Branch Hill House, London, NW3

Health Impact Assessment

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1. Introduction

1.1. This Health Impact Assessment (HIA) has been prepared by WSP | Indigo, on behalf of Almax Group, in connection with the proposed refurbishment of the existing Edwardian building known as Branch Hill House; and a redevelopment of its 1960s extension at Branch Hill, London to deliver 34 new homes and associated access and parking arrangements.

The site

1.2. The Branch Hill House site is located on the western side of Branch Hill and covers an area of approximately 0.63 hectares. The site is located approximately 250m west of Hampstead Town Centre. The existing site location plan is attached at **Appendix 1**.

1.3. The main building (Branch Hill House) is recognised as making a positive contribution to the character of the Hampstead Conservation Area, whilst the 1960s extension is considered to detract from its character.

1.4. The site is bound by Heysham Lane to the north, Branch Hill to the east, and the Grade II listed Spedan Close Estate to the west. The access road, Spedan Close, bisects the site.

1.5. Much of the surrounding area including Branch Hill House Gardens, Branch Hill Wood and Branch Hill Allotments, is designated as a Local Green Space ('LGS').

The proposed development

1.6. The proposals comprise the conversion of the original Edwardian building and redevelopment of the site to provide new and refurbished buildings ranging from ground plus four storeys in height. The scheme will include 34 residential units, including both private sale and affordable housing, together with associated car parking, open space and landscaping.

1.7. The proposed ground floor plan identifying the proposed form of development is enclosed at **Appendix 2**.

Structure of the HIA

1.8. The remainder of this HIA report is structured as follows:

- **Section 2** – describes the **methodology** employed to assess health impacts, including the data and reference sources used to support the HIA;
- **Section 3** – reviews the key **health-related planning policies** for Camden;
- **Section 4** – evaluates the **baseline health conditions** in the borough and the local area;
- **Section 5** – outlines the **identification and prediction of health impacts** and describes the HIA's **governance** process;
- **Section 6** – assesses the **health impacts** of the proposed development, as well as their **significance** and analyses the **distribution of effects** on health;
- **Section 7** – outlines the **recommendations** and a **monitoring plan** for the HIA; and
- **Section 8** – highlights the **overall conclusions** from the HIA.

1.9. The HIA includes the following appendices:

- **Appendix 1** – plan showing the existing **site location** for the development;
- **Appendix 2** – plan showing the **ground floor** for the proposed development; and
- **Appendix 3** – a bespoke **HIA questionnaire** completed by members of the professional team supporting the project.

2. Approach and Methodology

2.1. Health impact assessment (HIA) is used to assess a development in terms of its potential effects on the health of a population, and the distribution of these effects within the population. It considers the characteristics of the local community along with the current health status of that population in order to determine the likely health impacts of the development.

2.2. In accordance with the Camden Planning Guidance on "Planning for health and wellbeing", this standalone Health Impact Assessment has been prepared to analyse the health impacts of the development using the guidance in the Rapid Health Impact Assessment Tool and the Healthy Urban Planning Checklist published by the London Healthy Urban Development Unit in April 2017.

2.3. The Rapid Health Impact Assessment Tool (Third Edition) identifies a total of 50 questions relating to the potential health impacts of a development proposal.

2.4. The Healthy Urban Planning Checklist (Third Edition) identifies a total of 30 questions relating to the potential health impacts of a development proposal.

2.5. In completing this HIA, WSP | Indigo has considered both sets of questions, producing a bespoke HIA tool for the specific development proposals for Branch Hill.

2.1. Furthermore, WSP | Indigo has followed the Camden Planning Guidance on "Planning for health and wellbeing", which was adopted in March 2018. The planning guidance sets out the following required HIA elements supporting the creation of strong, vibrant and healthy communities:

- Positive and negative health impacts;
- Evidence-based recommendations and mitigation measures; and
- Demonstration of how communities have been engaged.

2.2. The guidance also identifies that HIAs for major schemes providing between 10 and 99 new residential units are expected to provide a rapid HIA that analyses all potential health and wellbeing impacts.

2.3. Therefore, WSP | Indigo has prepared an HIA comprising this report in addition to the HIA questionnaire which allows for a focused investigation of health impacts. The bespoke HIA questionnaire is enclosed at **Appendix 3**.

Approach to the HIA

2.4. In accordance with the Camden guidance on "Planning for health and wellbeing", this standalone HIA has been prepared to analyse the health impacts of the development using the guidance in the Rapid Health Impact Assessment Tool and the Healthy Urban Planning Checklist published by the London Healthy Urban Development Unit in April 2017.

2.5. WSP | Indigo has undertaken research in order to establish a profile of the local community within the London Borough of Camden (LBC), within which the site falls, including demographic data, health and wellbeing needs and information on vulnerable or priority groups. This enables the assessment to be based on local priorities and needs in the local area.

2.6. This has been undertaken alongside a review of the relevant UK, London and LBC policies to identify key health related issues relevant to both the locality and the type of development proposed.

2.7. The parameters of the assessment include likely direct, indirect, temporary, permanent and cumulative effects. Health effects related to construction and demolition are also considered, alongside operational effects.

2.8. Where significant adverse effects are identified, measures to prevent, reduce and remedy these effects have been suggested where feasible.

2.9. In completing the HIA, WSP | Indigo has been informed by expert advice from a team of specialists, as detailed in Section 5 of this report.

Impact areas

2.10. The HIA report includes a high-level assessment of the baseline health conditions experienced by residents living in the LBC and specifically by those communities living closest to the development site. In assessing baseline health conditions, WSP | Indigo has used the following impact areas:

- **Local impact area** – as defined by the Frognal and Fitzjohns ward boundary; and
- **Wider impact area** – as defined by the Camden borough boundary.

Information sources

2.11. In undertaking this HIA, WSP | Indigo has drawn on advice and guidance provided by the following sources:

- Camden Planning Guidance 'Planning for health and wellbeing' – The London Borough of Camden, March 2018;
- Healthy Urban Planning Checklist (Third Edition) – London Healthy Urban Development Unit, April 2017; and
- Rapid Health Impact Assessment Tool (Third Edition) – London Healthy Urban Development Unit, April 2017.

2.12. WSP | Indigo has employed data from the following sources:

- English Indices of Deprivation 2019 Map Explorer – Department for Communities and Local Government, 2019;
- Camden Health Profile 2019 – Public Health England, November 2019;
- Camden Child Health Profile 2019 – Public Health England, March 2019;
- Pitney Bowes GeoInsight, 2018; and
- 2011 Census – Nomis Official Labour Market Statistics, 2019.

3. Planning Policy Review

3.1. This section provides an overview of relevant national, regional and local planning policy in order to help understand the strategic aspirations on health outcomes for the London Borough of Camden (LBC).

National policy

National Planning Policy Framework (NPPF)

3.2. The pursuit of health and wellbeing forms part of achieving the social element of sustainable development in Paragraph 8b of the National Planning Policy Framework (NPPF, revised February 2019). *Chapter 8* of the NPPF sets out health-related requirements for planning policies and decisions, noting they should aim to achieve healthy, inclusive and safe places. This includes three sub-goals surrounding promoting social interaction, creating safe and accessible places, as well as enabling and supporting healthy lifestyles.

Planning Practice Guidance (PPG)

3.3. The overall policy direction within NPPF is supported within Paragraph 004 of the PPG 'Health and Wellbeing' section, which states that *"a health impact assessment may be a useful tool to use where there are expected to be significant impacts"*.

3.4. This guidance sits alongside other health-related procedures in the planning application process, including a need for LPAs to consult with the Director of Public Health and various other stakeholders and mitigate health impacts relating to a particular development through conditions or Section 106 agreements.

The Marmot Review

3.5. The Marmot Review Report ('Fair Society, Healthy Lives') published in 2010 highlights how health inequalities are largely related to socio-economic determinants such as housing, income, and education. Action on health inequalities therefore requires action across all social determinants of health. The proposed development could have an effect across many of these social determinants, particularly effects pertaining to built environment design, provision of employment and training, and amenity.

London policy

London Plan (2016)

3.6. The currently adopted version of the London Plan was published in March 2016.

3.7. Policy 3.2 identifies that the potential health impact of development proposals will be considered by the Mayor, to help improve the health of all Londoners. London will be promoted as a healthy place for all through the following means:

- Coordination of investment in physical improvements in deprived, run-down areas of London, which are not conducive to good health;
- Coordination of planning and action on the environment, climate change and public health; and
- Promotion of a strong and diverse economy.

3.8. Policy 3.2 (C) states that Health Impact Assessments form part of a general consideration on *"the impacts of major development proposals on the health and wellbeing of communities"*. Emerging developments are expected to not only minimise negative health impacts, but also actively improve health and promote healthy lifestyles to reduce health inequalities (Policy 3.2 (D)).

3.9. Policy 3.2 Part C states the impacts of all major development proposals on the health and wellbeing of communities will be considered during the application process, which can be achieved through the use of HIAs.

3.10. The need for new developments to be designed, constructed and managed to promote healthy lifestyles among the population, whilst helping to reduce health inequalities, is outlined at Policy 3.2 part D.

Draft New London Plan (2019) with Consolidated Suggested Changes

3.11. Policy GG3 D of the emerging London plan (Consolidated Changes Version July 2019) has become more prescriptive on the purpose and contents of HIAs. HIAs are also now defined in the glossary, clarifying the GLA's expectations on its basic scope. An increased emphasis is placed on wider determinants of health, the Healthy Streets Approach, mental health, maximising positive impacts, and reducing health inequalities.

3.12. Policy GC3 'Creating a healthy city' aims to improve Londoners' health and reduce health inequalities. This policy highlights potential impacts of development proposals on the health and wellbeing of communities which must be considered, through the use of Health Impact Assessments, in order to mitigate any potential negative impacts and help reduce health inequalities.

3.13. Policy S2 'Health and social care facilities' highlights the need to assess health and social care facilities locally and sub-regionally, as well as the need to identify opportunities to make better use of existing and proposed new health infrastructure through integration, co-location or reconfiguration of services.

The London Health Inequalities Strategy (September 2018)

3.14. The London Health Inequalities Strategy assesses the nature and magnitude of health inequalities in London and sets five priorities in addressing the wider determinants of health: child health; mental health; good air quality; supporting vulnerable and deprived communities; and physical activity.

Local policy

LB Camden Local Plan (2017)

3.15. LB Camden adopted its new Local Plan on 3 July 2017.

3.16. Policy C1 'Health and wellbeing' indicates that the Council will promote and improve healthy communities and identifies measures to reduce health inequalities. The policy states that a Health Impact Assessment must be submitted with all major development proposals.

3.17. The Local Plan takes an integrated approach to planning and health, recognising that all aspects of development can shape the borough's health and wellbeing.

LB Camden Planning Guidance (2018)

3.18. LB Camden adopted its Camden Planning Guidance (CPG) 'Planning for health and wellbeing' in March 2018.

3.19. The CPG identifies when HIAs should be prepared and what they might contain; how the

Council will manage the impacts of certain town centre uses on health and wellbeing; how the planning process can enhance the quality of life for population groups with greater health and wellbeing needs; and further provides signposting to wider health strategies and data prepared by the Council and partners that can contribute to the production of HIAs and assessment of planning applications.

3.20. The guidance should be read in conjunction with the Camden Local Plan (2017) and is aimed to help deliver Policy C1 on health and wellbeing and many other Plan policies.

4. Baseline Health Profile

Introduction

4.1. This section of the HIA provides a high-level overview of the existing health conditions within the London Borough of Camden, within which the site falls. This section also offers a fine-grained analysis of local health conditions at the proposal site. Whilst the majority of data analysis is carried out at a ward level, the English Index of Deprivation (EID) analysis is carried out at the Lower Super Output Area (LSOA) level. Both health indicators and wider determinants of health have been considered in the baseline health profile.

Health conditions in Camden

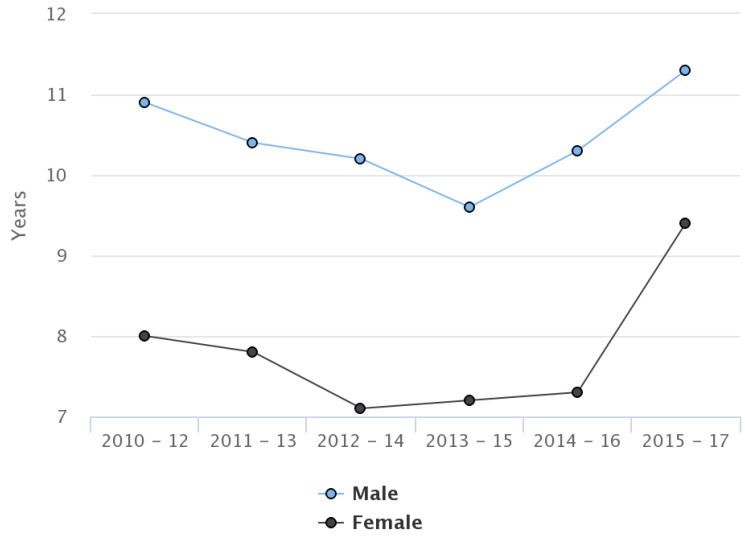
4.2. The general health of residents in Camden far surpasses the national benchmark. Males' life expectancy at birth in 2015-17 is 82.3 years compared to the national average of 79.6 years. The equivalent for females in 2015-17 is an astonishing 86.5 years against the national average of 83.1 years, though it is closer to the London average of 84.3 years.

Table 4.1 Life expectancy at birth, 2015-2017 (Public Health England, 2019)

Gender	Camden	London	England
Male	82.3	80.5	79.6
Female	86.5	84.3	83.1

4.3. However, there is a significant discrepancy in life expectancy for both genders between the wealthiest and poorest neighbourhoods (defined by the difference between the most and least deprived deciles). The discrepancy is 11.3 years for males and 9.4 years for females. As shown in Figure 4.1, this discrepancy has increased rapidly between 2015 and 2017, after experiencing a decline between 2010 and 2015. This inequality increase is the most pronounced between 2014-16 to 2015-17 for males (an increase of 2.1 years from 9.2 years to 11.3 years).

Figure 4.1 Inequalities in life expectancy at birth in Camden



4.4. The borough has a lower than average rate of early deaths (defined as under-75 mortality rate), at 284 compared with the London average of 310 and the national average of 332 in 2015-17. This trend is perpetuated into mortality rates from cardiovascular diseases in 2016-18 (62.7 against the national average of 71.7) and from cancer in 2016-18 (109.8 against a national average of 132.3).

4.5. Adults lead a healthy and active lifestyle in Camden: the percentage of physically active adults is 71.7% in 2017/18, above the London average of 66.4% and English average of 66.3%. This is linked to a low overweight/obesity rate of 46.5% in 2017/18 compared to the London average of 55.9% and English average of 62.0%. The borough also performs exceptionally well on dementia diagnosis rate for people aged 65 and over, with 89.6% of expected dementia sufferers formally diagnosed in 2019. This is markedly higher than the national average of 68.7%.

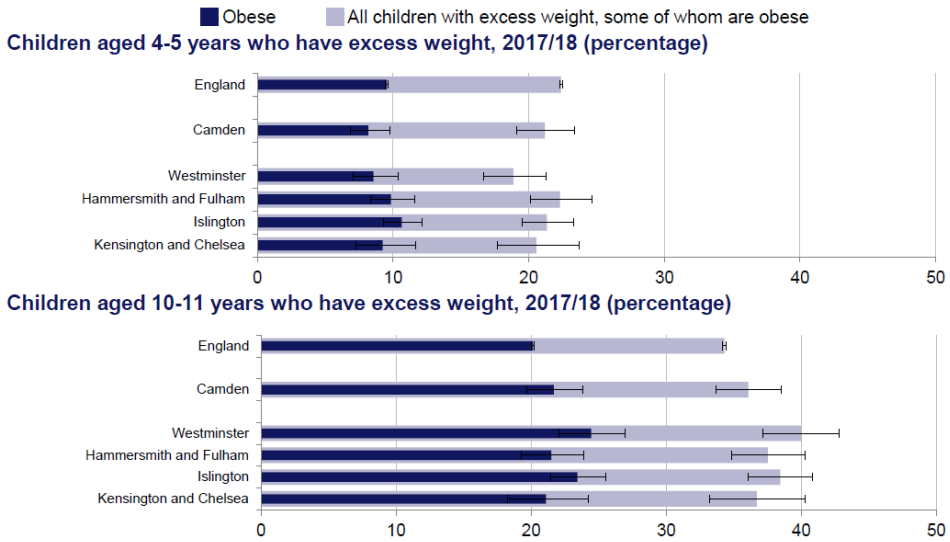
4.6. However, performance is particularly poor on estimated diabetes diagnosis rate in 2018, as only 56.3% of estimated diabetes sufferers received a formal diagnosis compared with the London average of 71.4% and national average of 78.0%. Protection from infectious diseases is also below average. New STI diagnosis in 2018 (excluding chlamydia for under 25s) is 1,985 per 100,000, as opposed to 1,713 for London and 851 for England. Similarly, the three-year average of tuberculosis in 2016-18 was 15.4 – this is lower than the London average of 21.9 but significantly higher than the England average of 9.2.

4.7. Regarding wider determinants of health, the borough stands above average for attainment rate of 8 score at GCSE level in 2017/18 (48.2 against the English average of 46.7). However, a higher than average proportion of children (27.3%) come from low income families in 2016, whilst the averages for 18.8% for London and 17.0% for England. Similarly, only 70.7% of 16 – 64 year olds are in employment in 2018-19, compared with a higher average for London (74.2%) and England (75.6%).

Child health

4.8. The health of children and young people across Camden can be viewed as mixed compared to England averages. The infant mortality rate in 2015-17 is the best in England, at 1.7 per 1,000 live births – in contrast with the London average of 3.3 and English average of 3.9. At 2017/18, the proportion of children classified as obese or with excess weight at Reception (age 4-5 years) is 8.2%, which is similar to the England average of 9.5%, and Year 6 (age 10-11 years) is 21.7%, which is higher than the England average of 20.1% (see Figure 4.2 below).

Figure 4.2 Childhood obesity percentages comparison (Public Health England, March 2019)



4.9. Camden lags behind regional and national averages for vaccination rate. MMR vaccination coverage for 2-year-olds in 2018/19 is 78.7% compared with the London average of 83.0% and 90.3% for England. The same is true for children in care in 2018, at 76.2% against the London average of 78.4% and the national average of 85.3%.

4.10. Many children (aged 0 to 17 years) in Camden suffer from mental health conditions, with 109.8 children per 100,000 admitted to hospital for mental health reasons in 2017/18, which is above the England average of 84.7. The incidence of mental health issues is also higher among young people (aged 10 to 24 years) in Camden, with 175.6 young people per 100,000 admitted to hospital as a result of self-harm in 2017/18. This figure is below the England average of 421.2, although it is significantly higher than the England best of 116.9.

4.11. Alcohol abuse is lower among Camden's young population (aged under 18 years) than across England. Hospital admissions due to alcohol-specific conditions stood at a crude rate of 20.2 per 100,000 in the period 2015/16-2017/18, compared to an England average of 32.9.

4.12. In addition, during the period from 2015/16 to 2017/18, 33.1 people per 100,000 aged 15 to 24 years old were admitted to hospital for substance misuse in Camden. This figure is lower than the English average of 87.9 and significantly lower than the England worst of 329.3.

Health conditions in the local area

Ward-level health data

4.13. Comprehensive health data is provided at the electoral ward level through Public Health England's Local Health Tool. Frognal and Fitzjohns ward appears to have less pronounced health problems than Camden as a whole. Residents in this ward do not perform significantly worse than the national average in any category.

4.14. The ward has a higher than average life expectancy at birth for both genders in 2013-2017. For males this figure is 87.2 years compared to the national average of 79.5 years. Females have a life expectancy of 88.5 years, compared to the national average of 83.1 years.

4.15. Residents have a far lower standardised incidence ratio of cancer against a national benchmark index of 100, in 2012-2016. This is particularly the case for all cancers (70.3), lung cancer (55.5), and colorectal cancer (44.1). Risks to behaviourally-related health issues are also lower, for example hospital stays for alcohol related harm (broad definition) has a standard admissions ratio of 42.2 against a national benchmark of 100 in 2013/14 – 2017/18.

4.16. Interestingly, the statistics suggest that children in this ward become more exposed to unhealthy lifestyles as they grow older. In 2015/16-2017/18, far fewer children (13.8%) than the national average (22.4%) have excess weight in their reception year. However, in Year 6 the percentage of children with excess weight is 31.7%, a lot closer to the national average of 34.2%.

English Indices of Deprivation

4.17. The English Indices of Deprivation (EID 2019) enable comparisons to be made for a range of deprivation indicators at the small area level. The small areas, or neighbourhoods, are known as lower level super output areas (LSOAs) which on average contain around 1,500 people. There are 32,844 of these neighbourhoods across England as a whole.

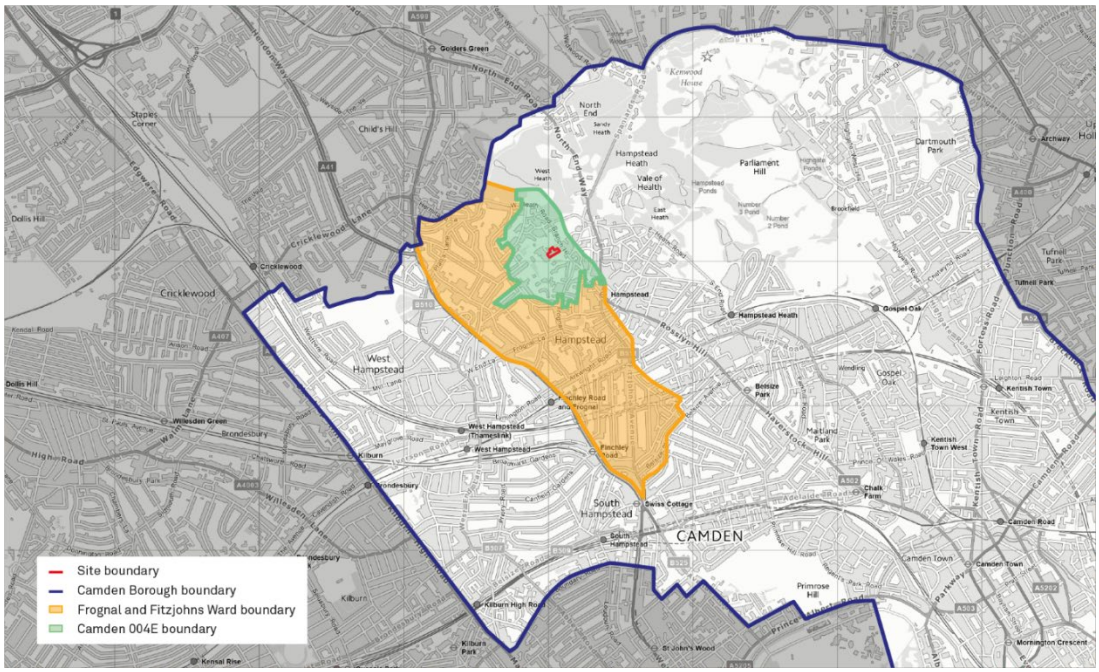
4.18. The EID 2015 provides an overall index of multiple deprivation which is based on seven separate deprivation domains. Each deprivation domain is weighted, as shown below:

- Income deprivation – with a weighting of 22.5%;

- Employment deprivation – with a weighting of 22.5%;
- Education, skills and training deprivation – with a weighting of 13.5%;
- Health deprivation and disability – with a weighting of 13.5%;
- Crime – with a weighting of 9.3%;
- Barriers to housing and services – with a weighting of 9.3%; and
- Living environment deprivation (9.3%).

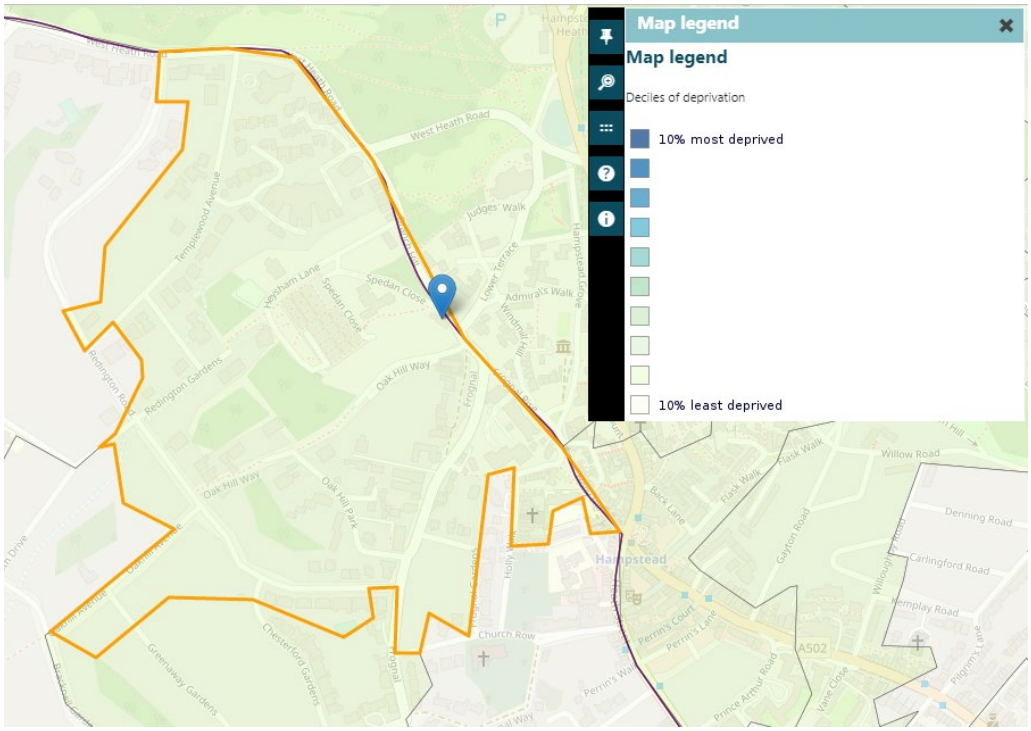
4.19. The local impact area is the Frognal and Fitzjohns ward boundary. Where more detailed analysis of the local impact area can be obtained, we have used the super output area level which is Camden 004E. Figure 4.3 below identifies the Frognal and Fitzjohns ward boundary, Camden 004E LSOA and the Branch Hill House site.

Figure 4.3 Boundaries map of the site, Camden 004E LSOA, Frognal and Fitzjohns ward, and LB Camden



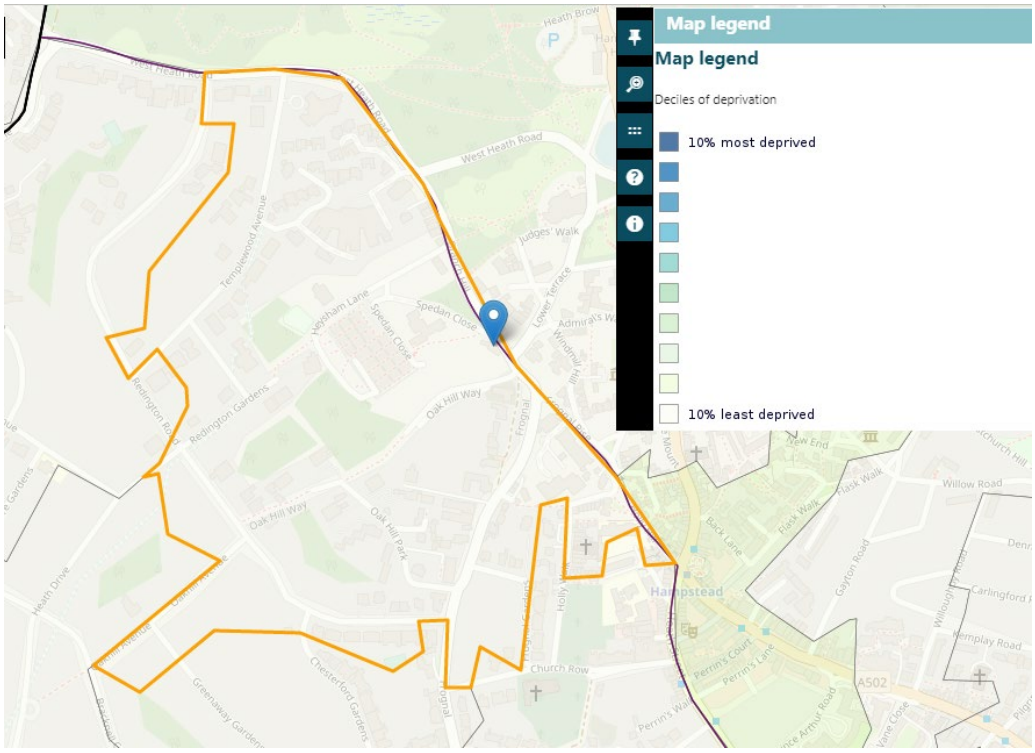
4.20. The local LSOA is among one of the least deprived neighbourhoods in England, both in general and health-specific domains. Camden 004E is ranked 28,290 out of 32,844 LSOAs in England, with 1 being the most deprived LSOA. The LSOA is thus ranked the 86.1% least deprived LSOAs in England, and 118th out of 133 LSOAs within LB Camden, as shown in Figure 4.4 below (Camden 004E is outlined in orange).

Figure 4.4 English Indices of Deprivation (2019) – Overall ranking for Camden 004E



4.21. In the Health and Disability Domain, Camden 004E is ranked 32,637 out of 32,844 LSOAs, ranking 99.4% least deprived in the country (the least deprived 1%), and 126th out of 133 LSOAs within LB Camden. This is illustrated in Figure 4.5, with Camden 004E outlined in orange.

Figure 4.5 English Indices of Deprivation (2019) – Health and Deprivation ranking for Camden 004E



Self-assessment of health

4.22. The 2011 Census included a question that asks people to assess their general health over the preceding 12 months from five possible options ranging from 'very good' to 'very bad'. Although subjective, the question is useful in illustrating the perceived health of the population of the local area in which the site is located. Table 4.2 compares the results of this question within the local neighbourhoods of Camden 004E to those of populations in the Frognal and Fitzjohns ward, LB Camden, and London as a whole.

Table 4.2 Self-assessment of individual health at LSOA, ward, borough and London levels (2011 Census)

Descriptor	Camden 004E (LSOA)	Frognal and Fitzjohns (Ward)	Camden	London
Very good	58.7%	61.7%	53.4%	50.5%
Good	28.5%	27.8%	30.6%	33.3%
Very good or good	87.2%	89.5%	84.0%	83.8%
Fair	9.3%	7.9%	10.4%	11.2%
Bad	2.7%	1.8%	4.2%	3.7%
Very bad	0.8%	0.8%	1.4%	1.2%
Bad or very bad	3.5%	2.6%	5.6%	4.9%

4.23. Residents at the LSOA level consider themselves significantly healthier than average self-assessments at LB Camden and London, though this is slightly less than local ward-level averages. 87.2% of residents in Camden 004E see themselves to be in very good or good health levels, short of the 89.5% in Frognal and Fitzjohns ward but higher than 84.0% in Camden and 83.8% in London. Only 3.5% of residents consider themselves to be in bad or very bad health, compared with the Camden-wide average of 5.6% and London average of 4.9%. This is, however, higher than the Frognal and Fitzjohns ward average, at 2.6%.

Summary

4.24. Residents in Camden overall have an above-average health profile. Both men and women live longer than the London and national averages, though large local discrepancies in life expectancy indicate inequalities in the borough. The borough's residents are very active and have a significantly lower mortality rate, both generally and from specific conditions like cardiovascular diseases and cancers.

4.25. However, performance on diabetes diagnosis and infectious disease prevention is poor, and performance on some wider determinants of health indicators (particularly children in low income families and adult unemployment rate) is a cause for concern. Child health in Camden presents a mixed picture. Whilst infant mortality rates are lower than average, children and young people suffer from higher rates of obesity, lower vaccination rates, and a higher incidence of mental health conditions and substance abuse.

4.26. At a ward level, residents perform well above the national average across the vast majority of indicators, particularly for life expectancy at birth, cancer incidence, and behaviour-related risk factors. However, similar to borough level results, children are at some risk from obesity, particularly in their later childhood years.

4.27. At the LSOA level, Camden 004E performs exceptionally well, being the 86.1% least deprived in the country overall and a staggering 99.4% least deprived in the health and disability domain. Corresponding to this is residents' confidence in their own health conditions compared with borough and London averages, though the self-assessment levels are slightly short of ward levels.

5. Management

Identification and prediction of health impacts

5.1. To identify, predict and finally assess the health impacts of the proposed development, the following stages have been undertaken:

- Screening, which is to identify the key health issues;
- Getting the HIA team together as the HIA needs input from a team of people to provide different perspectives and areas of expertise;
- Scoping, which decides how to undertake an HIA in a given context;
- Assessment, which identifies and considers a range of evidence for potential impacts on health and equity;
- Developing recommendations, which means formulating and prioritising specific recommendations that are based on the best available evidence; and
- Make recommendations, as part of the HIA that include recommendations to adjust the development or make other changes that would improve health impacts/consequences.

Screening

5.2. An initial screening assessment was undertaken using the Healthy Urban Planning Checklist and the Rapid Health Impact Assessment Tool developed by NHS London Healthy Urban Development Unit. This was used as a basis for identifying the key health issues likely to arise as a result of the proposed development including any potential health risks and mitigation measures.

Scoping

5.3. The purpose of scoping is to define the area of influence for the HIA, identify the potentially affected communities, the key health issues and to develop the strategy to undertake the required data collection.

5.4. The potential health impacts of the proposed development and any associated construction activities are likely to be greatest in the surrounding communities. Whilst the proposed development has the potential to impact on the population outside the area directly affected, these impacts will be less than those on the local community. It is, therefore, considered appropriate to focus the geographical scope of the assessment to the site's immediate surrounds.

Geographical scope

5.5. The immediately surrounding area is the HIA study area, which comprises the people most likely to be affected by the proposed development. This study area covers the Frognal and Fitzjohns ward within Camden.

Timescales

5.6. Subject to planning, construction of the proposed development is anticipated to commence by 2021 with an estimated completion date during 2024. As such, there may be temporary health effects during this period, and permanent health effects following the completion and

operation of the development.

Population scope

5.7. The population scope of this HIA includes the residents of the Frognal and Fitzjohns ward. The main vulnerable groups that were considered and identified in the community profile analysis are:

- Elderly people;
- Children and young people;
- Ethnic minorities;
- Disabled people with a physical or mental impairment; and
- People that are economically inactive or unemployed,

Determinants of health

5.8. The key determinants of health and wellbeing that are considered in this HIA are split into the following four main thematic areas:

Healthy housing:

- Housing (tenure and condition);

Active travel:

- Traffic and transport;

Healthy environment:

- Air quality and odour;
- Noise;
- Potential for Flood risk; and
- Construction;

Vibrant neighbourhoods:

- Exercise and physical activity (access to green and open space); and
- Economy and employment.

Assessing the significance of health impacts

5.9. The proposed development has been assessed against each of the determinants of health, looking first at the baseline conditions of the determinant category within the study area, and then the effect that the proposed development has on the health of the target population (short-term, temporary and permanent) via the determinant category.

5.10. The Institute of Occupational Medicine (IOM) published an approach to assess health impacts in 2009[1], which has been applied to identify the health impacts for the Branch Hill

[1] Institute of Occupational Medicine (IOM), for the North Staffordshire 'Streetcar' Bus Rapid Transport Scheme Health Impact Assessment, IOM, 2009

House scheme.

5.11. A seven-point assessment scale that classifies the significance of the identified impacts is used to categorise the effects for the assessment. The categories range from 'major beneficial' to 'major adverse' and are shown in Table 5.1. Significance incorporates the intensity of the impact and its potential duration. In addition to identifying the health impacts' significance, their intensity and duration are also assessed.

Table 5.1 – Assessment Scale and Definition of Significance

Significance of Impact	Definition	Intensity [+ / -]	Duration (SML) (TIP)
Major adverse	Health effects are categorised as a major negative if they could lead directly to deaths, acute or chronic diseases or mental ill health. They can affect either or both physical and mental health either directly or through the wider determinants of health and wellbeing. These effects can be important local, district, regional and national considerations. Mitigation measures and detailed design work can reduce the level of negative effect though residual effects are likely to remain.	The exposures tend to be of high intensity. Over a large geographical area or affect a large number of people or impact vulnerable groups. (- - - / + + +)	Long term duration (L) Intermittent (I) Temporary (T) or Permanent (P) in nature.
Major beneficial	Health effects are categorised as a major positive if they prevent deaths/prolong lives, reduce/prevent the occurrence of acute or chronic diseases or significantly enhance mental wellbeing.		
Moderate adverse	Health effects are categorised as a moderate negative if the effects are long term nuisance impacts, e.g. odours and noise, or may lead to exacerbations of existing illness. The negative impacts may be nuisance/quality of life impacts which may affect physical and mental health either directly or through the wider determinants of health. The cumulative effect of a set of moderate effects can lead to a major effect. These effects can be important local, district and regional considerations. Mitigation measures and detailed design work can reduce and in some/many cases remove the negative impacts.	The exposures tend to be of moderate intensity and/or over a relatively localised area and/or likely to affect a moderate-large number of people e.g. between 100-500 and/or sensitive groups (- - / + +)	Medium term duration (M) Intermittent (I) Temporary (T) or Permanent (P) in nature.
Moderate beneficial	Health effects are categorised as a moderate positive if they enhance physical or mental wellbeing significantly and/or reduce exacerbations to existing illness and reduce the occurrence of acute or chronic diseases.		
Minor adverse	Health effects are categorised as minor positive or negative, if they are generally lower level quality of life or wellbeing impacts. Increases or reductions in noise, odour, visual amenity, etc. are examples of such effects. These effects can be important local considerations.	The exposures tend to be of low intensity and/or over a small area and/or affect a small number	Short term duration (S) Intermittent (I) Temporary (T) or Permanent
Minor beneficial			

	Mitigation measures and detailed design work can reduce the negative and enhance the positive effects such that there are only some residual effects remaining.	of people e.g. less than 100 (- / +)	(P) in nature.
Neutral	No health effects or effects within the bounds of normal/accepted variation.	n/a	n/a

Governance

5.12. This HIA has been prepared in a collaborative and transparent manner. In completing the HIA, WSP | Indigo has been informed by expert advice from the following specialists, who have also prepared the identified planning application documentation:

- Stanhope Gate Architects – Architects;
- Planit-ie – Landscape Architects;
- Envision – Sustainability Consultants;
- Hepworth Acoustics – Acoustic Consultants;
- RPS – Transport Consultants;
- Ridge – Structural and Civil Engineers;
- Waterman Group – Environmental Consultants;
- Hybrid – Ecology and Biodiversity Consultants;
- WSP | Indigo – Planning Consultants; and
- GIA – Rights of Light Consultants.

Mitigation and recommendations

5.13. A set of mitigation measures were identified to reduce the potential negative health and wellbeing impacts of the proposed development. The mitigation measures are summarised in a Monitoring Plan in Section 7 of the HIA.

6. Assessment of Health Impacts

Evaluation framework

6.1. In this section of the HIA, we set out both the temporary and permanent health impacts of the development proposals for the site.

6.2. In evaluating the health impacts of the scheme, the HIA follows the guidance of both the Healthy Urban Planning Checklist and the Rapid Health Impact Assessment Tool. As such, the HIA addresses potential health impacts under the following four main thematic areas:

- Healthy housing;
- Active travel;
- Healthy environment; and
- Vibrant neighbourhoods.

6.3. As previously explained, WSP | Indigo has designed a bespoke evaluation tool based on a series of questions for each of these thematic areas. In responding to these questions, technical experts on the Branch Hill House professional team were invited to consider whether a potential health impact would be positive, negative, neutral or uncertain.

6.4. WSP | Indigo has assessed the identified health impacts in further detail, using the assessment scale set out in Table 5.1 of the HIA to assess the significance of health impacts.

Temporary health impacts

6.5. The key questions to address are as follows:

- **Construction** – does the proposal minimise construction impacts such as dust, noise, vibration and odours?
- **Local employment and healthy workplaces** – does the proposal include commercial uses and provide opportunities for local employment and training, including temporary construction and permanent “end-use” jobs?

Construction impacts

6.6. Emissions of dust to air, noise and vibration can occur during the construction process and transportation of materials to and from the site. As such, there is a potential impact on the surrounding uses.

6.7. Noise is likely to be generated by construction activities, construction plant and construction vehicles at the proposed development construction site. As such, there is potential for some disturbance caused to those living nearby during the construction phase. Noise impacts from construction are generally a localised phenomenon and are temporary in nature.

6.8. The main contractor will be advised to implement construction methods to minimise impacts from dust, noise, vibration and odours. Some of the measures expected to be adopted would include: limiting working hours to day working only; regularly maintaining plant and equipment; locating noisy equipment in less sensitive areas of the site; where possible, providing washing facilities to clean tyres for vehicles leaving the site; providing noise and

dust screens; requesting that construction workers avoid shouting; spraying water to suppress dust; and keeping neighbours informed of programmed works.

6.9. For noise and vibration, it will be recommended that the contractor follows the guidance in BS 5228, which is the code of practice for noise and vibration control on construction and open sites.

6.10. Expected construction for the structural frame is an in-situ reinforced concrete frame with contiguous flight auger (CFA) bored piles forming the foundations to the frame and the perimeter walls to the reduced level single storey basement. The CFA method of piling offers lower vibration and noise than alternative methods such as driven precast concrete piles.

6.11. Construction traffic routing, its timing and access points to the site, will minimise noise impacts at existing receptors. Significant effects from construction noise can be managed and avoided, though increases in road traffic noise levels during works will be temporary, relatively short term.

Local employment and healthy workplaces

6.12. The proposed development will include a construction phase which will generate turnover and temporary employment for construction firms and related trades.

6.13. Construction employment estimates are generally determined on the basis of the anticipated construction cost. However, at the time of this assessment, an anticipated construction cost for the proposed development is not known.

6.14. In the absence of this information, our experience of assessing similar sized schemes in London, supplemented by desktop research into the typical build costs per sqm of residential units in London, informs our assumptions. Specifically, research by the architects Architecture for London estimate that for new residential units in London, a minimum of £2,000 per sqm is a realistic construction cost estimate.

6.15. With a total floorspace area of 4,443.3sqm, and the assumed minimum construction cost of £2,000/sqm, the estimated build cost for the proposed development is £8.9 million. This is considered to be a realistic estimate of construction costs of the scheme.

6.16. Data from the Annual Business Survey 2017 Revised Results[2] published in May 2019 reveals that the total turnover in the construction sector during 2017 was £256,369 million. The average number of people employed in the construction sector during 2017 was 1.5 million, translating into an average turnover per full time equivalent construction job of £170,913.

6.17. Using the build cost estimate of £8.9 million, and the average turnover per full time equivalent construction job in 2017 of £170,913, WSP | Indigo estimate the proposed development will generate 52 person years of temporary construction employment. This is equivalent to 52 construction workers being employed on a full-time basis for 12 months.

6.18. The standard convention in economic impact assessment is that ten person-years of construction employment equates to one full-time equivalent permanent job in the construction sector. The construction of the proposed development will therefore support the equivalent of around five FTE construction jobs.

Gross value added

6.19. The Office for National Statistics defines Gross Value Added (GVA) as "*the contribution of each individual producer, industry or sector to the economy*". The Annual Business Survey 2017 provides estimates of the approximate GVA added by different sectors of the UK

[2] ONS (2019) Annual Business Survey 2017 Revised Results

economy. During 2017, the approximate GVA added by the construction sector was £96,805 million.

6.20. With the average number of people employed in the construction sector in 2017 at 1.5 million, this suggests that the GVA per full time equivalent construction job in 2017 was £62,476. WSP | Indigo estimates that the 52 person years of temporary construction employment generated by the development will create GVA added to the local economy of approximately £3.2 million. This would be for the entire construction program.

Temporary worker expenditure

6.21. During the demolition and construction period, construction employees will add to the local economy through spending on food, drink and socialising on working days (assumed to be 232 days per annum, taking into account bank holidays and average holiday absences). Assuming that 60% of the workforce spend £6 per day on food and drink and socialising on 232 days per annum, it is estimated that the proposed development will generate an additional gross spend of circa £43,430. This would be for the entire construction program.

Construction training opportunities

6.22. The proposed development offers the opportunity to provide training, apprenticeships and work experience in a range of construction trades. For example, there will be opportunities for local young people to gain NVQ Level 2 and Level 3 training and practical experience in a range of different construction and engineering trades. Initiatives of this sort are typically run by a training provider in partnership with the principal contractor for the construction programme.

Permanent health impacts

Healthy housing

6.23. The key questions to address as part of the healthy housing theme are as follows:

- **Healthy design** – does the proposal meet all the standards for daylight, sound insulation, private space and accessible and adaptable dwellings?
- **Accessible housing** – does the proposal provide accessible homes for older or disabled people?
- **Accessible housing** – does the proposal ensure that every non-ground floor dwelling is accessible by a lift that can accommodate an ambulance trolley?
- **Healthy living** – does the proposal provide dwellings with adequate internal space, including sufficient storage space and separate kitchen and living spaces?
- **Healthy living** – does the proposal encourage the use of stairs by ensuring that they are well located, attractive and welcoming?
- **Housing mix and affordability** – does the proposal provide affordable family sized homes?

Health determinants

6.24. According to the Chartered Institute of Environmental Health[3], housing quality has been shown to affect both physical and mental health. Poor housing conditions include overcrowding, damp, indoor pollutants and cold. Poor housing is further associated with increased risk of eczema, hypothermia, cardiovascular diseases, respiratory diseases,

[3] Chartered Institute of Environmental Health, 2015. Physical Health – Key Issues.

depression and anxiety.

6.25. Housing-related hazards that increase the risk of illness include damp, mould, excess cold and structural defects that increase the risk of an accident. The World Health Organization (WHO)[4] research found that "*increased housing satisfaction following housing improvement is strongly linked to improvements in mental health*" and "*housing satisfaction may be linked to life satisfaction and mental health*". The Building Research Establishment (BRE) in 2015[5] suggested that the cost to the NHS of poor housing in England was £2billion per annum (based on first year treatment costs only).

6.26. Overcrowding can result in increased risk of illnesses, respiratory problems and accidents. Overcrowding also leads to uncomfortable or irregular sleeping arrangements, and consequently, regularly disturbed sleep. Excess cold experienced in the winter months can affect or exacerbate a range of health problems, including respiratory and circulatory conditions, cardiovascular disease, mental health and accidental injury for all age groups. Older people may be particularly vulnerable during cold periods and are particularly at risk of health problems relating to accidents. Respiratory health has been shown to be particularly affected by poor housing conditions, resulting in the prevalence and exacerbation of asthma.

6.27. Physical characteristics of a living environment, such as cleanliness and the quality of the housing, low housing density and distance to shopping facilities have all been found to have an impact upon neighbourhood satisfaction, which in turn is associated with higher general quality of life. There are also a number of theories that link the physical environment to health, wellbeing and other factors such as crime. Studies have suggested that features of housing design which affect the level of social contact and support people enjoy also influence mental health. Non-physical aspects of the environment are important as they often highlight the value of social networks and social capital for health and wellbeing.

Baseline health information

6.28. Camden has a high proportion of residents in socio-economic deprivation who could benefit from affordable family-sized housing provision. As previously noted, 27.3% of children come from low-income families in 2016, much higher than the nationwide average of 17.0%.

6.29. New housing needs to facilitate physical movement and activity as much as possible, as children become more prone to obesity as they grow older. In 2017/18, the obesity rate of children in Camden from reception to Year 6 increased from 8.2% (comparable to the England average of 9.5) to 21.7% (higher than the England average of 20.1%).

Healthy design

6.30. The design of the proposed development is explained fully in the accompanying Design and Access Statement (DAS). However, the key features are summarised below.

6.31. All habitable rooms in the development are designed to meet the sound insulation guidance for residences in BS 8233: 2014 Guidance on sound insulation and noise reduction for buildings and ProPG: Planning & Noise 'Professional Practice Guidance on Planning & Noise' 2017. All windows will be double glazed. Internal separating partitions and floors will exceed the standards required under AD Part E of the Building Regulations.

6.32. Further, 95% of dwellings are designed to have access to private external space. Ground floor dwellings will also have access to private gardens and all dwellings benefit from generous communal gardens.

6.33. Following the implementation of the low-carbon design principles put forward by the design

[4] World Health Organization, 2013. The Economics of social determinants of health and health inequalities – a resource book.
[5] Building Research Establishment, 2015. The cost of poor housing to the NHS.

team, the development is expected to reduce CO2 emissions. Further details on how the design principles reduce CO2 emissions are found at **Appendix 3** of this HIA.

Standards for daylight

6.34. Daylight and Sunlight assessments have been undertaken for all proposed residential accommodation within the Branch Hill scheme. This follows the Building Research Establishment Guidelines 2011 and includes Average Daylight Factor (ADF), No Sky Line (NSL) and Room Depth Criterion (RDC) assessments for daylight quantum and distribution.

6.35. In addition, all living areas with a southerly aspect have been assessed for sunlight availability both throughout the year (Annual Probable Sunlight Hours or APSH) and in winter (Winter Probable Sunlight Hours or WPSH). All areas of communal outdoor amenity have also been assessed for overshadowing through the Sun Hours on Ground metric.

6.36. The results show very good daylight levels throughout the development with 84% of all habitable rooms meeting or exceeding BRE's recommendation for ADF and 97% with a good view of the sky (NSL). Furthermore, the levels of sunlight in the assessed living rooms throughout the year (APSH) are very good and 77% meet or exceed BRE's guidance.

6.37. In relation to overshadowing, future occupants will be able to enjoy well sunlit open spaces throughout the scheme.

6.38. We can therefore conclude that the proposal optimises the available daylight and sunlight, thus offering future residents very good daylight and sunlight amenity within the residential accommodation and communal open spaces.

Accessible housing

6.39. The scheme has been developed to ensure that accessibility for all is at the forefront of the design proposals. The accessibility opportunities of the proposed development are explained in the accompanying Design and Access Statement, with key features summarised below.

6.40. 32 of the 34 proposed dwellings are designed to comply with Part M4(2) for Accessible and Adaptable Dwellings. Three dwellings comply with Part M4(3) Category 3 (sub category 2a wheelchair adaptable dwellings) for wheelchair users.

6.41. The units on the upper floors are accessible by a lift in accordance with the Housing SPG Standards 15 and 16 and the ISO standard. There are also a number of physical attributes included, such as the provision of accessible toilets, to assist the accessibility of the proposed development.

Healthy living

6.42. The proposed layout of the dwellings has been carefully designed by Stanhope Gate Architects to ensure the properties are attractive and suitable for future occupiers.

6.43. All dwellings are in excess of the standards which are set out in the London Housing Design Guide, in order to provide adequate amenity space. Storage space is also in excess of the requirements.

6.44. In addition, the proposed scheme is compliant with the standards set out in the following documents: Camden's Interim Housing SPG, Nationally Described Space Standards, The London Plan (2016), and the Mayor of London Housing SPG (2016).

6.45. The proposed development is designed to encourage the use of stairs. Stairs are well located and generously sized and visible at point of entry.

Housing mix and affordability

6.46. The new residential development will be built to a high standard, reducing the likelihood of negative health outcomes associated with poor housing such as increased respiratory disease, episodes of depression, limited social networks, poor local transport and limited access to services.

6.47. In addition, the proposed development aims to deliver a housing mix appropriate to local market need, including a range of types, sizes and tenures, and the requirement for affordable housing set out in the local plan.

6.48. Of the total 34 residential units to be provided, 7 would be affordable units at intermediate tenure, representing 20% of the scheme. The scheme provides the maximum reasonable proportion of affordable housing. Of the 7 affordable units proposed, six are one-bed and one is two-bed. The units have been designed to be tenure blind in accordance with local and regional planning policy.

6.49. Given that the residual land value generates a deficit against the site value benchmark, the scheme is not considered commercially viable in development viability terms and is therefore unable to contribute towards further affordable housing.

Active travel

6.50. The key questions to address as part of the active travel theme are as follows:

- **Promoting walking and cycling** – does the proposal promote cycling and walking through measures in a travel plan, including adequate cycle parking and storage?
- **Safety** – does the proposal include traffic management and calming measures and safe and well-lit pedestrian crossings and routes?
- **Connectivity** – does the proposal connect public realm and internal routes to local and strategic cycle and walking networks and public transport?
- **Minimising car use** – does the proposal seek to minimise car use by reducing car parking provision, supported by the controlled parking zones, car free development and car clubs?

Health determinants

6.51. According to the NHS[6] and the Department of Health[7], being physically active plays an essential role in ensuring health and wellbeing. It is well known that physical activity benefits many parts of the body, the heart, skeletal muscles, bones, blood (for example, cholesterol levels), the immune system and the nervous system. Exercise and physical activity can reduce some of the risk factors for non-communicable diseases (NCDs), including reducing blood pressure, improving blood cholesterol levels, and lowering body mass index (BMI). The relationship between inactivity and obesity is well recognised.

6.52. The World Health Organization (WHO)[8] estimates that physical inactivity is the fourth leading risk factor for global mortality and physical inactivity is responsible for 6% of deaths globally – around 3.2 million deaths per year, including 2.6 million in low and middle-income countries. Of these deaths, 670,000 are premature.

6.53. Engaging in social physical activities also enhances mental and social wellbeing, helps reduce social isolation, and reduces adverse reactions to stress. Furthermore, physical

[6] NHS, 2015. Benefits of exercise.
[7] Department of Health, 2009. Annual Report of the Chief Medical Officer.
[8] World Health Organization, 2009. Global health risks – Mortality and burden of disease attributable to selected major risks.

activity is associated with a reduced risk of developing depression.

6.54. Walkable environments assist a population to achieve their physical activity targets, compared with residents in less walkable areas. Populations meet physical activity targets where safe places to walk exist within ten minutes of home. The presence or absence of walkable streets is related to longevity, even after adjustment for demographic and socioeconomic factors and baseline health status. According to Public Health England[9], people living closer to green spaces, for example, have been found to be more physically active and were less likely to be overweight or obese.

6.55. The health and wider benefits of physical activity are not restricted to a subgroup of the population. Physical activity declines with age, however, for an older person maintaining fitness levels may help to maintain independent living, having a great impact on quality of life. Disabled people are half as likely as non-disabled people to be active. There is also differing rates of physical activity between ethnic groups, with many minority ethnic groups having lower rates of physical activity participation. People living in the least prosperous areas are also twice as likely to be physically inactive as those in more prosperous areas.

Baseline health information

6.56. Our baseline assessment identified that children in the local ward become less healthy as they grow older – in 2015/16-2017/18, the percentage of children with excess weight in the Frognal and Fitzjohns ward from reception to Year 6 increased from 13.8% (below the national average of 22.4%) to 31.7% (catching up with the national average of 34.2%). Providing the opportunities for more active means of travel, such as walking and cycling, would clearly be beneficial for the entire local community, particularly for child residents but the same can be said for adults, despite the fact that their activity participation rates rated well against national averages.

6.57. Camden's residents are slightly more likely to be killed or seriously injured on England's roads (41.6 per 100,000) than the London average (32.2) or the national average (40.8). This calls for measures to create safer roads, such as well-lit pedestrian routes and traffic calming measures.

Promoting walking and cycling

6.58. A Travel Plan is included as a chapter within the Transport Statement, which sets out the initiatives for facilitating the sustainable movement of residents, visitors and goods to and from the proposed development. A travel plan can address the environmental and health impacts of development by promoting sustainable transport, including walking and cycling. Cycle parking can encourage cycle participation. This has a beneficial impact on health through the reduction of physical inactivity, cardiovascular disease and obesity.

6.59. The site is well located to encourage walking and cycling to nearby employment opportunities, shops and services. The Travel Plan supports the aspirations for sustainable modes of travel in accordance with TfL's Travel Plan guidance (2013).

6.60. In order to further encourage walking and cycling to and from the development, information will be provided to residents on the local facilities and amenities in the area including local pedestrian and cycle routes and distances to and from the site.

6.61. The development will be car-free, with the exception of disabled car parking spaces, in order to maximise sustainable modes of travel to and from the site.

6.62. A total of 76 secure cycle parking spaces will be provided at the basement level for residents, which is in accordance with Camden policy and in excess of the minimum requirements of the Draft New London Plan (2019). Two short-stay cycle parking spaces will

[9] Public Health England, 2016. Health matters: getting every adult active every day.

be provided for visitors. The provision of ample cycle parking facilities ensures that future growth in cycling as a mode of transport is supported by the development.

6.63. The proposals have adequate cycle parking and storage in line with TFL guidelines. Secured cycle storage areas are conveniently located at ground floor level off the car park area with easy access to the flat entrances. In addition, short term cycle parking would be provided within public areas, close to the cores of the residential and commercial units.

Safety

6.64. Traffic management and calming measures can reduce road accidents involving cyclists and pedestrians and increase levels of walking and cycling, which has a beneficial impact on health through the reduction of physical inactivity, cardiovascular disease and obesity.

6.65. Details on the existing and proposed access arrangements and the transport impacts of the proposed development are provided in the accompanying Transport Assessment.

6.66. Given that vehicle movements on-site will be low, limited to disabled car drivers and delivery/servicing movements, the likelihood for conflicts between vehicles and pedestrians/cyclists will be low. Furthermore, vehicle speeds on-site will be low.

6.67. Spedan Close will be provided with footways on both sides of the carriageway. Cycle movements along Spedan Close to and from the cycle store will be safely accommodated on the carriageway.

6.68. The route along the southern boundary of the site will be a shared surface, giving priority over to pedestrian and cycle movements.

Connectivity

6.69. The proposed development prioritises the access needs of cyclists and pedestrians as identified in paragraphs 6.63 to 6.68. This has a beneficial impact on health through the reduction of physical inactivity, cardiovascular disease and obesity. The proposed routes are safe, direct and convenient, and barriers are avoided.

6.70. The proposed footways along Spedan Close will connect directly to existing footway provision along both sides of Branch Hill at the site access. The existing footways in the locality provide a continuous pedestrian link southeast to the centre of Hampstead, where Hampstead Underground station and local bus stops can be accessed.

6.71. Street lighting is provided at regular intervals where pedestrian footways are present. Dropped kerbs and tactile paving are used locally to facilitate safe pedestrian crossing.

6.72. The nearest bus stops, bus stop E (northbound) and bus stop P (southbound), are located approximately 350 metres and 550 metres east and northeast of the site, respectively, on Heath Street. These can be accessed by the existing footway provision along Branch Hill, Frognall Rise, Lower Terrace, Upper Terrace and the signal-controlled pedestrian crossings provided at West Heath Road / Heath Street junction.

6.73. Cycle movements between the site access and the cycle store will be accommodated on the carriageway of Spedan Close. Cycle routes around the site are illustrated within Local Cycling Guide 4 (2017) produced by TfL which assigns a coloured code to different types of cycle lane infrastructure. There are continuous 'Yellow' (other roads recommended by cyclists) cycle routes from Frognal Rise and Lower Terrace. This cycle route links the site with Heath Street and also provides access to Hampstead Underground station.

6.74. There are also 'Green '(off-road) cycle routes through parks and off-carriage locations such as Hampstead Heath Park and Oak Hill Way. 'Light Blue' (routes signed for cyclists) cycle routes on Bracknell Gardens could be accessed via 'Yellow' and 'Green' routes. Combined,

these routes provide cycle access to various areas such as Kilburn, Cricklewood, Kentish Town and Camden Town.

6.75. Moreover, further public transport services such as London Overground at Finchley and Frognal rail station could be accessed through the use of these routes.

Minimising car use

6.76. The proposed development will provide an opportunity to encourage a shift in patterns of movement and transport from reliance on the use of the private car to train travel, walking and cycling. This will promote active travel and support recreational and sporting activities to contribute to opportunities for healthy lifestyles. The provision of improved cycling and pedestrian infrastructure is anticipated to encourage included active travel.

6.77. The development is proposed as car-free, with the exception of four disabled car parking spaces to ensure that the site is accessible to the mobility impaired. Furthermore, the development will be permit-free. Legal agreements or conditions will be used to ensure that future residents will not be eligible for local on-street parking permits.

Healthy environment

6.78. The key questions to address as part of the healthy environment theme are as follows:

- **Construction** – does the proposal minimise construction impacts such as dust, noise, vibration and odours?
- **Air quality** – does the proposal minimise air pollution caused by traffic and energy facilities?
- **Noise** – does the proposal minimise the impact of noise caused by traffic and commercial uses through insulation, site layout and landscaping?
- **Open space** – does the proposal retain or replace existing open space and in areas of deficiency, provide new open or natural space, or improve access to existing spaces?
- **Open space** – does the proposal set out how new open space will be managed and maintained?
- **Play space** – does the proposal provide a range of play spaces for children and young people?
- **Biodiversity** – does the proposal contribute to nature conservation and biodiversity?
- **Local food growing** – does the proposal provide opportunities for food growing, for example by providing allotments, private and community gardens and green roofs?
- **Flood risk** – does the proposal reduce surface water flood risk through sustainable urban drainage techniques, including storing rainwater, use of permeable surfaces and green roofs?
- **Overheating** – does the design of buildings and spaces avoid internal and external overheating, through use of passive cooling techniques and urban greening?

Health determinants

6.79. According to the Committee on the Medical Effects of Air Pollutants (COMEAP)[10], the

[10] Committee on the Medical Effects of Air Pollutants, 2012. Statement on estimating the mortality burden of particulate air pollution at a local level.

association between health effects and exposure to air pollutants is now well established, with distinct health risks associated with exposure to particulates available at a local level.

6.80. The impact of long-term human exposure to particulate matter (PM) anthropogenic pollution is estimated to have an effect on mortality equivalent to nearly 29,000 deaths in the UK. Any increases in mortality are likely to be either as a result of cardiovascular and/or respiratory mortality, particularly with regards to an elevated short-term exposure to atmospheric pollutants.

6.81. Due to the correlation between differing airborne pollutants and similar health effects, one pollutant can often mask the effects of another, and it is not always possible to discreetly isolate the health effects of a single pollutant. The causal mechanism, primarily cardiovascular and respiratory, leading to increased mortality with increased exposure to particulate matter is well-founded, though processes behind NO2 contributing to cardiovascular damage, respiratory disease or cancer are less understood.

6.82. The health impacts of environmental noise are also widely acknowledged. According to the WHO[11], noise has potential impacts on cardio-vascular disease, cognitive impairment and sleep disturbance and annoyance.

6.83. Children are vulnerable to a range of health outcomes associated with environmental noise, including road traffic noise. This includes demonstrating annoyance responses to noise as well as stress along with increased levels of adrenaline and noradrenaline. Though noise does not cause more serious mental health problems, there is growing evidence of an association with increased hyperactivity symptoms. Increased levels of noise have been associated with changes in cardiovascular functioning, and effecting low birth weight.

6.84. Long term noise exposure is believed to have an influence on psychological health, although, with the exception of annoyance, the link is not as strong as for other health outcomes.

6.85. The impacts of high flood risk on human health can be very serious, complex and far-reaching, including drowning, injuries, and an increased incidence of common mental disorders. According to the Association of British Insurers[12], awareness of flood risk and knowledge of how best to respond varies by socio-economic group, with those in higher socio-economic groups having higher awareness. This suggests that deprived or poorer households are likely to experience impact of flooding more severely than others.

6.86. Furthermore, poorer people are more likely to occupy housing which is least resilient to flooding, such as mobile homes, and be less able to afford flood protection products.

Baseline health information

6.87. The borough has an above-average rate of respiratory disease sufferers whose conditions may be exacerbated by poor air quality. The three-year average of tuberculosis is 15.4 per 100,000 which is higher than the national average of 9.2.

6.88. Though the overall population is healthy and fit at the borough and ward levels (evidenced by the above-average life expectancies of 82.3 years for males and 86.5 for females in 2015-17), child health data indicates that the built environment could be improved through well-managed open/play spaces and opportunities for local food growing. As mentioned in the Healthy Housing section, in 2017/18 the obesity rate of children in Camden from reception to Year 6 increased from 8.2% (comparable to the England average of 9.5) to 21.7% (higher than the England average of 20.1%).

[11] World Health Organization, 2011. Burden of disease from environmental noise: quantification of healthy life years lost in Europe.
[12] Association of British Insurers, 2008. Government statement of flooding and insurance for England.

Construction

6.89. The potential construction impacts would be temporary and are considered at paragraphs 6.6 to 6.11 of this HIA. The proposal puts mechanisms in place to control hours of construction, vehicle movements and pollution.

Air quality

6.90. The proposal offers little on site car parking, thus reducing the number of private vehicles accessing the site, and thereby minimising vehicle emissions. The proposed development is not predicted to result in a significant increase in traffic once operational and therefore, no significant effects on air quality are anticipated at existing receptors.

6.91. In addition, the Energy Strategy of the proposed development includes the use of Air Source Heat Pumps (ASHP) located on the roof. As such, the proposed development does not include any emissions to air during its operation.

6.92. The proposed development mitigates poor air quality, which has been linked to life-shortening lung and heart conditions, cancer and diabetes.

Noise

6.93. A noise survey has been carried out on site to determine the prevailing ambient noise levels. The facade glazing and ventilation has been specified to achieve the noise limits for habitable rooms described in BS 8233: 2014, following the guidance in ProPG: Planning & Noise 'Professional Practice Guidance on Planning & Noise' 2017.

6.94. In practice, the external noise levels at the site are low, so no special noise mitigation measures are required beyond standard thermal double glazing, openable to provide fresh air. The buildings are set back from the road, which also provides a useful amount of distance attenuation for noise.

Open space

6.95. Access to open space has a positive impact on health and wellbeing. Living close to areas of green space, parks, woodland and other open space can improve physical and mental health regardless of social background.

6.96. The proposals retain much of the existing open space, and where possible enhance it. Much of the existing open space is poorly managed with non-native / invasive plant species left to spread. The proposed design aims to replace non-native and invasive species with native species found on site and in the local area. Seeking to provide a net increase in the nature conservation and landscape value of the site.

6.97. The proposals aim to ensure that all landscape elements can establish and mature successfully in order that the long-term design intent can be realised. They aim to establish a landscape appropriate to the site and the context and materiality of the wider site and its environs and in keeping with the objectives of the initial Landscape Masterplan for the development.

6.98. The proposals include private gardens / outdoor space for ground floor units as communal open spaces for all residents and visitors. The scheme also aims to provide accessible routes to all communal outdoor space.

6.99. Monitoring is of fundamental importance, since this is the means by which the success of the proposals will be measured. The Management Plan must be an evolving one, able to adapt to the specific needs of the landscape and nature conservation as they change. A further Management and Maintenance document will be prepared after planning, in order to discharge conditions.

6.100. It is assumed that the costs of maintenance will be provided through the resident's service charge which will help provide the residents with a sense of stewardship and ongoing investment and high standards.

6.101. Finally, there is a Site of Importance for Nature Conservation (SINC) to the northern corner of the site which will be protected, conserved and enhanced by management. Whilst only a proportion of the SINC will be accessible via footpath, the area as a whole will provide visual amenity for residents and visitors and enhance the site's biodiversity.

Play space

6.102. As the primary use within the proposals is for residential use, there are great opportunities for play set within the landscape that inspires exploration and triggers inspiration. The requirements of play space, in relation to the proposed occupancy of the development have been in line with the Mayor of London's Shaping Neighbourhoods: Play and Informal Recreation SPG 2012 (referred to as best practice). The play can be split into two typologies; natural (non-prescriptive) and formal (prescriptive) play space.

6.103. Areas of verdant and pioneering plant species enclose a glade for non-prescriptive play and will consist of a minimal collection of natural and informal play pieces to encourage children of varying ages. Timber from trees removed on site can be used to create play pieces and habitats for wildlife for children and adults to observe.

6.104. Formal play is located within the arrival gardens with soft play surfacing and passive surveillance from flats. Play equipment in this area will cater for doorstep play.

6.105. The site also benefits from its close proximity to external play spaces that are located within the maximum walking distances from Under 5 to 12years+ in line with the Accessibility to Play Spaces SPG 2012 from the London Plan. Spedan Close Park and West Heath, Hampstead Heath are both located within 100m walk away. In addition, existing surrounding green space in local proximity to the site provides further play space for children.

Biodiversity

6.106. Access to nature and biodiversity contributes to mental health and wellbeing. The proposed development can improve existing, and might create new, habitats, whilst using design solutions, such as green roofs, to enhance biodiversity.

6.107. The existing woodland to the south of the site is declining in character due to dominance of invasive evergreen shrubs including cherry laurel. It is currently unmanaged and lacking in structure as a result of the closed canopy restricting light to the woodland floor. The scheme presents an opportunity to put this woodland back into positive conservation management, as identified in paragraphs 6.100 to 6.106. This could include removal of poor tree specimens and cherry laurel to encourage an understorey to develop. Native planting will also be introduced to improve the structure and diversity of the ground layer.

6.108. The woodland will become a place to connect people with nature, with a new "trail" path to encourage people to use the woodland for recreation and relaxation. This is likely to create an interest around nature conservation and presents an opportunity for residents to learn more about local biodiversity and what they could do to help.

6.109. The bat surveys have established that bats commute along the southern site boundary with the woodland. Installing bat boxes on retained trees will improve roosting resources for bat species, they will include crevice and void boxes for use by different species such as birds. Several boxes are recommended on each tree to provide a diversity of microclimates, oriented south or east. Providing new nest boxes will improve nesting opportunities for declining bird species.

6.110. Several Priority bat species occur in the local area, including soprano pipistrelle, brown long-eared and natterer's, all of which are known to use bat boxes at various times of the year. This would improve roosting resources for declining and vulnerable species.

Local food growing

6.111. With needs for residential amenity and protection, conservation and enhancement of the SINC, there is limited space for food growing on site. There are opportunities for fruiting trees to be planted along Spedan Close and in the private residential gardens, and Branch Hill allotments are located adjacent to the South eastern edge of the site.

6.112. There is no proposed provision for local food growing in the shared amenity space, but private external amenity areas can be used for growing food in small containers or grow bags. Local food growing can support active lifestyles and a healthy diet, whilst also tackling food poverty.

Flood risk

6.113. Flooding can result in risks to physical and mental health. The stress of being flooded and cleaning up can have a significant impact on mental health and wellbeing. It is likely that increasing development densities and building coverage coupled with more frequent extreme weather events will increase urban flood risk. The proposed development tackles these flood risks and has mitigation measures in place.

6.114. During construction, increased runoff from the development associated with increased areas of hardstanding has the potential to result in increased risk of surface water flooding. The proposed development presents an opportunity to contribute to a reduction in flood risk by reducing the current rate of discharge to the public sewer network.

6.115. The incorporation of sustainable drainage systems within the Proposed Development should seek to offer a reduction in peak runoff rates in accordance with both the national and local policies described above. Subsequently, a reduction in peak flow rates would result in a lower surface water flood risk downstream of the proposed development, with larger reductions providing a greater betterment.

6.116. The expected drainage strategy for the site will look to dispose of surface water on site, where possible. Possible SuDS options for use on the site would include Infiltration Based Drainage Options, Attenuation Based Drainage Options, or Source Control Drainage Options. Further details on these options are found in the enclosed HIA questionnaire, at **Appendix 3** of this HIA.

Overheating

6.117. External walls are of masonry and in conjunction with the thermal insulation act as a heat buffer. Glazed areas are not excessive. Where larger areas of glazing occur, such as terraces on the south elevation, they are recessed and shaded by terraces above, and benefit from the shading offered by the existing tree canopies.

6.118. The internal skin of the external walls is likely to be block work which has a good thermal capacity and will act as a heat sink to control fluctuations in temperature. Windows are operable to provide natural ventilation if required.

6.119. Climate change with higher average summer temperatures is likely to intensify the urban heat island effect and result in discomfort and excess summer deaths amongst vulnerable people. In addition to limiting the effects of heat gains, the proposed development also helps to prevent summer overheating through urban greening, such as tree planting, green roofs, and soft landscaping.

6.120. In order to avoid internal overheating issues, the development has followed the GLA's 'Cooling Hierarchy'. Further details on how the proposals are provided in **Appendix 3**.

Vibrant neighbourhoods

6.121. The key questions to address as part of the vibrant neighbourhoods theme are as follows:

- **Health services** – has the impact on healthcare services been addressed?
- **Education** – has the impact on primary, secondary and post-19 education been addressed?
- **Access to social infrastructure** – does the proposal contribute to new social infrastructure provision that is accessible, affordable and timely?
- **Access to social infrastructure** – have opportunities for multi-use and the co-location of services been explored?
- **Local employment and healthy workplaces** – does the proposal include commercial uses and provide opportunities for local employment and training, including temporary construction and permanent 'end-use' jobs?
- **Access to local food shops** – does the proposal provide opportunities for local food shops?
- **Access to local food shops** – does the proposal avoid an over concentration of hot food takeaways in the local area?
- **Public realm** – does the design of the public realm maximise opportunities for social interaction and connect the proposal with neighbouring communities?
- **Public realm** – does the proposal allow people with mobility problems or a disability to access buildings and places?

Health determinants

6.122. The Department for Communities and Local Government[13] establishes that access social infrastructure such as to local shops, places of entertainment and community activity contribute to well-being.

6.123. People without private cars are typically likely to be particularly vulnerable to impacts on access to local shops and facilities, particularly in rural areas. This is more common among people on low incomes and older people. Mobility impaired or visually impaired people will be particularly vulnerable to impacts such as local footpath diversions. People who rely on regular contact with local healthcare services, such as those with disabilities or long-term illness, or those with young children, may be more vulnerable to impacts on access to these services.

6.124. Capacity to reach healthcare services is affected by the accessibility of transport modes, availability of financial support for those on low incomes and the location of healthcare services.

6.125. Overall, the accessibility of local shops is determined by the capacity of existing services; physical accessibility such as the distances to be travelled and transport connections; social or cultural access, and by separation imposed by new physical infrastructure.

6.126. The health benefits of having local access to leisure facilities can go beyond those gained from just physical exercise and extend to social contact and providing a safe and supervised facility for young children.

6.127. A lack of availability and accessibility of municipal services such as libraries, health facilities, doctors' surgeries, schools and social support can have a negative social impact on communities and affect both physical and mental health.

[13] The Department for Communities and Local Government, 2008. Place survey – UK Government.

6.128. Natural features, such as green space, within urban environments can encourage greater use and facilitate higher levels of social interactions. Therefore, landscape is increasingly seen to contribute to quality of life and human health. An important aspect of landscape is green and open space which is said to improve physical and mental health by increasing physical activity, reducing air pollution and noise, and increasing social contacts. Residents living closer to greenspaces have lower mental distress and higher wellbeing.

6.129. The WHO[14] demonstrates that changes in employment status and income influence health outcomes, including depression, limiting long term illnesses, and mortality. Employment also provides a vital link between an individual and society and enables people to contribute to society and achieve personal fulfilment. The WHO identifies a number of ways in which employment benefits mental health. These include the provision of structured time, social contact and satisfaction arising from involvement in a collective effort. Therefore, the loss of a job or the threat of losing a job is considered detrimental to health.

6.130. Overall, employment opportunities and access to employment are fundamental to build healthy sustainable communities.

Baseline health information

6.131. Camden has a lower-than-average employment rate in 2018/19, at 70.7% as opposed to the national average of 75.6%). This calls for opportunities for the proposed development to provide placements for employment and training in the construction and operation phases.

6.132. The borough is under-performing with respect to a few healthcare provision indicators. Only 56.3% of estimated diabetes suffers receive a formal diagnosis compared with the London average of 71.4% and the national average of 78.0% in 2018. New STI diagnosis is also significantly above national average, at 1,985 per 100,000 as opposed to the national average of 851. This indicates that more services on STI education and prevention is needed.

6.133. Camden exhibits a mixed picture for mental health. Whilst the suicide rate if 10.4 per 100,000 (higher than the national average of 9.6) in 2016-18, emergency hospital admissions for intentional self-harm is 70.9 per 100,000 in 2017-18, much lower than the England average of 185.5. In any event, a neighbourhood that fosters community cohesion through connected and inclusive design will help cultivate mental wellness.

Health services

6.134. The additional population arising from the residential element of the Proposed Development will have an effect on the capacity of existing services and facilities, such as GPs. The effects are assessed based on the estimated population yield of the completed Development, calculated using the GLA Population Yield Calculator (Version 3.2) and housing unit mix.

Table 6.1 – Population Yield of the Proposed Development

Age Group	Population Yield
0-4	5
5-11	3
12-15	1
16-17	1
18-64	62

[14] World Health Organization, 2018. Management of physical health conditions in adults with severe mental disorders.

65+	2
Total	**74**

6.135. As set out in Table 6.1, the proposed development would increase the demand for existing health facilities within the vicinity of the site, with an estimated 74 net additional residents.

6.136. The Healthy Urban Development Unit (HUDU)15 recommends a GP-to-patient ratio of 1:1,800. As a result, based on the HUDU guidance of 1,800 patients per GP, the 74 new residents would require an additional 0.04 GPs. This assumes a worst-case scenario inasmuch as it does not factor in for residents of the new development who are already enrolled at nearby GP practices.

6.137. Given the small additional demand, it is considered likely that this will be met by the existing GP facilities within the borough. There will, therefore, be no adverse effects on local healthcare facilities and health services.

Education

6.138. The additional population arising from the residential element of the proposed development will have an effect on the capacity of existing services and facilities, such as schools. The effects are assessed based on the estimated population yield of the completed Development, calculated using the GLA Population Yield Calculator (Version 3.2) and housing unit mix.

6.139. As set out in Table 6.1, the proposed development is expected to yield a requirement for an additional three primary school places (ages 5 -11) and two secondary school places (ages 12 – 17). This assumes a worst-case scenario inasmuch as it does not factor in for school-age residents of the new development who are already enrolled at nearby schools.

6.140. Given the small additional demand, it is considered likely that this will be met by the existing schools within the borough. There will therefore be no adverse effects on local education facilities.

Access to social infrastructure

6.141. The proposed development does not contribute to the provision of social infrastructure in the area (eg schools, GPs, dentists), although the scheme provides significant amenity space for future occupiers across the landscaped site.

Local employment and healthy workplaces

6.142. The proposed development will include a construction phase which will generate turnover and temporary employment for local construction firms and related trades. It is estimated that the construction phase will support 52 person years of temporary construction employment. This equates to five full-time equivalent (FTE) permanent jobs in the construction sector.

6.143. Temporary construction employment opportunities created by the proposed development have the potential to be taken up by the existing population from other areas. Furthermore, the proposed development is strategically well located in relation to existing employment; and the development will encourage the use of local businesses by employees.

Access to local food shops

6.144. The provision of 34 residential units will result in additional household expenditure available to the local economy.

[15] NHS London Health Urban Development Unit (2009)

6.145. The report on Family Spending, published by the ONS in January 201916, provides data for the financial year ending 2018 on household expenditure. The results reflect the Living Cost and Food Survey for 2017 / 18 based on a sample of 15,370 households across Great Britain. The latest data reveals that the average weekly household expenditure in London for the period between the financial year ending 2016 and financial year ending 2018 was £658.30. The survey also shows that, on average, each household in London spends £124.20 per week on net housing, fuel and power costs. Since this spending typically goes to major national institutions with only modest impacts on the local economy, this spending has been deducted from average weekly household expenditure.

6.146. This means that for the period between the financial year ending 2016 and financial year ending 2018, net average weekly household expenditure in London was £534.10 which is equivalent to an annual figure of £27,773.20. Assuming 20% VAT was paid on all of this spending, the average annual household expenditure (net of indirect taxation and housing, fuel and power costs) was £22,218.60 for London between April 2016 to March 2018.

6.147. Based on this analysis and the net addition of 34 households to the local area, it is estimated that the gross additional household expenditure generated by the new residential population would be around £755,432 per annum. This assumes that all units are occupied and that the 34 net additional households demonstrate spending patterns typical of London as a whole.

6.148. This additional household expenditure of £755,432 per annum is a gross effect. Some of this spending would leak out of the area as residents spend their income in other regions and neighbouring boroughs. For the purposes of this assessment, we have assumed a leakage of 25% of the additional household expenditure.

6.149. Based on these assumptions, the net additional household expenditure generated by the new residential population of the proposed development is expected to be approximately £566,574 per annum.

6.150. In addition to the additional household spending of £566,574, temporary construction workers will spend an additional £43,430 per annum in the local economy, as identified in paragraphs 6.21 to 6.22. A significant portion of this is likely to be spent in local food shops.

6.151. The proposed development would not have any effect on the concentration of hot food takeaways in the local area. A proliferation of hot food takeaways and other outlets selling fast food can harm the vitality and viability of local centres and undermine attempts to promote the consumption of healthy food, particularly in areas close to schools.

Public realm

6.152. The public realm has an important role to play in promoting walking and cycling, activity and social interaction. It also affects people's sense of place, security and belonging. It is a key component of a lifetime neighbourhood. Shelter, landscaping, street lighting and seating can make spaces attractive and inviting.

6.153. The proposed development implements inclusive design principles effectively and creates an accessible environment, in particular for disabled people.

6.154. Green space is a valuable resource for physical activity and has potential to contribute to reducing obesity and improving health.

6.155. The proposed development aims to support healthy living and wellbeing though the use of green infrastructure to support active lifestyles, promoting good mental health and create a sense of community. Natural features, such as green space, within urban environments can facilitate higher levels of social contact/integration and cohesion.

[16] ONS (2019) Family Spending in the UK: financial year ending 2018

6.156. Communal spaces including the play space, SINC access and the Arrival Gardens give opportunities for social interactions between residents and are inclusive of visitors. The development is community facing as the two roads on site provide access to Branch Hill Estate. The proposals enhance this journey to the Estate and provide visual amenity in the planting and engagement with the play areas and seating. The proposed development therefore has a potential to integrate with the wider neighbourhood context.

Accessibility to the public realm

6.157. Inclusive design that accommodates all, including people with disabilities, has been a fundamental part of the public realm design process and The Equality Act 2010 is referred throughout.

6.158. The two access roads on site would be resurfaced and made accessible to meet requirements from Approved Documents M and K, The Building Regulations 2010. The proposals incorporate step free access into all various core shared entrances and also private residential front door access points at ground floor.

6.159. Paving materials for access routes have been selected to avoid loose material that may be difficult for wheelchair users and people walking with walking aids to navigate. Tactile paving will be introduced at points that start 400mm from risers at the head and foot of stairs and be 800mm deep at the direction of travel. Seating will have back and arm rests. The detailed design will aim to minimise the need for steps and ramps. Where required, they will need to be designed to be fully compliant with building regulations.

6.160. Seating amongst raised planting beds ensures that all are able to enjoy the sensory planting and experiences provided and that raised planting also allows for those in wheelchairs or with disabilities to gain a more immediate view into planting without bending down.

Summary of permanent health impacts

6.161. Table 6.2 below provides an overview of the identified health impacts for the proposed development at Branch Hill.

Table 6.2 – Summary of health impacts

Health impact	Positive	Negative	Neutral	Uncertain	Significance
Healthy housing					
Healthy design	✓				Moderate beneficial Long-term Permanent
Accessible housing	✓				Moderate beneficial Long-term Permanent
Healthy living	✓				Moderate beneficial Long-term Permanent
Housing mix and affordability	✓				Minor beneficial Long-term Permanent
Active travel					
Promoting walking and cycling	✓				Major beneficial Long-term Permanent
Safety	✓				Minor beneficial Long-term Permanent
Connectivity	✓				Major beneficial Long-term Permanent

Minimising car use	✓				Major beneficial Long-term Permanent
Healthy environment					
Construction impacts		✓			Minor adverse Short-term Temporary
Air quality	✓				Minor beneficial Long-term Permanent
Noise			✓		Neutral
Open space	✓				Major beneficial Long-term Permanent
Play space	✓				Moderate beneficial Long-term Permanent
Biodiversity	✓				Major beneficial Long-term Permanent
Local food growing			✓		Neutral
Flood risk				✓	Uncertain
Overheating	✓				Moderate beneficial Long-term Permanent
Vibrant neighbourhoods					
Health services			✓		Neutral
Education			✓		Neutral
Access to social infrastructure			✓		Neutral
Local employment and healthy workplaces	✓				Minor beneficial Short-term Temporary
Access to local food shops				✓	Uncertain
Public realm	✓				Major beneficial Long-term Permanent

Legend for Table 6.2 – **Significance of impact**: Major adverse; Major beneficial; Moderate adverse; Moderate beneficial; Minor adverse; Minor beneficial; Neutral. **Duration of impact**: Long term; Short term. **Nature of impact**: Temporary; Permanent.

Significance of health impacts

6.162. WSP | Indigo have assessed the significance of the health impacts of the proposed development across four different thematic areas. To classify the significance, duration, and nature of the impact on local health, we have used the assessment scale published by the IOM in 2009, outlined in Section 5 of this HIA.

6.163. To assess whether the health impacts represent a positive, negative or neutral effect, we have applied our professional judgment based on our experience with health impact assessments to analyse the technical responses to the bespoke HIA questionnaire.

6.164. Table 6.3 below summarises the effects of the scheme on a question by question basis. The table demonstrates that the proposed development will primarily have a positive effect on local public health.

The proposed development was assessed as having a positive impact on health for 15 of the questions; for five of the questions, the scheme was assessed as having a neutral effect on health; and for one question, the proposed development was assessed as having a negative effect on health. In addition, the proposed development was assessed as having an uncertain effect on two of the questions.

Table 6.3 – Overall health effects of the proposed scheme

	Positive effects	Negative effects	Neutral effects	Uncertain effects
Healthy housing	4	0	0	0
Active travel	4	0	0	0
Healthy environment	5	1	2	1
Vibrant neighbourhoods	2	0	3	1
Total	**15**	**1**	**5**	**2**

Healthy housing

6.165. The impacts related to the theme of 'Healthy housing' are considered to have a positive effect on health.

6.166. The net effects on local health from the proposed development are deemed to be positive when assessed in terms of healthy design, housing mix and affordability, and housing and healthy living.

6.167. The increase of residential units in the Borough as well as the provision of affordable housing locally have a positive impact on local public health by providing greater access to a wider range of high quality housing stock.

Active travel

6.168. Under the theme of 'Active travel', the proposal is considered to have a positive effect on health.

6.169. The net effects on local health from the proposed development are considered to be positive when assessed in terms of connectivity, minimising car use and promoting walking and cycling, and safety.

6.170. One of the key design principles of the proposed scheme is to prioritise pedestrian and cycle travel over the private car. The majority of site residents will live a car free lifestyle, supported by secure cycle parking and a well-designed layout to provide safe routes for pedestrian and cycling commuters. This would make a direct positive contribution to improving health outcomes through increased physical activity alongside a greater sense of inclusion and social integration.

Healthy environment

6.171. Under the theme of 'Healthy environment', the proposal is considered to have an overall positive effect on health.

6.172. The net effects on local health from the proposed development are considered to be positive when assessed in terms of open space, play space, biodiversity, air quality and overheating. The net effects of the development in terms of temporary construction impacts are assessed as minor negative. The net effects of the development in terms of noise and local food growing are assessed as neutral. The net effects of the development in terms of flood risk is assessed as uncertain.

6.173. Construction activities, construction plant and construction vehicles at the proposed development construction site will have the potential to cause disturbance caused to those

living nearby during the construction phase. Noise construction activities could have an adverse health impact upon noise sensitive receptors.

6.174. However, significant negative effects from construction can be managed and mitigated through the implementation of management plans at Reserved Matters stage which will accompany the planning application.

Vibrant neighbourhoods

6.175. Under the theme of 'Vibrant neighbourhoods', the proposal is considered to have an overall positive effect on health.

6.176. The net effects on local health from the proposed development are considered to be positive when assessed in terms of local employment, and public realm. The net effects of the development in terms of education, health services and access to social infrastructure are assessed as neutral, even though the new residential population will place additional demands on these facilities. The net effects of the development in terms of access to local food shops is assessed as uncertain.

Distribution of health impacts

6.177. This section analyses the distribution of health impacts for future residents and visitors of the proposed development (identified as the 'Application site'); for the population of the wider neighbourhood (generally those within 0.5km of the site); and for the population of the wider Hampstead area (generally those within a 1.5km radius from the site).

6.178. Temporary and permanent health impacts will broadly follow a distribution that radiates outwards. The potential impacts would be felt greatest by future residents of the proposed development, and those living in close proximity to the site. Residents in the wider Branch Hill and Hampstead area will be indirectly affected by the proposed development to a lesser extent (eg through occasional travelling to the site, air quality impacts, etc.).

6.179. Based on this broad distribution, the Proposed Development will have uneven spatial impacts on different areas depending on a locality's population density and health deprivation levels (the latter being set out in the baseline section of this report).

Risk assessment

6.180. WSP | Indigo have assessed the degree of certainty for each of the health determinants of the proposed development. To assess whether the health impacts have a high, medium, or low degree of certainty, we have applied our professional judgment based on our experience with health impact assessments.

6.181. Table 6.4 below identifies the degree of certainty for each of the health impacts, categorised as high, medium, or low. The table demonstrates that the health impacts will primarily have a medium degree of certainty.

6.182. The health determinants were assessed as having a high degree of certainty for eight of the health impacts; for nine of the health impacts, the degree of certainty was assessed as having a medium degree of certainty; and for six health impacts, the proposed development was assessed as having a low degree of certainty.

Table 6.4 – Degree of certainty

	Impact	Significance	Degree of Certainty
Healthy housing			
Healthy design	Positive	Moderate beneficial Long-term Permanent	High

Accessible housing	Positive	Moderate beneficial Long-term Permanent	High
Healthy living	Positive	Moderate beneficial Long-term Permanent	Medium
Housing mix and affordability	Positive	Minor beneficial Long-term Permanent	High
Active travel			
Promoting walking and cycling	Positive	Major beneficial Long-term Permanent	Low
Safety	Positive	Minor beneficial Long-term Permanent	Medium
Connectivity	Positive	Major beneficial Long-term Permanent	High
Minimising car use	Positive	Major beneficial Long-term Permanent	Medium
Healthy environment			
Construction impacts	Negative	Minor adverse Short-term Temporary	High
Air quality	Positive	Minor beneficial Long-term Permanent	Low
Noise	Neutral	Neutral	Low
Open space	Positive	Major beneficial Long-term Permanent	High
Play space	Positive	Moderate beneficial Long-term Permanent	High
Biodiversity	Positive	Major beneficial Long-term Permanent	Medium
Local food growing	Neutral	Neutral	Low
Flood risk	Uncertain	Uncertain	Low
Overheating	Positive	Moderate beneficial Long-term Permanent	Medium
Vibrant neighbourhoods			
Health services	Neutral	Neutral	Medium
Education	Neutral	Neutral	Medium
Access to social infrastructure	Neutral	Neutral	Medium
Local employment and healthy workplaces	Positive	Minor beneficial Long-term Permanent	Medium
Access to local food shops	Uncertain	Uncertain	Low
Public realm	Positive	Major beneficial Long-term Permanent	High

7. Monitoring Plan and Recommendations

7.1. This HIA identifies two temporary and 23 permanent health impacts for the proposed development. The monitoring plan focuses on a smaller number of health impacts which are representative of the wider health determinants.

7.2. The purpose of the monitoring plan is to ensure that the London Borough of Camden is able to track the delivery of several of the key health impacts identified by the HIA.

7.3. The delivery of the monitoring plan could be secured by condition if deemed necessary which can be discussed during the determination of the condition.

Monitoring plan

7.4. Table 7.1 below provides the monitoring plan for this health impact assessment.

Table 7.1 – Monitoring plan

Health impact	Scale of impact	Monitoring activity	Monitoring evidence	Monitoring timeframe
Temporary health impacts				
Construction jobs	52 person years	Main contractor to record site attendance by staff each day	Main contractor to provide total person days of site employment	On completion of construction phase
Construction training opportunities	Opportunities for local young people	Main contractor to appoint a training provider	Main contractor and/or training provider to record attendance	On completion of construction phase
Construction distribution	Dust, noise, vibration and odours	Camden Building Regulations team to review Construction Management Plan	Main contractor to provide Construction Management Plan	Prior to construction starting and throughout the construction phase
Permanent health impacts				
Promoting walking and cycling	Provision of cycle parking	Camden Building Regulations team to monitor build process	Main contractor to provide as built drawings	On completion of construction phase
Housing mix and affordability	Provision of affordable housing	Camden LPA team to monitor	Developer to provide affordability ratio	On completion

Public realm and amenity space	Connections for occupiers through the site and communal areas	Camden Building Regulations team to monitor build process	Main contractor to provide as built drawings	On completion of construction phase
Safety	Traffic management and calming measures	Camden LPA team to monitor	Main contractor to provide as built drawings	On completion of construction phase
Health services	Provision of health services	Camden LPA team to monitor whether CIL payment to fund general health facilities has been received	CIL payment	On completion

8. Conclusions

8.1. WSP | Indigo has undertaken a comprehensive Health Impact Assessment (HIA) of the refurbishment of the original Branch Hill House and redevelopment of its extension at Branch Hill in the London Borough of Camden.

8.2. In evaluating the health impacts of the scheme, the HIA has addressed the questions raised by the London Healthy Urban Development Unit's *Healthy Urban Planning Checklist (Third Edition)* as well as the *Rapid Health Impact Assessment Tool (Third Edition)* for each of four thematic areas, as follows:

- Healthy housing;
- Active travel;
- Healthy environment; and
- Vibrant neighbourhoods.

8.3. The HIA identifies over 25 potential health impacts for the proposed development. The monitoring plan focuses on a smaller number of health impacts which are representative of the overall scope of the HIA. The monitoring plan will ensure that the London Borough of Camden is able to track the delivery of several of the key health impacts identified by the HIA.

8.4. The key findings from the health impact assessment are summarised below.

Health conditions

8.5. Health conditions across Camden are mixed, with the borough performing poorly on wider determinants of health such as diabetes diagnosis and infectious disease prevention. However, the borough enjoys a higher-than-average life expectancy for both men and women when compared with the London and national averages.

8.6. At the more local lower layer super output area level and ward level, health conditions are well above regional and national averages across the vast majority of indicators. In terms of self-assessment of health, the local residents perceive themselves to be in much better health than wider averages.

8.7. At the most localised level, Camden 004E is ranked among the 10% least deprived wards when assessed via the health deprivation and disability domain of the 2019 English Indices of Deprivation.

Temporary health impacts

8.8. The construction phase will produce temporary positive and negative health impacts.

8.9. Emissions of dust to air, noise and vibration can occur during the construction process and transportation of materials to and from the site, which could impact on the surrounding residents. However, management plans will provide operational strategies during construction works which will be implemented to reduce the impact of the works on surrounding residential and commercial buildings.

8.10. The proposed development will generate a number of construction jobs (supporting the equivalent of around five FTE permanent construction jobs), whilst generating gross value

added, additional worker expenditure in the local economy and construction training opportunities.

Permanent health impacts

8.11. Once construction is complete, the development will have generally positive impacts on health. The design principles informing the residential units has focused upon healthy housing, meeting the target floorspace standards, incorporating good levels of daylight and outlook and providing usable open space.

8.12. The proposed development also seeks to minimise car usage, with no car parking available for the majority of residents. The proposed layout will encourage walking and cycling.

8.13. A summary of the identified health impacts is outlined below:

Table 8.1 – Summary of health impacts

Health impact	Positive	Negative	Neutral	Uncertain	Significance
Healthy housing					
Healthy design	✓				Moderate beneficial Long-term Permanent
Accessible housing	✓				Moderate beneficial Long-term Permanent
Healthy living	✓				Moderate beneficial Long-term Permanent
Housing mix and affordability	✓				Minor beneficial Long-term Permanent
Active travel					
Promoting walking and cycling	✓				Major beneficial Long-term Permanent
Safety	✓				Minor beneficial Long-term Permanent
Connectivity	✓				Major beneficial Long-term Permanent
Minimising car use	✓				Major beneficial Long-term Permanent
Healthy environment					
Construction impacts		✓			Minor adverse Short-term Temporary
Air quality	✓				Minor beneficial Long-term Permanent
Noise			✓		Neutral
Open space	✓				Major beneficial Long-term Permanent
Play space	✓				Moderate beneficial Long-term Permanent
Biodiversity	✓				Major beneficial

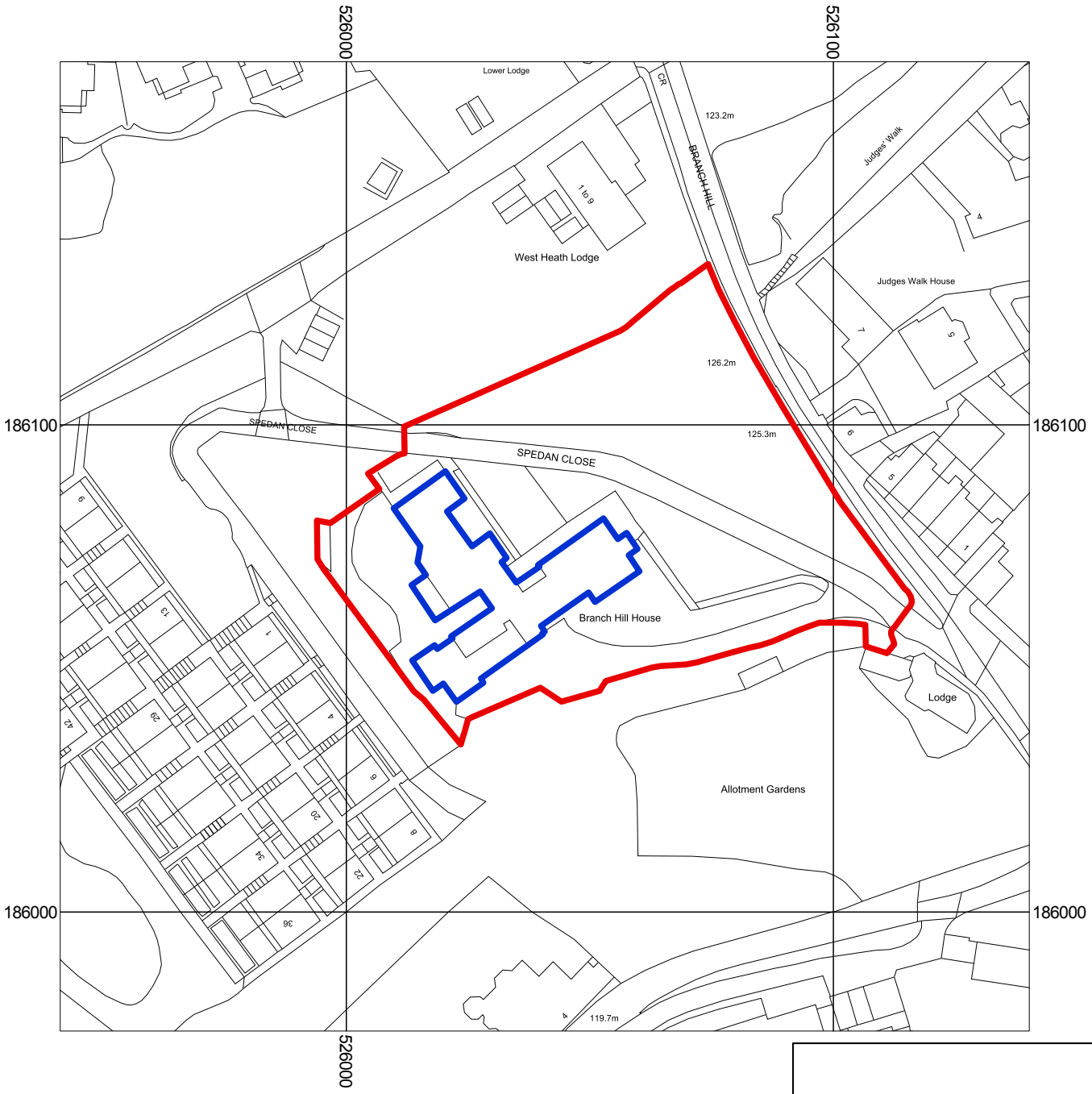
					Long-term Permanent
Local food growing			✓		Neutral
Flood risk				✓	Uncertain
Overheating	✓				Moderate beneficial Long-term Permanent
Vibrant neighbourhoods					
Health services			✓		Neutral
Education			✓		Neutral
Access to social infrastructure			✓		Neutral
Local employment and healthy workplaces	✓				Minor beneficial Short-term Temporary
Access to local food shops				✓	Uncertain
Public realm	✓				Major beneficial Long-term Permanent

Legend for Table 8.1 – **Significance of impact**: Major adverse; Major beneficial; Moderate adverse; Moderate beneficial; Minor adverse; Minor beneficial; Neutral. **Duration of impact**: Long term; Short term. **Nature of impact**: Temporary; Permanent.

Monitoring Plan

8.14. The majority of the health benefits will not be realised for a number of years; until the completion and occupation of the development. An appropriate monitoring plan is proposed which can be secured by condition in order to ensure these benefits can be monitored.

Appendix 1



SITE BOUNDARY

EXISTING BUILDING

BRANCH HILL HOUSE

LONDON

SITE LOCATION PLAN

DRNG No	SCALE	DATE
PL-01	1:1250 @ A4	SEPT-19

0 25m 50m 75m 100m

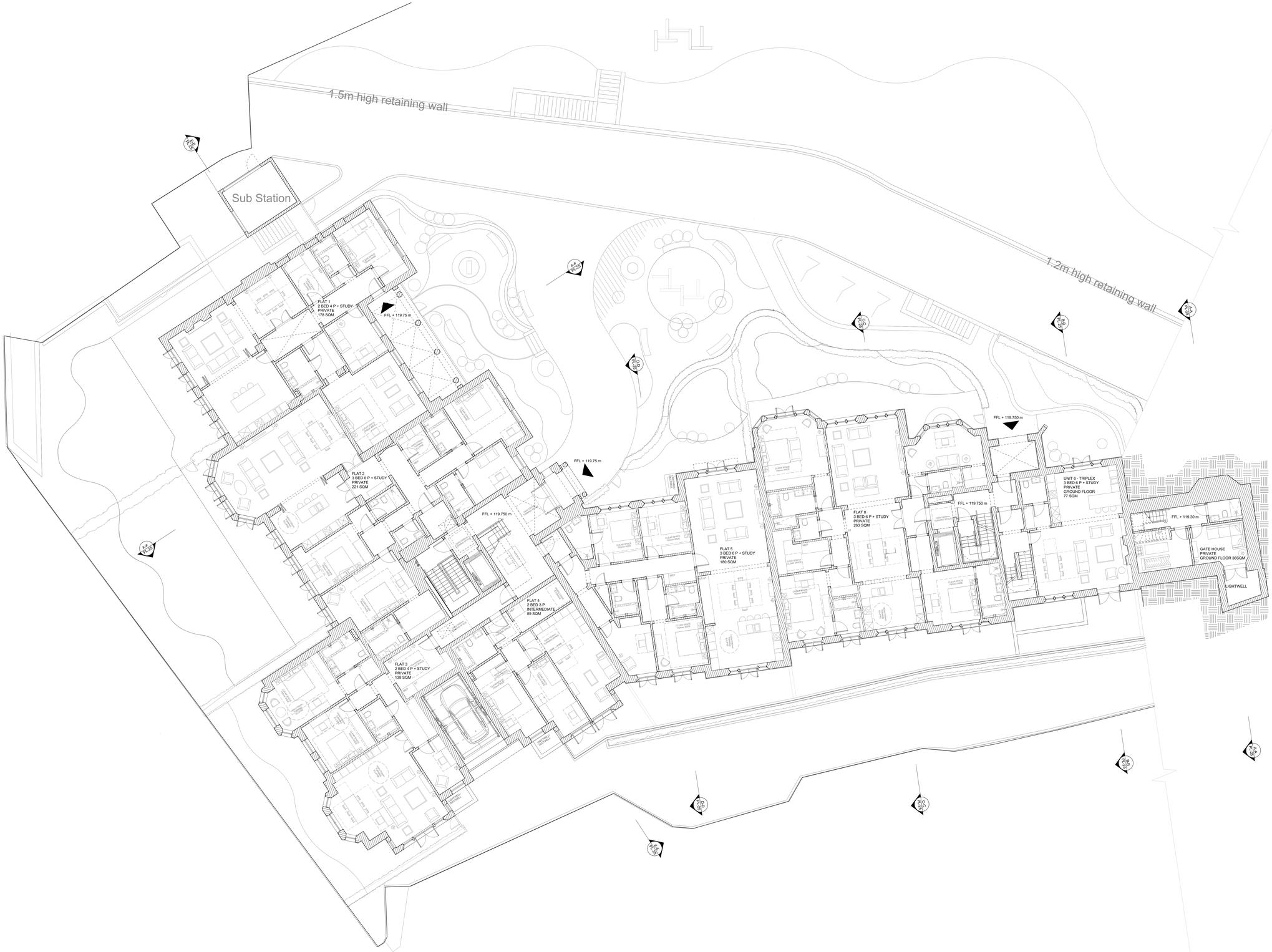
N

S

Stanhope Gate Architecture

5 ST. JAMES'S SQUARE
LONDON SW1Y 4JU
T 020 7451 0955 mail@stanhopegate.co.uk
www.stanhopegatearchitecture.com

Appendix 2



REV.	DATE	DESCRIPTION

BRANCH HILL HOUSE

LONDON

PROPOSED GROUND FLOOR PLAN

DRNG No	SCALE	DATE
PL-18	1:100 @ A0 1:200 @ A2	DEC 2019

Stanhope Gate Architecture

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Appendix 3

Healthy design

Policy requirements and standards

London Plan Policy 5.2 Minimising carbon dioxide emissions and Housing SPG Standard 35: zero carbon residential buildings from 2016 and non-domestic buildings from 2019.
Housing SPG Standard 29 on dual aspect and Standard 32 on daylight and sunlight.
Housing SPG Standard 4 on communal open space, supported by London Plan Policy 2.18, Standards 1 and 2 on defining good places, and Standard 3 on public open space.
Housing SPG Standards 26 and 27 on minimum provision of private (amenity) open space. London Plan Policy 3.8 Housing choice and Housing SPG Standard 11 on access require 90% of new homes meet Building Regulation M4(2) 'accessible and adaptable dwellings'.
Sound insulation and noise - London Plan Policy 7.15 and Housing SPG Standard 30 on noise.
Housing SPG Standards 8 and 9 on entrance and approach.

Why is it important?

Satisfying these standards can help meet carbon dioxide emissions targets.

Good daylight can improve the quality of life and reduce the need for energy to light the home.

The provision of an inclusive outdoor space, which is at least partially private, can improve the quality of life.
Improved sound insulation can reduce noise disturbance and complaints from neighbours.

1. How does the proposal meet all the standards for daylight, sound insulation, private space and accessible and adaptable dwellings?

All habitable rooms in the development are designed to meet the sound insulation guidance for residences in BS 8233: 2014 Guidance on sound insulation and noise reduction for buildings and ProPG: Planning & Noise 'Professional Practice Guidance on Planning & Noise' 2017.
- Sound Insulation: External walls to be of traditional masonry, 215mm thick outer leaf with blockwork or metsec internal leaf. All windows to be double glazed. Internal separating partitions and floors to exceed the standards required under AD Part E of the Building Regulations.
- Private Space - 95% of dwellings to have access to private external space. Ground floor dwellings also have access to private gardens and all dwellings benefit from generous communal gardens.
Following the implementation of the low-carbon design principles put forward by the design team, the development is expected to reduce CO2 emissions as follows:
In total, the new-build portion of the development reduces CO2 emissions by 25.39 tonnes.CO2.year, equal to a 57.62% saving beyond the Part L 2013 baseline (using SAP 10 emission factors), thereby complying with adopted and emerging London Borough of Camden and London Plan energy policies with regards to minimum CO2 emission reductions for major residential developments.
In total, the refurbished portion of the development reduces CO2 emissions by 37.54 tonnes.CO2.year, equal to a 82.08% saving beyond the existing building baseline (using SAP 10 emission factors), and is therefore deemed to have 'maximised CO2 reductions', as required by Policy CC1 of the Camden Local Plan.

Potential health impact?

☑ Positive ☐ Negative ☐ Neutral ☐ Uncertain

Recommended mitigation or enhancement actions

No mitigation is deemed necessary as the daylight and sunlight performance, the sound insulation, and design of the proposal are considered good.

Accessible housing

Policy requirements and standards

London Plan Policy 3.8 and Housing SPG Standard 11 on access require 10 per cent all new housing to be designed to be wheelchair accessible or easily adaptable such that they meet Building Regulation M4(3) 'wheelchair user dwellings'.

Housing SPG Standards 15 and 16 relate to the provision of lifts. Good practice standard - the provision of an ISO standard 13 person lift in a configuration which can accommodate a trolley bed (see Department of Health Technical Memorandum 08-02: Lifts).

Why is it important?

Accessible and easily adaptable homes can meet the changing needs of current and future occupants.

One of the main methods of transportation of immobile patients is by trolley bed. Non-ground floor dwellings should be accessible by a lift that can accommodate an ambulance trolley.

2. How does the proposal provide accessible homes for older or disabled people?

-32 dwellings comply with Part M4(2) for Accessible and Adaptable Dwellings
-3 dwellings comply with Part M4(3) Category 3 (sub category 2a wheelchair adaptable dwellings) for wheelchair users

3. How does the proposal ensure that every non-ground floor dwelling is accessible by a lift that can accommodate an ambulance trolley?

This has been provided in accordance with the Housing SPG Standard and the ISO standard.

Potential health impact?

☑ Positive ☐ Negative ☐ Neutral ☐ Uncertain

Recommended mitigation or enhancement actions

None required.

Healthy living

Policy requirements and standards

London Plan Policy 3.5 (Table 3.3 - minimum space standards for new dwellings) and Housing SPG Standard 24 on dwelling space standards.

Housing SPG Standard 25 - dwellings should accommodate the furniture, access and activity space requirements relating to the declared level of occupancy.

Also, Housing SPG Standard 28 on privacy and Standard 31 on ceiling heights.

Housing SPG Standards 12 to 16 relate to shared internal circulation, cores and lifts.

Why is it important?

Sufficient space is needed to allow for the preparation and consumption of food away from the living room to avoid the 'TV dinner' effect.

Rather than having lifts at the front and staircases at the back of buildings, it is preferable to have them located at the front to encourage people that can to use them.

4. How does the proposal provide dwellings with adequate internal space, including sufficient storage space and separate kitchen and living spaces?

All dwellings comply with the following standards:

-London Housing Design Guide - Interim Edition 2010
-Camden's Interim Housing SPG
-Nationally Described Space Standards
-The London Plan 2016
-Mayor of London Housing SPG 2016

5. How does the proposal encourage the use of stairs by ensuring that they are well located, attractive and welcoming?

Stairs are well located and generously sized and visible at point of entry.

Potential health impact?

☑ Positive ☐ Negative ☐ Neutral ☐ Uncertain

Recommended mitigation or enhancement actions

None required.

Housing mix and affordability

Policy requirements and standards

London Plan Policy 3.8 Housing choice.

London Plan Policy 3.11 Affordable housing targets seeks to maximise affordable housing provision and to ensure an average of at least 17,000 more affordable homes per year in London over the term of the London Plan. 60% of the affordable housing provision should be for social and affordable rent and 40% for intermediate rent or sale.

The Mayor's Homes for Londoners: Affordable Homes Programme 2016-21 is a £3bn fund to help start building at least 90,000 affordable homes by 2021.

Why is it important?

The provision of affordable housing can create mixed and socially inclusive communities. The provision of affordable family sized homes can have a positive impact on the physical and mental health of those living in overcrowded, unsuitable or temporary accommodation.

Both affordable and private housing should be designed to a high standard ('tenure blind').

6. How does the proposal provide affordable family sized homes?

The Proposed Development provides 7 on-site affordable units in intermediate tenure. Out of those affordable units, six are 1-bed and one two-bed. The units have been designed to be tenure blind in accordance with local and regional planning policy. 21.58% of the units are proposed to be affordable.

Given that the residual land value generates a deficit against the site value benchmark, the scheme is not considered commercially viable in development viability terms and is therefore unable to contribute towards affordable housing.

However, the Applicant is still willing to enter into discussion with LBC in respect of contributing towards Affordable Housing in some form. Note that given the appraisal results, any offer that may be brought forward will be on an ex-gratia basis.

Potential health impact?

- [x] Positive
- [ ] Negative
- [ ] Neutral
- [ ] Uncertain

Recommended mitigation or enhancement actions

The Applicant provide on-site affordable unit even though the Viability Assessment concludes that the scheme is not considered commercially viable.

Promoting walking and cycling

Policy requirements and standards

London Plan Policy 6.3 (C) Travel plans.

London Plan Policy 6.9 Cycling.

London Plan Policy 6.10 Walking.

London Plan - Parking Addendum to Chapter 6 on cycle parking: Table 6.3 Cycle parking minimum standards. Housing SPG Standards 20 and 21 on cycle storage.

Why is it important?

A travel plan can address the environmental and health impacts of development by promoting sustainable transport, including walking and cycling. Cycle parking and storage in residential dwellings can encourage cycle participation.

7. How does the proposal promote cycling and walking through measures in a travel plan, including adequate cycle parking and cycle storage? Please explain how.

A Travel Plan Statement is included as a chapter within the Transport Statement, which sets out a number of initiatives for facilitating the sustainable movement of residents, visitors and goods to and from the proposed development.

The development will be car-free, with the exception of disabled car parking spaces, in order to maximise sustainable modes of travel to and from the site.

A total of 75 secure cycle parking spaces will be provided at the basement level for residents, which is in accordance with Camden policy and in excess of the minimum requirements of the Draft New London Plan (2019). Furthermore, 2 short-stay cycle parking spaces will be provided for visitors. The provision of ample cycle parking facilities ensures that future growth in cycling as a mode of transport is supported by the development.

In order to further encourage walking and cycling to/from the development, information will be provided to residents on the local facilities and amenities in the area including local pedestrian and cycle routes / distances to and from the site.

(Cycle parking spaces TBC)

Potential health impact?

- [x] Positive
- [ ] Negative
- [ ] Neutral
- [ ] Uncertain

Recommended mitigation or enhancement actions

None.

Safety

Policy requirements and standards

London Plan Policy 6.9 Cycling.
London Plan Policy 6.10 Walking.

Why is it important?

Traffic management and calming measures and safe crossings can reduce road accidents involving cyclists and pedestrians and increase levels of walking and cycling.

8. How does the proposal include traffic management and calming measures, as well as safe and well lit pedestrian and cycle crossings and routes? Please provide details.

Given that vehicle movements on-site will be low, limited to disabled car drivers and delivery/servicing movements, the likelihood for conflicts between vehicles and pedestrians/cyclists will be low. Furthermore, vehicle speeds on-site will be low.

Spedan Close will be provided with footways on both sides of the carriageway. Cycle movements along Spedan Close to/from the cycle store will be safely accommodated on the carriageway.

The route along the southern boundary of the site will be a shared surface, giving priority over to pedestrian and cycle movements.

Potential health impact?

- [x] Positive
- [ ] Negative
- [ ] Neutral
- [ ] Uncertain

Recommended mitigation or enhancement actions

None.

Connectivity

Policy requirements and standards

London Plan Policy 6.9 Cycling - Map 6.2 Cycle superhighways.
London Plan Policy 6.10 Walking - Map 6.3 Walk London Network.
Green Infrastructure: The All London Green Grid SPG (March 2012).
Transport for London Legible London.
Transport for London Bus Service Planning Guidelines.

Why is it important?

Developments should prioritise the access needs of cyclists and pedestrians. Routes should be safe, direct and convenient and barriers and gated communities should be avoided. Developments should be accessible by public transport.

9. How does the proposal connect public realm and internal routes to local and strategic cycle and walking networks and public transport?

The proposed footways along Spedan Close will connect directly to existing footway provision along both sides of Branch Hill at the site access. The existing footways in the locality provide a continuous pedestrian link southeast to the centre of Hampstead, where Hampstead Underground station and local bus stops can be accessed. Street lighting is provided at regular intervals where pedestrian footways are present. Dropped kerbs and tactile paving are used locally to facilitate safe pedestrian crossing.

The nearest bus stops, bus stop E (northbound) and bus stop P (southbound), are located approximately 350 metres and 550 metres east and northeast of the site, respectively, on Heath Street. These can be accessed by the existing footway provision along Branch Hill, Frognall Rise, Lower Terrace, Upper Tarrace and the signal-controlled pedestrian crossings provided at West Heath Road / Heath Street junction.

Cycle movements between the site access and the cycle store will be accomodated on the carriageway of Spedan Close. Cycle routes around the site are illustrated within Local Cycling Guide 4 (2017) produced by TfL which assigns a coloured code to different types of cycle lane infrastructure. There are continuous 'Yellow' (other roads recommended by cyclists) cycle routes from Frognal Rise and Lower Terrace. This cycle route links the site with Heath Street and also provides access to Hampstead Underground station. There are also 'Green '(off-road) cycle routes through parks and off-carriage locations such as Hampstead Heath Park and Oak Hill Way. 'Light Blue' (routes signed for cyclists) cycle routes on Bracknell Gardens could be accessed via 'Yellow' and 'Green' routes. Combined, these routes provide cycle access to various areas such as Kilburn, Cricklewood, Kentish Town and Camden Town. Moreover, further public transport services such as London Overground at Finchley and Frognal rail station could be accessed through the use of these routes.

Potential health impact?

- [x] Positive
- [ ] Negative
- [ ] Neutral
- [ ] Uncertain

Recommended mitigation or enhancement actions

None.

Minimising car use

Policy requirements and standards

London Plan Policy 6.13 Parking - Table 6.2 Car parking standards (Parking addendum to chapter 6).
Housing SPG Standards 17 to 19 on car parking provision.

Why is it important?

Space for pedestrians and cyclists should be given priority over commercial and private vehicles. Maximum car parking levels allow for provision to be reduced as far as practicable. Car clubs can be effective in reducing car use and parking demand at new residential developments.

10. How does the proposal seek to minimise car use by reducing car parking provision, supported by the controlled parking zones, car free development and car clubs?

The development is proposed as car-free, with the exception of 4 disabled car parking spaces to ensure that the site is accessible to the mobility impaired.

Furthermore, the development will be permit-free. Legal agreements or conditions will be used to ensure that future residents will not be eligible for local on-street parking permits.

Therefore, car trips to/from the site will be limited to disabled residents with mobility impairments.

Potential health impact?

- [x] Positive
- [ ] Negative
- [ ] Neutral
- [ ] Uncertain

Recommended mitigation or enhancement actions

None.

Construction

Policy requirements and standards

London Plan Policy 5.3 Sustainable design and construction.
London Plan Policy 5.18 Construction, excavation and demolition waste.
The Control of Dust and Emissions During Construction and Demolition SPG (July 2014).
Housing SPG Standard 34 on environmental performance.

Why is it important?

Construction sites can have a negative impact on an area and can be perceived to be unsafe. Construction activity can cause disturbance and stress, which can have an adverse effect on physical and mental health. Mechanisms should be put in place to control hours of construction, vehicle movements and pollution. Community engagement before and during construction can help alleviate fears and concerns.

11. How does the proposal minimise construction impacts such as dust, noise, vibration and odours? Please explain how.

Expected construction for the structural frame is an in-situ reinforced concrete frame with contiguous flight augered (CFA) bored piles forming the foundations to the frame and the perimeter walls to the reduced level single storey basement. CFA method of piling offers lower vibration and noise than other alternative methods such as driven precast concrete piles.

Main Contractor to advise construction methods to minimise impacts from dust, noise, vibration and odours. Some of the measures we would expect to be adopted would include: limiting working hours to day working only, regurly maintaining plant and equipment, locating noisy equipment in less sensitive areas of the site, where possible, providing washing facilities to clean tyres for vehicles leaving the site, providing noise and dust screens, controlling workers to not shout, spraying water to suppress dust, keeping neighbours informed of programmed works which are expected to be noisy, etc.

For noise and vibration, we recommend that the contractor follows the guidance in BS 5228, which is the code of practice for noise and vibration control on construction and open sites.

Potential health impact?

☐ Positive ☑ Negative ☐ Neutral ☐ Uncertain

Recommended mitigation or enhancement actions

Contractor will be advised to implement construction methods to minimise impacts from dust, noise, vibration and odours.

Air Quality

Policy requirements and standards

London Plan Policy 7.14 Improving air quality.
At least 'air quality neutral' - Housing SPG Standard 33 on air quality.
London Plan Policy 5.10 Urban greening.
London Plan Policy 5.3 Sustainable design and construction.

Why is it important?

The long-term impact of poor air quality has been linked to life-shortening lung and heart conditions, cancer and diabetes.

12. How does the proposal minimise air pollution caused by traffic and energy facilities? Please explain how.

The Proposed Development does not include any car parking other than 4 disabled spaces and is therefore considered to be 'car free'. In addition, the Energy Strategy of the Proposed Development includes the use of Air Source Heat Pumps (ASHP) located on the roof. As such the Proposed Development does not include any emissions to air during its operation.

Potential health impact?

- [x] Positive
- [ ] Negative
- [ ] Neutral
- [ ] Uncertain

Recommended mitigation or enhancement actions

None required. 76 No. secure cycle parking spaces proposed within the basement.

Noise

Policy requirements and standards

London Plan Policy 7.15 Reducing and managing noise, improving and enhancing the acoustic environment and promoting appropriate soundscapes.
Limit the transmission of noise to sound sensitive rooms - Housing SPG Standard 30 on noise.

Why is it important?

Reducing noise pollution helps improve the quality of urban life.

13. How does the proposal minimise the impact of noise caused by traffic and commercial uses through insulation, site layout and landscaping? Please explain how.

We have carried out a 24 hour noise survey on site to determine the prevailing ambient noise levels. The facade glazing and ventilation has been specified to achieve the noise limits for habitable rooms described in BS 8233: 2014, following the guidance in ProPG: Planning & Noise 'Professional Practice Guidance on Planning & Noise' 2017.

In practice, the external noise levels at the site are low, so no special noise mitigation measures are required beyond standard thermal double glazing, openable to provide fresh air. The buildings are set back from the road, which also provides a useful amount of distance attenuation for noise.

Potential health impact?

☐ Positive ☐ Negative ☑ Neutral ☐ Uncertain

Recommended mitigation or enhancement actions

None.

Open space

Policy requirements and standards

London Plan Policy 7.1 Lifetime neighbourhoods.
London Plan Policy 7.18 Protecting open space and addressing deficiency.
Table 7.2 Public open space categorisation.
London Plan Policy 7.19 Biodiversity and access to nature.
Housing SPG Standards 3 and 4 on communal and public open space.

Why is it important?

Access to open space has a positive impact on health and wellbeing. Living close to areas of green space, parks, woodland and other open space can improve physical and mental health regardless of social background. To maintain the quality and usability of open spaces an effective management and maintenance regime should be put in place.

14. How does the proposal retain or replace existing open space and in areas of deficiency, provide new open or natural space, or improve access to existing spaces? Please provide details.

The proposals retain much of the existing open space, and where possible enhance it. Much of the existing open space is poorly managed with non-native / invasive plant species left to spread. The proposed design aims to replace non-native and invasive species with native species found on site and in the local area. Seeking to provide a net increase in the nature conservation and landscape value of the site .
There is a Site of Importance for Nature Conservation (SINC) to the northern corner of the site which will be protected, conserved and enhanced by management. Whilst only a proportion of the SINC will be accessible via footpath, the area as a whole will provide visual amenity for residents and visitors and enhance the site's biodiversity.
The proposals include private gardens / outdoor space for ground floor units as communal open spaces for all residents and visitors. The scheme aims to provide accessible routes to all communal outdoor space.

15. How does the proposal set out how new open space will be managed and maintained? Please explain how.

The proposals aim to ensure that all landscape elements can establish and mature successfully in order that the long-term design intent can be realised. They aim to establish a landscape appropriate to the site and the context and materiality of the wider site and its environs and in keeping with the objectives of the initial Landscape Masterplan for the development.
Monitoring is of fundamental importance, since this is the means by which the success of the proposals will be measured. The Management Plan must be an evolving one, able to adapt to the specific needs of the landscape and nature conservation as these change. A further Management and Maintenance document will be prepared after planning in order to discharge conditions.
It is assumed that the costs of maintenance will be provided through the resident's service charge will help provide the resident's with a sense of stewardship and ongoing investment and high standards.

Potential health impact?

- [x] Positive
- [ ] Negative
- [ ] Neutral
- [ ] Uncertain

Recommended mitigation or enhancement actions

The SINC area on site is a key area for further enhancement and will provide an already thriving green and well established resource for the residents.

Play space

Policy requirements and standards

London Plan Policy 3.6 Children and young people's play and informal recreation facilities.
Shaping Neighbourhoods: Play and Informal Recreation SPG (Sept 2012) - quantity Benchmark Standard of a minimum of 10 square metres per child regardless of age (4.24) and accessibility to play space Benchmark Standard (Table 4.4). Housing SPG Standard 5 on play space.

Why is it important?

Regular participation in physical activity among children and young people is vital for healthy growth and development.
The location of play spaces should be accessible by walking and cycling routes that are suitable for children to use.

16. How does the proposal provide a range of play spaces for children and young people? Please provide details.

As the primary use within the proposals is for residential use, there are great opportunities for play set within the landscape that inspires exploration and triggers inspiration. The requirements of play space, in relation to the proposed occupancy of the development have been in line with the Mayor of London's Shaping Neighbourhoods: Play and Informal Recreation SPG 2012 (referred to as best practice). The play can be split into 2 typologies; natural (non-prescriptive) and formal (prescriptive) play space.

Areas of verdant and pioneering plant species enclose a glade for non prescriptive play and will consist of a minimal collection of natural and informal play pieces to encourage children of varying ages. Timber from trees removed on site can be used to create play pieces and habitats for wildlife for children and adults to observe.

Formal play is located within the arrival gardens with soft play surfacing and passive surveillance from flats. Play equipment in this area will cater for doorstep play.

The site benefits from its close proximity to external play spaces that are located within the maximum walking distances from Under 5 to 12years+ in line with the Accessibility to Play Spaces SPG 2012 from the London Plan. Spedan Close Park and West Heath, Hampstead Heath are both located within 100m walk away.

Potential health impact?

- [x] Positive
- [ ] Negative
- [ ] Neutral
- [ ] Uncertain

Recommended mitigation or enhancement actions

N/A

Biodiversity

Policy requirements and standards

London Plan Policy 7.19 Biodiversity and access to nature. Table 7.3 - London regional Biodiversity Action Plan habitat targets for 2020.
Housing SPG Standard 40 on ecology.

Why is it important?

Access to nature and biodiversity contributes to mental health and wellbeing. New development can improve existing, or create new, habitats or use design solutions (green roofs, living walls) to enhance biodiversity.

17. How does the proposal contribute to nature conservation and biodiversity? Please explain how.

1. Woodland management: The existing woodland to the south of the site is declining in character due to dominance of invasive evergreen shrubs including cherry laurel. It is currently unmanaged and lacking in structure as a result of the closed canopy restricting light to the woodland floor. The scheme presents an opportunity to put this woodland back into positive conservation management. This could include removal of poor tree specimens and cherry laurel to encourage an understorey to develop. Native planting will also be introduced to improve the structure and diversiry of the ground layer.

2. A space to connect people with nature: The woodland will become a place to connect people with nature, with a new "trail" path to encourage people to use the woodland for recreation and relaxation. This is likely to create an interest around nature conservation and presents an opportunity for residents to learn more about local biodiversity and what they could do to help.

3. Bat boxes on retained trees: The bat surveys have established that bats commute along the southern site boundary with the woodland. Installing bat boxes on retained trees will improve roosting resources for bat species, they will include crevice and void boxes for use by different species. Several boxes are recommended on each tree to provide a diversity of microclimates, oriented south or east. Several Priority bat species occur in the local area, including soprano pipistrelle, brown long-eared and natterer's, all of which are known to use bat boxes at various times of the year. This would improve roosting resources for declining and vulnerable species.

5. Bird boxes on retained trees: Several bird boxes including for generalist garden species and Priority Species including house sparrow. Providing new nest boxes will improve nesting opportunities for declining bird species.

Potential health impact?

- [x] Positive
- [ ] Negative
- [ ] Neutral
- [ ] Uncertain

Recommended mitigation or enhancement actions

Mitigation is required for:
Nesting birds: Tree work and vegetation clearance will be undertaken between September and February inclusive, unless an ecologist has first deemed the area clear of active nests.
Roosting bats: Bat surveys have established the likely absence of roosting bats from the buildings on site. If, in the unlikely event that bats are found, work must immediately cease until the appropriate level of survey and licence from Natural England has been obtained.

Local food growing

Policy requirements and standards

London Plan Policy 5.10 Urban greening.
London Plan Policy 7.22 Land for food.
London Plan Policy 5.11 Green roofs and development site environs.

Why is it important?

Providing space for local food growing helps promote more active lifestyles, better diets and social benefits.

18. How does the proposal provide opportunities for food growing, for example by providing allotments, private and community gardens and green roofs? Please provide details.

With needs for residential amenity and protection, conservation and enhancement of the SINC there is limited space for food growing on site. There are opportunities for fruiting trees to be planted along Sepdan Close and in the private residential gardens.

Branch Hill allotments are located adjacent to the South eastern edge of the site.

Potential health impact?

☐ Positive ☐ Negative ☑ Neutral ☐ Uncertain

Recommended mitigation or enhancement actions

Reduces private amenity space for residents into a communal kitchen garden. There are opportunities for fruiting trees to be planted along Sepdan Close and in the private residential gardens.

Flood risk

Policy requirements and standards

London Plan Policy 5.3 Sustainable design and construction.
London Plan Policy 5.11 Green roofs and development site environs.
London Plan Policy 5.13 Sustainable drainage.
Flooding and drainage - Housing SPG Standards 38 and 39.

Why is it important?

Flooding can result in risks to physical and mental health. The stress of being flooded and cleaning up can have a significant impact on mental health and wellbeing.
It is likely that increasing development densities and building coverage coupled with more frequent extreme weather events will increase urban flood risk.

19. How does the proposal reduce surface water flood risk through sustainable urban drainage techniques, including storing rainwater, use of permeable surfaces and green roofs? Please provide details.

During construction, increased runoff from the development associated with increased areas of hardstanding has the potential to result in increased risk of surface water flooding. The proposed development presents an opportunity to contribute to a reduction in flood risk by reducing the current rate of discharge to the public sewer network.
The incorporation of sustainable drainage systems within the Proposed Development should seek to offer a reduction in peak runoff rates in accordance with both the national and local policies described above. Subsequently, a reduction in peak flow rates would result in a lower surface water flood risk downstream of the proposed development, with larger reductions providing a greater betterment.
The expected drainage strategy for the site will look to dispose of surface water on site, where possible. Possible SuDS options for use on the site would include:

Infiltration Based Drainage Options
Pending results from detailed percolation testing, a number of potential options could be considered:

• Permeable Paving where runoff is filtered through paving and directly into the ground;
• Swales / Infiltration Basins which can replace conventional pipework and typically consist of vegetated strips with a permeable base, to allow runoff to be collected and discharged into the ground; and
• Soakaways which are typically small excavations filled with gravel, a similar porous medium or formal soakaway chamber surrounded by granular backfill which collect runoff through a conventional piped system which is subsequently discharged at an attenuated rate.

Attenuation Based Drainage Options
Should infiltration techniques prove unfeasible, the installation of an attenuation SuDS system would be desirable:

• Permeable Paving which can be installed with a sub-base which temporarily stores surface water runoff. In this

Potential health impact?

☐ Positive ☐ Negative ☐ Neutral ☑ Uncertain

Recommended mitigation or enhancement actions

N/A

Overheating

Policy requirements and standards

London Plan Policy 5.3 Sustainable design and construction.
London Plan Policy 5.9 Overheating and cooling.
London Plan Policy 5.10 Urban greening.
London Plan Policy 5.11 Green roofs and development site environs.
Overheating - Housing SPG Standards 36.

Why is it important?

Climate change with higher average summer temperatures is likely to intensify the urban heat island effect and result in discomfort and excess summer deaths amongst vulnerable people.
Urban greening - tree planting, green roofs and walls and soft landscaping can help prevent summer overheating.

20. How does the design of buildings and spaces avoid internal and external overheating, through use of passive cooling techniques and urban greening? Please provide details.

External walls are of masonry and in conjunction with the thermal insulation act as a heat buffer. Glazed areas are not excessive. Where larger areas of glazing occur, such as terraces on the south elevation, they are recessed and shaded by terraces above, and benefit from the shading offered by the existing tree canopies.
Internally. The internal skin of the external walls is likely to be block work which has a good thermal capacity and will act as a heat sink to control fluctuations in temperature. Windows are operable to provide natural ventilation if required.

In order to avoid internal overheating issues, the development has followed the GLA's 'Cooling Hierarchy' as follows:

1 - Minimising internal heat generation through energy efficient design
• Where present, lateral pipework will run through all residential corridors to ensure internal heat gains are minimised. Corridors will be ventilated to prevent heat build up in summer operation.
• The g-value of all installed glazing will be as low as feasible possible (currently assumed as 0.45 in new build apartments) in order to reduce internal solar gain.
• Mechanical service risers to be ventilated at low level and at roof level to ensure risers do not create nuisance heat load in summer operation.

2 - Reducing the amount of heat entering the building in summer
• The building form for all new-build apartments is on a beneficial east-west axis, reducing the risk of overheating from low lying morning and evening sun. To the direct south of the new-build portion are a large number of large trees which will offer a significant level of shading.
• Internal blinds will be provided to all bedrooms to reduce evening sun, although it is acknowledged very few bedrooms have a western orientation which are most at risk from evening overheating.

3 - Use of thermal mass and high ceilings to manage the heat within the building

Potential health impact?

☑ Positive ☐ Negative ☐ Neutral ☐ Uncertain

Recommended mitigation or enhancement actions

Overheating Risk has been deemed to be mitigated.

Health services

Policy requirements and standards

London Plan Policy 3.17 Health and social care facilities.
NHS London Healthy Urban Development Unit Planning Contributions Tool (the HUDU Model).
Social Infrastructure SPG (2015).

Why is it important?

Poor access and quality of healthcare services exacerbates ill health, making effective treatment more difficult. The provision of support services and advice on healthy living can prevent ill health.

21. How has the impact on healthcare services been addressed?

The additional population arising from the residential element of the Proposed Development will have an effect on the capacity of existing services and facilities, such as GPs. The effects are assessed based on the estimated population yield of the completed Development, calculated using the GLA Population Yield Calculator (Version 3.2) and housing unit mix.

The Proposed Development would increase the demand for existing health facilities within the vicinity of the site, with an estimated 74 net additional residents.

The Healthy Urban Development Unit (HUDU) recommends a GP:patient ratio of 1:1,800. As a result, based on the HUDU guidance of 1,800 patients per GP, the 74 new residents would require an additional 0.04 GPs. This assumes a worst-case scenario inasmuch as it does not factor in for residents of the new development who are already enrolled at nearby GP practices.

Given the small additional demand, it is considered likely that this will be met by the existing GP facilities within the borough. There will therefore be no adverse effects on local healthcare facilities and health services as such.

Potential health impact?

☐ Positive ☐ Negative ☑ Neutral ☐ Uncertain

Recommended mitigation or enhancement actions

N/A

Education

Policy requirements and standards

London Plan Policy 3.18 Education facilities.

Why is it important?

Access to a range of primary, secondary and post-19 education improves self-esteem, job opportunities and earning capacity.

22. How has the impact on primary, secondary and post-19 education been addressed?

The additional population arising from the residential element of the Proposed Development will have an effect on the capacity of existing services and facilities, such as schools. The effects are assessed based on the estimated population yield of the completed Development, calculated using the GLA Population Yield Calculator (Version 3.2) and housing unit mix.

The Proposed Development is expected to yield a requirement for an additional 3 primary school places (ages 5 -11) and 2 secondary school places (ages 12 – 17). This assumes a worst-case scenario inasmuch as it does not factor in for school-age residents of the new development who are already enrolled at nearby schools.

Given the small additional demand, it is considered likely that this will be met by the existing schools within the borough. There will therefore be no adverse effects on local education facilities.

Potential health impact?

☐ Positive ☐ Negative ☑ Neutral ☐ Uncertain

Recommended mitigation or enhancement actions

N/A

Access to social infrastructure

Policy requirements and standards

London Plan Policy 3.16 Protection and enhancement of social infrastructure.
London Plan Policy 7.1 Lifetime neighbourhoods.
Social Infrastructure SPG (2015).

Why is it important?

Good access to local services is a key element of a lifetime neighbourhood and additional services will be required to support new development. Not doing so will place pressure on existing services.

Future social infrastructure requirements are set out in Borough infrastructure plans and developments will be expected to contribute towards additional services and facilities.

23. How does the proposal contribute to new social infrastructure provision that is accessible, affordable and timely?

The extent of the scheme does not allow the provision of new social infrastructure.

24. How have opportunities for multi-use and the co-location of services been explored?

The Proposed Development is a residential scheme with no provision of non-residential floorspace.

Potential health impact?

☐ Positive ☐ Negative ☑ Neutral ☐ Uncertain

Recommended mitigation or enhancement actions

The scheme provides significant amenity space for future occupiers.

Local employment and healthy workplaces

Policy requirements and standards

London Plan Policy 4.12 Improving opportunities for all and London Plan Policy 8.2 Planning obligations.
London Plan Policy 7.1 Lifetime neighbourhoods.
Workplace environment - BREEAM health and wellbeing credits.

Why is it important?

Unemployment generally leads to poverty, illness and a reduction in personal and social esteem. Employment can aid recovery from physical and mental illnesses.

Creating healthier workplaces can reduce ill health and employee sickness absence.

25. How does the proposal include commercial uses and provide opportunities for local employment and training, including temporary construction and permanent 'end-use' jobs?

The proposed development will include a construction phase which will generate turnover and temporary employment for local construction firms and related trades. It is estimated that the construction phase will support 52 person years of temporary construction employment. This equates to 5 full-time equivalent (FTE) permanent jobs in the construction sector.

Temporary construction employment opportunities created by the proposed development have the potential to be taken up by the existing population from other areas. Furthermore, the proposed development is strategically well located in relation to existing employment and the development will provide a large number of people using local businesses. This is expected to support the local economy and community.

26. How does the proposal promote the health and wellbeing of future employees by achieving BREEAM health and wellbeing credits?

The Proposed Development is a purely residential scheme and, therefore, has no impact on the health and wellbeing of (future) employees. Given this, BREEAM has been scoped out of the scheme.

Therefore, BREEAM Domestic Refurbishment is the only applicable BREEAM version relevant to the scheme. For reasons laid out in the Energy & Sustainability statement, it is not being applied. However, many of the 'Health & Wellbeing' categories design principles are being implemented at Branch Hill House, including:

Inclusive Design - including Part M compliant dwellings and the provision of disabled parking.
Ventilation: Fully Part F compliant ventilation systems installed throughout'
Daylight: Refer to GIA report which demonstrates adequate levels of daylight are being achieved.

Potential health impact?

- [x] Positive
- [ ] Negative
- [ ] Neutral
- [ ] Uncertain

Recommended mitigation or enhancement actions

None.

Access to local food shops

Policy requirements and standards

London Plan Policy 4.7 Retail and town centre development.
London Plan Policy 4.8 Supporting a successful and diverse retail sector.
London Plan Policy 4.9 Small shops. London Plan Policy 7.1
Lifetime neighbourhoods.

Why is it important?

A proliferation of hot food takeaways and other outlets selling fast food can harm the vitality and viability of local centres and undermine attempts to promote the consumption of healthy food, particularly in areas close to schools.

27. How does the proposal provide opportunities for local food shops?

The provision of 34 residential units will result in additional household expenditure in the local economy. It is estimated that the gross additional household expenditure generated by the new residential population at the site would be around £755,432 per annum. This assumes that all units are occupied and that the 34 net additional households demonstrate spending patterns typical of London as a whole. This additional household expenditure of £755,432 per annum is a gross effect. Some of this spending would leak out of the area as residents spend their income in other regions and neighbouring boroughs. As such, it has been assumed that 25% of the additional household expenditure generated by the new residential population of the proposed development would be spent outside the local area. Based on these assumptions, the net additional household expenditure generated by the new residential population of the proposed development is expected to be approximately £566,574 per annum. In addition to the additional household spending of £566,574, temporary construction workers will spend an additional £43,430 per annum in the local economy, as identified in paragraphs 6.21 to 6.22. A significant portion of this is likely to be spent in local food shops.

28. How does the proposal avoid an over concentration or clustering of hot food takeaways in the local area?

The proposed development would not have any effect on the concentration of hot food takeaways in the local area. A proliferation of hot food takeaways and other outlets selling fast food can harm the vitality and viability of local centres and undermine attempts to promote the consumption of healthy food, particularly in areas close to schools.

Potential health impact?

☐ Positive ☐ Negative ☐ Neutral ☑ Uncertain

Recommended mitigation or enhancement actions

N/A

Public realm

Policy requirements and standards

London Plan Policy 7.1 Lifetime neighbourhoods.
London Plan Policy 7.2 An inclusive environment.
London Plan Policy 7.5 Public realm. Shaping Neighbourhoods.
Accessible London: Achieving and Inclusive Environment SPG (Oct 2014).
Housing SPG Standard 10 on active frontages.

Why is it important?

The public realm has an important role to play in promoting walking and cycling, activity and social interaction. It also affects people's sense of place, security and belonging. It is a key component of a lifetime neighbourhood.

Shelter, landscaping, street lighting and seating can make spaces attractive and inviting.

Implementing inclusive design principles effectively creates an accessible environment, in particular for disabled and older people.

29. How does the design of the public realm maximise opportunities for social interaction and connect the proposal with neighbouring communities?

The site itself is relatively enclosed by tree planting apart from along the western boundary where the site overlooks the Branch hill Estate. The SINC provides visual amenity for neighbouring communities and the proposed access and glade into it provides engagement with the SINC.

Communal spaces including the play space, SINC access and the Arrival Gardens give opportunities for social interactions between residents and are inclusive of visitors. The development is community facing as the two roads on site provide access to Branch Hill Estate. The proposals enhance this journey to the Estate and provide visual amenity in the planting and engagement with the play areas and seating.

30. How does the proposal allow people with mobility problems or a disability to access buildings and places?

Inclusive design that accommodates all, including people with disabilities, has been a fundamental part of the public realm design process and The Equality Act 2010 is always referred to.
The two access roads on site would be resurfaced and made accessible to meet requirements from Approved Documents M and K, The Building Regulations 2010. The proposals incorporate step free access into all various core shared entrances and also private residential front door access points at ground floor. Paving materials to access routes have been selected to avoid loose material that may be difficult for wheelchair users and people walking with walking aids to navigate. Tactile paving will be introduced at points that start 400mm from risers at the head and foot of stairs and be 800mm deep at the direction of travel. Seating will have back rests and arm rest to aid older people. Seating amongst raised planting beds ensures that all are able to enjoy the sensory planting and experiences

Potential health impact?

- [x] Positive
- [ ] Negative
- [ ] Neutral
- [ ] Uncertain

Recommended mitigation or enhancement actions

N/A