.10** identifies some alternative retail options to understand the extent to which there are alternative retail options near the Site. This indicates there are a range of alternative, affordable retail options nearby.

Table 12.10: Alternative Retail Options

EXISTING BEEHIVE STORE	TYPE OF STORE	ALTERNATIVE STORE	DESCRIPTION	DISTANCE
ASDA	Affordable retail	Lidl, Aldi	Asda's main competitors in providing affordable convenience retail in the UK is Aldi and Lidl.	Aldi – located opposite CRP, approximately 5-minute drive from the existing site (0.6 miles). Lidl – Located in the adjacent CRP, approximately two minute drive from ASDA (0.3 miles).
M&S	Upper market convenience retail	Tesco Superstore	Whilst M&S is considered as slightly higher quality than Tesco – there are similarities in available products	Tesco Superstore – Located opposite CRP approximately 5 minute drive from the M&S at the existing site (0.7 miles)
Homesense (TK Maxx)	Home store	Homebase, Dunelm	Dunelm and Homebase are both well known affordable home stores which offer similar products to the home stores within the Beehive centre.	Homebase and Dunelm - located within the adjacent CRP, approximately one minute drive from the existing site (0.2 miles).
B&M home store	Home store			
Next Home	Home store			
Porcelenosa	Tiles, bathrooms and kitchens	B&Q, Homebase,	B&Q and Homebase sell products and services related to tiles, bathrooms, and kitchens	Homebase - located a one minute drive away in CRP (0.2 miles). B&Q – located at the opposite end of CRP a 5-minute drive away (0.7 miles).
Carpetright	Carpet store	SCS, Homebase, B&Q	SCS, Homebase and B&Q all sell carpets and flooring. SCS is considered a direct substitute.	Homebase and SCS - located within the adjacent CRP, approximately one minute drive from the existing site (0.2 miles). B&Q – located at the opposite end of CRP a 5-minute drive away (0.7 miles).
Tapi Carpets and Floors	Carpet and flooring	SCS, B&Q, Homebase		

EXISTING BEEHIVE STORE	TYPE OF STORE	ALTERNATIVE STORE	DESCRIPTION	DISTANCE
Dreams	Bed and mattresses	Bensons for beds, Dunelm, Homebase	Beds and mattresses are all sold at the following stores.	Bensons for Beds, Homebase, and Dunelm – located within the adjacent CRP, approximately one minute drive from the existing site (0.2 miles).
Everlast Fitness	Affordable gym	The Gym Group	The Gym Group is an affordable alternative to Everlast fitness, although it does not have a swimming pool.	Located within CRP, a one minute drive from the existing site (0.2 miles).
Costa Coffee	Coffee	Starbucks	Starbucks is considered a direct substitute to costa	Located within CRP, a one minute drive from the existing site (0.2 miles).
Wren Kitchens	Kitchen store	B&Q, Homebase	Homebase and B&Q offer similar products and services to Wren kitchens	Homebase - located a one minute drive away in CRP (0.2 miles). B&Q – located at the opposite end of CRP a 5-minute drive away (0.7 miles).

Sensitivity

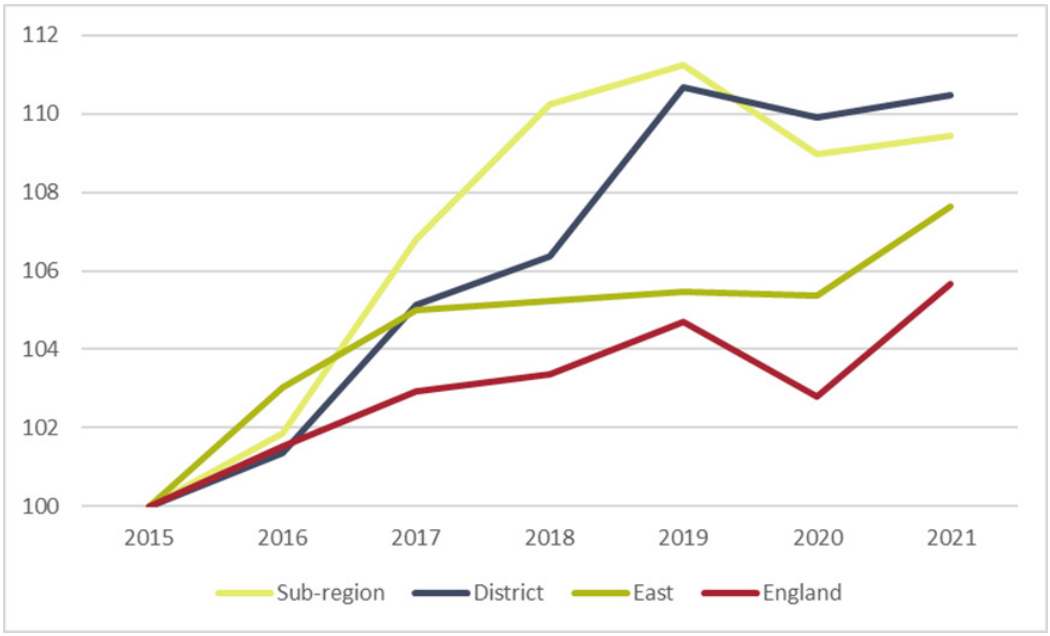
12.58 The Site supports businesses including up to 855 jobs. These businesses provide retail options for local people including affordable products and they support employment for a lot of people. However, there are a number of alternative options which are accessible and affordable within the Local Area. Therefore, changes to existing businesses onsite is deemed to have moderate sensitivity for residents and workers.

Operational Employment and Resulting Indirect and Induced Employment Baseline (workforce based)

Employment

12.59 The district is made up of two different employment locations Cambridge and South Cambridgeshire. Cambridge has a diverse economy with strengths in sectors such as R&D, creative industries and pharmaceuticals. It is well known for the University of Cambridge and has a variety of associated spin out companies. Cambridge has a lot of high-tech businesses and technology incubators that have spun out on science parks around the city such as Cambridge Science Park and Cambridge Business Park. South Cambridgeshire is a mostly rural district with a large agriculture base with several successful research and business parks such as Granta Park and Babraham Institute.

12.60 **Figure 12.1** provides an index of the growth in total employment for each study area between 2015 and 2021 (ONS, 2021). From 2015 to 2021 the sub-region has experienced a 9% increase in employment (around 34,300 jobs). This is slightly below the 10% growth in the district, but higher than the 8% growth across the East of England. The sub-region's employment grew in every year except for between 2019 and 2020 when employment fell by 2%. This was the result of the national lockdowns due to the Covid-19 pandemic. The district and the nation also experienced a reduction in employment of similar magnitude 1% and 2% respectively during this period.



Source: (ONS, 2021)

Figure 12.1: Index of Employment (2015=100)

Sectoral Employment

12.61 **Table 12.11** contains a breakdown of the various employment sectors for each study area. In 2021, the proportion of employment in office-based sectors was 34% in the sub-region and 38% in the district. This is higher than the regional and national average of 28% (ONS, 2021).[6] The sub-region and district had a higher proportion of employees in the 'professional, scientific and technical office' sector, 15%, and 21% respectively, than the regional and national average. This is largely due to the success of life sciences, research and development ('R&D') and other knowledge intensive sectors within the Greater Cambridge area.

12.62 The presence of large further education institutions, such as the University of Cambridge and Anglia Ruskin University, contribute to the high level of employment within the education sector across the sub-region and district.

6 Office sector is defined using the following collection of ONS broad industrial groups, J, K, L, M, and N

Table 12.11: Employment by Industry, 2021

INDUSTRY	SUB-REGION	DISTRICT	EAST	ENGLAND
Office	34%	38%	28%	28%
Professional, scientific & technical*	15%	21%	9%	9%
Health	12%	13%	12%	13%
Education	13%	15%	9%	8%
Retail, Accommodation & Food Services	14%	13%	16%	16%

*Source: (ONS, 2021) *Note: 'Professional, scientific & technical' industry is part of the office sector.*

Future Baseline

12.63 **Table 12.12** presents two forecasts for employment in each of the district and sub-region. The first set use the Iceni (2023) policy model, which uses a higher economic growth jobs forecast for the district from 2020 to 2041. This scenario gives greater weight to the most recent fast growth within Cambridge by assuming growth continues at the 2011 to 2020 rate for the first five years, the upper quartile for the next five years, midpoint of the longer and shorter run averages for the following five years, and for the 2001 to 2020 average for the 2031 and beyond period. The second set is based on a linear extrapolation of past employment growth between 2015 and 2019 (2015 – 2019 compound annual growth rate (CAGR) model). This historic growth rate is applied to 2021 employment to forecast jobs growth to 2041.

12.64 Based on the policy model, there is expected to be a 21% increase in total employment in the sub-regional area by 2034, equivalent to 83,600 jobs. The 2015-2019 CAGR model expects job growth of 42% over the same period.

12.65 Based on the policy model, there is expected to be a 21% increase in total employment in the district shows an increase of around 42,400 jobs. The 2015 – 2019 CAGR expects job growth of 40% over the same period.

12.66 As the assessment considers a reasonable worst-case scenario, where a higher starting point would mean that the impact of the Proposed Development is relatively smaller, the 2015 – 2019 CAGR model forecasts are used to assess this impact.

Table 12.12: Workforce Based Employment Forecasts

STUDY AREA	MODEL	2021	2034
Sub-region	Policy model	399,500	483,100
District	Policy model	202,500	244,900
Sub-region	2015 - 2019 CAGR	399,500	567,700
District	2015 - 2019 CAGR	202,500	283,700

Sensitivity

12.67 Workforce based operational employment effects are considered at the sub-regional and district level.

12.68 Although there are areas of the sub-region that have high levels of unemployment, there is expected to be a significant level of growth in employment within the sub-region to 2034 (ONS, 2 2021). It is expected employment would be 567,700 by 2034, a 42% uplift from 2021. Based on this and the statistics outlining the performance of the study area, the sensitivity of changes in operational employment at the sub-regional level is considered to be **low**.

12.69 Similarly, there are areas of the district which are more deprived in terms of employment, yet forecasts to 2034 suggest that workforce jobs could reach 283,700 (a 40% increase from 2021). Over the past decade employment in the district increased faster than any other study area (ONS, 2021). Based on this, the sensitivity of changes in operational employment at the district level is considered to be **low**.

Local Jobs and Skills Baseline

12.70 **Table 12.13** shows the employment, employment density, and population density for the study areas (this data is not available at the sub-regional level). The district has a population density of 3.3 residents per ha and an employment density of 2.1 jobs per ha. It has the same population density as the regional proportions. Employment rate is slightly higher in the district compared to the East and England rates, 79% compared to 78% and 76% respectively.

Table 12.13: Employment and Population Density Comparison0

GEOGRAPHY	EMPLOYMENT	EMPLOYMENT DENSITY (JOBS PER HA)	POPULATION	POPULATION DENSITY (RESIDENTS PER HA)	EMPLOYMENT RATE
District	202,300	2.1	307,800	3.3	79
East	2.93m	1.5	6.34m	3.3	78
England	27.41m	2.1	56.49m	4.3	76

Source: (ONS, 2021) and (ONS[b], 2021)

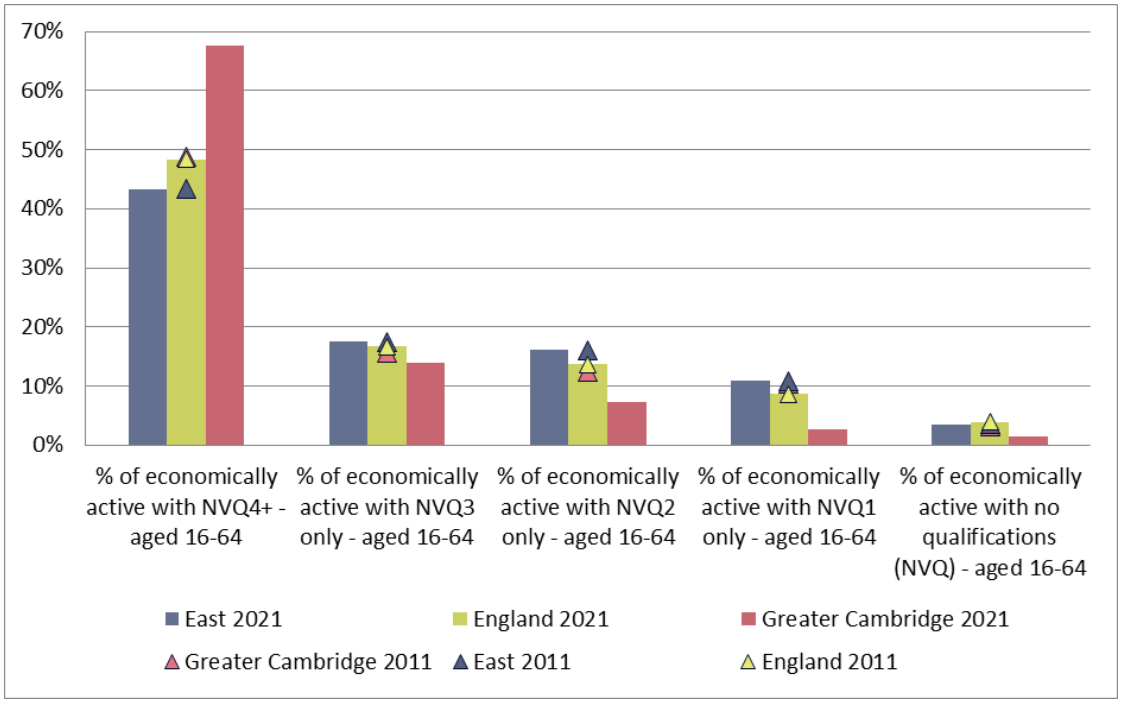
12.71 The latest inward commuting data from the 2011 Census finds that 65% of the district's workforce also live within the district (ONS[a], 2011).

12.72 The **ESS** summarises the key employment and skills issues at the district (Cambridge and South Cambridgeshire) level. The key issues are outlined in a topic paper (CCC and SCDC, 2020), which sets out Cambridge's and South Cambridgeshire's joint commitments to ensuring there are opportunities to access skills, training and local employment within Cambridgeshire.

12.73 The following list outlines the key issues within the district and provides supporting baseline information:

- **A significant and growing proportion of jobs paid below the living wage** – a small but significant proportion of the jobs in the city are paid below the real living wage of £10.90. According to the data, 11% of Cambridge residents are paid below the real living wage. This has grown from 9% in 2020;
- **Increasing demand for higher qualified workers** – **Figure 12.2** shows the growth in the qualification level of economically active residents in Greater Cambridge (ONS, 2022). Since 2011, Greater Cambridge has seen an increase of 19% in the proportion of economically active residents with NVQ4+ qualifications. This is significantly higher than the regional growth of 11% and national growth of 12%.

Figure 12.2: Change in qualification level of economically active residents from 2011 to 2021



Source: (ONS, 2022)

- **Lack of mid-skilled opportunities** – there is a lack of opportunities for mid-level skilled occupations such as: administrative and secretarial occupations; skilled trades occupations; caring, leisure and other service occupations. In Greater Cambridge, there has been a reduction of 3% (5,000 jobs) in the proportion of workers in mid-skilled roles from 2011 to 2021 (ONS, 2022). This is in line with national reduction, but higher than the 1% reduction across the East; and
- **Addressing the educational attainment and adult skills gap** – the high skilled nature of jobs and high level of educational attainment for Greater Cambridge residents has resulted in an educational attainment gap. Opportunities for young people from low income households are reduced as their educational attainment is often lower than children in higher income households. In 2021, across the nation, children on free school meals were 57% less likely to achieve a top grade.

12.74 In 2019, the Social Mobility Commission reported that education and training initiatives have focused on young people. However, there is a requirement for focus on adult education to reduce the skills gap, particularly for adults on low incomes. The SMC found that 47% of the poorest adults have not received training since leaving school and they are more at risk of losing their jobs due to increased use of technology in low-skilled roles (Ofqual, 2021).

12.75 The Cambridge and Peterborough Combined Authority (CPCA) also produced a Skills Strategy which has focus on life sciences, this provides the following recommendations to address employment and skills issues in this sector:

- Create new technical education programmes to support skills required by life sciences firms;
- **Support for alternative routes into life sciences employment** – apprenticeships and other pathways should be improved within the sector. Apprenticeship take up is low in Greater Cambridge. In 2021/22 there were 4.3 apprenticeships starts per 1,000 workers in 2021/22 in Greater Cambridge (DfE, 2021). This is significantly lower than the regional and national rates of 12 and 13 starts per 1,000 workers respectively; and
- **Improve diversity and inclusion in the sector** - Diversity and inclusion in the life sciences sector is poor. According to a recent study (Liftstream, 2020), just 14.8% of the of directors across 132 public and private sector life sciences firms were female, with 40% of the companies having no women on the board of directors. Just 7.3% of the total directors were from ethnic minority backgrounds and 70% of companies were found to have no ethnic minorities as their board members.

Future Baseline

12.76 **Table 12.14** shows the change in the number of district residents who are in employment by 2034. To model this, a linear extrapolation is applied to the population growth of working age residents within the district as outlined within the Greater Cambridge Employment and Housing Evidence Update (Iceni, 2023). This population forecast is based on a demographic model which uses the population and age structure from the 2021 census and accounts for fertility, morality, and migration. To obtain the growth in residents based employment, we assume a constant employment rate between 2021 and 2041 (79%) and apply this to the population of working age residents for each year. The estimates for 2020, 2034, and 2041 are shown in **Table 12.14**.

12.77 Based on this approach, it is estimated that a total of 175,600 residents within the district will be employed in 2034. This equates to an increase of around 17,100 of the residents employed within the district from 2020 to 2034.

Table 12.14: Residents Based Employment Estimates

VARIABLE	2020	2034	2041
16-64 population	203,200	223,200	233,800
Employment rate	78%	79%	79%
Estimated residents employment	158,400	175,600	184,000

Source: Volterra calculation; (Iceni, 2023)

12.78 For skills, there are no available datasets that forecast the change in the local skill level of a population. However, the East of England Forecasting Model (EEFM) provides forecasts for the change in employment by qualification for local authorities within the East. The data shows that there is expected to be a 10% increase (138,100 to 153,800) in the number of workers in the district employed with level 4 qualifications and above (degree level or higher). In total by 2034, it is expected that the percentage of employed persons in Greater Cambridge educated to level 4 and above will be 65%, compared to 63% in 2023. Apprenticeships and other qualifications are expected to make up 16% of the working population, and the remaining 18% is made up of workers with level 3 or below qualifications. This suggests that the demand for high skilled workers in Cambridge will only increase.

Sensitivity

12.79 The local employment and skills of the district show that overall the district has a well-educated population and has higher levels of qualifications, employment rate, and economic activity than the other study areas. Although there are some key issues which have been highlighted above. Some of these relate to+ the adult skills gap and a lack of mid-skilled roles. The demand for high skilled workers is only expected to increase. Given these reasons, local resident have a **moderate** sensitivity to changes in local jobs and skills at the district level.

Additional Contribution Towards Commercial Floorspace Baseline

Stock

12.80 The change in office and laboratory stock in Cambridge is shown in Figure 12.3. Total stock has risen from 5.2m sqft to over 10.6m sqft at the end of 2022 (Bidwells, 2023). Growth has been increasing since 2013, with more than 3m sqft coming forward since 2013. Office stock in Cambridge has grown considerably. There is a total stock of 7.7m sqft in H1 2023 which is over 2m sqft more than 2002. Laboratory stock at H1 2023 is 3.2m sqft, an increase of 2m since 2002.

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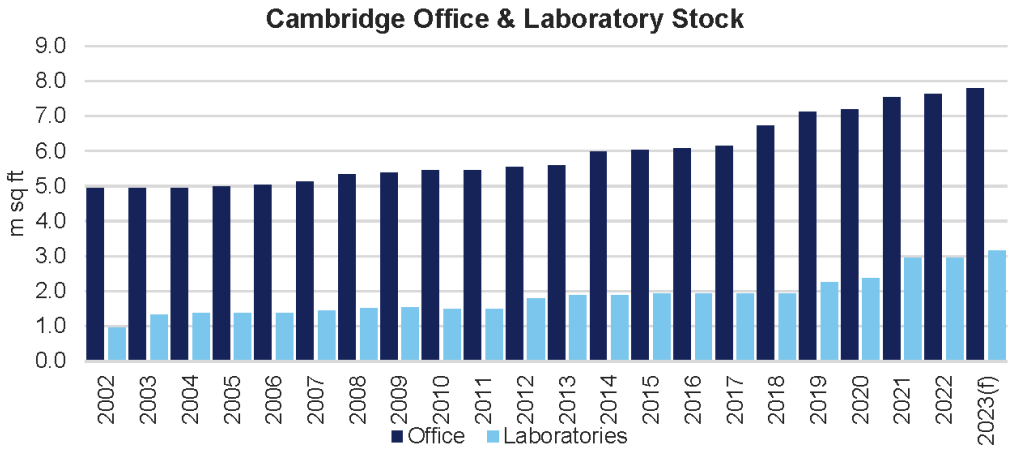


Source: (Bidwells, 2023)

Demand and Supply

12.81 The total available supply of office floorspace at the end of H1 2023 was around 725,000 sqft (Bidwells, 2023). Although only 22% of this is Grade A quality. The 815,000 sqft demand for office floorspace at H1 2023 is slightly above the available supply, but the lack of quality spaces means the imbalance is likely higher.

12.82 Supply of laboratory floorspace is very low. For most of 2022 there was no available space compared to a demand of over 1m sqft. At the end of H1 2023, available space stood at around 7,000 sqft, with a demand of 1.2m sqft of space. The market is very constrained, existing lab space released is often let immediately. Since 2016, all new builds have been pre-let or let soon after practical completion.

Future Baseline

12.83 The office pipeline is not expected to meet the demand in the short and medium term (Bidwells 2023). Schemes delivering space in the 2023-24 year are either part let or in advanced discussions. Approximately 115,000 sqft of office space is expected to come forward in 2024, some of which is pre-let. There is very limited pipeline for 2025 which will likely cause a supply issue until 2026 when new space comes forward. Although this will still lag behind demand.

12.84 The second half of 2023 is expected to deliver much needed lab space (Bidwells, 2023). The 2023-24 pipeline is expected to provide around 348,000 sqft. Most of this space is already fully let and accounts for less than a third of the current required need of 1.2m sqft. The pipeline of lab space between 2025 to 2028 will help reduce the chronic shortages, although this is still not enough to meet the existing or future demand. A very limited amount of this space is expected to come forward within or nearby to the city centre.

Sensitivity

12.85 Cambridge is one of the key life science hubs in the UK yet there is a supply demand imbalance which has worsened in recent years. Sustained development is needed to alleviate this imbalance and ensure that Cambridge can deliver continued success in this sector. There is a particular need for high quality, sustainable space in locations within or nearby to the city centre. The pipeline for office and lab space in the short and medium term does not meet the required demand. Historically new space that comes forward is pre-let or let soon after completion, this is unique to Cambridge, and shows the strength of demand for new spaces. As such, existing and future businesses have a high sensitivity to changes in commercial floorspace

Impact on Retail Baseline

12.86 The current supply of floorspace at the existing Beehive Centre can be broken down into convenience and comparison retail floorspace. The convenience floorspace is made up of the Asda, B&M, and M&S food store floorspace and totals approximately 8,144 sqm. The comparison floorspace is made up of the following stores: Dreams, Tapi Carpets & Floors, Carpetright, Next Home, Go Outdoors, Hobbycraft, Pets at Home, Homesense, TK Maxx, Wren Kitchens, and Porcelenosa. Totalling 11,365 sqm of comparison retail floorspace.

12.87 The total convenience retail floorspace in the district is approximately 52,358 sqm (32,021 sqm in Cambridge and 20,337 in South Cambridgeshire). The Beehive's convenience floorspace is equivalent to 25% of provision within Cambridge, and around 15% in Greater Cambridge. The comparison goods floorspace in Cambridge is 99,185 sqm, the Beehive's comparison retail therefore makes up around 11% of total floorspace in Cambridge.

12.88 The Social Life report found that the Beehive Retail Park is well used and valued in the area. Peterfield and Romsey ward residents depend on it to access affordable food store options and larger lower cost shops. Although as seen in Table 12.10 there is a number of alternative affordable food stores and shops located nearby to the Site.

12.89 The **Town Centre Use Retail Planning Statement** supporting this planning application found that nearby centres display good levels of vitality and viability. It found that there is no evidence that the centres are vulnerable to impact.

Sensitivity

12.90 This receptor is assessed at the district level based on the current baseline. The **Town Centre Use Retail Planning Statement** found that nearby centres are performing well and there is no evidence that they are vulnerable to changes in retail provision. The affordable options are important to local residents. Based on this, local residents are deemed to have **moderate** sensitivity to changes in retail provision.

Additional Expenditure Supported from Operational Workers Baseline

12.91 The Greater Cambridge Retail Study considers the spending in key locations within Cambridge (Hatch Regneris[a], 2021). The study includes retail spending figures for five locations within the Local Area where retail spending occurs. These include the Beehive Centre, Cambridge Retail

Park, B&Q (Newmarket Road), Tesco Superstore (Cheddars Lane), and Sainsbury's Superstore (Coldham's Lane). **Table 12.15** provides the comparison and retail goods expenditure in 2023 within these retail locations.

12.92 The total Local Area spend at these locations in 2023 is expected to be approximately £310m (£116m convenience goods spend and £194m on comparison expenditure). The Beehive Centre makes up a quarter (£78.8m) of this expenditure, with the Asda Beehive Centre making up £41.8m of the total expenditure at the Beehive Centre.

Table 12.15: Retail Expenditure in the Local Area (£m), 2023

LOCATION	CONVENIENCE	COMPARISON
Beehive Centre	38.5	40.3
Cambridge Retail Park	0.0	119
Tesco Superstore, Cheddars Lane	31.0	8.6
Sainsburys Superstore, Coldhams Lane	46.0	8.4
B&Q, Newmarket Road	0.0	18.1
Total Local Area	116	194
Total Cambridge City Council	285	819

Source: (Hatch Regeneris[b], 2021)

12.93 Convenience and comparison goods are not the only form of expenditure to take place in the Local Area. Other forms of spending such as food and beverage (F&B) or leisure are also present. This includes expenditure from eating and drinking at restaurants, cafes, or pubs, and other forms of entertainment. The retail study states that over half of this spending occurs in Cambridge city centre and does not refer to any locations within the Local Area (Hatch Regeneris[a], 2021). Therefore, we cautiously assume that this spend is not significant within the Local Area.

12.94 The 2021 Greater Cambridge Retail Study provides data on comparison goods expenditure flows from residents within the study area. Despite having similar types of stores, expenditure per sqm at CRP is significantly greater: CRP supported spend of £5,900 per sqm by residents compared to £2,300 per sqm at the Beehive Centre (157% larger).

12.95 The Asda superstore in the Beehive Centre has improved in turnover and sales density (turnover per sqm) since the 2013 Cambridge Retail Study, but it is still labelled as underperforming by the most recent study in 2021. Its sales density of £14,952 per sqm is lower than the company average of £17,285 per sqm. Overall, this evidence suggests that the Beehive Centre is less efficient than CRP and is underperforming in both sales and turnover. However, these more affordable options are important to local residents.

Future Baseline

12.96 The retail study has the Local Area spend for 2025, 2030 and 2035. The 2034 Local Area expenditure is estimated using a linear extrapolation between the 2030 and 2035 spending. Based on this, the total Local Area expenditure by 2034 is expected to increase by £68m (22%) to £378m. The breakdown of spending is provided in **Table 12.16**. The existing site (the Beehive Centre) accounts for 25% (£93.2m) of Local Area expenditure. The Asda at the Beehive centre contributes to £45.7m (around 50%) of the total expenditure at the Beehive Centre.

Table 12.16: Retail Expenditure in the Local Area (£m), 2034

LOCATION	CONVENIENCE	COMPARISON
Beehive Centre	39.4	53.8
Cambridge Retail Park	0	159
Tesco Superstore, Cheddars Lane	31.6	11.5
Sainsburys Superstore, Coldhams Lane	47.0	11.2
B&Q, Newmarket Road	0	24.2
Total	**118**	**260**
Total Cambridge City Council	**291**	**1,093**

Sensitivity

12.97 There are uncertainties in the total Local Area expenditure due to lack of available data. From the available data, it is expected that there would be 22% growth in spending from 2023 to 2034. Spending at the Beehive Centre is also expected to increase by 18%. However, as shown above, the Beehive Centre was found to be underperforming and has low levels of spend compared to other areas. Overall, it is assumed that the sensitivity of the current and future businesses to changes in additional worker expenditure is **moderate**.

Provision of Open Space and Public Realm Baseline

12.98 The provision of open space and public realm is assessed at a Local Area level. The Cambridge Open Space Strategy was produced in 2011, and provides profiles on the open space within the wards (CCC, 2011). The ward profiles for the three wards which make up the Local Area are quite different. The Abbey ward is identified as having 103 ha of publicly accessible open space, compared to Petersfield and Romsey which have 7.8 ha and 3.8 ha respectively. Whilst the Abbey ward has a significant level of open space which is well used, the strategy raises concerns that the quality of the space is varied. Maintenance of spaces is considered average on three sites and a number of spaces suffer from fly tipping. Both Petersfield and Romsey have high population densities which makes it difficult to increase open space within these wards.

12.99 The current provision of open space within the Local Area is shown in **Table 12.17**. Total open space in the Local Area is estimated to be approximately 117 ha, the majority of which is located in the Abbey ward. This is based on Ordnance Survey (OS) data. For context the Cambridge data is also shown. The data shows that the Local Area fails to meet the standards for outdoor sports facilities and play space, but it provides sufficient levels of informal open space and allotments.

Table 12.17: Open Space Provision

TYPE OF OPEN SPACE	STANDARD	LOCAL AREA PROVISION (HA PER 1,000)	CAMBRIDGE PROVISION (HA PER 1,000 POPULATION)
Informal open space	2.2 ha per 1,000 people	2.6	1.3
Allotments Or community growing spaces	0.4 ha per 1,000 people	0.4	0.2

TYPE OF OPEN SPACE	STANDARD	LOCAL AREA PROVISION (HA PER 1,000)	CAMBRIDGE PROVISION (HA PER 1,000 POPULATION)
Outdoor sports facilities	1.2 ha per 1,000 people	0.6	0.6
Play Space	0.3 ha per 1,000 people	0.1	0.1

Source: (OS, 2021); (ONS[a], 2021); (CCC, 2018)

Future Baseline

12.100 The future baseline conservatively assumes that no new open space is provided in the Local Area (as two of the cumulative developments are not within the relevant study area, and the other would not bring forward any open space), but accounts for the population growth of the Local Area up to 2034. The population of the Local Area is expected to grow by 130 residents to 2034 to a total of 32,018. Therefore, the provision of open space is not expected to significantly change. However, there is expected to be an increase in the worker population which will increase the demand for open space locally.

Sensitivity

12.101 The provision of open space within the Local Area is mixed. Whilst the provision of informal open space is above the standard, there are significant shortfalls in some of the other types of open space. It is also recognised that most of the open space is located within the Abbey ward; Romsey and Petersfield residents have a very limited supply of open space close by. The quality of spaces within the Abbey ward is stated to be varied, with maintenance and fly tipping being key concerns. Given this mixed picture, the sensitivity of open space and public realm at the Local Area level for the current and future residents is assumed to be **moderate**.

Impact on Leisure Facilities

12.102 The Site hosts a leisure facility known as Everlast Fitness (formerly DW Fitness) which provides a members only gym and a 20m one lane swimming pool. This is a relatively small pool operating at 56% capacity.

12.103 The provision of swimming pools in Cambridge is outlined in the ISFS (CCC and SCDC, 2016). Since the publication of this report, no new public swimming pools have opened, however data is not available on provision of private pools.

12.104 The ISFS provides the supply, demand and future demand for swimming pools in Cambridge and South Cambridgeshire, using a Facility Planning Model (FPM). There are 16 pools within Cambridge (including private pools), 10 of these are included in the FPM – six pools are excluded due to being too small. Of the 10 within the FPM, six are available for community use. These are detailed below (data on usage is only available for Abbey Leisure Centre and Parkside Pools):

- Abbey Leisure Complex (25m, 5 lanes and learner pool, at 62% capacity);
- Chesterton Community Sports Centre (too small to be included in Sport England Analysis);
- Parkside Pools (25m, 8 lanes, diving pool, leisure pool, at 98% capacity);
- Frank Lee Centre (25m, 3-4 lanes); and

- Two lidos: Jesus Green (seasonal use only 94m, 3 lanes) and Kings Hedges Learner Pool (15m, 3 lanes).

12.105 According to the FPM, the community pools provide an oversupply of swimming pools of 684 sqm which equates to two 25m six lane swimming pools. Overall, Cambridge provides a 17.36 sqm of water space per 1,000 residents, higher than in the East (12.51 sqm), England (12.46 sqm) and Cambridgeshire (8.94 sqm). A concern is that South Cambridgeshire only has a provision of 2.61 sqm per 1,000 residents. This is very low and results in Cambridge facilities being used by South Cambridgeshire residents.

12.106 According to future demand, whilst the FPM suggests Cambridge would require no new provision up to 2031 due to its oversupply, this only considers the Cambridge population. When considering South Cambridgeshire residents in the model, there is a need for new pools. However, it would be preferable to locate this pool in South Cambridgeshire.

Future Baseline

12.107 The future delivery of a swimming pool in Cambridge is mentioned in the Cambridge Local Plan 2018 (CCC, 2018). There is an opportunity to provide a swimming pool within the masterplan of the West Cambridge site for uses related to the University of Cambridge. According to the outline application documents, the high cost of a swimming pool means that the University cannot provide a timeline for its delivery, although once delivered, it would be available for community use (AECOM, 2017).

Sensitivity

12.108 This effect is assessed at the district level, in line with the ISFS assessment which considers both Cambridge and South Cambridgeshire. The sensitivity of the population to changes to onsite leisure provision is deemed to be **low**. This is because the facility is small and privately owned. Based on the evidence, displacement of existing users is not expected to cause an issue given the capacity of community and commercial pools across the district.

Impact on Housing Need and Affordability Baseline

Housing Delivery and Existing Stock

12.109 The past delivery of housing within the district is outlined in the latest Annual Monitoring Report (CCC and SCDC, 2023). Between 2011 and 2022, 17,947 net additional dwellings were completed within the district, equivalent to 1,590 homes per year. This is below the annual target of 1,675 homes per year. Although, it is noted that within five of the last six years, the delivery has exceeded the target, with the exception of the 2019-20 year which was marred by the Covid-19 pandemic. The existing dwelling stock in the district by 2022 is estimated to be 127,710 (DLUHC [formerly MHCLG], 2023).

Housing Need

12.110 The most recent housing needs forecast for the district are provided in the Greater Cambridge Employment and Housing Evidence Update (Iceni, 2023). The need for housing is based on the three methods: standard, central and higher. The central method is described to the most likely outcome. **Table 12.18** shows the housing dwelling need from 2020 to 2041 for the district based on the central method. Approximately 51,723 dwellings (2,463 dwellings per annum) are required over this period (Iceni, 2023).

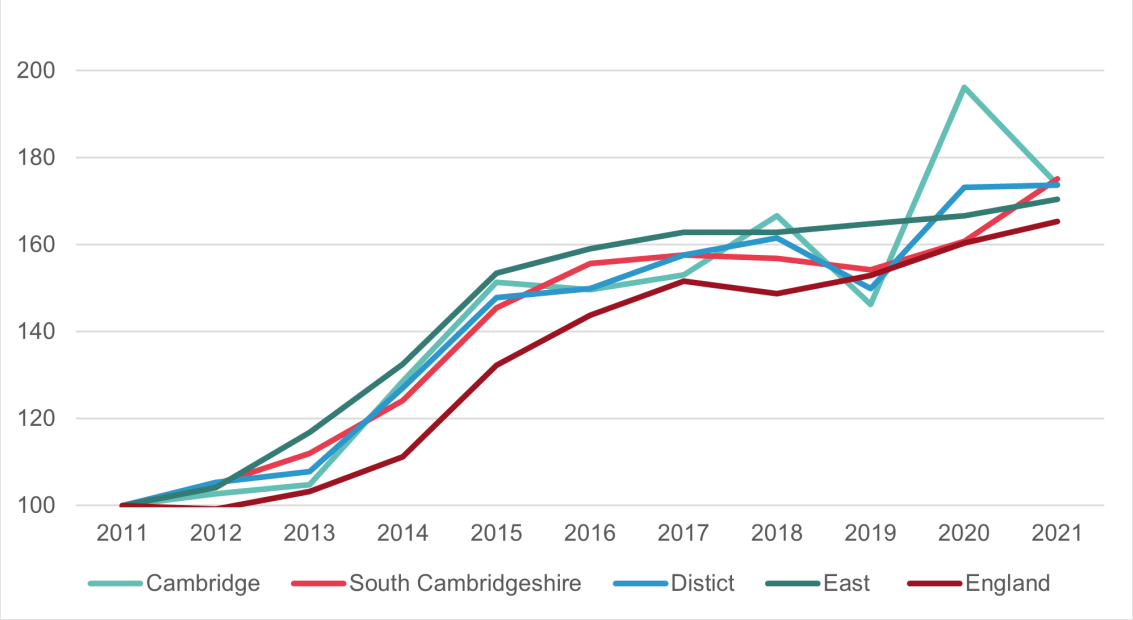
Table 12.18: Housing Need 2020 to 2041

METHOD	CAMBRIDGE	SOUTH CAMBRIDGESHIRE	DISTRICT
Household need			
Central	24,495	25,726	50,221
Dwelling need			
Central	25,230	26,494	51,723

Source: Volterra calculations; (Iceni, 2023)

Affordability

12.111 Affordability of house prices can be understood using the growth in house prices and the change in the median house price to earnings ratio (HPER). The former is shown in **Figure 12.4**. This shows that house prices in the district have been increasing. The overall increase is around 74% since 2011, higher than the increase regionally (70%) and nationally (65%).



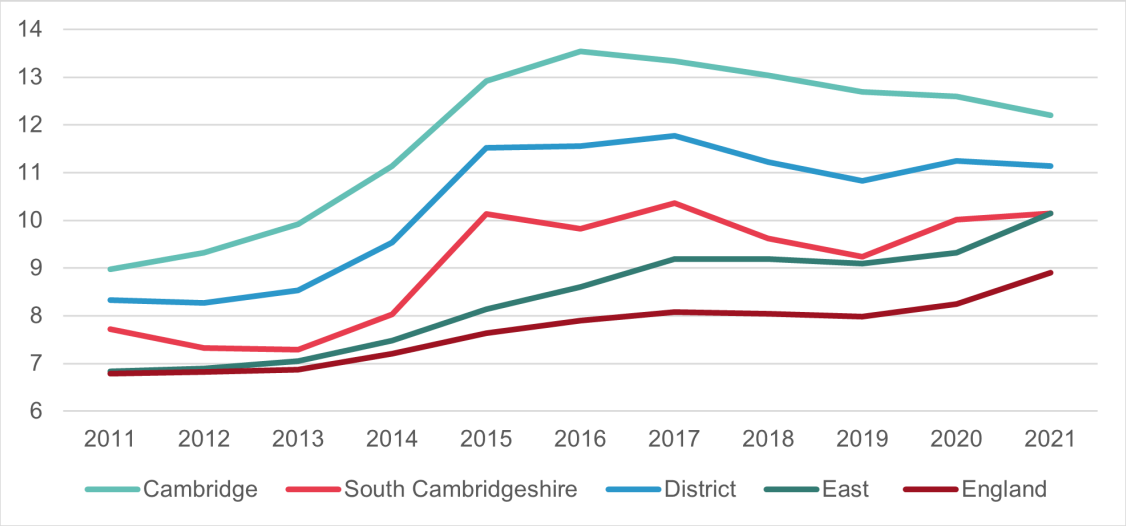
Source: (ONS, 2023)

Figure 12.4: Index of median house price, (2011 = 100)

12.112 **Figure 12.5** shows median house prices in the district were eight times higher than earnings in 2011, compared to the East and England where the median HPER was around seven times higher. Driven by the increase in prices across Cambridge, the district's median HPER increased to 12 by 2015. Since then it has declined to 11 in 2021.

Ownership

12.113 The most notable changes in the tenure of households across the district from 2011 to 2021 is a small reduction in the proportion of homes owners from 60% to 58% and increase in the proportion of private renters, from 18% to 22% (**Table 12.19**).



Source: Volterra calculations; (ONS, 2023; ONS, 2022)

Figure 12.5: Change in Median HPER

Table 12.19: Proportion of Households by Tenure, 2011 and 2021

GEOGRAPHY	OWNED		SHARED OWNERSHIP		SOCIAL RENTED		PRIVATE RENTED		LIVES RENT FREE	
	2011	2021	2011	2021	2011	2021	2011	2021	2011	2021
District	60%	58%	2%	2%	18%	18%	18%	22%	1%	0.1%
East	68%	65%	1%	1%	16%	15%	15%	18%	1%	0.1%
England	63%	61%	1%	1%	18%	17%	17%	20%	1%	0.1%

Source: (ONS[b], 2011; ONS[c], 2021)

Future Baseline

12.114 The future baseline assesses the number of dwellings required by the year 2034. This is based on the 2,463 homes per annum from 2020 to 2041. Assuming the dwellings between 2020 to 2023 were delivered, this gives a total of 11 years of dwellings need to 2034. This equates to 27,093 homes required to be delivered across the district between 2023 and 20234.

12.115 A future baseline on affordability is not available due to the large uncertainty in its estimation. This is due to the high number of factors which could influence affordability. It is likely that house prices will continue to increase similar to historic trends, but whether the impact on affordability will depend on how fast incomes rise in the area.

Sensitivity

12.116 House prices have increased in the district but the median HPER has decreased since 2017 indicating that they have become slightly more affordable. Past delivery of housing has been relatively strong with the target being met over the last few years. Renting has also become

more common and this is likely to continue to be the case. Given there are many uncertainties in housing need and affordability, it is assumed that at a district level this would have **moderate** sensitivity.

Receptors and Receptor Sensitivity

12.117 Table 12.20 summarises the sensitivity of the receptors.

Table 12.20: Receptors for the Assessment

RECEPTOR	POTENTIAL EFFECT	GEOGRPAHICAL AREA	SENSITIVITY	RATIONALE
Demolition and Construction				
Existing workers and business	Displacement of existing businesses	The Site	Moderate	A significant quantum of businesses and workers are present at the existing Site. Although a range of alternatives are available nearby to the Site.
Completed Development				
Employment generation (existing and future workers)	Operational employment and resulting indirect and induced employment	Sub-regional	Low	The labour market is performing well, albeit with some pockets of higher deprivation.
		District	Low	The labour market is performing well, albeit with some pockets of higher deprivation.
Local jobs and skills (existing and future residents)	Creation of local jobs and skills	District	Moderate	The district is well-educated, but there are some key employment and skills issues.
Commercial market space (existing and future businesses)	Additional contribution towards commercial floorspace provision	District	High	There is a supply demand imbalance and this is risking Cambridge's potential as a life science hub. The future supply will not meet occupier demand. There is a particular need for new space within or close to the city centre.
Existing retail users (existing and future residents)	Loss of retail provision in the district, the displacement of retail to more peripheral locations, and the loss of affordable retail options.	District	Moderate	Other nearby centres are performing well and there is no evidence they are vulnerable to changes in retail provision. However the affordable options on Site are important to local residents. There are some alternatives retail options located nearby to the Site.

RECEPTOR	POTENTIAL EFFECT	GEOGRPAHICAL AREA	SENSITIVITY	RATIONALE
Worker expenditure (existing and future businesses)	Additional expenditure as a result of the users of the Proposed Development	Local Area	Moderate	The Beehive Centre is considered to be underperforming, however total local area spend is uncertain.
Open space and public realm (existing and future residents and workers)	Provision of open space and public realm will benefit users of the Proposed Development	Local Area	Moderate	The provision of open space in the Local Area is mixed. Abbey ward has a significant quantum but some of it is of poor quality.
Impact on leisure facilities	The loss of the onsite commercial gym. This contains a gym and a swimming pool. This could lead to capacity pressures for alternative sites due to demand from existing users and users of the Proposed Development.	District	Low	The existing facility is small and privately owned. Evidence shows that privately owned commercial gyms have capacity across the district. The onsite swimming pool is not included in the assessments of swimming pool capacity, and based on current evidence additional demand from the existing users and Proposed Development could be accounted for within the other community and commercial pools across the district.
Housing need and affordability (existing and future residents)	Workers at the Proposed Development want to move into the district, resulting in a higher demand for houses which may result in higher prices.	District	Moderate	House prices have increased but house price ratio has decreased in recent years. Past delivery of housing has been relatively strong and renting has become more common. There is therefore a mixed housing picture in across the district.

Evolution of the Baseline Conditions without Development

12.118 The conditions in the area can be expected to change over time. There is likely to be continued employment and expenditure growth in the area leading to changing pressures on various socio-economic targets, such as the demand for commercial floorspace. These are summarised in the future baseline section earlier in this ES Chapter, which shows how employment, expenditure, floorspace and open space provision per head are expected to change in coming years. The receptor sensitivities presented earlier discuss and take the evolution of the baseline into account.

Predicted Impacts

Demolition and Construction

Displacement of Existing Businesses

12.119 The existing site is known as the Beehive Centre, a mid-sized retail park which has 17 units (mostly retail) and supports approximately 855 jobs (**Table 12.9**). The majority of the units will be displaced.

12.120 All the existing businesses have been given prior warning of the redevelopment proposals and the businesses are not expected to need to leave the premises until 2025 earliest. This would naturally reduce the magnitude of impact as it gives them time to prepare.

12.121 The displacement of existing businesses on Site would have an impact on following receptors: current workers, businesses, and residents. The businesses will be affected as their operation will be affected and they may have to move elsewhere, the workers within these businesses may need to find new jobs, and the current residents would have reduced access to retail employment opportunities.

12.122 Local residents may need to travel further for their shopping which could impact residents with mobility issues. The Site currently offers affordable retail options which are important for the community, as identified by Social Life, so the loss of these spaces could result in negative impacts for these residents. However, as identified in the baseline, there are alternatives nearby. For example, **Table 12.10** shows a number of alternative retail options that are accessible and affordable. Most of these are located in or close to the adjacent Cambridge Retail Park.

12.123 There will be an impact on the workers as they may at least temporarily lose their jobs. Many are likely to be relocated to other stores which may be less convenient. Depending on the response of the businesses and workers, this could cause unemployment to increase within the district in the short term, as it is likely that most of the workers are based within this area.

12.124 In the absence of more detailed understanding of individual firms and their requirements at this stage, it is conservatively assumed that some of the businesses may find it difficult to find an alternative location. However, as mentioned above, there is a lot of time to prepare as the business would not be displaced until 2025 earliest. The Applicant will also retain the opportunity to relocate Asda and other retailers to the nearby Cambridge Retail Park, Newmarket Road, which is also in the ownership of the Applicant. The Asda contributes almost half the jobs supported at the current Site. .

Completed Development

Operational Employment and Resulting Indirect and Induced Employment

12.125 Once completed, the Proposed Development is expected to provide 93,009 sqm (NIA) of commercial floorspace across several uses including office, lab and lab-enabled office, retail, events/community, and commercial active.

12.126 For job creation, conservative assumptions are used to ensure a reasonable worst-case assessment is undertaken.[7] The assumptions include:

7 The job scenarios presented in this ES chapter are different from the **Economic Impact Assessment** and **Employment and Skills Strategy**. The figures presented in those other documents are the central estimates based on the most realistic assumptions of what is expected to come forward, whereas this chapter presents minimum and maximum scenarios to provide a reasonable worst case assessment for different effects.

- Where the possible density of the space has a minimum and maximum range, the most conservative figure (minimum employment yield) is assumed.
- Of the lab space, a conservative 50:50 laboratory to lab-enabled office is applied to the total laboratory floorspace. As laboratory floorspace yields far fewer direct FTEs per sqm than a lab-enabled office.

12.127 A breakdown of the commercial floorspace at the Proposed Development and the estimated FTEs and jobs is presented in **Table 12.21**. This estimate is based on the most conservative assumptions so is a reasonable worst case assessment of employment.

12.128 Based on the standard employment densities and methodology described earlier, the Proposed Development would support a 5,530 FTEs on-site. This is equivalent to 6,120 jobs in total, after accounting for the proportion of part-time workers.

Table 12.21: Employment Supported at the Proposed Development

USE	FLOORSPACE (SQM)	DENSITY (BY FLOORSPACE TYPE)	DENSITY	FTES	JOBS
Lab	23,306	NIA	60	390	420
Lab-enabled office	23,306	NIA	13	1,795	1,940
Office	39,202	NIA	13	3,015	3,345
Retail	6,473	NIA	20	325	415
Events/Community	535	GIA	125	5	5
Commercial active	284	GIA	100	5	5
Total	**93,009***			**5,530**	**6,120**

*Source: Volterra calculations; (HCA, 2015); NB Figures are rounded; *93,009 sqm uses NIA floorspace for events/ community floorspace.*

12.129 Gross additional employment takes into account the 855 jobs displaced at the current site. The Proposed Development would provide an uplift of approximately 4,860 FTEs (5,270 jobs).

12.130 The previous analysis has dealt with gross additional economic impacts created by the Proposed Development. To present the net impact of the Proposed Development, leakage, displacement and multiplier impacts must be accounted for. An explanation of these impacts is provided within the methodology section (**paragraph 12.24**). **Table 12.22** shows that the Proposed Development is expected to support 5,930 net additional jobs, of which 4,720 would go to sub-regional residents. Approximately 3,300 of the 4,720 jobs are estimated to be taken by district residents.

Table 12.22: Net Employment Summary

EMPLOYMENT TYPE			TOTAL
FTEs	Method	A. Gross additional	4,860
	= A * (1 - 25%)	B. Net direct (following displacement)	3,640
	= B * (1.5 - 1)	C. Net indirect (multiplier)	1,820
	= B + C	**D. Net additional**	5,470
Jobs		**E. Net additional (jobs)**	5,930
		F. Of which would go to TTWA residents	4,720
		G. Of which the total of F who are district residents	3,300

12.131 The analysis above has presented a worst-case scenario for employment generated by the Proposed Development. A best-case scenario has been estimated based on the following principles. The assessment is based on the worst-case estimate, but this estimate has been included as a sensitivity test.

- The development is completed without any laboratory space which would increase the total commercial floorspace (NIA) available from 93,009 sqm to 98,863 sqm.
- Density assumptions are updated to the most likely for employment generation.

12.132 In the best-case scenario the Proposed Development would support 8,000 FTEs (8,730 jobs) on site. In this scenario, the Proposed Development is expected to support an estimated 4,930 net additional jobs for district residents.

12.133 The impact of operational employment generated at the Proposed Development is assessed at the sub-regional level. The effect of operational employment generation – for residents – is assessed at the district level.

12.134 In the reasonable worst-case scenario, the 54,270 gross additional jobs and 5,930 net additional jobs generated by the Proposed Development would help grow the sub-regional economy. In the context of future baseline employment of 567,700 at the sub-regional level, the impact is low. Therefore, the gross and net additional employment estimate of 4,860 and 5,930 jobs is considered to be a beneficial impact of minor magnitude, as it would represent up to 1.0% of overall employment at the full completion year of the Proposed Development. The impact of this is beneficial but **neutral** in the context of the sub-region's employment.

12.135 Based on established commuting patterns, the number of net additional jobs that would be retained by residents who live in the district can be estimated. Census commuting patterns show that 62% of the district workforce also live in the district and that 30% of people who work in sub-region live in the district (ONS[a], 2021). Based on these commuting patterns, net additional employment at the Proposed Development is expected to provide approximately 3,300 job opportunities to district residents. This represents a 1.9% of the overall employment in the future baseline (175,600). Thus, the impact of the Proposed Developments operational employment on the future workers (residents based) at the district level is expected to be beneficial but relatively small. The impact of this is therefore minor beneficial.

Local Employment and Skills

12.136 The local employment and skills have an impact on the residents' receptor as the Proposed Development will provide employment and opportunities for upskilling. It is expected that the Proposed Development would provide 3,300 net additional jobs to district residents, equivalent to 1.9% of the 175,600 working age residents employed in the district by 2034.

12.137 Occupational skill level analysis shows that the Proposed Development would lead to an increase in both low to mid skilled jobs (1,350) and high-skilled jobs (3,930) relative to the existing site, increasing earnings for both low and high-skilled workers.

12.138 The issues presented in the baseline on the local authorities skills include the following:

- A significant growing proportion of low-paid jobs below the living wage;
- Increasing demand for people with higher level qualifications;
- Lack of mid-skilled opportunities;

- Addressing the educational attainment and adult skills gap;
- Lack of alternative routes into life sciences employment; and
- Improving diversity and inclusion within life sciences.

12.139 The Applicant is committed to a coordinated set of employment and skills commitments which directly respond to these issues. These are outlined within the **Employment and Skills Strategy** and **Statement of Community Involvement** (SCI) and summarised in the mitigation section of this chapter.

12.140 Before mitigation, the Proposed Development is expected to increase employment for district residents by 1.9%. There will be plenty of opportunities to upskill the residents at a variety of different levels. The Proposed Development provides additional low-skilled jobs in line with what residents are seeking as well as higher-skilled positions and opportunities for upskilling. This is primarily due to the mixed-use nature of the Proposed Development, ensuring it provides a range of opportunities for people in the local area. It would be expected that both the low and high skilled jobs on offer would be higher paid opportunities than those offered by the existing site, as the low-skilled positions would be across a range of higher paid sectors in general, adding further economic value for the local population. As such, the local jobs and skills opportunities is expected to result in a **moderate beneficial** impact for local residents. The mitigation section outlines commitments to enhance the positive local impact.

Additional Contribution Towards Commercial Floorspace

12.141 Based on the worst-case scenario for office space, the Proposed Development would result in an uplift of 39,202 sqm of office space and 46,612 sqm of lab/lab enabled space.

12.142 The **Economic Impact Assessment** outlines the contribution of the commercial space in the context of wider life science and office trends. This demonstrates that the Proposed Development is a rare opportunity to address the chronic undersupply of laboratory and office accommodation with high-performing ESG credentials in an edge of centre Cambridge location, which is 430m to the east of the city centre boundary. It is therefore within walking and cycling distance from Cambridge station and the city centre.

12.143 The scale of laboratory space required by firms in Cambridge over the last five years has changed. In 2017, there was no demand for space over 50,000 sqft. Whereas in 2022, around 30% of the 1.1m sqft of lab space requirement is for these larger spaces (Bidwells[b], 2023). This has since risen to 40% in H1 2023 (Bidwells, 2023). In order to attract the market leaders in life sciences, Cambridge needs purpose-built, flexible lab and office buildings with significant massing that provide collaborative space. It is not possible to attract the top companies, or to keep the growing companies, with small and outdated lab and office units. The extent of the Proposed Development provides the requisite scale to accommodate flexible laboratory space for life sciences research and development activities, with science action areas and write up accommodation. Scale is important to allow the space to evolve with business needs.

12.144 The Proposed Development has the potential to make an important contribution to this critical mass in a location close to the boundary of the city centre with an amenity rich offer nearby. This has the potential to create a world class science quarter of sufficient mass to create a productive urban innovation district

12.145 Demand for life science space in Cambridge is currently outstripping supply by some distance. As of June 2023, Bidwells report that demand for lab space in Cambridge is 1.1m sqft, whilst there is only 7,200 sqft of available lab space, an availability rate of 0.2%. Bidwells estimate

demand for office space is around 14,500 sqft. The current supply of space is 725,100 sqft, but only 124,000 sqft is grade A. Therefore, Cambridge lacks supply of both quality and quantum of office and lab space.

12.146 The need for new life science space in Cambridge is urgent to ensure that Cambridge can take advantage of its current specialism in related fields. There is 1.1m sqft of laboratory requirements in the market and the opportunity exists now to address the supply and demand imbalance. The UK competes on a global stage for this activity. If high quality space is not provided in the right location then the UK will lose out to other international innovation districts and the opportunity will be lost. It is therefore vital that deliverable sites in sustainable locations are promoted to facilitate the continued growth of Cambridge as a world-leading research centre and the associated economic and social benefit.

12.147 The Cambridge Office and Laboratory Occupational Market Update concludes that:

"The redevelopment of the Beehive Centre will provide a unique opportunity to deliver new high-quality offices and laboratories at scale within the city. The buildings will provide open plan large floor plates, with amenities that occupiers desire in a location that is within the City core. The Development is an important scheme to alleviate some of the acute supply shortages to help meet the demand for space from businesses in the City to grow in a connected and sustainable environment."

12.148 The impact of the Proposed Development on commercial space is therefore expected to be **major beneficial**.

Impact on Retail

12.149 The impact associated with the loss of retail is covered in the demolition and construction effect. This effect considers the impact of the provision of retail at the Proposed Development.

12.150 As discussed in the **Economic Impact Assessment**, the structure of the retail sector has transformed in recent years. The decline in physical retail, the poor performance and inefficient use of space of the Beehive Centre, and the shift away from the typical retail park, specifically demands new investment in the area. There is a significant opportunity to redevelop and repurpose the Site from solely retail to a more efficient and productive development.

12.151 The proposed local centre will provide a vibrant centre for the local community providing them with a diverse mix of shops, cafes, restaurants and services to cater for both employees and local residents. The wider application proposals seek to create a welcoming place for all, improving local access to open and green spaces and the creation of a new public realm for the community to enjoy all year round.

12.152 The emerging local policy finds that the Beehive Centre does not make efficient use of the space and the Site offers a unique opportunity densify an area within the heart of Cambridge. It would also benefit other retail locations through the redistribution of expenditure to further support their vitality and viability.

12.153 The **Town Centre Use Retail Planning Statement** concludes that *"the proposals are consistent with the requirements of current planning policy relating to retail/town centre use impact and the sequential approach. Accordingly, the proposals are acceptable from a retail and town centre use planning perspective."*

12.154 One of the key principles for the new local centre is to curate an affordable place for locals and workers alike. This will be done through looking to keep or relocate key affordable retailers, curating affordable restaurants or cafes, allowing a proportion of units to be let at affordable rents, making the community pavilion free to access through a commercial levy from the workplace occupiers and providing an affordable gym.

12.155 Overall, the Proposed Development is expected to result in a **minor beneficial** impact for current and future residents.

Additional Expenditure Supported from Operational Workers

12.156 Workers tend to spend money within the surroundings of their workplace. Based on the sectoral makeup of the Proposed Development, it is estimated that operational workers at the site will spend between £7.40 and £14.10 (see **Table 12.3**) in the Local Area each day, depending on their role. Assuming that only 60% of the workers would spend this amount (in order to be conservative), and they work an average of 220 days per year, operational workers at the Proposed Development would spend an estimated £9.7m in the Local Area.

12.157 The impact of additional expenditure would effect the future businesses receptor, as there would be an injection in spending at these businesses which can help them to grow.

12.158 The workers at the existing Site are expected to support £0.5m per annum. The Proposed Development would then result in an additional worker expenditure in 2034 of around £9.1m.

12.159 The future baseline estimates the total Local Area expenditure at 2034 to be approximately £378m. Approximately £93.2m (25%) is accounted for by the existing Site. Some of this may be lost due to the displacement of the retail on-site. The effect of the loss of this retail has already been considered in the displacement effect. This effect therefore focuses on the operational worker expenditure. The worker expenditure would provide long term spend of £9.7m in the Local Area each year.

12.160 Given this, it is assumed that the impact of additional worker expenditure on current and future businesses within the Local Area is expected to be **minor beneficial**.

Provision of Open Space and Public Realm

12.161 Policy 48 of the Cambridge Local Plan (CCC, 2018) sets standards on the required level of open space required for residential developments. These apply to all new residential schemes and the requirements are based on the net number of residents accommodated by the new development. No policies exist for the standards or requirements of open space provision for commercial developments. Based on the definition of the informal open space category, it is expected the provision of open space by the Proposed Development will fall into this category.

12.162 The landscape and public realm of the Proposed Development aims to provide the spatial infrastructure for a sustainable, robust and enjoyable public realm.

12.163 The Design and Access Statement summarises the open space and public realm provision at the Proposed Development. The vision of the Proposed Development is to provide 2.1ha of open space. To ensure a worst case scenario is assessed, the best-case employment estimates are used to establish the capacity of the space available per person. It is expected that there would be a weekday peak Site capacity of c.7,030 people and an expected daily range of between 5,430-7,030 people onsite. Therefore, at the worst-case there would be between 3-4 sqm of open and public realm space per person.

12.164 A community focus has been given to the main access points to boost and welcome residents and locals to interact and enjoy the new activities onsite. The open space on the Site has been designed to be welcoming to all visitors and workers with great detail been given to the every-day visitor experience and how visitors may engage with the Site. Additionally, the Site would prioritise pedestrians by through access routes, and the space would be large enough so that the public space and public realm is accessible to all regardless of needs. The public realm would encourage health and wellbeing as it would provide the provision of formal and informal activities, such as green gym equipment, a running track, group exercise class spaces, open space and access to nature.

12.165 The Proposed Development's provision of 2.1ha of informal open space by 2034 is an uplift of 1.8% on the total open space provision in the Local Area (approximately 117 ha). The baseline identifies that the majority of the open space in the Local Area is located within the Abbey Ward, where the quality of open spaces has been a concern, and there is limited provision in the Petersfield and Romsey wards.

12.166 The Proposed Development's open space is located at the periphery of the Abbey ward. The space is more accessible to Romsey and Petersfield residents, where open space is scarce. The open space and public realm delivered is designed with the highest quality and would be well maintained over the life of the Proposed Development. This would benefit current and future workers and residents, particularly those within the Petersfield and Romsey wards. Providing space to relax, socialise, and enjoy.

12.167 For these reasons, the provision of open space and public realm is considered to have a **moderate beneficial** impact on the current and future Local Area resident population.

Impact on Leisure Facilities

12.168 The Proposed Development would demolish a small commercial leisure facility which contains a gym and a swimming pool. The loss of the fitness facilities is mitigated due to the capacity of Cambridge's gym facilities and the provision of the commercial fitness use at the Proposed Development.

12.169 The baseline identifies that the on site pool is small operating at just 56% capacity. It is not included in the FPM, which identified that there is currently no need for additional swimming pools within Cambridge. Although there is significant need for new provision in South Cambridgeshire, where there is the fourth lowest provision in the country. The future baseline suggests that there is the potential for a new swimming pool to be built at the West Cambridge University Campus, although its timeline for delivery has not yet been finalised.

12.170 The facility at the existing site is small, private and under-used. Due to this and the provision of alternatives nearby, the loss is not expected to materially impact local residents and workers. The impact is therefore **neutral**.

Impact on Housing need and Affordability

12.171 The methodology (**paragraph 12.34 - 12.38**) for housing need based on employment forecasts has been applied to the additional jobs at the Proposed Development. To ensure a worst case assessment on housing need and affordability, the best-case scenario job generation at the Proposed Development is utilised. The number of homes required in the district from 2034 (the opening year) onwards, based on the gross direct and gross additional jobs, is 5,406 to 5,666 homes respectively. If converting to an annual basis based on the emerging local plan period of 21 years, this would equate to a need of 255-270 dwellings per year.

12.172 These figures are obtained by utilising the key assumptions outlined in **paragraph 12.37**. The steps are shown in the table below. The existing housing requirements for the district outlined in either policy or the emerging plan's evidence base are:

- Existing policy need of 1,675 homes per year between 2011 and 2031 (33,500 total) (CCC and SCDC, 2023);
- This rises to a housing need of 1,769 homes per year between 2020 to 2041, based on the standard method (37,149 in total); and
- Finally, the housing requirement based on Iceni's central employment forecast scenario amounts to 2,463 homes per year between 2020 and 2041 (51,723 in total).

12.173 To put this into context, the housing need created by the additional workers at the Proposed Development would be equivalent to 15% of the total standard method housing requirement, and 10%-11% of the central employment scenario housing requirement.

12.174 Given that the Beehive Centre Site is allocated as an opportunity area for development in the emerging local plan (refer to **paragraph 12.38**), however, it is not reasonable to assume that this housing requirement represent an uplift on the housing need that is calculated based on Iceni's central employment scenario (51,723 in total). In fact, it is considered that the additional employment created by the Proposed Development – one of the district's most significant commercial development opportunities – would be inherently captured within the Greater Cambridge employment forecast to 2041.

12.175 It is therefore not clear the extent to which both projections incorporate the forecast growth associated with the Proposed Development. Though, because it is an allocated site, both projections will, to differing extents, inherently include some of the growth in the Proposed Development. As an estimate of what would be delivered, given this uncertainty, the 'additional' pressure on housing need created by the Proposed Development is estimated by applying the ratio of the difference between the central employment method need (51,723) and the standard method need (37,149). This implies that an estimated 72% of the housing demand created by the Proposed Development would be captured in the standard method requirement for the district, and should therefore already be considered within the council's strategy for housing delivery in the district (given the requirement for local authorities to consider the standard method).

12.176 The remaining 28% of this overall need could be considered additional demand from the Proposed Development, amounting to 1,523 to 1,597 total dwellings, or approximately 73 to 76 additional homes per year on a local plan period annual basis. In the context of both the district's existing housing stock (127,710 in 2022 (DLUHC [formerly MHCLG], 2023)) and the identified standard method need for a substantial amount of homes to be delivered in the district over the emerging local plan period (37,149), this uplift in housing need is considered to be relatively modest, between 4.1% and 4.3% above the standard method requirement and equivalent to up to 1.4% of the existing stock in Greater Cambridge, particularly in the context of Cambridge's aim to be a fast growing city that drives the UK economy in the future.

Table 12.23: Dwelling Required Based on Increase in Jobs from the Proposed Development

STEP	GROSS ADDITONAL	NET ADDITIONAL
Total jobs	7,873	8,249
Change in economically active	6,797	7,123
Population from economically active (applying a factor of 1.81)	12,322	12,913
Number of households to support population by applying number of people per household of 2.35	5,249	5,501
Applying a 3% vacancy rate to obtain the number of dwellings over the period 2020 – 2041	5,406	5,666
Of which above standard method requirement	1,523	1,597

12.177 The impact that the additional workers at the Proposed Development will have on affordability is even more uncertain than the impact on housing need. Housing affordability depends on a range of different factors, making any assessment of potential impact far more complex than simply applying a ratio of need to affordability. Other factors that are likely to influence affordability include (but not be limited to):

- The performance of the macroeconomy and in particular changes to interest rates, mortgage rates and wages;
- The success of delivery on others sites within Greater Cambridge that are allocated for housing in the coming years (e.g., the Marshall masterplan);
- The type of housing tenure that workers seek (the rental market against ownership), particularly in the face of the Council's desire to seek the ability to introduce stronger regulations on the private rented sector;
- National and local regulations on second homes and non-resident buyers of homes; and
- The short term lets market in Cambridge, particularly given that the Council are currently seeking greater power to register and regulate short term lets.

12.178 Amongst all of these factors that can influence housing affordability, it is very difficult to ascertain what the Proposed Development's impact on housing affordability may be in Greater Cambridge. The Proposed Development would also have some beneficial impacts as it would provide a lot of job opportunities with high salaries which will help the workers and their families afford to buy and rent in the area.

12.179 Overall, given the uncertainties and the evidence presented above, namely that there would likely be a relatively modest increase in housing demand ('need') alongside a difficult to ascertain impact on affordability, it is determined that the Proposed Development would result in a minor adverse impact on housing need and affordability. Combined with the moderate sensitivity of the receptors, it is expected that this effect would be **minor adverse.**

Evaluation of Predicted Impacts

12.180 **Table 12.24** outlines an evaluation of the predicted impacts that are outlined in the section above. The table includes the assessment of the effects and a qualitative description which defines the extent of the effect on the impact.

Table 12.24: Evaluation of Predicted Impacts

RECEPTOR	DESCRIPTION OF EFFECT	SCALE AND NATURE	SIGNIFICANT / NOT SIGNIFICANT	GEO	D / I	P / T	ST / MT / LT
Demolition and Construction							
Displacement of existing businesses (existing businesses and workers)	The displacement of businesses may cause disruption and unemployment for the workers.	**Moderate /minor adverse**	Not significant	Site	D	P	LT
Completed Development							
Operational employment generation (existing and future workers)	The gross additional jobs supported at the Proposed Development would support 4,860 within the district. Based on a sub-regional employment estimate of 567,700 by 2034, the impact of the Proposed Development would be below 1% of total employment at the sub-region.	Negligible	Not significant	Sub-region	D	P	LT
	The Proposed Development would support 5,930 net additional jobs at the sub-regional level, 1.0% of the jobs in the sub-region in 2034.	Negligible	Not significant	Sub-region	I	P	LT
	Approximately 3,300 of the Proposed Development net additional jobs would go to district residents. Equivalent to 1.9% of the jobs in the district by 2034.	Minor beneficial	Not Significant	District	I	P	LT
Local employment and skills (current and future residents)	The Proposed Development would support jobs in the district including both low and high skilled jobs, increasing the number of high skilled jobs compared to the existing Site.	Moderate/ minor beneficial	Significant	District	D	P	LT
Additional contribution towards commercial floorspace (current and future businesses and workers)	The Proposed Development represents an important opportunity to address the chronic undersupply of lab and office accommodation with high performing ESG credentials in a location that is on the boundary of the city centre.	Major/ moderate beneficial	Significant	District	D	P	LT