

Rapid Health Impact Assessment of the Avenue development

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Author

Richard Keeton, Public Health Manager, Derbyshire County Council

Contributors

Steering group members

Julie Hirst, Public Health Principal, Derbyshire County Council

Mandy Chambers, Public Health Principal, Derbyshire County Council

Jim Seymour, Transport Strategy Manager, Derbyshire County Council

Alan Marsden, Project Officer - Transportation Projects, Derbyshire County Council

Tamsin Hart, Senior Area Manager, Homes & Communities Agency

Martyn Handley, Economic Development Projects Officer, North East Derbyshire District Council

Sean Johnson, Public Health, Lincolnshire County Council

Steve Buffery, Derbyshire County Council

Andrew Grayson, Chesterfield Borough Council

Community consultation leads

Susan Piredda, Public Health Development Worker, Derbyshire County Council

Louise Hall, Public Health Development Worker, Derbyshire County Council

Fiona Unwin, Public Health Development Worker, Derbyshire County Council

Lianne Barnes, Public Health Development Worker, Derbyshire County Council

Appraisal panel members

Joe Battye, Derbyshire County Council

Councillor Allen, Cabinet Member, Health and Communities (Public Health), Derbyshire County Council

Neil Johnson, Economic Growth and Regeneration Lead, Chesterfield Borough Council

Allison Westray-Chapman, Joint Assistant Director Economic Growth, Bolsover District Council & North East Derbyshire District Council

Steve Brunt, Assistant Director Streetscene, Bolsover District Council & North East Derbyshire District Council

Marie Scouse, Assistant Chief Nurse and Head of Quality (Primary Care), North Derbyshire CCG

Jean Richards, NHS Hardwick CCG

Lee Hicken, Joint Assistant Director– Leisure, Bolsover District Council & North East Derbyshire District Council

Chris McManus, Principal Public Health Analyst, Derbyshire County Council

Yvonne Musk, Business Services Assistant, Derbyshire County Council

Madeleine Spinks, Director & Research Consultant, Data Orchid

Statement of purpose

This report comprises a synthesis of evidence from community profiling, review of the literature and community consultation, with recommendations to a number of organisations for maximising health gains and mitigating negative health consequences of the Avenue Development in North East Derbyshire.

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Abbreviations / acronyms used in this report

CCG	Clinical Commissioning Group
DC	District Council
DCC	Derbyshire County Council
NEDDC	North East Derbyshire District Council
CBC	Chesterfield Borough Council
HIA	Health Impact Assessment

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1.0 Introduction

1.1 Health, planning and the built environment

The rise of health challenges such as non-communicable diseases, combined with urbanisation taking place on an unprecedented scale, means that our communities will be the places that help to determine the health and wellbeing of the majority of the population in the twenty-first century.

‘Health’ is not limited to hospitals and clinics. The environment in which we live, work and spend leisure time – both the physical nature of places and the social environment of communities – has an enormous impact on our health and wellbeing. Health problems such as obesity, chronic heart disease, stress and mental health issues are intricately linked to the environments in which people live and work.

The lack of effective and proactive planning – in the broadest sense – for urbanisation can result in unhealthy places. If well-planned, however, environments can not only prevent many unhealthy outcomes but also promote better wellbeing, quality of life and opportunity for all. In this way, planning is an often neglected ‘lever’ to promote healthy environments – it can help to create successful places that enhance people’s lives. Planning can promote healthy behaviours, environmental health, mental and physical wellbeing, and greater equity in health.

1.2 The Avenue

The Avenue development is North East Derbyshire’s most strategically significant development site. The site is on the land of the former Avenue Coking Works, which once employed approximately 800 people when operational. This closed in the 1980s and the site was left dormant. Due to the nature of the coking works, the site was extremely polluted and external funding of approximately £172million has been spent on reclaiming the site.

Figure 1, shows the Avenue site and the geographical scope of the Health Impact Assessment. Figure 2 show the site before reclamation and figure 3, the site after reclamation.

Figure 1: Map to show the Avenue and Health Impact Assessment area

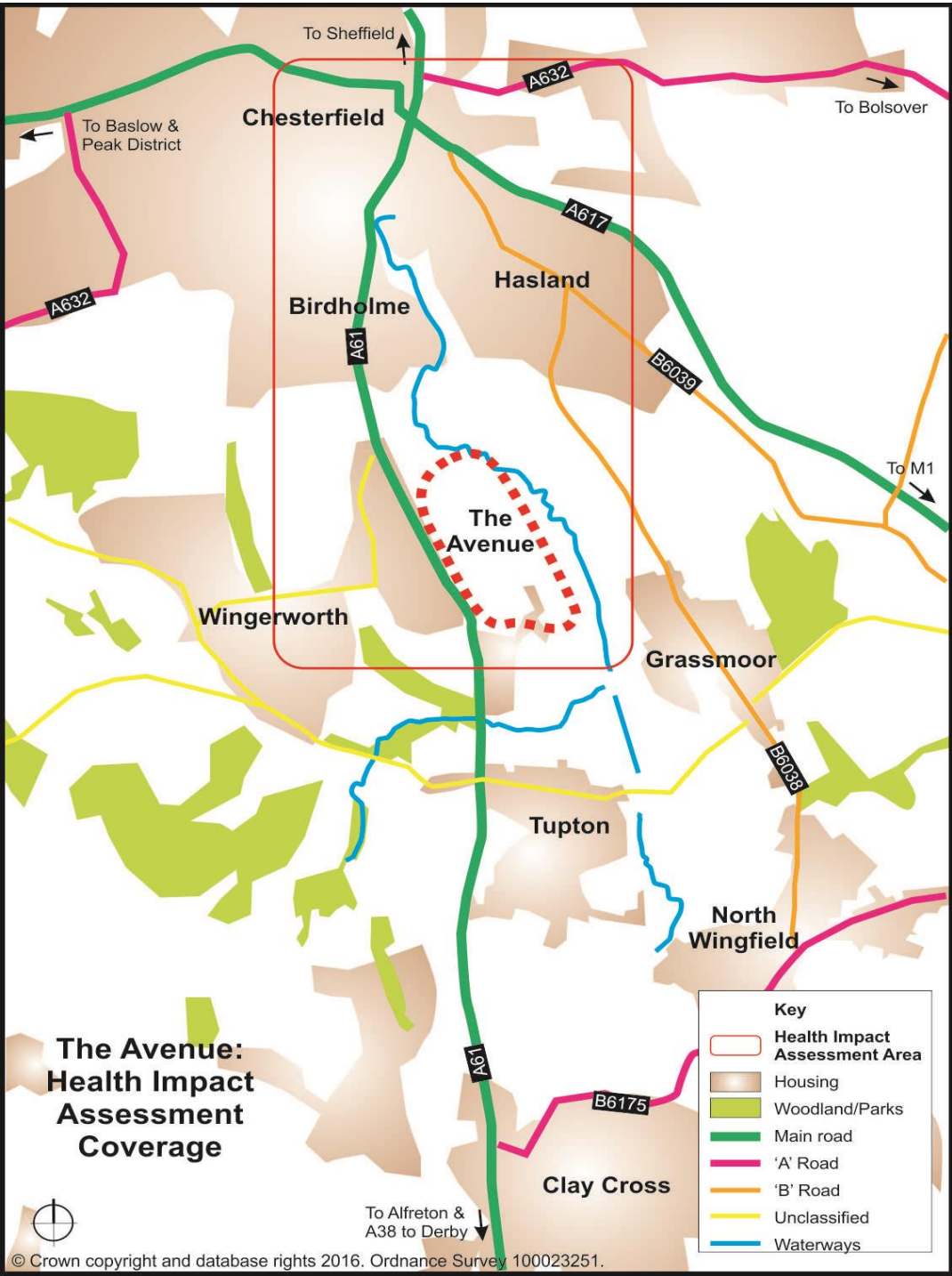


Figure 2: The Avenue site before reclamation



Figure 3: The Avenue site after reclamation



The site is in the ownership of the Homes and Communities Agency (HCA). A masterplan has been created for the site, which will see the creation of approximately 469 new homes, a primary school, playing pitches, employment land and approximately 73 hectares of country park area.

The housing/employment land development has been broken down into 8 distinct areas that will be delivered over a number of phases. Phase 1 consists of approximately 250 homes and the contract has recently been awarded to Kier Living. Figure 4 and 5 show an indicative visualisation of the design and layout of the new development

Figure 4 and 5: An indicative visualisation showing the design and layout of the housing layout and design of the new development



Photo from Kier Reserved Matters and design code

2.0 Health Impact Assessment

This section introduces the health impact assessment (HIA) and explains our purpose in undertaking a rapid HIA of the Avenue, as well as the approach we took.

2.1 What is a Health Impact Assessment (HIA)?

A widely adopted definition of HIA, endorsed by the World Health Organisation (WHO) is:

‘A combination of procedures, methods and tools by which a policy, programme or project may be judged as to its potential effects on the health of a population and the distribution of those effects within the population’ (WHO 1999)

HIA is a systematic, practical way of assessing the potential positive and negative health gains of a proposal on health and wellbeing, and identifying methods to maximise positive health gain and minimise risks to health. Despite being a tried and trusted methodology, HIA is not an exact science, and requires participants to make value judgements on the nature of the impacts. Ideally, to have greatest influence, HIAs should be conducted during the planning phase of the proposal.

HIAs enable a public health perspective to be given to decision-making areas that may traditionally be viewed as outside the remit of public health. Derbyshire County Council has agreed to pilot a programme of HIAs throughout the Authority to contribute towards improving the health of local people and to reduce health inequalities.

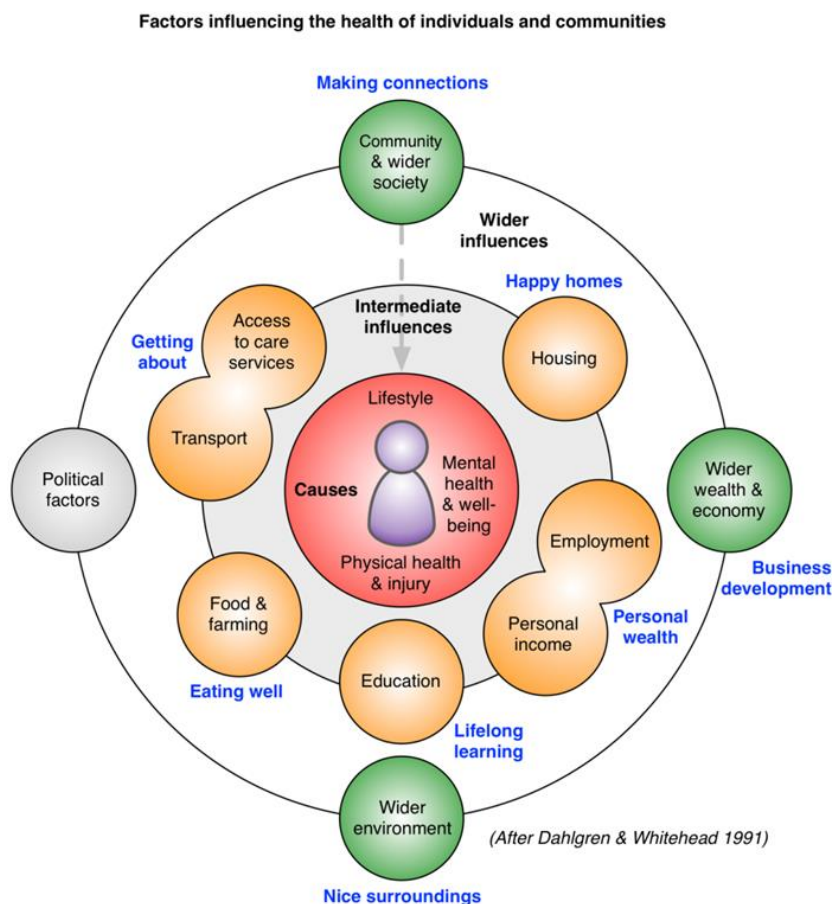
There are 5 main stages within the HIA process:

1. Screening – this is a quick assessment of the potential health effects of a policy or proposal, and is used to identify when a full HIA would be beneficial
2. Scoping – this stage sets out the scope for the HIA, including the depth of the assessment, the areas to be included, the types and method of data collection to be utilised, and the key stakeholders to be engaged
3. Appraisal – information is collected and appraised to identify the health impacts, determine whether they are positive or negative in nature, their scale (for example the size of population affected or severity of impact), likelihood and latency.
4. Recommendations – recommendations are developed to maximise the positive health impacts of the proposal, and to minimise the negative impacts
5. Implementation – action is taken to implement the recommendations, for example by amending priorities or eligibility criteria for a service

HIAs pay close attention to the determinants of health. An individual’s health state results from factors occurring at an individual and population level. Individual factors include a person’s genetic predisposition, factors affecting physical health (such as the presence of other medical conditions), lifestyle choices and psychological (mental) health. Population factors (often called the wider determinants of health) include broader economic, social, environmental and political factors. The wide range of factors that can impact on an

individual's health are as represented in figure 6, and HIAs facilitate consideration of the impact of the proposal under review on the wider determinants of health. These wider influences on health are shown in the diagram below.

Figure 6: Factors influencing the health if individuals and communities



2.2 What where our HIA aims and objectives?

Aim: To undertake a rapid, prospective, participatory Health Impact Assessment of the A61 growth corridor transport infrastructure Avenue development.

Objectives:

- Establish a steering group to oversee practical arrangements for completing the HIA. The steering group is outlined on page 2
- The group may co-opt various partners to join the project group throughout the process.
- Establish an Appraisal panel with overall responsibility for the HIA, and to provide advice and support.
- Prospectively assess potential positive and negative health impacts by triangulating (a) profiles of the population affected, (b) the available research base and (c) capturing the perspective of stakeholders
- In assessing potential positive and negative health impacts, pay particular attention to impacts that may lessen or widen inequalities in health or the determinants of health

- Make recommendations to key stakeholders including the communities affected, developer(s), DCC, NEDDC, CBC, & others to inform decision making to enhance positive health impacts and mitigate negative health impacts within the commissioning intentions
- Seek assurances from the developer that these recommendations have been considered
- Evaluate the impact of the HIA, through an assessment of the recommendations implemented.

2.3 What was our HIA methodology?

The planning and methodology for this HIA was based on the Merseyside Guidelines for Health Impact Assessment, a well-established methodology for completing HIAs.

2.3.1 Steering group

A steering group was established to oversee the practical implementation of the HIA, comprising representatives from DCC Public Health and Economy, Transport and Environment, Homes and Communities Agency, North East Derbyshire District Council, Chesterfield Borough Council and Lincolnshire County Council. The primary focus of the steering group was to plan and implement the HIA, including:

- Decide on the scope of the HIA, for example what is included and excluded, geographical scope
- Agree the timescales
- Monitor the progress of the project plan
- Agree the training and raise awareness of the Avenue development for Public Health locality staff involved in the HIA consultation events
- Develop the consultation, including questions for stakeholders, professionals and the community
- Develop the data capture templates to be used as part of the consultation
- Agree the members of the appraisal panel, brief members and facilitate attendance
- Participate in the appraisal panel

2.3.2 Sources of information

In accordance with HIA good practice, information from a variety of sources was used during the HIA, including population statistics, expert knowledge and published evidence.

Domains for health impact areas

The steering group agreed upon impact areas in scope, based on the anticipated impacts of the proposal, with reference to recognised causes and determinants of ill health. The following domains were adopted:

- 1) Mental health and well-being: how the changes might affect the level of enjoyment and satisfaction experienced in daily living either in a good or bad way, for example,

- such as extent to which an individual might feel they have a sense of control, sense of belonging, engagement in community life, chance for social interaction.
- 2) Physical health and injury: how the changes might affect the way in which people with and without physical disability are able to move freely and confidently from place to place, for example. This might include such as, personal safety on public transport, risk of injury or accident, or additional physical discomfort of an existing health condition.
 - 3) Lifestyle and leisure: how the changes might influence healthy behaviours such as, physical activity, healthy food choice, smoking, drinking, access to green space, for example, parks, countryside, green streets and lanes. These could be new or an improvement of existing spaces, making open spaces welcoming and safe, links between arts and culture, play spaces for young people.
 - 4) Community - the sense of belonging or togetherness in communities: this may include how the changes will affect community activities and amenities, the networks of relationships among people who live in the area, freedom from feelings of isolation, cohesion (the 'glue' that binds communities together) and resilience (the ability to react positively to a potential crisis).
 - 5) Environment - nice surroundings: how the changes might affect the local (and wider) community environment in such as, the effect on wildlife, condition of air quality, water levels, levels of noise, building construction and sustainable design, for example the use of renewable energy, energy efficient homes, recycling building materials and waste.
 - 6) Housing: how the changes might have an effect on the affordability of good quality housing, either to rent or purchase freehold, and range of housing types and sizes, for example; semi-detached/detached/3 storey town/terrace houses and number of bedrooms, the specification on their energy efficiency, housing which enables independent living, property value, general living conditions.
 - 7) Transport, access and other social infrastructure —getting out and about: the changes and their effect to road use, local bus services timetables, interconnecting walking and cycle routes, the affordability of bus and rail fares, how people are able to move freely and confidently to other local areas; access to health care services (especially GP surgery, hospital, pharmacy) and social care services, plus other key services facilities, such as shared community use or services located at the same site.
 - 8) Nutrition / Access to healthy food: how the changes might affect the supply of local food (including dietary choices), for example, community allotment gardens, range of retail outlets, range of hot food takeaways, supply of locally farmed food or access to affordable fresh fruit and vegetables
 - 9) Education—lifelong learning: how the changes may affect access to educational opportunities from preschool to university and adult education.
 - 10) Employment / volunteering —personal wealth: this section may include how the changes might affect access to paid or unpaid employment, household income, access to child care facilities, volunteering, care giving, new and affordable workspace such as office or light industry, for example.

- 11) Economy—wider wealth: how the changes might affect economic investment, the ability for people to have access to local retail shops and effects on footfall, the potential for local economic growth in such as job creation within the community.

Community profiling

Information was gathered on the population within the geographical scope of the HIA. The five wards are Grassmoor, Hasland, Rother, Tupton and Wingerworth. These wards are immediately adjacent to the proposed development and are areas which the proposed development aims to integrate with. The geographical scope of the HIA is shown in appendix 1 and the five wards are shown in appendix 2. Grassmoor, Wingerworth and Tupton are located in the District of North East Derbyshire, Hasland and Rother in the Borough of Chesterfield.

Literature review

The Public Health Intelligence and Knowledge Services team at Derbyshire County Council conducted literature reviews to identify how major infrastructure developments might or have an impact on health as a cause of ill health. We sought evidence on the effectiveness of any proposed interventions to enhance positive health benefits or mitigate health impacts.

Consultation

To collect information from stakeholders, professionals and members of the community, focus groups were held. These were supplemented by online and paper surveys sent to identified stakeholders. A copy of the online and paper surveys can be found in Appendix 3.

Three focus groups were held on:

9 March 2016: Chesterfield Patient Participation Network Group met on the at St Thomas church in Brampton

11 March 2016: Wingerworth parish hall (10 people)

15 March 2016: Hasland village hall, Chesterfield (10 people).

3.0 Locality health profiles

3.1 Introduction

This chapter provides a health profile for North East Derbyshire (NED) and Chesterfield as well as the five wards within the geographical scope of the Health Impact Assessment (HIA). The five wards are Grassmoor, Hasland, Rother, Tupton and Wingerworth. These wards are immediately adjacent to the proposed development and are areas which the proposed development aims to integrate with. The geographical scope of the HIA is shown in appendix 1 and the five wards are shown in appendix 2. Grassmoor, Wingerworth and Tupton are located in the District of North East Derbyshire, Hasland and Rother in the Borough of Chesterfield.

Chesterfield is the largest settlement in the county of Derbyshire. It is a relatively compact and mainly urban area. Chesterfield is a major centre of employment (over 48,000 people work in the Borough) and attracts almost 20,000 in-bound commuters on a daily basis. The Borough of Chesterfield has an estimated population of over 100,000; just over 94% of whom are White British and just fewer than 6% are from other ethnic groups. The population of the Borough will have risen to over 110,000 by 2035. The Borough is relatively deprived, ranking 85th out of 326 English local authority areas in the 2015 English Index of Multiple Deprivation (1 is the most deprived). Some 20 of the 68 Lower Super Output Areas in Chesterfield fall within the top 20% of most deprived areas in England.

The district of North East Derbyshire is a mix of rural and urban areas, with centres of population in and around a number of small towns and villages. It covers about 100 square miles and surrounds the neighbouring borough of Chesterfield to the north, west and south. The majority of the population live within the four main towns of Dronfield, Eckington and Killamarsh, in the north of the District, and Clay Cross in the south. There is a long history of industrial activity having taken place, mainly involving mining, engineering and iron and steel production. The resident population of North East Derbyshire is just above 99,000, but is expected to rise to 107,000 by 2035.

3.2 Summary of community profile

3.2.1 The resident population for Chesterfield and North East Derbyshire (NED) are 104,000 and 99,000. The resident population of Grassmoor is 3,850, Wingerworth, 5,485 Hasland, 6,615, Tupton, 3,992 and Rother, 6,410.

3.2.2 Chesterfield has a greater proportion of people in their twenties and early thirties, and of older women, but fewer people in middle-age. The population of NED is older than that of Derbyshire as a whole. There are a greater proportion of people over 50. The five wards have a greater proportion aged 65-84 and aged 85 and over.

3.2.3 The resident population are expected to have risen to over 110,000 (Chesterfield) and 107,000 (NED) by 2035. Population projections for Chesterfield and NED show an ageing population, with a large deficit in numbers entering working age. Even if it can

become healthier this ageing population will require more in terms of health and social care than ever before.

3.2.4 Wingerworth has the highest proportion (98.5%) of residents from a White (English/Welsh/Scottish/Northern Irish/British) background; Rother has the lowest proportion (95.2%). This compares to 98% of North East Derbyshire, 96.5% of Chesterfield, 97.5% of Derbyshire and 85.4% of England.

3.2.5 Rother (36.9%) has the highest proportion of residents over the age of 16 who are single and have never married compared to 29.6% of Grassmoor, 29.2% of Hasland, 28.1% of Tupton and 24.2% of Wingerworth residents. This compares to 32.9% of Chesterfield, 28.2% of NED and 30.2% of England.

3.2.6 The five wards combined has a proportionately higher number of residents who perceive their health to be bad or very bad (7.9%), compared to Derbyshire (6.2%) and England (5.5%). Rother (10.6%) has the highest proportion of residents who perceive their health to be bad or very bad, Wingerworth (5.1%) has the lowest proportion.

3.2.7 All wards combined have a higher proportion of residents (23.4%) having a long term illness or disability than the England average (17.6%). Wingerworth (19.6%) is the only ward with a lower proportion of residents having a long term illness or disability than the Derbyshire average (20.4%).

3.2.8 All wards and all wards combined (13.2% and 3.3%) have a higher proportion of residents providing unpaid care for 1 or more and 50 hours or more than the England average (10.2% and 2.4%). All wards are significantly worse than the England average, except 50hrs or more of unpaid care per week in Wingerworth (2.6%), which is not significantly different from the England average (2.4%).

3.2.9 Life expectancy for males is not significantly different to the England average (78.9 years) for Grassmoor (77.8 years), Hasland (78.1 years), and Tupton (77.4 years). Life expectancy for males is significantly worse than the England average for males in Rother (75.6 years) and significantly better in Wingerworth (83.8 years).

3.2.10 Life expectancy for females is not significantly different to the England average (82.8 years) for Grassmoor (81.5 years), Hasland (84.5 years), Rother (84.3 years) and Tupton (80.7 years). Life expectancy for females is significantly better than the England average for females in Wingerworth (88.9 years).

3.3.11 All five wards have an incidence of all cancer that is not significantly different from the England average. Deaths from all cancer in all wards, except Wingerworth (which is better than the England average), is not significantly different from the England average.

3.3.12 Premature mortality, in under 75's is not significantly different from the England average for all 5 wards combined. Grassmoor and Rother, have a higher rate of deaths from all causes for under 75's (significantly worse than the England average). Wingerworth has a lower rate, which is significantly better than the England average.

3.3.13 All 5 wards combined have a similar proportion of adults who are obese, binge drink and eat healthily, which is not significantly different from England average. The England average is 24.1% for obese adults, 20% for binge drinking and 28.7% healthy eating. Rother, however had the highest proportion of obese adults (29.3%), and the lowest proportion of adults who eat healthily (21.2%).

3.3.14 The percentage of children under 16 in low income families is significantly worse than England average (19.2%) in Grassmoor (32.3%) and Rother (40.6%). Rother (38.9%) and Grassmoor (29.8%) also have the highest percentage of all children in low income families. Hasland, Tupton and Wingerworth are not significantly different from the England average for under 16's and all children. Wingerworth has the lowest % for under 16's (2.9%) and all children (2.7%)

3.3.15 The proportion of children who achieve a good level of development at age 5 years in four of the five wards (Grassmoor 60.5%, Hasland 68.6%, Rother 62.7% and Tupton 67.4%) is not significantly different from England average (63.5%). Wingerworth (79.6%) has a significantly better proportion than the England average.

3.3.16 The proportion of children who are obese (reception 9.4% & year 6 19.1%) or who have excess weight in reception year (22.5%) and year 6 (33.5%) is not significantly different from the England average in all wards.

3.3.17 Chesterfield ranks 85th most deprived and NED 184th of 326 Local Authorities in England.

3.3.18 Rother ward is the most deprived; particularly in the northern part of Rother. The northeast of the Hasland ward and an area to the south west in Grassmoor ward is the most deprived. Grassmoor is the least deprived of the five wards.

3.3.19 Grassmoor has 1691 dwellings, Hasland 2880, Rother 2992, Tupton 1700 & Wingerworth 2414. Chesterfield has 46,796 dwellings and North East Derbyshire just over 43,000.

3.3.20 Wingerworth has a higher proportion of residents living in owned accommodation (90.9%), conversely Rother has a low proportion (41.1%). Grassmoor (30.2%), Rother (50.2%) and Tupton (25.8%) has a considerably higher proportion of residents living in social rented accommodation compared to Wingerworth (2.5%) and Hasland (14.1%) and the England average (17.7%).

3.3.21 The Rother ward has the lowest percentage (18.2%) of detached dwellings, Grassmoor (27.2%), Hasland (27.4%) and Tupton (30.7%) have a similar percentage and Wingerworth has the highest percentage (65.6%). Rother ward has much higher percentage (22.4%) of flats, maisonettes or apartments than the other four wards (Grassmoor 7.5%, Hasland 6.7%, Tupton 4.6%, and Wingerworth 2.0%)

3.3.22 Rother has a considerably lower proportion of pupils achieving five or more GCSE A*-C (34.2%) than the other 4 wards, which are not significantly different to Chesterfield and North East Derbyshire (60.0%) and England (58.8%).

3.3.23 Rother has the highest proportion of residents with no qualifications (30%), higher than England (15%), Chesterfield (18%) and North East Derbyshire (17%). Tupton (19%) and Grassmoor (23%) have a higher proportion than England, Chesterfield and NED. Hasland (14%) and Wingerworth (8%) have a lower proportion.

3.3.24 Wingerworth (1.8%) has significantly lower levels of unemployment than England (3.8%). Hasland (2.8%) and Tupton (3.8%) have similar levels of unemployment to England and Rother (7.7%) and Grassmoor (4.7%) have significantly higher levels of unemployment than England.

3.3.25 Less violent crimes are committed in NED, than the England average. Chesterfield is not significantly different from the England average. No ward level data was available.

3.3.26 29 people were killed or seriously injured in Chesterfield. This is significantly better than the England average. 48 people were killed or seriously injured in Chesterfield. This is significantly worse than the England average.

3.3.27 The Rother ward has the highest proportion of households (42.4%), with no access to a car or van, Wingerworth has the lowest proportion (11.0%). The other three wards are similar to the England average (25.8%)

3.3.28 In all five wards most residents travel to work by car or van. Each of the wards has a higher proportion of residents travelling by car or van than the England average (54%). Rother has the lowest proportion (55%) travelling by car or van, Wingerworth the highest proportion (73%).

4.0 Mental health and well-being

There are a wide range of factors that potentially impact upon people's mental health and—more broadly—sense of well-being. Mental and physical health and well-being are inextricably linked and are fundamental to an individual's ability to undertake their daily activities. Good mental health is likely to help counteract the negative aspects of a physical health condition and conversely good physical health can have positive impacts upon mental health and wellbeing. This impact area may include issues around mental illness, stress, quality of life, feeling of control, social inclusion, active participation, etc.

4.1 What did the literature tell us?

We searched for evidence from the literature to identify how major infrastructure developments might or have an impact on mental health and well-being as a cause of ill health. We sought evidence on the effectiveness of any proposed interventions to enhance positive health benefits or mitigate health impacts. This section summarises what we found and considers whether such impacts help to close or further widen gaps in health status (if reported).

- The loss of property and land caused by compulsory purchase / eminent domain takings could lead to adverse psychological effects relating to feelings of sadness and anger and lack of governmental compensation for the emotional loss caused by the taking of property (1).
- Studies exploring the relationship between green space and pregnancy outcomes show a positive association between birth weight and exposure to green space (2) (3), albeit with one study showing the association in only the lowest socioeconomic position (4).
- Proximity to nearby play and social spaces was associated with better mental health, perhaps through increased opportunity for social interaction (5)
- Quantity and quality of streetscape greenery and greenspace has a positive effect on self-reported health status (6) (7), perceived general health, acute health-related complaints and mental health with stronger relationships associated with quality (8).
- Green space has been associated with better mental health among men, but not women. The benefit for men being in early to mid-adulthood (9).
- Green space has been shown to provide a buffer against the negative health impacts of stressful life events (10).
- The percentage of green space in people's living environment has a positive association with the perceived general health of residents. The elderly, youth and secondary educated people in large cities seem to benefit more from presence of green areas in their living environment than other groups in large cities (11).

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4.2 What did the consultation tell us?

Online and paper surveys were supplemented by focus groups, to help us understand the concerns of groups within the local community who may be affected by the Avenue development. We asked participants to tell us how their health might be affected in a good (positive) or unfavourable (negative) way. The following summarises issues identified as having positive impacts on mental health and well-being as a cause of ill health.

There were 38 comments about different aspects of the impact on mental health and well-being; 21 positive aspects, 11 negative and six gave mixed feedback.



The most frequently cited impacts were around improved access to green and open space and footpaths (10 comments); which in turn may lead to improved well-being:

"Outdoor open spaces that are easily accessible = good opportunity to exercise = positive health outcome."

There were a couple of comments about new opportunities for people and communities:

"Will be new place to live for many. New beginnings. Maybe a step up."

"Opportunity to work with community and voluntary sector to provide services with the development e.g. Rhubarb Farm type scheme."



There were mixed views on the impact the development would have on community facilities and social cohesion (four negative and two positive), depending on the location:

"For those living in the 'Avenue village' I would expect a positive effect from the design and the amenities to be provided eventually. Assuming the school will really be used as a community centre and that local shops / pub will be established then I would expect good social interaction, sense of control, sense of belonging and community life, especially for those able to work within the Avenue site..."



The comments about potential negative impact were about increased traffic congestion, overcrowding (housing close to together with limited parking) and concern was about creating too many football pitches when there are already some available and not thinking about other types of activities.

"The increased traffic on the A61 corridor will have a detrimental affect the mental well being of residents living on either side of the road particularly those living on the Birdholme side of Derby Road. The lack of other schools and health facilities will necessitate travelling to other facilities and activities and so result in a feeling of social isolation. This is predominately a residential development and the experiences of areas that have limited facilities on site is a lack of community cohesion and this impacts particularly on those in social housing whose ability to travel due to funding and lack of car ownership."

There were also five comments about friction caused by different users of footpaths (walkers, horse-riders and cyclists) and motorcyclists - the latter already causing stress and noise to local residents. Concerns were raised about the infrastructure and policing of this.

"Stress and confrontation caused by opening some paths to cycles and horses. Already affected by motorbikes and cyclists on private land that should only be a footpath. Don't you have to apply to get the path upgraded?"

5.0 Physical health and injury

Various factors may contribute to the poor health of individuals, including genetics, lifestyle choices, personal psychology and medical factors such as the presence of other conditions—the precise cause of which may be unknown. Such factors work in concert with the wider determinants of health to produce a profile of disease at a population level. Poor physical health adversely affects individuals, families, communities, health and social care services and wider society. This impact area may include issues around personal mobility/ physical disability, causation or exacerbation of medical conditions, personal safety on public transport, risk of injury or accident, etc.

5.1 What did the literature tell us?

We searched for evidence from the literature to identify how major infrastructure developments might or have an impact on physical health and injury as a cause of ill health. We sought evidence on the effectiveness of any proposed interventions to enhance positive health benefits or mitigate health impacts. This section summarises what we found and considers whether such impacts help to close or further widen gaps in health status (if reported).

- More disadvantaged areas tend to have a higher density of roads and traffic, leading to higher collision rates (12).

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5.2 What did the consultation tell us?

Online and paper surveys were supplemented by focus groups, to help us understand the concerns of groups within the local community who may be affected by the Avenue development. We asked participants to tell us how their health might be affected in a good (positive) or unfavourable (negative) way. The following summarises issues identified as having positive impacts on physical health and injury as a cause of ill health.

There were 38 comments on physical health and injury, some of them similar to that of mental health and well-being. There were 10 aspects of positive impact, 11 negative and 17 mixed or suggestions of mitigation of negative impact.



There were six comments about the potential for improved physical activity levels, brought by the improved access to green space and sporting facilities.

"For people living on the site who are able to cycle or walk to work or school using the new cycle/walking routes there is likely to be a positive effect on their health, but I suspect this will be a minority. The availability of on-site green spaces and sporting facilities."

One of the most frequently mentioned aspect in this theme - with mixed views - was safety of crossing the A61 or avoiding traffic (eight comments). Particularly by children, the



elderly and horse-riders; and also the availability of bus services to help with this (five comments).

".... depends on whether new bus services will be established to serve the Avenue site, and if so whether they enter the site or drop off on the main A61 road. If the latter there will be considerable risk to people, especially school children, crossing the busy road."

There were also eight comments with mixed views about access to GP practices, nurses and pharmacies. Some felt there was sufficient provision but others felt the new development would be lacking in provision, with solutions suggested:

"Would there be an 'overload' on health services to the west side of the development due to transport access?"

"The site is surrounded by established GP practices: Grassmoor, Wingerworth, Clay Cross (x2), North Wingfield, Hasland, Tupton."

"Could local GPs and nurse practitioners from (say) Wingerworth have a 'temporary'/'occasional' surgery (weekly?) in the school or a yet to be built medical facility?"

There were mixed opinions about the increased availability of some facilities but not all:

"Good opportunity for football but what about other sports?"

"Plenty of places for physical outdoor exercise. What about indoor? Zumba, keep fit etc."

"Positive benefits for health can be made by encouraging horse riding and improving safety for these activities by increasing off road access."

"Without safe places to ride people are forced to ride on very busy road risking life to themselves, horse and road users."

"Safety on footpaths being made into cycle and bridleways."



There were three comments about the negative impact of air pollution from congestions and increased traffic volumes and three comments about car fumes.

Several commented about the potential impact on people with disabilities/limited mobility not being able to access routes to connect to facilities - with suggested improvements to footpaths to make them more accessible.

Finally, one comment about the negative impact of sewage in the river.

6.0 Lifestyle and leisure

Lifestyle can have a marked effect on health in later life; some risky behaviour such as smoking and drinking are ‘clustered’ together, causing worse harm in combination. Behaviours are influenced by factors both internal (e.g. attitude or habit) and external to a person (e.g. the wider ‘choice environment’ and availability of alternatives). Notably, transport options might determine the amount of physical activity people get, such as ‘active travel’ by cycling to/ from work. This impact area may include effects on risk behaviours (including physical activity, smoking, drinking), access to green space, engagement with the arts and culture, leisurely pursuits, etc.

6.1 What did the literature tell us?

We searched for evidence from the literature to identify how major infrastructure developments might or have an impact on lifestyle and leisure as a cause of ill health. We sought evidence on the effectiveness of any proposed interventions to enhance positive health benefits or mitigate health impacts. This section summarises what we found and considers whether such impacts help to close or further widen gaps in health status (if reported).

Green Spaces

- The overall conclusion of the research regarding health and green space is that green space has positive effects on both physical and mental health.
- Living near parks, woodland or other open spaces helps to reduce health inequalities, regardless of social class (13).
- Perceived distance from home to green/open spaces has been shown to be associated with more weekly TV viewing time, worse mental health and general health for children (5.9 years) living the furthest distance from green/open spaces (14).
- *Proximity* to nearby play and social spaces was associated with better mental health, perhaps through increased opportunity for social interaction (5).
- Use of green space may be determined by a variety of factors, including *physical distance* to access green space, as well as perceptions and understandings of what is being accessed (e.g. a place to exercise or a place to socialise) and how it should be used (15)
- Green space use has been associated with better general health and vitality, possibly because positive perceptions of green space quality encouraged and enabled regular visitation, which in itself, was associated with greater vitality (8)
- The percentage of green space in people’s living environment has a positive association with the perceived general health of residents. The elderly, youth and secondary educated people in large cities seem to benefit more from presence of green areas in their living environment than other groups in large cities (7).

Quality or quantity of Public Open Spaces (POS)

- Research from America suggests that neighbourhoods with more African- American, Hispanic and lower income residents generally lack key walkability features, and that these populations have limited access to high-quality parks and recreational space (16).
- Residents of neighbourhoods with high quality POS had lower psychosocial distress than residents with low quality POS. Quality of POS, appears to be more important than POS quantity for mental health (17).

Physical activity

- Walking and cycling are effective ways of integrating, and increasing, levels of physical activity into everyday life for the majority of the population, at little personal or societal cost (18).
- Reasonably consistent associations exist between physical activity and access to physical activity facilities, convenient and proximate access to destinations, high residential density, land use and urban 'walkability' scores. There were also reasonably consistent associations between perceived safety, exercise equipment, pavement ('sidewalks') and physical activity participation. Less clear associations were noted for aesthetic features of the environment, parks, and perceived crime (19).
- Higher rates of crime and violence, lack of access to play areas and parks and greater traffic- related risks due to busy streets and poor bicycle and pedestrian infrastructure as key factors influencing physical activity levels in low income communities (20).
- Consistent associations between physical activity in **children** and the environment were the provision of pavements, destinations to walk to, few intersections to cross and low road traffic hazards. Aspects of the recreation infrastructure were also found to be strongly associated with increased levels of activity, these included proximity to, and availability of parks, playgrounds, and recreation areas (17).
- Fairly strong evidence exists for positive association between greenness and physical activity (21).
- Provision of good access to green spaces in urban areas and may help to promote population physical activity (22), conversely one study in middle aged adults showed no evidence of clear relationships between levels of physical activity and access to green spaces (23) & a Danish study found no association between outdoor physical activity and size, distance and number of features in the nearest urban green space (24).
- Large-investments to enhance green spaces may promote moderate and vigorous physical activity and reduce sedentary behaviour in middle- to-older aged adults, but the impact on obesity may not benefit everyone to the same extent (25).
- To promote health to suburban residents, green spaces close to home are important. In residential areas, green spaces should consider safe walking and cycling, in association with commuting to increase physical activity (26).
- Playground renovation made no significant difference to moderate or vigorous physical activity among children (27).

Physical Activity - What works?

- Evidence-based recommendations on how to improve the physical environment to encourage physical activity can be found at in the National Institute for Health and Care Excellence Guidance on Physical activity and the environment at <http://www.nice.org.uk/guidance/ph8>
- Data from a study exploring perceptions of accessible and safe physical activity as related to socio-economic status (SES) report that low-SES participants experienced an increase in physical activity when facilities like trails were available (28).
- In a review of studies examining the built environment correlates of walking, factors such as aesthetic quality, or attractiveness of the surrounding environment, and connectivity of pedestrian networks were shown to be correlated with walking (29).
- Some research suggests it may be useful to promote the health and exercise benefits of recreational trail use to increase trail activity (30).

Public Art

- The evidence from the literature did not uncover links between arts and health. However Crawley Borough Council have produced a useful Supplementary Planning Guidance Note on Public Art which can be found at: http://www.crawley.gov.uk/pw/Planning_and_Development/Planning_Policy/Local_Development_Framework/Supplementary_Planning_Documents_and_Development_Briefs/INT131526

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6.2 What did the consultation tell us?

Online and paper surveys were supplemented by focus groups, to help us understand the concerns of groups within the local community who may be affected by the Avenue development. We asked participants to tell us how their health might be affected in a good

(positive) or unfavourable (negative) way. The following summarises issues identified as having positive impacts on lifestyle and leisure as a cause of ill health.

There were 55 comments on this issue; 17 of them were about the facilities on offer as part of the development. Some of them were positive about opportunities:



"The potential of the school building to being used as a community building/resource. This would help build community inclusion."



"Encourages outdoor activities."

Whereas others were concerned about facilities that hadn't specifically been offered, namely a children's play area, skate park, indoor facilities and bridleways:

"Needs leisure facilities for all infants/Junior/Senior play areas include a 'climbing boulder.'"

"No indoor leisure community centre for badminton, bridge groups. Mother and toddler etc. It needs a community facility. School building?"

There were 12 comments about the positive impact the access to green spaces would have on healthy lifestyles. There were five comments about linking up different areas, for walking, cycling and horse-riding:



"The improved foot and cycle links to include better links between Hasland, Grassmoor, Wingerworth, Tupton and beyond will be a definite plus for everyone and less reliance on motorised transport. Safety is paramount as everyone needs to feel comfortable using links and open spaces, the underpass at Mill Lane is not welcoming or encouraging to anyone the sooner the bridge over the rail line is opened the better."



There were eight comments about antisocial behaviour related to open spaces/footpaths: on the positive side, keeping people healthy and active alongside concerns about who would police any negative impact (motorbikes, drugs and alcohol and dog fouling). There was also a comment about people living near the A61 potentially not able to enjoy their gardens due to air pollution from congestion.

7.0 Community- making connections (inc crime & community safety)

‘Community’ might be summarised as a sense of belonging or togetherness. Healthy connections between people are of recognised importance to wellbeing; their absence may give rise to a myriad of social problems that adversely affect mental health and self-esteem. This impact area may include issues around community activities and amenities, social capital (mutually beneficial social networks), freedom from isolation, social inclusion (e.g. for minority groups, older people, students, etc.), cohesion (the ‘glue’ that binds communities together e.g. cultural affiliation) and resilience (being able to call upon local assets when needed for a common good), etc.

7.1 What did the literature tell us?

We searched for evidence from the literature to identify how major infrastructure developments might or have an impact on community as a cause of ill health. We sought evidence on the effectiveness of any proposed interventions to enhance positive health benefits or mitigate health impacts. This section summarises what we found and considers whether such impacts help to close or further widen gaps in health status (if reported).

- The loss of property and land caused by compulsory purchase / eminent domain takings could lead to adverse psychological effects associated with the community that provided a sense of safety, comfort and identity (1).
- Less green space in people's living environment can coincide with feelings of loneliness and with perceived shortage of social support (31).
- More disadvantaged areas tend to have a higher density of roads and traffic, which can cause community severance (11).
- Some studies show moderate associations between perceived safety and physical activity (32).
- Crime and the perception of crime-related safety are both individual and social-level factors affecting physical activity (28)(33). In an examination of the relationship between walkable, safe environments and indicators of health in urban areas, researchers found that participants in areas with higher crime rates walked less often, with crime-related safety more adversely affecting walking rates among women than men (28).
- Efforts to increase perceived safety, accessibility and awareness of a trail may result in increased and more frequent trail use (34).

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7.2 What did the consultation tell us?

Online and paper surveys were supplemented by focus groups, to help us understand the concerns of groups within the local community who may be affected by the Avenue development. We asked participants to tell us how their health might be affected in a good (positive) or unfavourable (negative) way. The following summarises issues identified as having positive impacts on community as a cause of ill health.

There were 35 comments on this aspect, with mixed views on the impact of the scheme. 15 people commented on the need for community facilities to provide community cohesion. In particular, an apparent lack of a community building on the Avenue development suitable for community events:



"There is no sign on the plan of a community facility. There is a school which I believe could be a dual use facility open evenings, weekends and school holidays as a Community Centre PLEASE."

"The plan is sanitised into living units. Not enough emphasis on community togetherness. There is not even a pavilion associated with the playing fields."

"This is an area that will initially cause problems with community cohesion as it is not attached to an existing area with good community links and activities....when we already have areas nearby with challenging issues due to a lack of funding."

The linking up of footpaths and open areas was also highlighted as important for community cohesion with good potential to do so:

"No obvious link from main village to the estate so residents are not encouraged to walk between the two. More crossings needed. Why not a footbridge? Will the new residents feel like they are part of Wingerworth community? More thought needed to integrate the two communities."



"The community is already working to improve the open spaces – with support and input from the Avenue Development – it can only get better. It should bring communities closer together."

A mixture of housing by type and demographic was seen to be key to community cohesion:

"The 'mix' of housing needs to be interspersed so pockets are not created, a good social mix would be beneficial to build networks."

8.0 Environment —nice surroundings

There is no doubt that the environment into which we are born, play, learn, find work and grow older within influences our health. The environment is both built (man-made surroundings such as buildings, parks and transport networks) and natural (habitats or landscape largely free from human interference). This impact area may include issues around pollution (including of the air and water, or noise), flood risk, climate change, waste disposal, effects on wildlife or ecological balance, heritage, the aesthetics of landscape severance, etc.

8.1 What did the literature tell us?

We searched for evidence from the literature to identify how major infrastructure developments might or have an impact on the environment as a cause of ill health. We sought evidence on the effectiveness of any proposed interventions to enhance positive health benefits or mitigate health impacts. This section summarises what we found and considers whether such impacts help to close or further widen gaps in health status (if reported).

Air Pollution

- Long-term exposure to air pollutants, particularly small particles (PNM2.5, PM10), from road traffic has been found to decrease life expectancy by an average of six months, due to an increased risk of cardiovascular morbidity and mortality (12)(18).
- Prenatal exposure to air pollution is associated with a number of adverse outcomes in pregnancy (12)(18).
- Individuals with pre-existing circulatory and/or respiratory disease and the very young and the very old are much more susceptible to the acute effects of air pollution (12).
- A review of this evidence indicates that transport-related air pollution contributes to an increased risk of death, particularly from cardiopulmonary causes (35)(36). It increases the risk of respiratory symptoms and diseases that are not related to allergies (35).
- Studies indicate an increased risk of various types of cancer in people with prolonged exposure to higher levels of transport-related air pollution (35).
- Evidence shows the adverse effects of pregnancy, birth outcomes and a male fertility also seem to be affected by transport related air pollution, although the number of studies is small (35).

Noise Pollution

- Transport-related noise pollution (predominantly from roads, railways and airports) can adversely affect the cardiovascular system (including increasing blood pressure and myocardial infarction), mental health and school performance in children (12)(18).
- Socially disadvantaged people are more likely to live near busy roads and are at greater risk of the negative effects of noise pollution (12)(18).

- One study showed that traffic related air pollution and noise were both associated with heart rate variability (HRV) in young healthy adults, and the effects of air pollutants were amplified at high noise level (Links to cardiovascular diseases) (37).
- One study showed that a significant exposure – effect relationship between noise levels from road traffic across a number of sleep parameters for children and adults (38).
- One study indicated no significant associations between road traffic noise and obesity in the total population. Road traffic noise was however positively associated with obesity markers among highly noise sensitive women (39).
- One study showed that traffic noise exposure, even at low levels, was associated with annoyance and sleep disturbance. Access to a quiet side seemed to be a major protective factor for noise related problems (40).
- One study showed that traffic noise exposure, even at low levels, was associated with annoyance and sleep disturbance. Access to a quiet side seemed to be a major protective factor for noise related problems (41).
- One study showed that noise sensitivity did not show main effects on CVD morbidity or mortality but did predict angina pectoris in low employment grades and the risk of future psychological distress (42).
- Noise is a recognised hazard to health in the Housing Health and Safety Rating System: over 90,000 residential noise complaints were made in 2013/14 (43). Excessive noise interferes with people's daily activities, disturbs sleep, causes cardiovascular and psychophysiological effects, reduces performance and provokes annoyance responses and changes in social behaviour (44). Extreme psychological outcomes are reported to include suicide, and assault due to aggravation over noise (45).

Inequalities in air and noise pollution

- More disadvantaged areas tend to have a higher density of roads and traffic, leading to impaired air quality and higher noise levels (12)(18)

What works? Noise Pollution

- Moderate evidence exists that the presence of vegetation can generally reduce the perception of noise (46).
- One study found that using a scale model to measure the noise reduction in residential buildings by vegetation and found that vegetated facades reduced noise by less than 2 dB at pedestrian level in a two lane street canyon (47).

What works? Air Pollution

- Tree planting schemes in urban areas such as the can make a positive contribution to air quality bringing additional benefits to human health (48).
- Studies indicate that reduced air pollution may directly reduce acute asthma attacks in children and also the medical care associated with these attacks. Long-term decreases in air pollution are associated with declines in bronchial hyperreactivity, in the average

annual trend in deaths from all causes and in respiratory and cardiovascular diseases (37).

- Traffic management is one of the instruments that can significantly reduce the exposure of residents of urban areas. In addition, the integration of environmental and health considerations into urban planning can be improved. In particular, urban planning may aim at integrative measures that lower emission rates, such as the promotion of highly efficient, service-oriented and clean public transport and improvements in the flow of traffic (35).
- Particle traps, preheated catalytic convertors, stricter exhaust emission legislation, alternative vehicle technologies, fuel substitutes, may have an impact on transport related air pollution. However, many of the positive effects of technological improvements risk being offset by an increase in the number of vehicles, of the number of kilometres travelled, by a trend towards replacing smaller vehicles with more powerful engines and an by increased use of diesel fuel. Thus, technological improvements alone may be insufficient and why there is also a need to consider measures that influence the amount of travel. For example, integrated urban planning, such as zoning offices, green areas and non-residential functions around urban highways, separating pedestrians and bicyclists from road traffic, and introducing measures that provide disincentives to using private vehicles (such as parking fees and congestion charges) seem to contribute to lowering emission rates (35).

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There were 36 comments about the environment. 16 were concerned with the potential negative impact of air and noise pollution caused by traffic congestion (10 comments), particularly those living close to the A61 road. Six people raised concerns about the impact on sewage (cited as a problem already) and drainage.

"Footpath from Avenue to Grassmoor Avenue Farm suffers flooding. Sewer man holes regularly blow allowing sewage to flood the footpath and river."



On the other hand, there were 14 comments about the potential for the positive impact of a much greener area and more energy efficient housing and construction.

"After years/decades of being in one of the most polluted areas in Europe we now have the chance to be in one of the greenest areas in North Derbyshire – make it happen."

"I would hope that all buildings will be to the latest design quality in terms of building materials, insulation and energy efficiency. I am very much in favour of renewable energy and would hope that as many buildings as possible would have south-facing roofs to allow for the

use of solar panels. The whole site should allow for recycling waste, both during construction and afterwards."

There were six comments suggesting additional facilities such as a community building and play area and environmental groups such as bird watching.

9.0 Housing

Our homes are where we bring up families, escape from the pressures of work, or seek respite from the weather and security. For those living in unsuitable or poorly heated housing, they can be a source of chest infections, circulatory problems, joint pains and other cold-related diseases—including excess winter deaths. Many accidents and lapses in hygiene also occur at home. This impact area may include issues around access to affordable good quality housing, the imposition of forced property sales and relocation, the value of capital assets, general living conditions, etc.

9.1 What did the literature tell us?

We searched for evidence from the literature to identify how major infrastructure developments might or have an impact on housing as a cause of ill health. We sought evidence on the effectiveness of any proposed interventions to enhance positive health benefits or mitigate health impacts. This section summarises what we found and considers whether such impacts help to close or further widen gaps in health status (if reported).

- There are a wealth of studies which have consistently documented statistically significant associations between poor housing conditions and poor health (e.g. Acheson, 1998; Evans, 2003; Ineichen, 1993; Marsh et al., 2000; and reviewed by Shaw, 2004; Taske et al, 2005). The greatest risks to health in housing are related to cold and damp (including moulds and fungus), which affect and exacerbate respiratory conditions. Indoor air quality, dust mites and other allergens. House type and overcrowding represent further examples of risk factors (Communities Analytical Services, 2009). Other less direct risks include neighbourhood effects such as a broad range of antisocial behaviour, which can have a negative impact on mental well-being (Diez Roux et al., 1997; Kawachi and Berkman, 2003)
- There is strong evidence of the impact of excess cold on health and wellbeing, and who is most likely to be at risk. Health effects of low temperatures include: an increased risk of respiratory and cardiovascular conditions; risk of hypothermia; impairment of the thermoregulatory system; reduced resistance to infection; healing of leg skin ulcers; increased risk of depression and anxiety (49)(50). The following people are vulnerable to the cold: people with cardiovascular conditions people with respiratory conditions (in particular, chronic obstructive pulmonary disease and childhood asthma); people with mental health conditions; people with disabilities; older people (65 and older); households with young children (from new-born to school age); pregnant women; people on a low income (51).
- There is a well evidenced link between housing conditions and falling (52) and also analysis of how poor or unsuitable housing conditions increases the risk of falls (53).
- There appears to be a 'does response' relationship between poor housing and ill health, with increased housing deprivation at one point increasing the probability of ill health; and a sustained experience of housing deprivation over time increasing the probability of ill health (Taske et al, 2005:13)

- There appears to be a significant link between housing deprivation early in life and ill health in adulthood, with poor housing in childhood associated with higher rates of hospital admissions and increased morbidity and mortality in adult life (Marsh et al., 1999)
- Poor quality is especially indicated in studies on housing type, with high rises and multi-dwelling accommodation evidenced as detrimental to psychological well-being, particularly for mothers with young children (Evans, Wells and Moch, 2003)
- Evans (2003) presents evidence on the relationship between housing and poor health identifying key stressors which include insecurity and tenure concerns, difficulties with landlords and repairs, frequent relocations, limited control over social interactions, and the stigma of poor housing.
- A range of international research suggests that housing payment problems, especially insecurity and debt, can lead to significant health stressors. Yates and Milligan's (2007) study in Australia for example, has illustrated that such stress contributes not only to health problems but impacts on family relationships.
- A large-scale Canadian study, found a gradient in mental health status by housing tenure, from less stress amongst homeowners without mortgages, to most stress amongst renters (Cairney and Boyle, 2004).
- Some research highlights differences in health between those living in particular housing tenures. Housing conditions in homes that are owned tend to be better than in homes that are rented, especially in relation to problems of condensation, lack of adequate heating and damp, with proportions in the rented sector around twice as high (Pevalin et al., 2008: 684).
- Insecurity in the private rented sector can have an impact on wellbeing, causing anxiety, stress, loss of confidence and worry about the future (54)(55).
- The loss of property and land caused by compulsory purchase could lead to adverse psychological effects relating to feelings of sadness and anger and lack of governmental compensation for the emotional loss caused by the taking of property (1).

Homelessness

- Homelessness may mean that parents are unable to provide the quality of care needed during pregnancy and infancy, and the quality of temporary home environment can impact on a baby's physical development (56). Children are at greater risk of infection, especially gastroenteritis, skin disorders and chest infections (57), and their mental health is affected, contributing to development problems (58).
- The effect of homelessness on children can be long-lasting. A study undertaken in Birmingham found that 40 per cent of the homeless children studied were still suffering mental and developmental problems one year after being rehoused (59).
- Many young homeless people experience mental health problems, are drug dependent, have self-harmed (60)(61).
- Single people who are homeless, including rough sleepers, have an average age of death of just 47 years (62).

Unsuitable housing

- Children and families: Research has shown that an unsuitable home can severely impact on the capacity, and health and wellbeing, of the parents to look after the disabled children. There are increased levels of parental stress, and other children in the family are also affected negatively (63).
- Working age: an unsuitable home can contribute to loss of independence, ability to work, and social isolation (64).
- Older age: an unsuitable home may restrict movement around, and out of, the home, contributing to stress, anxiety and isolation, and physical inactivity (56).

Overcrowding

- The main health risks to health and wellbeing from overcrowding include tuberculosis (65) (TB) and respiratory infection (children are particularly affected) and mental ill health (66), particularly anxiety and depression.
- There is evidence that overcrowding significantly increases levels of stress within families and has a negative impact on children's education and development (67).
- It can lead to social problems such as low levels of tolerance, aggression and interpersonal conflicts, and limits social relationships (68).
- Residents of overcrowded homes report higher levels of 'not good health', with households with children under 15 living in these conditions twice as likely to report this as those not (69).

People with mental health problems

- Stable housing is a factor contributing to someone being able to maintain good mental health and are important outcomes for their recovery if they have developed a mental health problem. Common mental health problems are over twice as high among people who are homeless compared with the general population, and psychosis is up to 15 times as high. Children living in poor housing have increased chances of experiencing stress, anxiety and depression (70).

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9.2 What did the consultation tell us?

Online and paper surveys were supplemented by focus groups, to help us understand the concerns of groups within the local community who may be affected by the Avenue development. We asked participants to tell us how their health might be affected in a good (positive) or unfavourable (negative) way. The following summarises issues identified as having positive impacts on housing as a cause of ill health.

There were 42 comments on housing and a mix of both positive views welcoming new opportunities and then few comments about additional requirements/challenges the development will bring. There were four general comments in support of more housing and three saying it was too many.



A need for a good mix of housing was the most frequently mentioned (15 people) - including affordable to sheltered and adapted housing for those with limited mobility. Some also suggested allowing self-build plots.

"New housing always needed and welcome. What the breakdown be large/small/bungalows apartments? All needed to create a balanced community."

"Mixed housing needed. Affordable, first home. Retirement house/bungalow family homes 3/4 beds."

There were also five positive views about creating opportunities for more energy efficient homes and those that meet the Decent Homes Standard.

Some raised concerns about the need for additional facilities alongside the new housing, with schools the most frequently cited as well as preschools, play areas and sports/leisure facilities.

"New housing needs schools, pre-schools, youth clubs etc."

"Housing should be developed along with social/leisure facilities – not as an afterthought."



There were concerns about the negative impact that housing development would have on parking and traffic congestion (four comments) and the ability of the current sewage system to cope (two comments).

10.0 Transport, access and other social infrastructure —getting about

Good transport links are enabling. It is well established, for example, that access to health-promoting services is inequitably distributed in favour of those with access to a car (yet most of the harms arising from their use, such as injury and pollution, are disproportionately experienced by more deprived members of society). Transport can enable access to health and social services and employment opportunities, reduce isolation and if ‘active’ deliver exercise—all of which can be especially problematic for those with disabilities. This impact area may include changes to road use/ local public transport services, affordability of rail fares, physical severance, access to services (e.g. GP, hospital, or pharmacy, social care) and key amenities, etc.

10.1 What did the literature tell us?

We searched for evidence from the literature to identify how major infrastructure developments might or have an impact on transport, access and other social infrastructure as a cause of ill health. We sought evidence on the effectiveness of any proposed interventions to enhance positive health benefits or mitigate health impacts. This section summarises what we found and considers whether such impacts help to close or further widen gaps in health status (if reported).

- Active forms of travel, such as walking and cycling, are the most sustainable forms of transport and are associated with a number of recognised health benefits. These include improved mental health, a reduced risk of premature death, and prevention of chronic diseases such as coronary heart disease, stroke, type 2 diabetes, osteoporosis, depression, dementia, and cancer (18).
- Using public transport can help individuals to achieve recommended levels of daily physical activity by incorporating active travel as a component of the journey. It is also viewed as the most sustainable transport option for longer journeys because it emits less harmful emissions at average occupancy compared to car use (18).
- One study showed that significant positive associations to psychological wellbeing were found between:
 - active travel and public transport, when compared to car travel
 - time spent walking, when compared to driving
 - switching from car travel to active travel (71)
- One study showed that switching from private motor transport to active travel or public transport was associated with a significant reduction in BMI compared with continued private motor vehicle use and that switching from active travel or public transport to private motor transport was associated with a significant increase in BMI (72).
- One study of a bicycle sharing system (cycle hire) in London, showed benefits reflecting reductions in diseases affected by physical inactivity. These modelled benefits were larger than either observed or modelled changes to injuries, whereas changes in exposure to air pollution were small (73).

References

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10.2 What did the consultation tell us?

Online and paper surveys were supplemented by focus groups, to help us understand the concerns of groups within the local community who may be affected by the Avenue development. We asked participants to tell us how their health might be affected in a good (positive) or unfavourable (negative) way. The following summarises issues identified as having positive impacts on transport, access and social infrastructure as a cause of ill health.

There were 62 comments about transport and access; more than any other domain. Overall there were similar numbers of positive and negative comments.



There were 15 comments about the positive impact that improvements to the footpaths and cycle networks would bring, with suggestions to include horse riders. Improvements to public transport networks were also cited with eight comments. (However there were two comments questioning whether these proposals would be delivered).

"Cycle routes connecting the Avenue to Hasland and Grassmoor enable greater use of cycles to providing access to the Avenue 'off road'. Many people would use off road routes who at the moment only use short local tracks. Connecting the two parishes to Sustrans routes (particularly R61) opens up long distant tracks to areas North and South of Chesterfield."

"Having pleasant trails will encourage people to walk to more places instead of using cars and buses. Being able to take horses on the trails will mean locals are able to ride safely without having to go on the roads. (There are a lot of horses in the area)"



The most frequently cited negative impact (14 comments) was the increased volume of traffic and related congestion and air pollution. There were a further nine comments that current and proposed road network would not be able to cope with the additional traffic volumes, with suggestions made to improve this.

"A61 is a nightmare now what will it be like when 3000 plus people live here! Open routes to the east, Furnace Hillock Way/Mill Lane to reduce pressure on A61."

"Lots of people use a car to travel to work. A second road from The Avenue to Winsick via roundabout (Grassmoor/Hasland (Furness Hillock Way)) would have been a good idea for those travelling via J29 and taken a lot of traffic from A61."

As outlined in previous sections, there were a further 14 comments about the need for additional facilities, such as community centres, GP surgeries, schools, car parks (including for horse boxes) and safe crossings over the A61.

11.0 Nutrition / Access to healthy food

In more rural locations access to healthy and competitively priced food can be more difficult due to transport issues and proximity to food outlets. This impact area may include effects on growing, selling and buying food (including dietary choices), management of crops and livestock, etc. This impact area may include how changes might affect the supply of local food (including dietary choices), for example, community allotment gardens, range of retail outlets, range of hot food takeaways, supply of locally farmed food or access to affordable fresh fruit and vegetables

11.1 What did the literature tell us?

We searched for evidence from the literature to identify how major infrastructure developments might or have an impact on nutrition and access to healthy food as a cause of ill health. We sought evidence on the effectiveness of any proposed interventions to enhance positive health benefits or mitigate health impacts. This section summarises what we found and considers whether such impacts help to close or further widen gaps in health status (if reported).

No findings

11.2 What did the consultation tell us?

Online and paper surveys were supplemented by focus groups, to help us understand the concerns of groups within the local community who may be affected by the Avenue development. We asked participants to tell us how their health might be affected in a good (positive) or unfavourable (negative) way. The following summarises issues identified as having positive impacts on nutrition and access to healthy food as a cause of ill health.

There were 21 comments about this aspect, mostly about the potential for positive impact such as the need for allotments or a community garden (eight comments) and shops selling local fresh food (six comments). There were four comments saying that fast food outlets would have a negative impact and should be discouraged. Three comments stated there would be no effect by the development on nutrition/access to healthy food.

12.0 Education—lifelong learning

Educational attainment is linked to fewer risk-taking behaviours, better lifestyle choices and child health, a longer life expectancy, more effective use of health information and health services, social cohesion and greater uptake of preventative healthcare interventions (such as vaccinations or cancer screening). Education has a complex interaction with other determinants of health, most notably employment and the wider economy. This impact area may include access to educational opportunities from pre-school to university and adult education, etc.

12.1 What did the literature tell us?

We searched for evidence from the literature to identify how major infrastructure developments might or have an impact on education as a cause of ill health. We sought evidence on the effectiveness of any proposed interventions to enhance positive health benefits or mitigate health impacts. This section summarises what we found and considers whether such impacts help to close or further widen gaps in health status (if reported).

No findings

12.2 What did the consultation tell us?

Online and paper surveys were supplemented by focus groups, to help us understand the concerns of groups within the local community who may be affected by the Avenue development. We asked participants to tell us how their health might be affected in a good (positive) or unfavourable (negative) way. The following summarises issues identified as having positive impacts on education as a cause of ill health.

There were 20 comments educational opportunities. Six commented that it would be positive if the school could be used as a community asset and used for evening/weekends, such as for lifelong learning. There were three comments about the positive impact of a new primary school but also three who stated it would have no overall positive or negative impact. Three were concerned that there should be no change in current provision or allocation of school places.



"Education on the estate is a one form entry primary school (4-11 years). Opportunities for Life Long Learning do not exist on this estate unless the school can be used evenings, weekends and holidays."



There were five comments that expressed concern that the current capacity of senior schools and colleges would not suffice.

"Do senior schools have the capacity to take on new pupils from the new development?"

13.0 Employment / volunteering —personal wealth

Most people are reliant on employment to provide household income, which in turn influences such things as housing quality, educational opportunities and consumption of healthy foods. Other workers forgo paid jobs to provide unpaid services such as care giving, although some unpaid work may bring non-financial rewards. Poor health, such as disability or mental illness, can be a barrier to employment—which in turn further impedes health improvement.

Those out-of-work are more likely to report illness such as depression, stress, alcohol misuse and high blood pressure. This impact area may include access to paid or unpaid employment, personal income, receipt of unemployment or other social benefits, ability to afford necessities (e.g. winter fuel), etc.

13.1 What did the literature tell us?

We searched for evidence from the literature to identify how major infrastructure developments might or have an impact on employment and volunteering as a cause of ill health. We sought evidence on the effectiveness of any proposed interventions to enhance positive health benefits or mitigate health impacts. This section summarises what we found and considers whether such impacts help to close or further widen gaps in health status (if reported).

No findings

13.2 What did the consultation tell us?

Online and paper surveys were supplemented by focus groups, to help us understand the concerns of groups within the local community who may be affected by the Avenue development. We asked participants to tell us how their health might be affected in a good (positive) or unfavourable (negative) way. The following summarises issues identified as having positive impacts on employment and volunteering as a cause of ill health.

There were only 13 comments about employment - mostly about the positive impact the new jobs would bring to the area (eight comments).



"More jobs for the area, great. Can the jobs be ring fenced for local people?"

"If the development does indeed provide work opportunities up to 800, as hoped, then that is to be welcomed. The more of these which can be taken by residents of the Avenue site the better, as it will reduce the travel problems on the A61. If child care/crèche facilities are provided at the school, then this will also be a benefit for residents of the Avenue site. I am not sure whether there is demand in the local area for additional office or light industry workspace but if so and the facilities provided are let at an affordable rate then this should also be a positive."

The other five comments were about volunteering with mixed views. Some foresaw opportunities for sporting/leisure/environmental jobs as part of the park (Avenue)

development, which would involve the community. Others were more cynical that this would not happen, with the challenge of engaging volunteers.

"The park (Avenue) could be an opportunity to develop sporting/leisure jobs/volunteer sessions – Involve the local communities."

"Volunteering opportunities already exist but residents are difficult to engage, they prefer someone else to do it for them."

14.0 Economy—wider wealth

Recent appraisals of austerity measures and welfare reforms have highlighted the many potential health effects of economic downturn. Such effects could include decline in population mental health; increases in diseases associated with poverty such as heart disease, obesity and excess winter deaths; reduced access to health and well-being services; and disturbance of community through changes to the affordability of housing.

Furthermore, a deteriorating economic situation is likely to exacerbate health inequalities, causing disproportionate harm to young people and single-parent families, those with long-term conditions, the elderly and other vulnerable groups. It follows that economic upturn may have mitigating effects. This impact area may include investment opportunities, effects on footfall, economic growth potential, creation of new jobs, etc.

14.1 What did the literature tell us?

We searched for evidence from the literature to identify how major infrastructure developments might or have an impact on the economy as a cause of ill health. We sought evidence on the effectiveness of any proposed interventions to enhance positive health benefits or mitigate health impacts. This section summarises what we found and considers whether such impacts help to close or further widen gaps in health status (if reported).

- Resettlement following compulsory purchase can cause special problems for traders, small businesses, street vendors, cottage industries, and others through the disruption of commercial ties with customers, suppliers and distributors (74).

References

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14.2 What did the consultation tell us?

Online and paper surveys were supplemented by focus groups, to help us understand the concerns of groups within the local community who may be affected by the Avenue development. We asked participants to tell us how their health might be affected in a good (positive) or unfavourable (negative) way. The following summarises issues identified as having positive impacts on economy as a cause of ill health.

There were 23 comments on this aspect with eight stating the positive impact of job/wealth creation but six saying this would be marginal/limited. There were also a few who thought it would be difficult to drive off the Avenue development to work.

“Building creates jobs and once building done should create/encourage businesses to the area.”

“Potential for local employment are minimal. Most people will drive off the site and clog the A61 more than it is now. Open up the East side to Hasland/Grassmoor/M1.”

The remainder commented on a variety of things from increased council tax income for parish councils but more demands on other services; need to bring improvement to everyone in the surrounding villages; and potential for encouraging tourism (including equestrian activities) to "bring spend to the local economy".

15.0 Social and economic factors- Poverty / income

15.1 What did the literature tell us?

We searched for evidence from the literature to identify how major infrastructure developments might or have an impact on social and economic factors as a cause of ill health. We sought evidence on the effectiveness of any proposed interventions to enhance positive health benefits or mitigate health impacts. This section summarises what we found and considers whether such impacts help to close or further widen gaps in health status (if reported).

The loss of property and land caused by compulsory purchase / eminent domain takings could lead to adverse psychological effects relating to the lack of governmental compensation for the emotional loss caused by the taking of property (1), causing increased poverty if the owners and tenants are not adequately compensated (49).

12.2 Government compulsory purchase poses severe threats to private properties in that the possible beneficial uses and exchange value of a property are adversely affected (49).

References

See previous

15.2 What did the consultation tell us?

Online and paper surveys were supplemented by focus groups, to help us understand the concerns of groups within the local community who may be affected by the Avenue development. We asked participants to tell us how their health might be affected in a good (positive) or unfavourable (negative) way. The following summarises issues identified as having positive impacts on social and economic factors as a cause of ill health.

16.0 Analysis

The appraisal panel met on two occasions, Thursday 21 April and Tuesday 17 May to review the evidence contributed by the data profiling, the literature review and the HIA consultations, and integrated this with their specialist knowledge to form a balanced view on the positive and negative impacts on health of the Avenue development.

An assessment tool (appendix 4) was used to assess the plan which merged the HUDU Planning for Health Rapid HIA Assessment Tool with the Wakefield Impact Assessment – HIA tool.

The tool assessed the development across eleven topics or broad determinants which are detailed below:

1. Housing quality and design
2. Access to healthcare services and other social infrastructure
3. Access to open space and nature
4. Air quality, noise and neighbourhood amenity
5. Accessibility and active travel
6. Crime reduction and community safety
7. Access to healthy food
8. Access to work and training
9. Social cohesion and lifetime neighbourhoods
10. Minimising the use of resources
11. Climate change.

Scoping and assessment

Under each topic there were examples of issues which are likely to influence health and wellbeing, which were used with the summary of the literature / research and the community profile to determine the relevance (yes, no or N/A), potential health impact (positive, negative neutral or uncertain) and determine the recommendation including person / organisation responsible.

17.0 Recommendations

The appraisal panel prioritised identifying recommendations that would maximise the positive health impacts and minimise the negative health impacts of the Avenue development. The lead agency for the recommendation is highlighted in bold.

These recommendations are a subject to elected member approval in North East Derbyshire District Council.

Abbreviations / acronyms used in this section

DCC PH	Derbyshire County Council Public Health
DCC ETE	Derbyshire County Economy, Transport & Environment
DCC CS	Derbyshire County Council Children's Services
DCC AE	Derbyshire County Council Adult Education
NEDDC	North East Derbyshire District Council
CBC	Chesterfield Borough Council
HCA	Homes and Community Agency
CCG	Clinical Commissioning Group
LCC	Lincolnshire County Council
TW	Taylor Wimpey (Developer)
Kier	Kier Living (Developer)
DP&HG	Derbyshire Planning and Health Group
AASF	Avenue Area Strategic Framework

1. Housing quality and design

No	Recommendation	Accountable bodies	Accountable lead
1 & 74	LCC to share proposals for 30% of housing to be built to M4 standards	LCC , NEDDC, CBC & DCC	Sean Johnson
2 & 75	Subject to viability apply lifetime homes standards (16 Design Criteria) to developers / registered providers as part of commissioning briefs / tenders for developments in localities. Develop and include an aspiration for the % of Lifetime Homes as part of new developments	NEDDC, CBC, HCA, DCC	Allison Westray-Chapman Neil Johnson Tamsin Hart
3 & 76	Explore opportunities and provide written feedback on the outcomes for Better Care Funding and Disabled facility grants to support the housing needs of older people Better Care Funding information https://www.england.nhs.uk/ourwork/part-rel/transformation-fund/bcf-plan/	CBC, NEDDC & DCC	
4	Local Planning Authorities systematically to consider health needs as part of strategic planning <ul style="list-style-type: none"> Develop and pilot an audit tool to examine how well health needs have been identified and how plans specifically support health and wellbeing. Develop a 'light' version for neighbourhood plans Develop a screening tool and engagement mechanism to ensure appropriate PH input to pre-application enquiries and consultations 	DCC PH , NEDDC, CBC & DCC	Richard Keeton DCC PH

	on planning applications <ul style="list-style-type: none"> Ensure PH input at a local level to influence the preparation of Local and Neighbourhood Plans including using the audit tool 		
5	Develop and share good practice on internal space standards that promote good design layout and orientation (see link) https://www.gov.uk/government/publications/design-of-external-space-on-housing-developments-seminar-report	HCA, NEDDC, CBC & DCC	Tamsin Hart
6	Develop and share good practice on external space standards that promote good design and orientation (see link) https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/470141/Quality_Counts_2014_to_2015_FINAL.pdf	HCA	Tamsin Hart
7	Fit triple glazing as standard or demonstrate alternative solutions for houses affected by road or rail noise	TW, Kier and developers in the AASF area	Allison Westray-Chapman
8	Where possible, ensure access to a “quiet side” in the planning process for developments potentially affected by noise i.e. bedrooms and living spaces opposite potential noise disturbances	HCA, NEDDC, CBC, DCC, TW, Kier	DCC PH through DP&HG
9	Share good practice relating to noise pollution with local planning authorities and developers	DCC PH	Richard Keeton
10	Inform developers of grants / funding for energy efficiency measures	NEDDC, CBC, DCC, HCA	
11	Explore energy efficiency options for the school and joint use facility	DCC, NEDDC	

2. Access to healthcare services and other social infrastructure

No	Recommendation	Accountable bodies	Accountable lead
12	Establish a working group to assess the impact of developments on healthcare services. Group to include Allison Westray-Chapman (NEDDC), Martyn Handley (NEDDC) Marie Scouse (North Derbyshire CCG), Jean Richards (Hardwick CCG), Mandy Chambers (DCC PH) , Richard Keeton (DCC PH) and Tamsin Hart (HCA)	DCC PH, NEDDC, North Derbyshire CCG, Hardwick CCG & HCA	Richard Keeton
13	Ensure healthcare services are accessible for all user groups including disabled and those with limited mobility Consider accessibility of healthcare services including active travel and the use of new and existing public footpaths and multiuser trials	As above	Richard Keeton
14	Develop a “super kitchen” model (places for people to eat a meal: affordably, socially and for environmental benefit) or similar in the joint use facility	DCC PH, NEDDC	Caroline Mackie DCC PH
15	Place restrictions on hot food takeaways through the planning process as part of a wider strategy to tackle obesity and health inequalities	DCC PH, NEDDC, CBC	Richard Keeton DCC PH
16	Ensure that the community facility is accessible to the local community on evenings, weekends and in school holidays including low cost rental charges	NEDDC	Lee Hickin
17	Ensure that proposals for the community facility include space for	NEDDC, DCC AE	Lee Hickin

	DCC Adult Education		
18	Establish a virtual Guildhall in the community facility	NEDDC, DCC AE	Lee Hickin

3. Access to open space and nature

No	Recommendation	Accountable bodies	Accountable lead
19	Share the learning and good practice as good practice guidance from the Avenue Development with Districts and Boroughs, Developers, HCA and Public Health England	NEDDC	Allison Westray-Chapman
20	Use the evidence/research to provide guidance for Local Planning Authorities on accessibility, proximity and quality of green space to support health and wellbeing. Develop a tool / guide to be adopted and used by the Local Planning Authorities and DCC	DCC PH	Richard Keeton
21	Develop a community engagement strategy, initially through an early occupiers group which will consider community involvement in the design, layout and development of the site	NEDDC, CBC, DCC PH	Allison Westray-Chapman
22	Support the implementation of the community engagement strategy through the Public Health Locality Workers and other community enablers	DCC PH	Mandy Chambers
23	Apply good practice in community engagement, including schemes such as (information from Neil Johnson CBC) and National Institute for Health and Care Excellence guidance on Community Engagement https://www.nice.org.uk/Guidance/PH9	CBC	Neil Johnson
24	Develop a multi use trail into Chesterfield through McGregor's Pond at the North of the site	NEDDC, CBC & DCC ETE	Allison Westray-Chapman
25	Provide high quality signage throughout the site that aligns with existing NED and CBC signage	NEDDC, CBC	Steve Brunt
26	Ensure that the design and layout of the open spaces is dementia friendly	NEDDC, DCC PH	Paul Miles DCC PH
27	Develop a comprehensive approach to play. Consider the type, range and location of play spaces for young children of all ages. Provision should be varied, accessible to all and there should be a range of facilities including a skate park and outdoor gym equipment	NEDDC	Steve Brunt
28	Ensure that play spaces are well maintained, feel safe and minimise anti-social behaviour	NEDDC	Steve Brunt
29	Continue to support the proposal for a closed road cycling circuit at the North of the site.	NEDDC, DCC ETE, Derbyshire Sport	Allison Westray-Chapman
30 & 71	Provide suitable links between open and natural spaces and the public realm as part of the A61 Growth Growth Corridor Strategy. Including ensuring suitable crossing points between the Avenue and Wingerworth (and at other points along the A61) that are accessible for people with disabilities, pushchairs and limited mobility	NEDDC Communities work stream or DCC ETE, NEDDC, CBC	Allison Westray-Chapman Crossings Jim Seymour
31	Ensure that road design and layout strives to achieve the feel of a "park within a road" by designing in open spaces, trees, places to walk and consider the connections between these spaces.	NEDDC for the Avenue and developers within the AASF area	Allison Westray-Chapman
32	Share the good practice for provision of links between open and natural spaces with developers and District and Borough Councils	DCC PH HCA, NEDDC	Richard Keeton

33	Ensure that the multiuser trails, the connections between open and natural spaces and the public realm are accessible for people with disabilities, limited mobility, pushchairs, walkers, cyclists and horse riders	NEDDC, DCC ETE	Allison Westray-Chapman
34	Work with local planning authorities to ensure that the design and provision of open space includes the management and maintenance of open space.	DCC PH, NEDDC, developers	Richard Keeton

4. Air quality, noise and neighbourhood amenity

No	Recommendation	Accountable bodies	Accountable lead
35	Review the construction statement from Kier and Taylor Wimpey in relation to construction, and develop guidance particularly in relation to air quality.	DCC PH	Jane Careless
36	Develop or identify a tool for assessing the health impacts of large scale developments, for example developments over 250 houses which includes the health impacts of dust, noise and air quality	DCC PH, DCC ETE	Richard Keeton
37	Include the local community in developing a strategy to minimise the impact of traffic using a combination of Public Sector funding and section 106 contributions, offering a package of alternatives	DCC ETE, NEDDC & Voluntary sector	Jim Seymour
38	Consider a new link road between the site and the A617 as part of the A61 Growth Corridor strategy	DCC ETE, NEDDC, CBC	Jim Seymour
39	Ensure the provision of local amenities (shops, schools & public transport) to minimise the impact of the car and to encourage active forms of transport	NEDDC, DCC ETE	Allison Westray-Chapman
40	Consider the provision of charging points for vehicles and bikes as part of the retail development or school in line with local guidance.	NEDDC, DCC ETE	Allison Westray-Chapman Jane Careless (guidance)
41	Consider the potential benefits to travel journeys along the A61 corridor from a future provision of a new railway station and associated park and ride at Clay Cross	NEDDC, DCC ETE	Allison Westray-Chapman Jim Seymour

5. Accessibility and active travel

Recommendations 24, 31, 32, 36 are also relevant for this section.

No	Recommendation	Accountable bodies	Accountable lead
42	Include the provision for secure cycle parking and showers in the community facility and employment land to prioritise and encourage cycling and other forms of active travel.	NEDDC, DCC ETE	Lee Hickin
43	Consider traffic calming measures in the design and layout of developments to help to reduce and minimise road injuries.	NEDDC Communities work stream, DCC ETE, developers	Allison Westray-Chapman or Jim Seymour
44	Implement 20mph (aspirational) speed limit for the Avenue network	DCC ETE	Jim Seymour

	of roads		
45	Design and implement a school safety zone with a 20mph speed limit	NEDDC Communities work stream, DCC ETE	Allison Westray-Chapman Jim Seymour
46	Develop and implement a <i>community engagement plan</i> *. Include how to engage and consult with the community and involve them in decision making on issues related to the development. This should include any consultation with Wingerworth Football Club	NEDDC, DCC PH	Steve Lee
47	Investigate opportunities for external funding to support connectivity, for example through Sustrans	NEDDC Communities work stream, DCC ETE	Allison Westray-Chapman Jim Seymour
48	Ensure that the connectivity plans consider local strategies for walking and cycling, for example the Derbyshire Cycling Plan	NEDDC Communities work stream, DCC ETE	Allison Westray-Chapman Jim Seymour

*Community engagement plan and the community liaison group should include local and parish councillors

6. Crime reduction and community safety

Also discussed in this section recommendation 5, 6, 19, 45

No	Recommendation	Accountable bodies	Accountable lead
49	Develop a “gold standard” for multi-use trails to help to design out crime. Include and consider lighting of routes, way marking, vegetation, trees (including spread of light), surfaces and natural surveillance.	DCC ETE, DCC PH	
50	Involve the community in creating the community, for example activities such as tree or vegetation planting to foster a sense of community ownership.	NEDDC	Steve Brunt
51	Ensure fencing is adequate and maintained and use tree planting and shrubs to both discourage and prevent access to the railway line as a suicide prevention measure.	NEDDC and Network rail	Network Rail (fencing) Steve Brunt (vegetation)

7. Access to healthy food

No	Recommendation	Accountable bodies	Accountable lead
52	Link residents with other local allotments and community gardens in Hasland, Rother and Wingerworth to improve access to healthy and nutritious food	NEDDC	Steve Brunt
53	Develop a “super kitchen” model (places for people to eat a meal: affordably, socially and for environmental benefit) or similar in the joint use facility	DCC PH, NEDDC	James Green
54	Include spaces for raised beds in the design and layout of the community building to encourage school children to grow their own food	NEDDC	Lee Hickin
55	Explore examples of national good practice on providing access to good local food for all and support the community to implement	NEDDC	Steve Brunt

	http://www.incredible-edible-todmorden.co.uk/index.php		
56 & 15	Place restrictions on hot food takeaways through the planning process as part of a wider strategy to tackle obesity and health inequalities	DCC PH, NEDDC, CBC	Richard Keeton
57	Ensure that there is a balance between large and smaller scale retail to provide opportunities for the provision of locally grown fruit and vegetables	NEDDC	Allison Westray-Chapman
58	Explore the opportunity for Sunday farmers markets	NEDDC	Steve Lee

8. Access to work and training

No	Recommendation	Accountable bodies	Accountable lead
59	Support the development and implementation of NEDDC working plus programme, a project to help the unemployed back to work	NEDDC, Kier, TW, DCC, CBC	Allison Westray-Chapman
60	Support the planning, development and implementation of “meet the buyer sessions”, encouraging developers to meet suppliers of local goods and employment	NEDDC, HCA Kier, TW and developers within the AASF area	Allison Westray-Chapman
61	Support, monitor and enforce Keir’s contractual obligation to work with (or employ) 1 apprentice for every £1 million spent on the development	NEDDC, or HCA DCC (Andy Williams)	Allison Westray-Chapman Tamsin Hart
62	Explore opportunities to contractually oblige developers to provide opportunities for apprenticeships and implement where possible.	NEDDC, CBC & DCC	
63	Use the Learning Centre as a space for community development and explore opportunities for community development funding.	NEDDC & DCC PH	Steve Lee
64	Engage new businesses in the Derbyshire Healthy Workplaces programme.	DCC PH	James Creaghan
65	Consider childcare facilities to enable people to work and to provide local employment opportunities.		
66	Link employment, volunteering, apprenticeships and training opportunities from this development to local schools and colleges.	NEDDC, DCC (Andy Williams)	Allison Westray-Chapman
67	Explore opportunities to provide volunteering/employments for groups (mental health, unemployed, learning difficulties) to get involved in the building of the school.	NEDDC or DCC	
68	Restrict industrial use and warehousing on the employment land and encourage smaller start up units and retail.	NEDDC	Allison Westray-Chapman

9. Social cohesion and lifetime neighbourhoods

No	Recommendation	Accountable bodies	Accountable lead
69	Connect the development with existing communities by maximising the routes that are viable and deliverable by building on the work undertaken by the Avenue connectivity work stream.	NEDDC, DCC ETE, CBC	Martin Handley
70 & 46	Develop and implement a community engagement plan. Include, how to engage and consult with the community and involve them in decision making on issues related to the development.	NEDDC, DCC PH	Steve Lee

71 & 30	Provide suitable links between open and natural spaces and the public realm as part of the A61 Growth Growth Corridor Strategy. Including ensuring suitable crossing points between the Avenue and Wingerworth (and at other points along the A61) that are accessible for people with disabilities, pushchairs and limited mobility.	NEDDC Communities work stream or DCC ETE, NEDDC, CBC	Allison Westray-Chapman Crossings Jim Seymour
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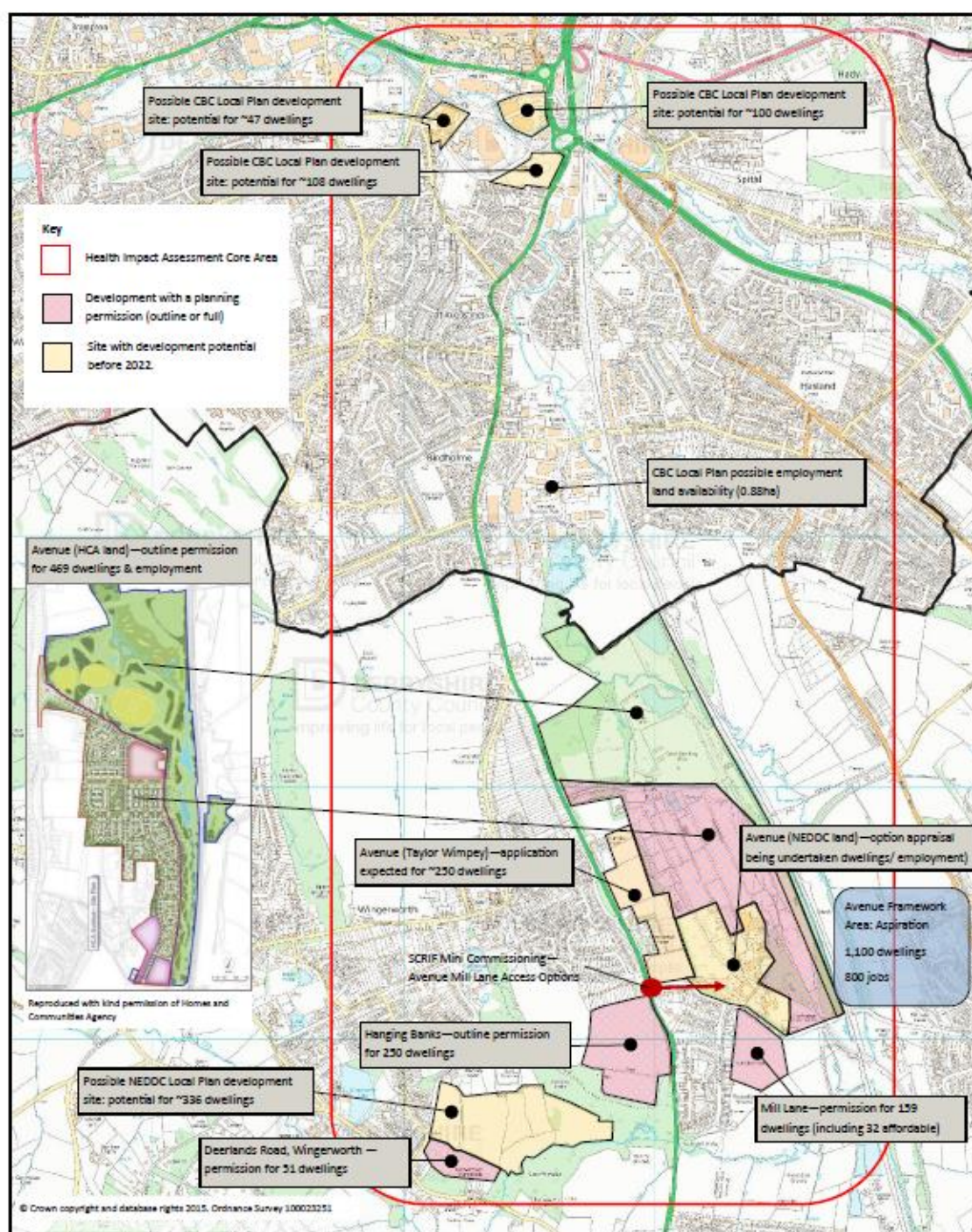
10. Minimising the use of resources

No	Recommendation	Accountable bodies	Accountable lead
72	Encourage householders to re-cycle household waste through provision and adequate storage space for a three bin system and roadside presentation points for bins.	NEDDC	Steve Brunt
73	Encourage householders to re-cycle by providing new residents with information packs on recycling and bin collection dates.	NEDDC	Steve Brunt
74 & 1	LCC to share proposals for 30% of housing to be built to M4 standards.	LCC, NEDDC, CBC & DCC	Sean Johnson
75 & 2	Subject to viability apply lifetime homes standards (16 Design Criteria) to developers / registered providers as part of commissioning briefs / tenders for developments in localities and develop and include an aspiration for the % of Lifetime Homes as part of new developments	NEDDC, CBC, HCA & DCC	Allison Westray-Chapman Neil Johnson Tamsin Hart
76 & 3	Explore opportunities for Better Care Funding and Disabled facility grants to support the housing needs of older people Better Care Funding information https://www.england.nhs.uk/ourwork/part-rel/transformation-fund/bcf-plan/	CBC, NEDDC & DCC	
77	Ensure that the % of affordable homes meet the District and Borough Council targets which are detailed below 40% NEDDC 30% CBC affordable homes AASF 20%	CBC, NEDDC	Allison Westray-Chapman Neil Johnson

11. Climate change

No	Recommendation	Accountable bodies	Accountable lead
78	Explore grant funding to incorporate renewable energy sources for employment land and school site	NEDDC (employment land) DCC CS (school)	
79	Raise concerns about the existing capacity of the drainage system to Yorkshire Water as a health protection issue	DCC PH	Jane Careless
80 & 40	Consider the provision of charging points for vehicles and bikes as part of the retail development or school in line with local guidance.	NEDDC, DCC ETE	Allison Westray-Chapman Jane Careless (guidance)

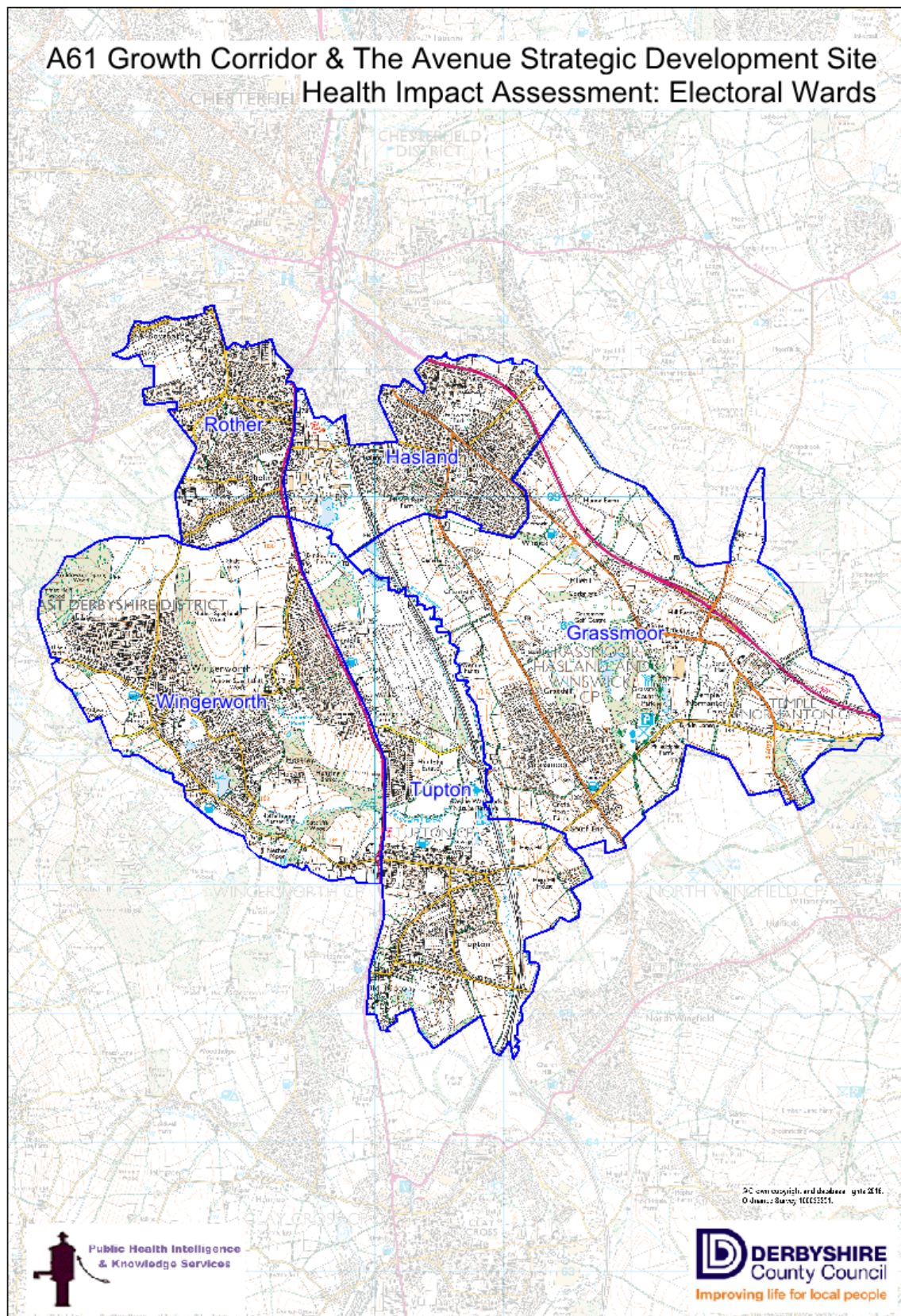
Appendix 1: Geographical scope of the HIA



A61 Growth Corridor & The Avenue Strategic Development Site

Health Impact Assessment:
Geographical Scope and potential major development sites

Controlled



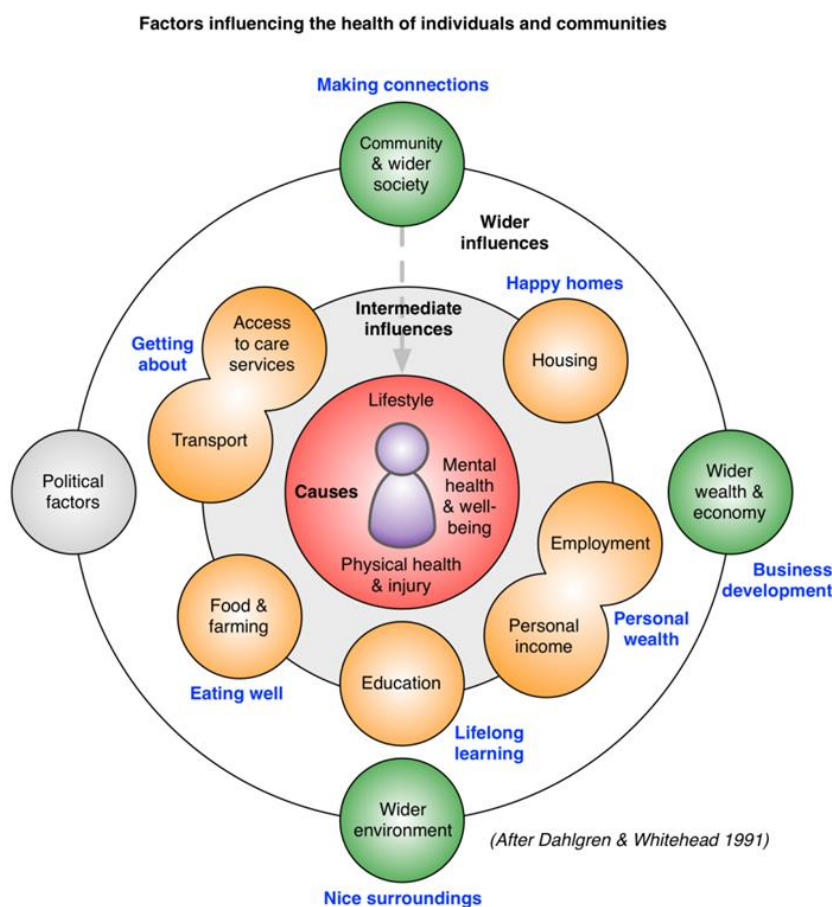
Appendix 3: Copy of the online and paper consultation surveys

Introduction

Derbyshire County Council (DCC) in partnership with North East Derbyshire District Council (NEDDC), Chesterfield Borough Council (CBC), and the Homes and Communities Agency (HCA) have agreed to undertake a Health Impact Assessment (HIA) of the Avenue development.

Health Impact Assessment (HIA)

The aim of the HIA is to identify reasons that have a significant impact on health and to use evidence to maximise the health gains and reduce the negative impacts. HIA defines the physical, mental and social aspects of health which also acknowledges wider influences on health such as, income, education and employment status, as well as lifestyle and genetics. These wider influences on health are shown on the diagram below.



What are we consulting on?

We would like to know how you think the Avenue development could potentially affect health either in a positive or negative way and we are consulting on the existing proposals on the Avenue site including:

Country Park, housing, employment, land use, school / education, leisure facility, and connectivity, which includes changes to road use, active travel such as, cycling, walking and transport links. Further information on these topic themes are outlined within this letter (or on the website).

Figure 1 shows the geographical area that we are considering as part of the HIA, figure 2 shows the existing proposals for the Avenue development.

Figure 1: Map to show the Health Impact Assessment area

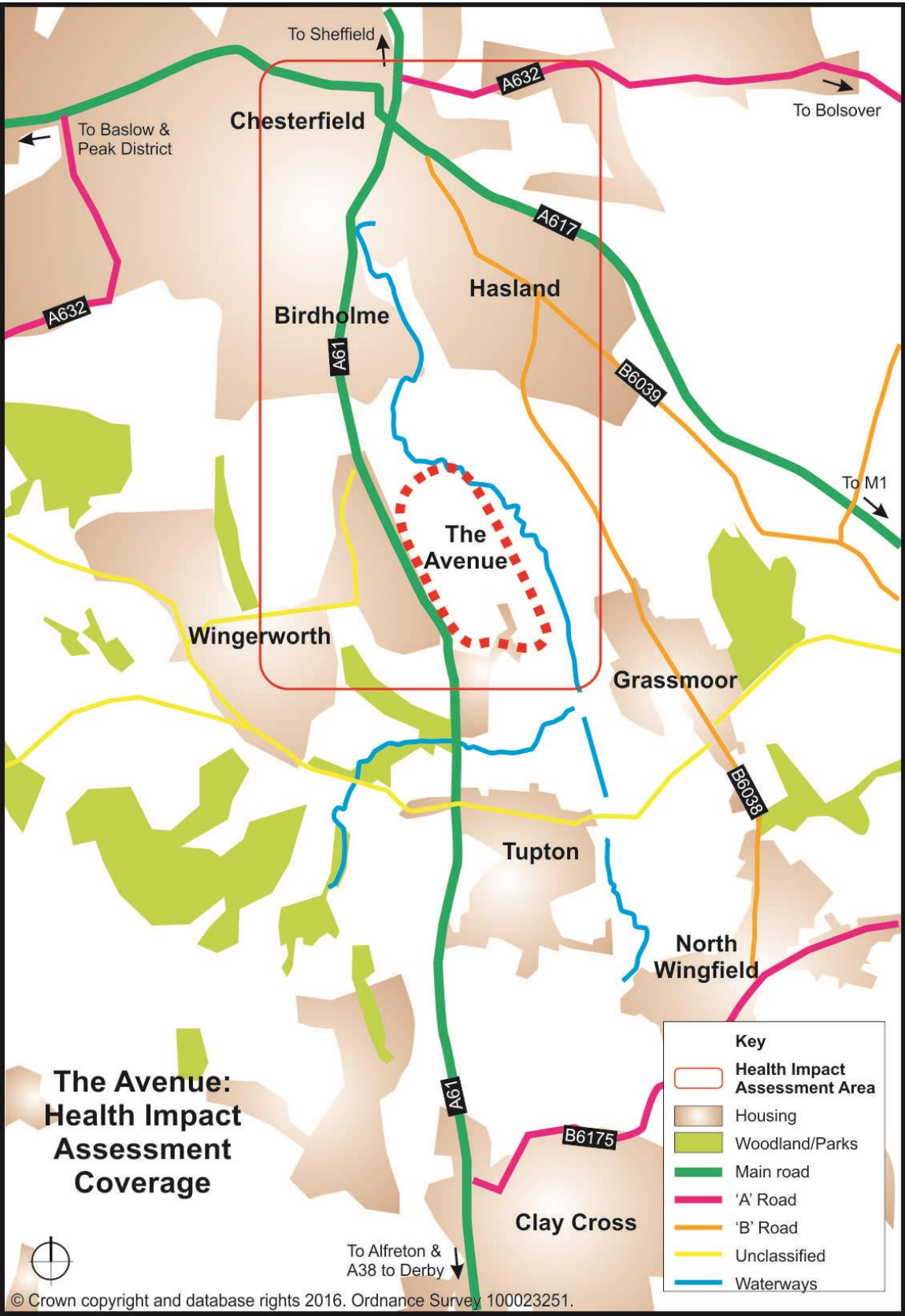


Figure 2: Map to show the existing proposals for the Avenue development



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Please note that the timescales indicated below are approximate and maybe subject to change.

Housing (see the icon on the map)

- Up to 1,100 homes of a range of types and tenures
- A minimum of 20% of homes will be affordable¹
- Work will commence in the Summer of 2016 and finish in 2026

Green Space including Country Park (see the green shaded area on the map)

- Approximately 50 hectares² of open space, including 3 sports pitches, numerous cycle and pedestrian paths through a country setting
- The Country Park is expected to be completed by the end of 2016
- A village green and neighbourhood green spaces (as per the housing timescales above)

Employment Land use (see the icon on the map)

- Approximately 4.4 hectares² of the site dedicated for employment uses
- Type of employment land to include: offices, units for research and development purposes, light industrial and retail i.e. only that which is suitable for a residential setting
- North East Derbyshire District Council have an ambition to achieve employment for 800 people on the site

School /education (see the icon on the map)


- A site for a one-form entry primary school and community use, which is planned to open in September 2019

Leisure facilities

Proposal to include community use of school facilities including:

- Sports Hall
- Adult classroom space
- Café
- Child care/crèche/early years facilities
- Changing/shower facilities and a separate cycle hire facility

Connectivity

- A roundabout to the north of the site to provide access to the site is completed.
- An additional roundabout to the south of the site will also provide access to the site.
- New or upgraded walking, cycling and horse riding links to local communities and open space, which are shown as  on the map.

Questions for consultation

Please note that you do not have to answer all the questions.

¹ Social rented, affordable rented and intermediate housing, provided to eligible households whose needs are not met by the market. Eligibility is determined with regard to local incomes and local house prices. Affordable housing should include provisions to remain at an affordable price for future eligible households or for the subsidy to be recycled for alternative affordable housing provision.

² One hectare is equals 100m x 100m or approximately one and half football pitches

Please tell us what you think in the text boxes below, what health effect the Avenue development (good or bad) could have on:

- 1) **Mental health and well-being:** how the changes might affect the level of enjoyment and satisfaction experienced in daily living either in a good or bad way, for example, such as extent to which an individual might feel they have a sense of control, sense of belonging, engagement in community life, chance for social interaction.

- 2) **Physical health and injury:** how the changes might affect the way in which people with and without physical disability are able to move freely and confidently from place to place, for example. This might include such as, personal safety on public transport, risk of injury or accident, or additional physical discomfort of an existing health condition.

- 3) **Lifestyle and leisure:** how the changes might influence healthy behaviours such as, physical activity, healthy food choice, smoking, drinking, access to green space, for example, parks, countryside, green streets and lanes. These could be new or an improvement of existing spaces, making open spaces welcoming and safe, links between arts and culture, play spaces for young people.

- 4) **Community - the sense of belonging or togetherness in communities:** this may include how the changes will affect community activities and amenities, the networks of relationships among people who live in the area, freedom from feelings of isolation, cohesion (the 'glue' that binds communities together) and resilience (the ability to react positively to a potential crisis).

-
- 5) **Environment - nice surroundings:** how the changes might affect the local (and wider) community environment in such as, the effect on wildlife, condition of air quality, water levels, levels of noise, for example. We should also like to know what you think about building construction and sustainable design, for example the use of renewable energy, energy efficient homes, recycling building materials and waste.
-

- 6) **Housing:** how the changes might have an effect on the affordability of good quality housing, either to rent or purchase freehold, and range of housing types and sizes, for example; semi-detached/detached/3 storey town/terrace houses and number of bedrooms, the specification on their energy efficiency, housing which enables independent living, property value, general living conditions.
-

- 7) **Transport, access and other social infrastructure —getting out and about:** the changes and their effect to road use, local bus services timetables, interconnecting walking and cycle routes, the affordability of bus and rail fares, how people are able to move freely and confidently to other local areas; access to health care services (especially GP surgery, hospital, pharmacy) and social care services, plus other key services facilities, such as shared community use or services located at the same site.
-

- 8) **Nutrition / Access to healthy food:** how the changes might affect the supply of local food (including dietary choices), for example, community allotment gardens, range of retail outlets, range of hot food takeaways, supply of locally farmed food or access to affordable fresh fruit and vegetables

- 9) **Education—lifelong learning:** how the changes may affect access to educational opportunities from preschool to university and adult education.

- 10) **Employment / volunteering —personal wealth:** this section may include how the changes might affect access to paid or unpaid employment, household income, access to child care facilities, volunteering, care giving, new and affordable workspace such as office or light industry, for example.

- 11) **Economy—wider wealth:** how the changes might affect economic investment, the ability for people to have access to local retail shops and effects on footfall, the potential for local economic growth in such as job creation within the community.

What we are going to do with the information?

We will use information gathered from the consultation, along with the literature reviews and community profiling to:

- Make decisions on evaluating the importance, scale and likelihood of the predicted health impacts
- Consider alternative options
- Make recommendations for action to enhance or reduce health impacts to organisations that could potentially deliver, for example, North East Derbyshire District Council, Chesterfield Borough Council, Derbyshire County Council, Homes & Communities Agency and local health services.
- Evaluate which of the recommendations have been taken forward

If you wish to leave receive a copy of the summary report please tick the box ☐

Avenue Rapid Health Impact Assessment Tool

Adapted from HUDU Planning for Health Rapid Health Impact Assessment Tool (Second Edition June 2015) & Wakefield Impact Assessment – HIA Tool

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Using the Avenue HIA assessment tool

The Avenue HIA assessment tool merges the HUDU Planning for Health Rapid HIA Assessment Tool with the Wakefield Impact Assessment – HIA tool.

The HUDU tool is designed to assess the likely health impacts of development plans and proposals, including planning frameworks and masterplans for large areas, regeneration and estate renewal programmes and outline and detailed planning applications. It is partly based on the World Health Organization publication *Healthy Urban Planning* by Hugh Barton and Catherine Tsourou (2000).

It helps identify those determinants of health which are likely to be influenced by a specific development proposal. It does not identify all issues related to health and wellbeing, but focuses on the built environment and issues directly or indirectly influenced by planning decisions. Not all the issues or assessment criteria may be relevant and the user is encouraged to prioritise specific actions which focus on key impacts.

The assessment should also include arrangements for monitoring and evaluating the impacts and mitigation and enhancement measures.

The assessment tool is designed to highlight issues and to facilitate discussion. As a rapid assessment tool, its purpose is to quickly ensure that the health impacts of a development proposal are identified and appropriate action is taken to address negative impacts and maximise benefits.

Assessing the plan or proposal

The assessment matrix in Section 1 identifies eleven topics or broad determinants:

1. Housing quality and design
2. Access to healthcare services and other social infrastructure
3. Access to open space and nature
4. Air quality, noise and neighbourhood amenity
5. Accessibility and active travel
6. Crime reduction and community safety
7. Access to healthy food
8. Access to work and training
9. Social cohesion and lifetime neighbourhoods
10. Minimising the use of resources
11. Climate change.

Scoping and assessment

Under each topic there are examples of issues which are likely to influence health and wellbeing, this should be used with the summary of the literature / research and the community profile.

Assessment criteria are suggested derived from the planning issues, with others added due to the nature and scope of the HIA. Information and evidence to assess and evaluate the proposal will come from a wide range of sources, including information submitted with a

planning application. This could include a planning statement, design and access statement or an environmental statement for applications subject to environmental impact assessment.

Consider the impact of the topics or broad determinants and assess the potential health impact. If appropriate, assess the impact separately for the different population affected if the impact varies for the populations identified.

Positive	Negative	Neutral
Proposal will have a positive impact on this health category	Proposal will have a negative impact on this health category	Proposal will have a neutral impact on this health category

In some cases there may be a lack of information and/or data about certain aspects of the proposal. In this case, the impact is likely to be uncertain and more information should be requested.

The planning issues and topics will be assessed according to local priorities and needs, derived from community engagement and a profile of community health and wellbeing needs and assets. In addition, impacts may be short-term or temporary, related to construction or longer-term, related to the operation and maintenance of a development and may particularly affect vulnerable or priority groups of the population, such as older people or black and ethnic minority groups. Some issues may have a local impact, whilst other issues may have a wider or neighbourhood impact.

Where an impact is identified, actions should be recommended to mitigate a negative impact or enhance or secure a positive impact and identify the person(s) or organisation(s) responsible. Recommended actions on development proposals may require design or layout changes, closer adherence to policy requirements or standards or planning conditions or obligations. It may be helpful to identify non-planning measures, such as licencing controls or maintenance arrangements. The matrix should bring together commitments made in other assessments, for example plans to mitigate construction impacts.

Monitoring and evaluation

To ensure that the recommended actions are implemented, monitoring and evaluation arrangements will be put in place. This will require careful consideration, as with a large scale-development, there will be with potential construction, operational and post construction health impacts

Section 1 – HUDU Rapid Health Impact Assessment Matrix

The assessment matrix identifies eleven topics or broad determinants. Under each topic there are examples of issues which are likely to influence health and wellbeing, this should be used with the summary of the literature / research and the community profile

Health impacts may be short-term or temporary, related to construction or longer-term, related to the operation and maintenance of a development and may particularly affect vulnerable or priority groups of the population. Where an impact is identified, actions should be recommended to mitigate a negative impact or enhance or secure a positive impact and identify the person(s) or organisation(s) responsible.

Name of assessor / organisation: Richard Keeton (Derbyshire County Council) on behalf of the Appraisal Panel

Name of project (plan or proposal): Health Impact Assessment on the Avenue

Planning reference (if applicable):

Location of project: See geographical scope of HIA

Date of assessment: 21 April 2016

1 Housing quality and design

Access to decent and adequate housing is critically important for health and wellbeing, especially for the very young and very old. Environmental factors, overcrowding and sanitation in buildings as well as unhealthy urban spaces have been widely recognised as causing illness since urban planning was formally introduced. Post-construction management also has impact on community welfare, cohesion and mental wellbeing.

Issues to consider

- Accessible and adaptable dwellings
- Internal space standards, orientation and layout
- Affordable housing and dwelling mix
- Energy efficiency.

Assessment criteria	Relevant?	Details/evidence (including population affected)	Potential health impact?	Recommended mitigation or enhancement actions (including person / organisation responsible)
Does the proposal seek to meet all 16 design criteria of the Lifetime Homes Standard or meet Building Regulation requirement M4 (1)?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	
Does the proposal address the housing needs of older people, ie extra care housing, sheltered housing, lifetime homes and wheelchair accessible homes?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	
Does the proposal include homes that can be adapted to support independent living for	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral	

Assessment criteria	Relevant?	Details/evidence (including population affected)	Potential health impact?	Recommended mitigation or enhancement actions (including person / organisation responsible)
older and disabled people?			<input type="checkbox"/> Uncertain	
Does the proposal promote good design through layout and orientation, meeting internal space standards?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	
Does the proposal include a range of housing types and sizes, including affordable housing responding to local housing needs?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	
Does the proposal contain homes that are highly energy efficient (eg a high SAP rating)?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	

2 Access to healthcare services and other social infrastructure

Strong, vibrant, sustainable and cohesive communities require good quality, accessible public services and infrastructure. Access to social infrastructure and other services is a key component of Lifetime Neighbourhoods. Encouraging the use of local services is influenced by accessibility, in terms of transport and access into a building, and the range and quality of services offered. Access to good quality health and social care, education (primary, secondary and post-19) and community facilities has a direct positive effect on human health. Opportunities for the community to participate in the planning of these services has the potential to impact positively on mental health and wellbeing and can lead to greater community cohesion.

Issues to consider

- Needs and demand for services
- Capacity of existing facilities and services
- Timing, location and accessibility and developer contributions
- Reconfiguring health and social care services
- Multipurpose buildings and co-location of services
- Access and use of buildings by disabled and older people.

Assessment criteria	Relevant?	Details/evidence (including population affected)	Potential health impact?	Recommended mitigation or enhancement actions (including person / organisation responsible)
Does the proposal retain or re-provide existing social infrastructure?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	
Does the proposal assess the impact on healthcare services?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral	

Assessment criteria	Relevant?	Details/evidence (including population affected)	Potential health impact?	Recommended mitigation or enhancement actions (including person / organisation responsible)
			<input type="checkbox"/> Uncertain	
Does the proposal include the provision, or replacement of a healthcare facility and does the facility meet NHS requirements?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	
Does the proposal assess the capacity, location and accessibility of other social infrastructure, eg schools, social care and community facilities?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	
Does the proposal explore opportunities for shared community use and co-location of services?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	
Does the proposal contribute to meeting primary, secondary and post 19 education needs?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	

3 Access to open space and nature

Providing secure, convenient and attractive open/green space can lead to more physical activity and reduce levels of heart disease, strokes and other ill-health problems that are associated with both sedentary occupations and stressful lifestyles. There is growing evidence that access to parks and open spaces and nature can help to maintain or improve mental health.

The patterns of physical activity established in childhood are perceived to be a key determinant of adult behaviour; a growing number of children are missing out on regular exercise, and an increasing number of children are being diagnosed as obese. Access to play spaces, community or sport facilities such as sport pitches can encourage physical activity. There is a strong correlation between the quality of open space and the frequency of use for physical activity, social interaction or relaxation.

Issues to consider

- Opportunities for physical activity
- Access to open and natural space
- Formal and informal outdoor play spaces
- Maintenance of open space and sports facilities
- Integration with other outdoor uses such as food growing.

Assessment criteria	Relevant?	Details/evidence (including population affected)	Potential health impact?	Recommended mitigation or enhancement actions (including person / organisation responsible)
Does the proposal retain and enhance existing open and natural spaces?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	
In areas of deficiency, does the proposal provide new open or natural space, or	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral	

Assessment criteria	Relevant?	Details/evidence (including population affected)	Potential health impact?	Recommended mitigation or enhancement actions (including person / organisation responsible)
improve access to existing spaces?			<input type="checkbox"/> Uncertain	
Does the proposal provide a range of play spaces for children and young people?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	
Does the proposal provide links between open and natural spaces and the public realm?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	
Are the open and natural spaces welcoming and safe and accessible for all?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	
Does the proposal set out how new open space will be managed and maintained?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	

4 Air quality, noise and neighbourhood amenity

The quality of the local environment can have a significant impact on physical and mental health. Pollution caused by construction, traffic and commercial activity can result in poor air quality, noise nuisance and vibration. Poor air quality is linked to incidence of chronic lung disease (chronic bronchitis or emphysema) and heart conditions and asthma levels of among children. Noise pollution can have a detrimental impact on health resulting in sleep disturbance, cardiovascular and psycho-physiological effects. Good design and the separation of land uses can lessen noise impacts.

Issues to consider

- Construction impacts
- Air quality
- Land contamination
- Noise, vibration and odour
- Quality of the local environment
- Provision of green space and trees.

Assessment criteria	Relevant?	Details/evidence (including population affected)	Potential health impact?	Recommended mitigation or enhancement actions (including person / organisation responsible)
Does the proposal minimise construction impacts such as dust, noise, vibration and odours?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	
Does the proposal minimise air pollution caused by traffic and energy facilities?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	

Assessment criteria	Relevant?	Details/evidence (including population affected)	Potential health impact?	Recommended mitigation or enhancement actions (including person / organisation responsible)
Does the proposal minimise noise pollution caused by traffic and commercial uses?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	

5 Accessibility and active travel

Convenient access to a range of services and facilities minimises the need to travel and provides greater opportunities for social interaction. Buildings and spaces that are easily accessible and safe also encourage all groups, including older people and people with a disability, to use them. Discouraging car use and providing opportunities for walking and cycling can increase physical activity and help prevent chronic diseases, reduce risk of premature death and improve mental health.

Issues to consider

- Streetscape
- Opportunities for walking and cycling
- Access to public transport
- Minimising the need to travel
- Discouraging car use
- Road traffic injuries.

Assessment criteria	Relevant?	Details/evidence (including population affected)	Potential health impact?	Recommended mitigation or enhancement actions (including person / organisation responsible)
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Assessment criteria	Relevant?	Details/evidence (including population affected)	Potential health impact?	Recommended mitigation or enhancement actions (including person / organisation responsible)
Does the proposal prioritise and encourage walking (such as through shared spaces?)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	
Does the proposal prioritise and encourage cycling (for example by providing secure cycle parking, showers and cycle lanes)?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	
Does the proposal connect public realm and internal routes to local and strategic cycle and walking networks?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	
Does the proposal include traffic management and calming measures to help reduce and minimise road injuries?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	
Is the proposal well connected to public transport, local services and facilities?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	

Assessment criteria	Relevant?	Details/evidence (including population affected)	Potential health impact?	Recommended mitigation or enhancement actions (including person / organisation responsible)
Does the proposal seek to reduce car use by reducing car parking provision, supported by the controlled parking zones, car clubs and travel plans measures?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	
Does the proposal allow people with mobility problems or a disability to access buildings and places?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	

6 Crime reduction and community safety

Thoughtful planning and urban design that promotes natural surveillance and social interaction can help to reduce crime and the ‘fear of crime’, both of which impacts on the mental wellbeing of residents. As well as the immediate physical and psychological impact of being a victim of crime, people can also suffer indirect long-term health consequences including disability, victimisation and isolation because of fear. Community engagement in development proposals can lessen fears and concerns

Issues to consider

- Designing out crime
- Security and street surveillance
- Mix of uses
- Community engagement.

Assessment criteria	Relevant?	Details/evidence (including population affected)	Potential health impact?	Recommended mitigation or enhancement actions (including person / organisation responsible)
Does the proposal incorporate elements to help design out crime?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	
Does the proposal incorporate design techniques to help people feel secure and avoid creating 'gated communities'?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	
Does the proposal include attractive, multi-use public spaces and buildings?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	
Has engagement and consultation been carried out with the local community?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	

7 Access to healthy food

Access to healthy and nutritious food can improve diet and prevent chronic diseases related to obesity. People on low incomes, including young families, older people are the least able to eat well because of lack of access to nutritious food. They are more likely to have access to food that is high in salt, oil, energy-dense fat and sugar.

Opportunities to grow and purchase local healthy food and limiting concentrations of hot food takeaways can change eating behaviour and improve physical and mental health.

Issues to consider

- Healthy localised food supply
- Hot food takeaways
- Social enterprises
- Allotments and community food growing spaces.

Assessment criteria	Relevant?	Details/evidence (including population affected)	Potential health impact?	Recommended mitigation or enhancement actions (including person / organisation responsible)
Does the proposal facilitate the supply of local food, ie allotments, community farms and farmers' markets?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	
Is there a range of retail uses, including food stores and smaller affordable shops for social enterprises?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	
Does the proposal avoid contributing towards an over-concentration of hot food	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	

Assessment criteria	Relevant?	Details/evidence (including population affected)	Potential health impact?	Recommended mitigation or enhancement actions (including person / organisation responsible)
takeaways in the local area?				

8 Access to work and training

Employment and income is a key determinant of health and wellbeing. Unemployment generally leads to poverty, illness and a reduction in personal and social esteem. Works aids recovery from physical and mental illnesses.

Issues to consider

- Access to employment and training
- Job diversity
- Childcare
- Business support.

Assessment criteria	Relevant?	Details/evidence (including population affected)	Potential health impact?	Recommended mitigation or enhancement actions (including person / organisation responsible)
Does the proposal provide access to local employment and training opportunities, including temporary construction and permanent 'end-use' jobs?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	
Does the proposal provide childcare facilities?	<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Positive <input type="checkbox"/> Negative	

Assessment criteria	Relevant?	Details/evidence (including population affected)	Potential health impact?	Recommended mitigation or enhancement actions (including person / organisation responsible)
	<input type="checkbox"/> N/A		<input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	
Does the proposal include managed and affordable workspace for local businesses?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	
Does the proposal include opportunities for work for local people via local procurement arrangements?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	

9 Social cohesion and lifetime neighbourhoods

Friendship and supportive networks in a community can help to reduce depression and levels of chronic illness as well as speed recovery after illness and improve wellbeing. Fragmentation of social structures can lead to communities demarcated by socio-economic status, age and/or ethnicity, which can lead to isolation, insecurity and a lack of cohesion.

Voluntary and community groups, properly supported, can help to build up networks for people who are isolated and disconnected, and to provide meaningful interaction to improve mental wellbeing.

Lifetime Neighbourhoods places the design criteria of Lifetime Homes into a wider context. It encourages planners to help create environments that people of all ages and abilities can access and enjoy, and to facilitate communities that people can participate in, interact and feel safe.

Issues to consider

- Social interaction
- Mixed communities
- Access to community facilities
- Voluntary sector involvement
- Community severance
- Lifetime neighbourhoods.

Assessment criteria	Relevant?	Details/evidence (including population affected)	Potential health impact?	Recommended mitigation or enhancement actions (including person / organisation responsible)
Does the proposal connect with existing communities, ie layout and movement which avoids physical barriers and severance and land uses and spaces which encourage social interaction?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	
Does the proposal include a mix of uses and a range of community facilities?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	
Does the proposal provide opportunities for the voluntary and community sectors?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	
Does the proposal address the six key components of Lifetime Neighbourhoods?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral	

Assessment criteria	Relevant?	Details/evidence (including population affected)	Potential health impact?	Recommended mitigation or enhancement actions (including person / organisation responsible)
			<input type="checkbox"/> Uncertain	

10 Minimising the use of resources

Reducing or minimising waste including disposal, processes for construction as well as encouraging recycling at all levels can improve human health directly and indirectly by minimising environmental impact, such as air pollution

Issues to consider

- Making the best use of existing land
- Recycling and reuse
- Sustainable design and construction
- Waste management
- Potential hazards.

Assessment criteria	Relevant?	Details/evidence (including population affected)	Potential health impact?	Recommended mitigation or enhancement actions (including person / organisation responsible)
Does the proposal make best use of existing land?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	
Does the proposal encourage recycling	<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Positive <input type="checkbox"/> Negative	

Assessment criteria	Relevant?	Details/evidence (including population affected)	Potential health impact?	Recommended mitigation or enhancement actions (including person / organisation responsible)
(including building materials)?	<input type="checkbox"/> N/A		<input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	
Does the proposal incorporate sustainable design and construction techniques?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	

11 Climate change

There is a clear link between climate change and health. The Marmot Review is clear that local areas should prioritise policies and interventions that ‘reduce both health inequalities and mitigate climate change’ because of the likelihood that people with the poorest health would be hit hardest by the impacts of climate change.

Planning is at the forefront of both trying to reduce carbon emissions and to adapt urban environments to cope with higher temperatures, more uncertain rainfall, and more extreme weather events and their impacts such as flooding. Poorly designed homes can lead to fuel poverty in winter and overheating in summer contributing to excess winter and summer deaths. Developments that take advantage of sunlight, tree planting and accessible green/brown roofs also have the potential to contribute towards the mental wellbeing of residents.

Issues to consider

- Renewable energy
- Sustainable transport
- Building design
- Biodiversity
- Flood risk and drainage.

Assessment criteria	Relevant?	Details/evidence (including population affected)	Potential health impact?	Recommended mitigation or enhancement actions (including person / organisation responsible)
Does the proposal incorporate renewable energy?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	
Does the proposal ensure that buildings and public spaces are designed to respond to winter and summer temperatures, ie ventilation, shading and landscaping.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	
Does the proposal maintain or enhance biodiversity?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	
Does the proposal incorporate sustainable urban drainage techniques?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	

