

Councils Response to Stage 1 Matters, Issues, Questions - Thursday 12 December 2019.

Matter 7 – The Broad Locations for Development – Specific Matters (Policy S6 (i) to (xi))

Main Issue

Whether the detailed policy for each broad location for development is justified, effective and consistent with national policy.

East St Albans S6 (v)

1. Question 1

Is the site suitable for housing and are there any specific constraints or requirements associated with it, or the need for mitigation measures?

- 1.1 Yes, as demonstrated in the Councils strategic site evaluations work, the site is considered suitable for housing. Potential significant constraints, requirements and mitigations were directly considered in the Draft Strategic Site Selection Evaluation Outcomes methodology as set out Planning Policy Committee [March 2018](#).

The evaluation uses the criteria below, based on the approach in PPC reports mentioned above (and as similarly set out in the Call for sites and Local Plan regulation 18 consultation background materials).

Stage 1

1. *Green Belt Review evaluation will be undertaken on the basis of a judgement of impact on (i.e. 'damage' to) Green Belt purposes (taking account of the purposes defined in and considered in the relevant parcel assessment in the GBR). Sites are rated as 'higher impact', 'medium impact' or 'lower impact' (set out as Red Amber Green (RAG)). It is important to remember that the independent Green Belt Review set out that "All strategic parcels in the Green Belt, at least in part, clearly perform a key role". The assessment is a comparative one in the context of understanding relative impacts on the Green Belt. To achieve 'further consideration for development' the site must be evaluated as lower or medium impact (Green or Amber). Any Red rating (higher impact) will rule a site out for further consideration.*

Stage 2

2. *Suitability will set out as (Red Amber Green) if there are any issues which are overriding constraints to development – eg Access, Transport, Heritage, Biodiversity, Flood Risk. Any Red rating will rule a site out for further consideration.*
3. *Availability will set out as (Red Amber Green) if there are any issues which are overriding constraints to development in terms of land ownership, restrictive covenants etc. Any Red rating will rule a site out for further consideration.*

Stage 3

4. *Unique contribution to improve public services and facilities, e.g. public transport - (set out as Red Amber Green). Any Green rating is considered to be potentially significantly positive at a District wide (or even wider) scale.*
5. *Unique contribution to enhancing local high quality job opportunities and the aspirations of the Hertfordshire Local Economic Partnership / Hertfordshire EnviroTech Enterprise Zone - (set out as Green Amber Red). Any Green rating is considered to be potentially significantly positive at a District wide (or even wider) scale.*
6. *Unique contribution to other infrastructure provision or community benefits - (set out as Red Amber Green). Any Green rating is considered to be potentially significantly positive at a District wide (or even wider) scale*
7. *Deliverable / Achievable is there is a reasonable prospect that the development, including all key aspects (including viability) being assessed as part of the overall 'package' proposed, is viable and deliverable (set out as Red Amber Green). Any Red rating will rule a site out for further consideration. 8. An overall evaluation judgement will be recorded (set out as Red Amber Green) as how the site is evaluated for further consideration for development in the Plan."*

1.2 This methodology identified two potential levels of constraints in the site assessment;

- Level 1: Overriding Constrains that would rule out sites as potentially 'suitable'.
- Level 2: Constraints that would need specific requirements and mitigations.

1.3 The following specific constraints were identified as part of the strategic site evaluations;

- Flood Zone 2 and 3.

1.4 The specific constraints, requirements and mitigations are also being taken into account as part of the Masterplanning process, including the mitigation of impacts from flooding (as set out in more detail in response to M7vQ9).

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2. Question 2

What evidence is there to demonstrate that the proposed broad location is capable of delivering 1,250 dwellings?

2.1 The primary evidence is set out in Annex 1 of the draft Local Plan at page 98. This sets out all of the Broad Location area and Base Capacity Calculations in Hectares. For East St Albans this sets out;

Broad Location (BL)	BL Wider Area (Ha) (Purple on Policies Map)	Broad Location Non-Green Belt Area (Ha) i.e. Area to be removed from GB	60/40 resi / non-resi split on BL Wider Area	60/40 resi / non-resi split on non-GB Area	New Education on Site in GB up to (Ha)	Net developable area when education sites are in Green Belt - 80% of Non-Green Belt area	SADC net developable area for capacity calculations x 40 dwellings per hectare =
East St Albans	116.9	52.5	70.1/46.8	31.5/21	22.2		31.5x40 = 1260

2.2 In this instance, 60% of the area to be removed from the GB is used as a basis for the capacity. There is the accompanying assumption that 40% of the area to be removed from the Green Belt is infrastructure and open space. The reasoning for this has been set out as Strategic Local Plan Background Note: Residential Density October 2014 ([HOU 015](#));

Gross density calculations can be used to estimate and illustrate the potential development capacity of a site. The Green Belt Review Part 2 (SKM Enviro Consultancy Study) used the approach that up to 60% of the Gross Development Area (GDA) would be developed (termed Net Development Area) and the remaining 40% would be required to provide infrastructure, main roads, open space and public facilities.

Therefore 31.5 (developable area) x 40 (dwelling per hectare) = 1,260 dwellings. A small rounding down has then been applied to 1,250.

2.3 The appropriate densities to use and areas to which they would be applied was addressed on several occasions at PPC, including in particular PPC report [January 2014](#), which sets out;

It is considered that 40dph is a relatively 'safe', robust assumption which can be readily achieved in suburban location housing developments in the District, particularly with a dwelling mix similar to that indicated in the recent Strategic Housing Market Assessment (SHMA). This simple calculation makes no specific allowance for infrastructure and major open space in larger development areas...

Appendix 1 provides a summary of the "Strategic" Green Belt land releases as recommended by SKM. For these areas SKM identified potential development parcels and calculated a dwelling capacity range based on net densities of 30 – 50dph. It is recommended that Plan policies are developed on the basis of achieving a mid-range overall

target minimum density of 40dph. This will necessitate some higher suburban density forms of development in some locations.

- 2.4 Furthermore, as set out in Strategic Local Plan Background Note: Residential Density October 2014 ([HOU 015](#)), a draft of which was presented to PPC July [2014](#). This includes as M7vQ2 Appendix 1.

Work on density assumptions in the draft Strategic Local Plan (SLP) is based on HCA research, in the form of a density matrix (Table 3.3 from the Homes and Communities Agency Urban Design Compendium – reference below). The matrix links typical residential densities to urban form ('creating urban structure'). It draws on examples of development across the UK and Europe. Average densities are based on case studies analysed as part of the Sustainable Residential Quality: Exploring the housing potential of large sites research. The matrix recommends that residential densities of 30 to 50 DPH (alongside related services) should be applied in suburban locations. This is considered to be relevant to the SKM identified sub areas assessed for the draft SLP, as they are located on the edges of existing settlements and exhibit suburban characteristics.

- 2.5 The landowner / developer team confirmed the capacity was appropriate, deliverable and supported as part of landowner / developer submissions summer 2018.
- 2.6 The landowner / developer team have also confirmed that the capacity was appropriate, deliverable and supported as part of their landowner / developer Local Plan Regulation 19 Publication formal representations in October 2018.
- 2.7 The early Masterplanning work by the Oaklands College team (see other MIQs) also demonstrated that this Broad Location is capable of delivering 1,250 homes. Taking this work forward, as set out in response to M6Q5, discussions are well underway to prepare to start the Masterplanning PPA process in spring 2020.
- 2.8 As addressed in response to other MIQs, it can also be noted that the Broad Location landowner/developer team (Oaklands College) have agreed a Statement of Common Ground. This includes their confirmation that they agree that the 1,250 figure is deliverable.

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3. Question 3

Is the approach to the new primary and secondary school on the site (in relation to the Green Belt) justified?

3.1 Yes, the Council considers that the approach to the new primary and secondary school on the site and their position in relation to the Green Belt is justified. For the avoidance of doubt, it is intended that the primary school will be located within the area removed from the Green Belt and that the secondary school will be located within the area identified as a Site for Education in the Green Belt.

3.2 As set out in response to the closely linked Matter 4 Question 9:

9.1 *Yes, in the context of this District at this time, the Council considers that the approach to secondary school sites in the Green Belt is justified. The District has 19 schools that currently lie within the Metropolitan Green Belt. This includes 8 secondary schools and 11 primary schools. There is no evidence that the location of existing schools in the Green Belt has unreasonably restrained their ability to evolve over time. Indeed, to the contrary, there have been numerous extensions, expansions and changes approved in recent years. Examples of these are set out below;*

School	Application Reference	Description of Development
Sandringham, The Ridgeway, St Albans	5/2018/1384	Two storey detached teaching block, extension to tennis courts, first floor extension to art block, two storey front extension to The Sandpit Theatre and synthetic flooring to outside warm-up area.
	5/2017/1482	All weather external 3G sports pitch and additional car parking
	5/2016/1015	Demolition of existing modular classroom and construction of replacement single storey drama studio
	5/2014/0729	Construction of a new two storey science/maths classroom block, extension to existing art/music block to provide one classroom, extension to existing library/teaching block to provide extended dining and office areas.
Roundwood Park School, Roundwood Park, Harpenden	5/2016/3228	Creation of artificial turf pitch with fencing, floodlighting, storage container and associated works
	5/2010/0599	New sports hall, including changing rooms and associated works
Nicholas Breakspear RC School, Colney Heath Lane, St Albans	5/2011/0592	Changing/teaching building and new multi-use games area with floodlighting to existing school playing field.
	5/2003/2269	Erection of single storey information centre with ancillary rooms and extensions to existing main entrance wing.

9.2 *HCC have consistently raised the example of a school in the Green Belt in the Three Rivers Core Strategy Examination, which the Council acknowledges. However, the situation with this Plan is fundamentally different and so a different approach is justified. It is understood, in the Three Rivers case, that the location of the school build zone was known. A specific understanding of the impacts of amending the Green Belt boundary to accommodate the school building zones was therefore possible. An informed judgment regarding the 'exceptional circumstances', as explicitly required in the NPPF and case law to justify an amendment to the Green Belt boundary, could therefore be made. That is not the case with any of the schools proposed in the Green Belt in this Plan. Whilst overall areas accommodating the schools are known and set out, the position within them of the school build zones and the open space is not yet known. That work is being taken forward as part of Masterplanning and will be crystallised in forthcoming planning applications. The Council is very open to considering the matter again once this Plan is adopted and the school build zones are known, in a review of the Plan.*

9.3 *It is acknowledged that HCC have raised an objection on this issue and that they consider that the policy S3 should be amended in order to remove the school building zones from the Green Belt. It is also acknowledged that this has been HCC's position consistently when raised in DtC discussions and other meetings. SADC's position has also been clear and consistent over time and the authorities have effectively reached a position where they 'agree to disagree' on the issue.*

9.4 *As set out in S3:*

Schools are a key element of infrastructure. They have been successfully provided and retained in the Green Belt in this District in numerous locations over many years. The largely open nature of such sites often makes an important contribution to the Green Belt.

9.5 *As set out in the NPPF at paragraph 35 b):*

b) **Justified** – *an appropriate strategy, taking into account the reasonable alternatives, and based on proportionate evidence;*

9.6 *Overall, the Council considers that its approach is appropriate, taking into account the reasonable alternatives, in the specific context of the District and the evidence at this time.*

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4. Question 4

What further infrastructure work needs to be undertaken, and is this appropriate to be left to the masterplanning stage?

4.1 Yes, further infrastructure work is required to be undertaken, and this has been identified in the Infrastructure Delivery Plan 2018/19 ([INFR 001](#)). A list of infrastructure assessed for capacity is included in M7vQ4 appendix 1. For East St Albans, this is summaries below;

LOCATION	East St Albans Broad Location
Infrastructure	
Transport Infrastructure:	
Strategic - LTP4 major scheme	
Local highway - on & off site	Y
Sustainable travel - public transport	Y
Sustainable travel - walking + cycling on & off site	Y
Education:	
Primary (assumes £8.7m per new 2FE primary school or £12.4m per new 3FE primary school)	1 x 3fe
Secondary (assumes £37.3m per new 8FE secondary school)	1 x 6-8fe
Early years	Y
Green Infrastructure:	CMO
Strategic open space	Y
Local open space / play space	Y
Community Facilities:	
Health sq. m est floorspace provided onsite	299
Other community provision	Y
Neighbourhood Centre / Local Centre sq. m est net floorspace at groundfloor	750
SUDS	Y
Energy Strategy / Renewable energy	Y
Digital Infrastructure	Y

4.2 As set out in Policy S6 v), much of this infrastructure is set out as a policy requirement. As set out in the Council's response to M6 Q5, early stages of progress have been made in relation to the PPA process and Masterplanning for East St Albans. This has included early stages of co-operation with parties expected to deliver this infrastructure such as Hertfordshire County Council, NHS and Developers, and the detail is considered to be appropriate and realistic for this stage of the process.

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5. Question 5

How have heritage assets been considered and is a Heritage Impact Assessment required?

5.1 The Council has directly considered heritage assets as part of the Strategic Site Selection process and the Sustainability Appraisal and in considering the draft Plan wording. The Grade 2 listed buildings and an appropriate buffer that respects their setting are proposed to be retained within the Broad Location.

5.2 The Strategic Site Selection process set out a three stage process of selecting the broad locations, with stage 2 setting out;

Stage 2

2. *Suitability will set out as (Red Amber Green) if there are any issues which are overriding constraints to development – eg Access, Transport, Heritage, Biodiversity, Flood Risk. Any Red rating will rule a site out for further consideration*

5.3 The Sustainability Appraisal, sets out as part of the SA/SEA Objectives;

10. *To identify, maintain and enhance the historic environment, heritage assets and their setting and cultural assets*

5.4 In consideration of the Broad Location S6 v) it was set out in the Sustainability Appraisal that;

There is also uncertainty in relation to the effects on 'historic environment' as whilst the site is not subject to any significant heritage or archaeological constraint, the findings of archaeological studies in nearby areas suggest that there may be some archaeological TRL 63 CPR2570 interest in the sub-area. In addition Grade II Listed Buildings are in close proximity to the site.

5.5 Historic England has raised objections to the Plan, highlighting the lack of evidence to demonstrate that appropriate considerations have been given to the conservation and enhancement of the historic environment, together with a lack of policy criteria for the protection and enhancement of the historic environment in relation to these large sites. In the Councils response as set out in [Regulation 22C](#);

“Cross reference Policy L30 This supports conservation of heritage assets appropriate to their significance and seeks that development which may affect such assets is accompanied by a Heritage Statement. Such heritage assets form only a small proportion of the overall Broad Location, are acknowledged and will be treated appropriately as part of the Masterplanning / planning application processes.”

5.6 A specific Heritage Impact Assessment is not considered to be required at this Plan-making stage. A Heritage Statement and a Heritage Impact Assessment will be required as part of the Masterplanning and planning application processes. These Heritage considerations have

already and will continue to inform the ongoing Masterplanning being taken forward through the PPA process (see other MIQ responses).

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6. Question 6

Has consideration been given to air quality and any mitigation measures?

6.1 Yes the Council has given consideration to air quality and mitigation measures.

6.2 The main references in the NPPF are as follows:

9. Promoting sustainable transport

...

103. *The planning system should actively manage patterns of growth in support of these objectives. Significant development should be focused on locations which are or can be made sustainable, through limiting the need to travel and offering a genuine choice of transport modes. This can help to reduce congestion and emissions, and improve air quality and public health. However, opportunities to maximise sustainable transport solutions will vary between urban and rural areas, and this should be taken into account in both plan-making and decision-making.*

...

15. Conserving and enhancing the natural environment

...

181. *Planning policies and decisions should sustain and contribute towards compliance with relevant limit values or national objectives for pollutants, taking into account the presence of Air Quality Management Areas and Clean Air Zones, and the cumulative impacts from individual sites in local areas. Opportunities to improve air quality or mitigate impacts should be identified, such as through traffic and travel management, and green infrastructure provision and enhancement. So far as possible these opportunities should be considered at the plan-making stage, to ensure a strategic approach and limit the need for issues to be reconsidered when determining individual applications. Planning decisions should ensure that any new development in Air Quality Management Areas and Clean Air Zones is consistent with the local air quality action plan.*

6.3 With regard to air quality, promoting sustainable transport and limiting the need to travel are key factors. Actively managing patterns of growth in support of these objectives has involved planning for sustainable communities, and it this approach which underpins the Local Plan including the Broad Locations and Transport Strategy. It should be noted that the Local Plan sits within a wider range of initiatives within the County and District which relate to air quality including: Air Quality Action Plan, Climate Change Action Plan 2016 and the Green Travel Plan.

6.4 One of the main issues with regard to air quality in the District is transport. The AQMAs for SADC are listed below. LAQM Annual Status Report 2018 states '*This general trend in concentration reduction from 2013 to 2017 could be due to the continual commitment and progress made by the St Albans City and District Council to improve local air quality with the aim to revoke the declared AQMAs.*' Please see extracts from the LAQM Annual Status Report 2018 below. Table 2.2 which shows 'Progress on measures to improve air quality' can be found at M7vQ6 Appendix 1.

Table 2.1 – Declared Air Quality Management Areas

AQMA Name	Date of Declaration	Pollutants and Air Quality Objectives	City / Town	One Line Description	Is air quality in the AQMA influenced by roads controlled by Highways England?	Level of Exceedance (maximum monitored/modelled concentration at a location of relevant exposure)		Action Plan
						At Declaration	Now	Name
St Albans AQMA No. 1	Declared 02/11/2004, and amended in 08/07/2009	NO2 Annual Mean PM10 24 Hour Mean	St Albans	The area comprising of odd numbers 1-7 London Road, 1-11c Holywell Hill and even numbers 2-38 London Road, St Albans.	NO	61µg/m3	41.2µg/m3	Air Quality Action Plan for St Albans City and District Council
St Albans AQMA No. 2	Declared 02/11/2004	NO2 Annual Mean	St Albans	The area comprising of Beechtree Cottages, Hemel Hempstead Road, St Albans (adjacent to junction of M1 (J7) and M10).	YES	52µg/m3	36µg/m3	Air Quality Action Plan for St Albans City and District Council
St Albans AQMA No. 7	Declared 21/09/2004	NO2 Annual Mean	St Albans	An area encompassing a number of domestic properties in Frogmore on Radlett Road and Colney Street in the vicinity of the M25.	NO	44µg/m3	36µg/m3	Air Quality Action Plan for St Albans City and District Council

Conclusions and Priorities

The priorities for the coming year include continuing to work with the Air Quality Action Plan (AQAP) measures, implementing the actions that are ready for completion and working with separate departments within St Albans City and District Council on measures benefitting air quality within the Climate Change Action Plan 2016, the council Green Travel Plan and the Hertfordshire County Council Local Transport Plan 2011 – 2031. The good work already undertaken in relation to the reduction of vehicle idling and to explore new options for promotion and enforcement of anti-idling will continue.

6.5 HCC LTP4 includes the following policies which provides the context within which the Local Plan Policy L18 Transport Strategy sits (the GTPs also provide further information about sustainable transport initiatives). LTP4 sets out:

Policy 1: Transport User Hierarchy

To support the creation of built environments that encourage greater and safer use of sustainable transport modes, the county council will in the design of any scheme and development of any transport strategy consider in the following order:

- *Opportunities to reduce travel demand and the need to travel*
- *Vulnerable road user needs (such as pedestrians and cyclists)*
- *Passenger transport user needs*
- *Powered two wheeler (mopeds and motorbikes) user needs*
- *Other motor vehicle user needs*

...

Policy 19: Emissions reduction

The county council will reduce levels of harmful emissions by:

- Promoting a change in people's travel behaviour to encourage a modal shift in journeys from cars to walking, cycling and passenger transport.*
- Addressing any barriers to and supporting the uptake of ULEVs in the county, particularly where this can positively affect areas with identified poor air quality....*

...

Policy 20: Air Quality

The county council will seek to reduce the impact of poor Air Quality on human health, by:

- Investigating the use of Clean Air Zones.*
- Working with district/borough councils to monitor and assess air pollution levels, and working in partnership with them to deliver any declared AQMA joint action plans.*
- Implementing, monitoring and reviewing the county council's Air Quality Strategic Plan.*

Outcomes

These policies in conjunction with other LTP4 policies seek to reduce Hertfordshire's contribution to greenhouse gas emissions and global climate change, and also reduce the contribution of transport to poor air quality which impacts human health, flora and fauna.

Relevant Supporting Documents

- *Active Travel Strategy*
- *Intalink Bus Strategy*
- *Network Management Strategy*
- *Growth and Transport Plans*
- *Air Quality Strategy*

6.6 The District Local Plan Policy L18 Transport Strategy sits within the framework provided by LTP4 and embeds the LTP4 principles. Some extracts from Policy L18 overall approach is set out below together with reference to 'air quality' in the policy. It is considered that these broad principles provide the foundation of addressing air quality as it relates to transport.

Overall Approach

The policies embedded throughout this Local Plan work in conjunction with HCC and HE led transport planning. Together, they will provide relevant sustainable transport infrastructure and approaches which promote sustainable modes and create a foundation for enabling significant changes in travel behaviour. They encourage and enable shorter journeys to be made by sustainable means, including by walking and cycling, given the wider community benefits of active travel...

The Broad Locations for Development (Policy S6) have been selected in part on the basis of their potential to offer opportunities to achieve sustainable travel outcomes. New school locations have also been selected in part on the basis of their potential to offer opportunities to achieve sustainable travel outcomes....

Particular consideration will be given to planning for...

- *reductions in transport-related emissions and improvement to air quality. This should include measures to improve air quality along major roads, including enabling the removal of Air Quality Management Area (AQMA) designations...*

Transport impacts on air quality

Planning for major development must include an assessment of air quality impacts from traffic (both from the development and on occupants of the development).

Development design and the transport measures associated with the development must include proposals to limit and mitigate impacts. This is particularly the case if there is an effect on a designated Air Quality Management Area (AQMA).

6.7 The SA Report includes SA Objective 7 seeks to ‘Achieve Good Air Quality’ and the related criteria is set out below:

7. Achieve good air quality especially in urban areas

- *To reduce the need to travel by car through planning settlement patterns and economic activity in a way that reduces dependence on the car and maintains access to work and essential services for non-car-owners*
- *To integrate land use and transport planning by for instance:*
 - *Promoting Green Transport Plans, including car pools, car sharing as part of new developments*
 - *Ensuring services and facilities are accessible by sustainable modes of transport*
 - *To ensure that development proposals do not make existing air quality problems worse*
- *To address existing or potential air quality problems*
- *To avoid siting developments that would be sensitive to air quality issues in areas with poor air quality*

6.8 With regard to air quality objective, the SA indicates that no significant effects have been identified. Please see extracts from the SA Report NTS ([CD 011](#)) set out below.

Table 1: Framework of SA/SEA Objectives

SA/SEA Objectives
...
7. Achieve good air quality, especially in urban areas

5.3.5 Air quality (SA Objective 7)

Transport is a key source of air pollution. The provision of new housing and economic development, combined with that in neighbouring local authorities, will contribute to background emissions through an increase in vehicles on the road therefore having an adverse effect on air quality. However, similar to greenhouse gas emissions, focusing housing and economic development in the main settlements and making developments accessible should help to reduce the need to travel and the average distance travelled which should help to reduce growth in airborne emissions. In addition, as the overall vehicle fleet is replaced over time by new vehicle types with reduced levels of pollutant emissions, as well as electric vehicles, so air quality should improve accordingly.

Encouraging the use of more sustainable modes of transport such as walking, cycling and passenger transport over the use of private car (Policy L18 Transport Strategy) as well as requirements to improve walking and cycling links at the .. broad locations should have a positive effect on reducing pollutants from transport.

6.9 With regard to mitigation measures, St Albans including the eastern area, are set to improve in terms of sustainable travel over the plan period. The improved sustainable transport infrastructure for East St Albans area is expected to increase the proportion of journeys undertaken by sustainable travel and active travel.

- The South Central Herts GTP ([INFR 001](#) IDP ref 78 on p169) has considered sustainable travel in the East St Albans area and has identified sustainable transport initiatives. The initiatives are also listed in COMET LP4 SADC Analysis V4 Final ([INFR Oct 2019](#)). Please see M7vQ6 Appendix 2.
- The A414 Corridor Strategy ([Public Consultation Draft 2018](#)) includes consideration of the East St Albans area. A range of initiatives have been identified for segment 7. It includes reference to the Hatfield Road corridor, the Alban Way cycle route and the Sandpit Lane -Coopers Green Lane-Hatfield Avenue route.

6.10 Apart from its geographical location at the edge of St Albans which is a category 1 settlement; mitigation is also provided in terms of on-site provision such as: primary and secondary schools; neighbourhood centre; other community facilities such as recreational space and health provision. These will increase the range of services and facilities available within walking distance of new homes and make the Broad Location more self-contained; thereby facilitating active travel and reducing the need to travel longer distances.

6.11 With regard to East St Albans Broad Location, page 62 & 63 of St Albans Local Plan Sustainability Appraisal Report 2018 ([CD 009](#)) sets out:

5.2.2.8 Policy S6 v) East St Albans Broad Location

... adverse effects have ... been predicted for the 'greenhouse gas emissions' and 'air quality' objectives in relation to additional vehicle trips from the new development....

However the assessment also identified some potential positive effects relating to some environmental objectives, including ... 'greenhouse gas emission' and 'air quality' in relation to the site being relatively accessible to services and facilities....

Positive effects have also been identified for the 'sustainable locations' objective, as the edge of City location makes this site a relatively accessible and sustainable location for housing and there are local shops, services, education and employment opportunities within walking distance and there are bus stops close by. Development of a new neighbourhood centre will further support this objective

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7. Question 7

What is the justification for the investment in Oaklands College?

7.1 Oaklands College is further education college with its largest campus in St Albans and is a key stakeholder in much of the Council's partnership working. The College has over 10,000 students, many of whom are 16-18 year olds who are predominantly full-time on study programmes which will lead on to further education, higher education or employment. The College has a nationally recognised provision for students with high needs, with over 200 students accessing high needs funding, travelling from over ten different local authorities. The College has an extensive and growing apprenticeship provision. It offers higher education in partnerships with the University of Hertfordshire. The College also provides courses for adults to upskill or reskill and to return to employment. As set out in the Plan, a 348 dwelling scheme has been commenced which will enable the College to start delivery on the major campus redevelopment project that has been acknowledged by both the Council and the Secretary of State (see below) as being desperately needed. However, there are still some significant areas of the College that need development and re-development and specific facilitates, including the proposed hydrotherapy pool, for which evidence suggests it should be a requirement, when considering growth at this proposed scale.

7.2 It can be noted that for application 5/2013/2589, allowed on appeal dated 17th November 2017, the Secretary of State in essence considered that investment into the redevelopment of Oaklands College, through the construction of 348 dwellings, to constitute 'Very Special Circumstances';

19. *Like the Inspector, the Secretary of State considers that the importance of the delivery of high quality education is a national and local priority and he notes that this is common ground between the parties. He also notes Oaklands College is agreed to be the main provider of further education in the District and the quality of the educational offer at the College is not in dispute. The Inspector reports that many of the existing buildings are of very poor quality and are wholly unsuited to the provision of the high standard of education which the College continues to provide. Other buildings are temporary structures which have clearly outlived their normal life, and are in a poor state of repair (IR 193) and that a backlog of expensive maintenance has built up, and the running costs of the buildings have escalated (IR 194).*

20. *The Secretary of State acknowledges the clear evidence of the College that it could only fund the scheme by way of residential development and that the Council did not produce any evidence to indicate that alternative external or internal funding was available (IR 195). Furthermore, the Secretary of State agrees with the Inspector that the Council did not put forward any educational or viability evidence to suggest that development on a smaller scale could properly meet the needs of the College and its students (IR 196).*

7.3 A recent (December 2019) statement from Oaklands College regarding the justification for the investment in Oaklands College has been included at M7vQ7 Appendix 1. This reinforces and updates the existing evidence setting out the need and justification for these facilities.

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8. Question 8

What is the evidence to support the provision of a hydrotherapy pool?

- 8.1 This has been addressed in response to Matter 7v Q7, including at Matter 7v Q7 Appendix 1.

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9. Question 9

Is the site suitable for development in relation to flood risk?

9.1 Yes, the site is suitable for development in relation to flood risk.

9.2 NPPF advises

Planning and flood risk

155. Inappropriate development in areas at risk of flooding should be avoided by directing development away from areas at highest risk (whether existing or future). Where development is necessary in such areas, the development should be made safe for its lifetime without increasing flood risk elsewhere.

156. Strategic policies should be informed by a strategic flood risk assessment, and should manage flood risk from all sources. They should consider cumulative impacts in, or affecting, local areas susceptible to flooding, and take account of advice from the Environment Agency and other relevant flood risk management authorities, such as lead local flood authorities and internal drainage boards.

157. All plans should apply a sequential, risk-based approach to the location of development – taking into account the current and future impacts of climate change

158. The aim of the sequential test is to steer new development to areas with the lowest risk of flooding. Development should not be allocated or permitted if there are reasonably available sites appropriate for the proposed development in areas with a lower risk of flooding. The strategic flood risk assessment will provide the basis for applying this test. The sequential approach should be used in areas known to be at risk now or in the future from any form of flooding.

9.3 In selecting strategic sites for Broad Locations, flood risk was into account.

9.4 The most recent Strategic Flood Risk Assessment ([ENV 001- ENV 004](#)) was undertaken jointly by Three Rivers District Council, Dacorum Borough Council, St. Albans City and District Council and Watford Borough Council.

9.5 The Broad Locations were assessed as part of the South Hertfordshire Level 1 SFRA.

Site Name	Area (ha)	Flood Zones					
		% in FZ 3b only	% in FZ 3a only	Total % within FZ3	% in FZ 2 only	% in FZ 1 only	Total % within FZ 3a + 70% climate change
West of Chiswell Green Broad Location	15.12	0%	0%	0%	0%	100%	0%
North of St Albans Broad Location	41.97	0%	0%	0%	1%	99%	1%

North East Harpenden Broad Location	33.67	0%	0%	0%	0%	100%	0%
West of London Colney Broad Location	13.78	0%	0%	0%	0%	100%	0%
East of Hemel Hempstead north	66.94	0%	0%	0%	0%	100%	0%
East of Hemel Hempstead south	59.36	0%	0%	0%	0%	100%	0%
East of St Albans	40.17	0%	0%	0%	0%	100%	0%
North-West of Harpenden	18.16	0%	0%	0%	0%	100%	0%
Former Radlett Aerodrome	4.2176	0%	0%	0%	0%	100%	0%

9.6 The Sustainability Appraisal considered the plan in terms of flood risk, under SA Objective 3 which is replicated below.

3. *Ensure that new developments avoid areas which are at risk from flooding and natural flood storage areas.*

- *To avoid developments in areas being at risk from fluvial, sewer or groundwater flooding (for instance natural flood plains) while taking into account the impacts of climate change*
- *To ensure that developments, which are at risk from flooding or are likely to be at risk in future due to climate change, are sufficiently adapted*
- *To promote properly designed and maintained sustainable urban drainage systems to reduce flood risk and run off and contribute to improved water quality, green and blue infrastructure and function.*
- *To take account of additional surface water generated by new development*
- *To seek opportunities for Natural Flood Management where appropriate.*

9.7 The St Albans Local Plan Sustainability Appraisal Report 2018 Non-Technical Summary ([CD 011](#)) shows that no significant effects have been identified with regard to flood risk and extracts are shown below.

	Reference Term	SA Objective	Significant effects identified
...
3	<i>Flood risk</i>	<i>Ensure that new developments avoid areas which are at risk from flooding and natural flood storage areas</i>	<i>No significant effects identified</i>

In relation to flood risk (SA objective 3), by seeking to avoid development in areas at risk from flooding, ensuring that water and flood risk are fully addressed by new development and requiring SUDS, including flood storage areas, to be incorporated into new developments (Policy L29 Green and Blue Infrastructure, Countryside, Landscape and Trees) there should be a positive effect against this objective. In addition, supporting the creation and enhancement of green infrastructure (also Policy SL29) which could provide for flood alleviation will also help support the achievement of the objective.

9.8 For the East St Albans Broad Location, the SA Addendum ([CD 012](#)) indicates the following assessment.

Policy S6 v) East St Albans Broad Location

3	Flood risk	<p>Approximately 1.5% of the site, in the north-east corner of the site (that has been identified as an education site), lies within in flood risk zones 2 and 3 relating to Butterwick Brook and there would therefore be a potential flood risk for new development. However, the majority of both the wider site and the education allocation is in the lower risk flood zone 1 and therefore the flood risk area could be avoided.</p> <p><u>The 2018 SFRA considers the implications of climate change:</u></p> <ul style="list-style-type: none"> • <u>It shows that none of the site lies in 'Flood Zone 3 + 70%CC'.</u> • <u>It identifies that some parts of the site are classified as 'RoFSW + CC (1 in 100-year + 40% CC). These will need to be taken into account in future masterplanning and detailed design.</u> 			?	?	?
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9.9 Within the wider area of the Broad Location, there is a very small area of flood zone 2 and 3 at a peripheral location, which is associated with the education site. As the vast majority of the Broad Location is within flood zone 1, the flood risk area could be avoided for new built development. The Masterplanning process, which is a policy requirement, will prevent the development of buildings at locations within the flood zone 2 & 3 and take account of areas affected by climate change; and will steer development to areas with a lower risk of flooding.

9.10 Annex 1 of the Local Plan shows that base capacity calculations have been undertaken, which are duplicated below. It can be seen that residential is calculated at 60% of the non-GB area; and non-residential accounts for 40%, which will include provision of green infrastructure and SuDs etc in accordance with policy. The wider Broad Location also contains additional land which is not removed from the Green Belt. The education allocation at 22 ha is larger than school land requirement at LP Appendix 4 (12-15 ha Secondary and 2 ha Primary). Taken together with the small area affected, this provides confidence that the Broad Location has capacity to accommodate any flood requirements which will be subject of more detailed work during the Masterplanning process.

Annex 1 - Broad Location (BL) Area and Base Capacity Calculations (in Hectares – Ha)

Broad Location (BL)	BL Wider Area (Ha) (Purple on Policies Map)	Broad Location Non-Green Belt Area (Ha) i.e. Area to be removed from GB	60/40 resi / non-resi split on BL Wider Area	60/40 resi / non-resi split on non-GB Area	New Education Site in GB up to (Ha)	Net developable area when education sites are in Green Belt - 80% of Non-Green Belt area	SADC net developable area for capacity calculations x 40 dwellings per hectare =	60/40 excluding school but including circa 1 Ha allotment site
North West Harpenden	22.3	18.2	13.4/8.9	10.9/7.3	2.8	14.5* See note below	14.5x40 = 581	
North East Harpenden	43.2	31.7	25.9/17.3	19/12.7			19x40 = 760	
North St Albans	46.7	46.7	28/18.7	28/18.7			28x40 = 1120	
East St Albans	116.9	52.5	70.1/46.8	31.5/21	22.2		31.5x40 = 1260	
Park Street Garden Village	186.0	97.7	111.6/74.4	58.6/39.1			58.6x40 = 2344	
Chiswell Green	15.2	15.2	9.1/6.1	9.1/6.1			9.1x40 = 365	
London Colney	38.1	13.8	22.9/15.2	8.3/5.5	24.5	11.0* See note below	11x40 = 441	
East Hemel South	138.8	115 (98 for calcs*)	76.3/50.9	59/39* See note below			59x40 = 2360	
East Hemel North	159.6	67.7	95.8/63.8	40.6/27* see note below	27.7		40.6x40 = 1624	
North Hemel	87.2	66.8	52.3/34.9	40.1/26.7			40.1x40 = 1604	

Councils Response to Stage 1 Matters, Issues, Questions Thursday 12th December 2019.

Matter 7 – The Broad Locations for Development – Specific Matters (Policy S6 (i) to (xi))

East St Albans S6 (v)

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Strategic Local Plan Background Note

Residential Density

October 2014

Background Note

Residential Density

An earlier version of this note was considered by the Council's Planning Policy Committee on 3 July 2014. This version provides additional examples. The purpose of this Note is to illustrate housing density on some well known sites across St Albans City and District and thus to give a range of comparators for typical residential layouts / designs.

Measuring housing density is a simple way of quantifying the intensity of residential development and efficiency in use of land for housing. The measurement also gives some insight into the environmental character of housing areas.

The Note gives local examples of:

Relationship between gross and net density in recent major residential development

1. Jersey Farm; 1980's
2. Hill End / Cell Barnes; 1990s
3. Napsbury; 1990 / 2000s

Net density calculations

1. New England Street area, St Albans
2. King Harry Lane (new development in progress), St Albans
3. Jersey Farm Estate, St Albans
4. Oaklands Smallford Campus (current housing application as proposed), St Albans
5. Former Oaklands College City Campus housing redevelopment, St Albans
6. Part of Marshalswick Estate, St Albans
7. Part of Chiswell Green
8. Luton Road area, Harpenden
9. Belmont Hill, St Albans
10. Elm Lawns Close, St Albans
11. Land Rear of Sandridge Road, St Albans
12. Waverley Road, St Albans
13. St Albans Hospital site
14. Station Road, Harpenden (a)
15. Station Road, Harpenden (b)
16. Redbourn Lane, Harpenden
17. Luton Road, Harpenden

Calculation and interpretation of residential density

Decisions on what housing density is appropriate for a location are influenced by many different factors.

Building height, block size and housing typology are the main factors that influence the character of an area and perceptions of density.

However, higher density does not have to mean tall buildings with small apartments that fail to relate to local character. In fact, high buildings can be less effective in maximising the use of land, especially in terms of the relationship of developed and open areas.

Good design is crucial to achieve environmental quality. Each design scheme should establish the density appropriate for a particular location taking into consideration factors such as:

- Context - density appropriate to context and allowing respect for surrounding residential character
- Quality of public realm - a legible and stimulating public realm
- Outdoor space - high quality communal space
- Private and public space mix - ability to manage spaces
- Parking - adequate and appropriate car parking levels which do not dominate or detract from the external environment

Additional factors which might determine an appropriate density level include:

- Surrounding built form
- Housing types
- Need for different types of housing
- Need to create variety of densities – density mix
- Capacity of facilities for residents

It is important to remember that density is a product of design, not a determinant of it. Residential density should aim to support local infrastructure such as shops, schools, and local transport. Homes and Community Agency (HCA) “research has shown that there is no correlation between urban quality and density. Developments driven by average densities and shaped by blanket standards (relating to privacy, open space, parking and highway geometry, for example) stultify design and tend to produce lowest-common-denominator blandness.”

In the St Albans City and District Strategic Local Plan (SLP) the factors of what ‘housing types’ and the ‘need for different types of housing’ are particularly important. The draft SLP says: “All new housing development will contribute to a mix of different housing types in residential areas, taking into account the existing pattern of housing in the area, evidence of local need and site specific factors. It will in particular require the inclusion of more small and small to medium-sized housing, including one and two bedroom flats and 2

bedroom houses, in new development schemes in suitable locations, to increase the proportion of such sized units in the district housing stock, to widen choice and to provide more relatively low cost market housing available to buy. Floorspace, as well as room numbers and bedroom numbers, will be considered in judgments of relatively low cost market housing.

The Council requires the affordable housing size, type, and mix to broadly reflect that being provided for the market element of all development.

The Council seeks the provision of a reasonable proportion of housing designed to the lifetime homes standard that can be readily adapted to meet the needs of older people and people with disabilities.

Sheltered housing and extra care housing for older people and those with special needs will be encouraged on suitable sites in areas close to a range of services.

Further detail on requirements for appropriate housing size, type, mix and proportion of lifetime homes will be given in the DLP. “

Measuring density

There are different ways of measuring density, each of which provides different information.

They include:

- Dwellings per hectare (DPH) – this a common measure to indicate residential density. However, apartments at 60dph may actually have smaller built volume than larger houses at 30dph with related garaging.
- Square meters per hectare – measuring amount of floorspace per hectare is another method to illustrate development intensity. It indicates more clearly how efficiently land is being used.
- Floor area ratio (FAR) or plot ratio – this measurement express the ratio between gross floor area and site area. It again indicates the intensity of land use and gives some indication of massing volumes.
- Bedspace per hectare – measuring bedspace per hectare indicates population capacity rather than actual use (as some dwellings may be under-occupied.)
- Habitable rooms per hectare – habitable room and bedspace densities give an indication of resident population and a calculation of population capacity. Calculating habitable rooms per hectare can be helpful in

determination of likely demand for amenities and services such as public transport.

For the purpose of this Note the simple dwellings per hectare has been adopted.

The first part of the Note illustrates how density is viewed at a gross level. It gives examples of the relationship between gross and net density calculations. Gross density calculations can be used to estimate and illustrate the potential development capacity of a site. The Green Belt Review Part 2 (SKM Enviro Consultancy Study) used the approach that up to 60% of the Gross Development Area (GDA) would be developed (termed Net Development Area) and the remaining 40% would be required to provide infrastructure, main roads, open space and public facilities.

The second part of the Note illustrates calculations of net density. A net density measurement includes access roads within the site, private garden spaces, car parking areas, incidental open space and landscape and children's play areas but normally excludes major distributor road, primary schools, open spaces serving a wider area and significant landscape buffer strips.

Net density is the measure of density used for the SKM recommended net development areas and thus is a comparable measure to that used in the illustrations in this Note.

Work on density assumptions in the draft Strategic Local Plan (SLP) is based on HCA research, in the form of a density matrix (Table 3.3 from the Homes and Communities Agency Urban Design Compendium – reference below). The matrix links typical residential densities to urban form ('creating urban structure'). It draws on examples of development across the UK and Europe. Average densities are based on case studies analysed as part of the *Sustainable Residential Quality: Exploring the housing potential of large sites* research. The matrix recommends that residential densities of 30 to 50 DPH (alongside related services) should be applied in suburban locations. This is considered to be relevant to the SKM identified sub areas assessed for the draft SLP, as they are located on the edges of existing settlements and exhibit suburban characteristics.

Illustrative areas analysed for the purpose of this study can be considered in the context of the Density Matrix.

The matrix is reproduced below:

		Option 1	Option 2	Option 3
Car Parking Provision		High 2-1.5 spaces per unit	Moderate 1.5-1 space per unit	Low less than 1 space per unit
Redominant Housing Type		Detached & linked houses	Terraced houses & flats	Mostly flats
Location	Setting			
Site within Town Centre 'Ped-Shed' ↑ Accessibility Index 6 ↓	Central			240-1100 hr / ha 240-435 u / ha Ave. 2.7 hr / u
	Urban		200-450 hr / ha 55-175 u / ha Ave. 3.1 hr / u	450-700 hr / ha 165-275 u / ha Ave. 2.7 hr / u
	Suburban		240-250 hr / ha 35-60 u / ha Ave. 4.2 hr / u	250-350 hr / ha 80-120 u / ha Ave. 3.0 hr / u
Sites along Transport Corridors & Sites close to a Town Centre 'Ped-Shed' ↑ 3 ↓	Urban		200-300 hr / ha 50-110 u / ha Ave. 3.7 hr / u	300-450 hr / ha 100-150 u / ha Ave. 3.0 hr / u
	Suburban	150-200 hr / ha 30-50 u / ha Ave. 4.6 hr / u	200-250 hr / ha 50-80 u / ha Ave. 3.8 hr / u	
Currently Remote Sites ↑ 2 ↓	Suburban	150-200 hr / ha 30-65 u / ha Ave. 4.4 hr / u		

Table 3.3 Density matrix

Average densities are based on case studies analysed as part of the *Sustainable Residential Quality: Exploring the housing potential of large sites* research (LPAC, DETR, GOL, LT and HC, 2000)

(Note: This table is a direct extract from Homes and Community Agency Urban Design Compendium 1. Second row in column one should read 'predominant'.)

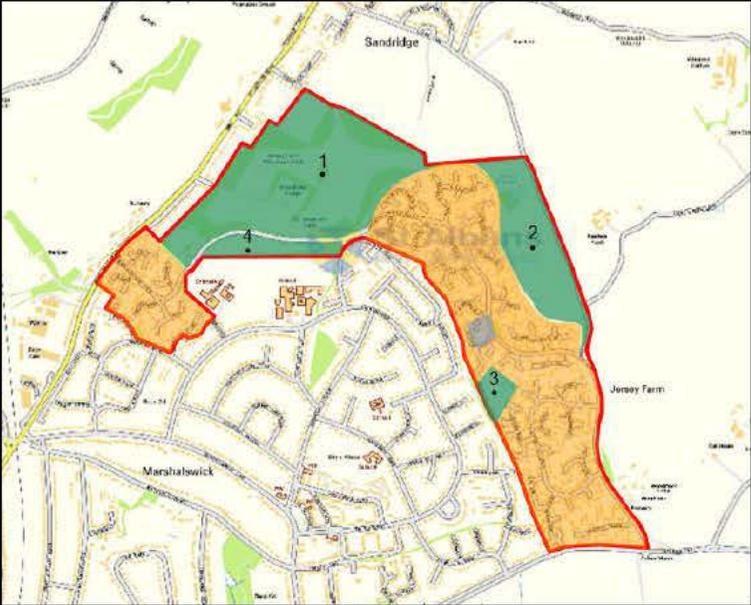
Reference:

Urban Design Compendium 2 (2007), *Delivering Quality Places* (2nd Ed), Homes and Community Agency

Relationship between gross and net density in recent major residential development – local examples

All figures are estimated / rounded (details noted below)

1. Jersey Farm 1980s

JERSEY FARM	Total area of development (Ha)	Area used for infrastructure (Ha) (mainly large open spaces, distributor roads and school sites)	Remaining area for residential development (Ha)	Dwelling numbers	Notes on assumptions / estimates
	102 ha	44 (43%)	58 (57%)	1800	<ul style="list-style-type: none"> • Infrastructure taken as including schools (see below), local centre (1 Ha) woodland park / schools (32 ha) eastern OS (9.5 Ha) local centre OS (1.5 ha) • Above area used for infrastructure includes approximately 25% of Wheatfields and Sandringham school sites to reflect use and expansion for the Jersey Farm estate (albeit this site



- Site boundary
 - Developed area
 - Undeveloped area
 - Local Centre
1. Woodland Park OS
 2. Eastern OS
 3. Central OS
 4. Part of school site OS

Density calculations -
dwellings per Ha (dph)

Gross

1800
dwellings on

Net

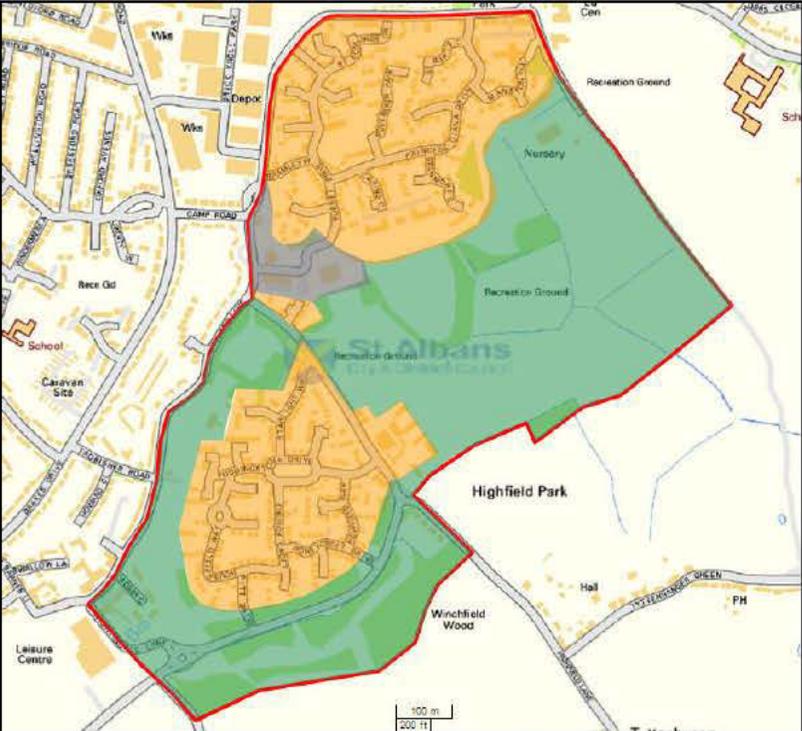
1800
dwellings on

is pre existing and also serves Marshalswick)

- Area used for infrastructure is probably an underestimate as, for ease of calculation, parts of the distributor road corridor and Jersey Lane are not included because they would require micro level area measurement
- Dwelling numbers are estimated as Census super output lower level areas (SOAs 007C, 007B, 008A) and address point area adjustment. SOAs do not co-incide exactly with the estate to the NW corner. A cautious adjustment has been used

	102 Ha = 18 DPH		58 ha = 31 DPH		
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M7vQ2 Appendix 1
2. Hill End / Cell Barnes 1990s

HILL END / CELL BARNES (HIGHFIELD)	Total area of development (Ha)	Area used for infrastructure (Ha) (mainly large open spaces, distributor roads and school sites)	Remaining area for residential development (Ha)	Dwelling numbers	Notes on assumptions / estimates
	<p>78 ha</p>	<p>46 ha 59 (%)</p>	<p>32 ha 41 (%)</p>	<p>800</p>	<ul style="list-style-type: none"> • Infrastructure taken as including local centre (1.8 Ha), Highfield Park recreation areas (26 Ha) and Winchfield Wood OS (13.4 Ha). Full map of the Highfield Park facilities can be found here. The remainder is general open space and community facilities. • Dwelling numbers are estimated from Census super output lower level areas (SAOs) 015A and 015B and address point data



Density calculations - dwellings per Ha (dph)

Gross
800 dwellings on 78 Ha = **10 DPH**

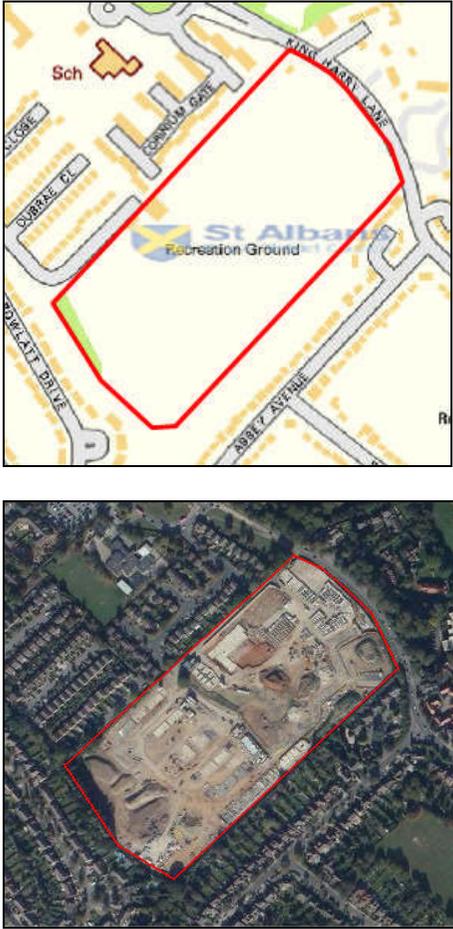
Net
800 dwellings on 32 ha = **25 DPH**

adjustment. SAO 15B covers Tyttenhanger Village and parts of Colney Heath Lane schools.

 <p data-bbox="89 829 828 989"> Site boundary Developed area Undeveloped Area </p>					<p data-bbox="1870 103 2150 319">design context set was in the importance of maintaining the extensive parkland setting</p>
<p data-bbox="78 1173 403 1244">Density calculations - dwellings per Ha (dph)</p>	<p data-bbox="862 1173 1086 1356">Gross 620 dwellings on 60 Ha = 10 DPH</p>		<p data-bbox="1366 1173 1590 1356">Net 620 dwellings on 23 ha = 27 DPH</p>		

Net density calculations – local examples

1. New England Street area, St Albans	Map and Aerial Photographs	Photographs	Density Calculations	Notes
<p>Land enclosed by New England Street to the West, Verulam Road to the North and College Street to the South, St Albans</p> <p>This is a residential area with primarily 2 storey cottage terraced houses built in the 19th Century. Additional residential development took place at the beginning of 20th Century along Verulam Road.</p> <p>The site includes two commercial units and a social use with small pockets of open space.</p>	 	 <p>New England Street</p>  <p>Temperance Street</p>  <p>College Street</p>	<p>The site is 2.5 ha in area and there are 144 dwellings within the site.</p> <p>Net density of this site is 57 DPH.</p>	<p>Some of the space adjoining New England Street has been included in the calculations to illustrate the density with a reflection of the character of the area including some public space.</p> <p>A major factor in high density is total reliance on-street parking.</p>

2. King Harry Lane (new development in progress), St Albans	Map and Aerial Photographs	Photographs	Density Calculations	Notes
<p>The development of this site is divided into two phases. Phase one (northern side) is a proposal for 126 dwellings (16 key worker units, 45 extra care/assisted living units and 65 units of accommodation for the over 55s).</p> <p>Outline planning permission for phase one development was granted on appeal in February 2008.</p> <p>Phase two (immediately to the south of phase one development) is a development of 150 dwellings (ranging from 2 – 2.5 storey houses) Permission for this development was granted on appeal in April 2010.</p>	 <p>The top image is a street map showing the site boundary in red, with labels for 'Sch', 'DURRANT PL', 'CONNUM GATE', 'KING HARRY LANE', 'St Albans Recreation Ground', and 'ABBEY AVENUE'. The bottom image is an aerial photograph of the same site, also outlined in red, showing the surrounding residential area and the 'St Albans Recreation Ground'.</p>	 <p>The top image is an 'Illustrative Masterplan for phase one development' showing a layout of buildings and green spaces. The middle image shows a street view of 'Mortimer Crescent (phase two)' with a row of brick houses. The bottom image is another street view of 'Mortimer Crescent (phase two)' showing a different angle of the brick houses.</p>	<p>The site is 7.8 ha in area the total number of proposed dwellings is 276.</p> <p>Based on these figures, net density for the whole site is 35 DPH.</p>	<p>This is illustrative of a recently permitted development in a suburban location but including some open spaces.</p> <p>Each site has different ownership but both sites share access arrangements and a coordinated design led approach.</p>

3. Jersey Farm Estate, St Albans	Map and Aerial Photographs	Photographs	Density Calculations	Notes
<p>Various parts of Jersey Farm Estate.</p> <p>The development of the whole estate took place across 1970s and 80s.</p> <p><u>Area 1 – North – eastern part of Jersey Farm.</u></p> <p>Permission for development of this site was granted in early the early 1980s.</p>	 	 <p>Lincoln Close</p>  <p>Pirton Close</p>  <p>Sandringham Crescent</p>	<p>Area 1 The site is 6.8 ha in area and there are 156 houses within the site.</p> <p>Net density of this area is 23 DPH.</p>	<p>The site consists of 2 storey detached houses. Average plot size is 300 to 350 m2.</p> <p>All the houses have garages and off street parking.</p>

Area 2 – Southern part of Jersey Farm

This part of Jersey Farm Estate development consists mainly of 2 storey terraced houses.

Permission was granted for the development of 118 Dwellings (60 flats and 58 homes) in the 1970s.



Newgate Close



Newgate Close



Newgate Close

Area 2

The site is 2.8ha wide and there are 88 terraced houses within the site.

Net density for this site is **31 DPH**.

Houses are set back from the street and have relatively large front and back gardens.

There is a significant amount of designated resident parking space and pockets of green open space which explains the relatively low density for a development of terraced housing.

Area 3 – Middle part of Jersey Farm

This is a mixed use area which includes residential dwellings, commercial and community uses

Permission for the commercial Village Centre Development was granted in the late 1970s followed by approval for adjoining residential development in the early 80s.



Harvesters



Twyford Road



Commercial Centre

Area 3

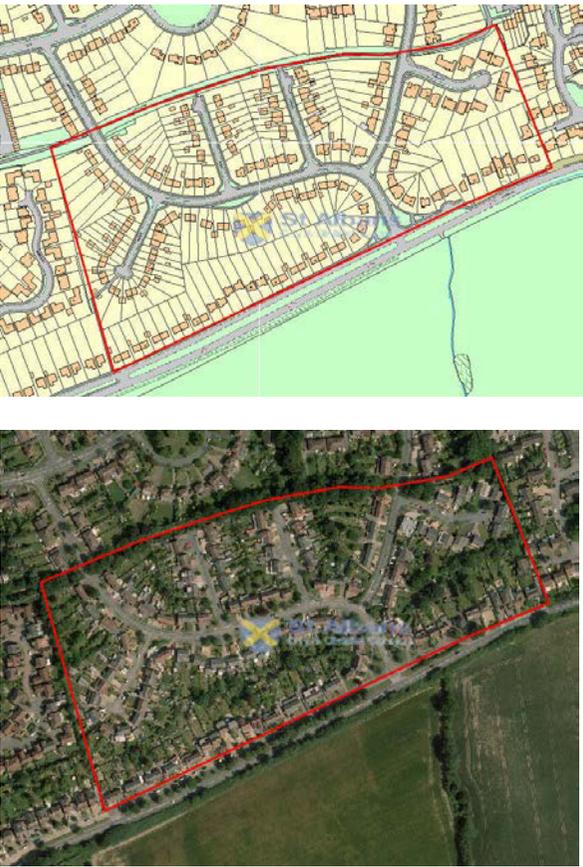
The site in total is 3.5 ha in area. Within the site there are 92 terraced houses, three blocks of flats (equivalent of 42 flats in total) and commercial centre (0.6 ha) which includes neighbourhood supermarket, five small retail units, public toilets, medical and community centre.

After taking away the volume of commercial centre area and its parking, the net density for the site is **46 DPH.**

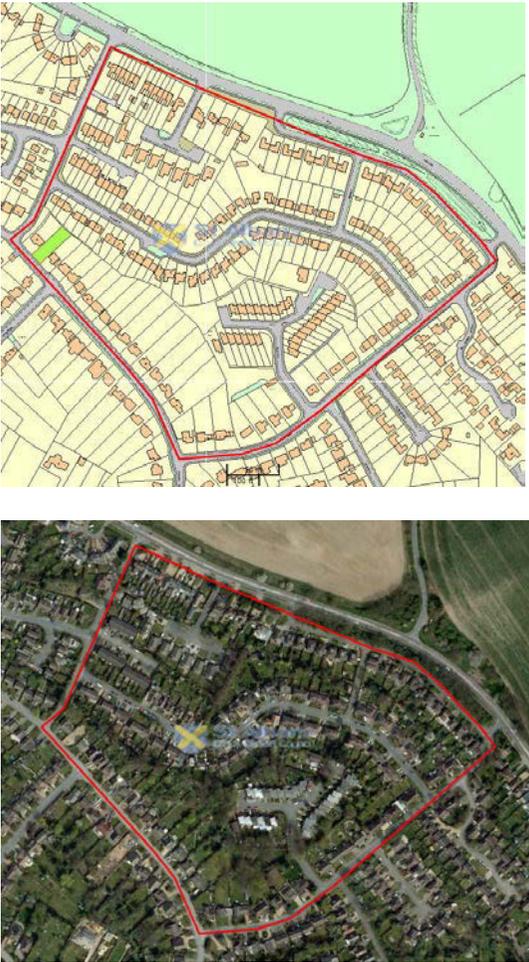
This relatively high density can be explained by the high proportion of terraced housing and flats. Dwellings of this kind are often included in the design of a central area or local centre within a settlement and this will allow higher overall densities to be achieved. It also introduces variation in the character of the built environment.

<p>4 Oaklands Smallford Campus (current housing application as proposed), St Albans</p>	<p>Map and Aerial Photographs</p>	<p>Photographs</p>	<p>Density Calculations</p>	<p>Notes</p>
<p>A full application for comprehensive redevelopment to provide new and refurbished College Buildings and residential development of 348 dwellings, car parking, associated access and landscaping was submitted in May 2013. The application is still under consultation.</p> <p>The area marked on the map is the area proposed by the applicant for residential development.</p>		<p>Landscape proposal</p>  <p>Proposed Residential Layout</p> 	<p>The site is 13.68 ha in area. The application proposes development of 348 residential dwellings.</p> <p>Within the design proposal there is a quite significant amount of structural open space in the northern part of the site and middle of the site.</p> <p>The overall density of the site is 26dph but after taking away the area of structural open space the net density for this development is 31 DPH.</p>	<p>The scheme proposes mainly 2 – 3 storey houses.</p> <p>Density of the site varies depending on character zones. Proposed 'Main Streets' will be lower in density in the range of 30dph. 'The lanes' will be medium density (35dph) and 'Mews Links' will be higher density ranging from 40 - 45dph.</p>

5. Former Oaklands College City Campus housing redevelopment, St Albans	Map and Aerial Photographs	Photographs	Density Calculations	Notes
<p>This is a former Oaklands College City Campus site.</p> <p>Permission for demolition of educational buildings, change of use from educational use to residential use of eight buildings, retention of two building as hall and gym and erection of 15 apartment blocks providing a total of 329 units was granted on an appeal in August 2006.</p> <p>The density calculation is for part of the development - the section now redeveloped.</p>	 <p>The 'Map and Aerial Photographs' section contains two images. The top image is a site plan map showing the development area outlined in red, with various buildings and green spaces labeled. The bottom image is an aerial photograph of the same site, also outlined in red, showing the existing buildings and surrounding urban context.</p>	<p>Newsom Place</p>   <p>Lemsford Road</p>  <p>The 'Photographs' section contains three images. The top image is a photograph of a modern, multi-story apartment building with large glass windows, labeled 'Newsom Place'. Below it is another photograph of a similar building from a different angle. The bottom image is a photograph of a modern apartment building with a mix of brick and glass, labeled 'Lemsford Road'.</p>	<p>The site in total is 3.3 ha in area. Within the site boundary there are 20 apartment blocks (equivalent of 281 dwellings), gym and hall.</p> <p>After taking away the area of the hall/gym buildings the net density for this development is 93 DPH.</p>	<p>The scheme proposes mainly 3 – 4 storey apartment blocks.</p> <p>Parking is at reduced level due to proximity to City services and public transport. Some of the parking is underground. This high density development is appropriate to an urban site, but there is space for extensive landscaping.</p>

6. Part of Marshalswick Estate, St Albans	Map and Aerial Photographs	Photographs	Density Calculations	Notes
<p>Land along Sandpit Lane immediately to the north of current Oaklands application. Marshalswick, St Albans.</p>		 <p>Barnfield Road</p>  <p>Southfield Way</p>  <p>Ardens Way</p>	<p>The site is 8.4 ha in area and there are 170 dwellings within the site boundary.</p> <p>Net density for this area is 20 DPH.</p>	<p>The area consists of 2 – 2.5 storey detached houses with garages/ off street parking and relatively large back gardens.</p>

7. Part of Chiswell Green	Map and Aerial Photographs	Photographs	Density Calculations	Notes
<p>Land enclosed by North Orbital Road to the East and Watford Road to the West, Chiswell Green</p>	 <p>The top image is a map showing a residential area with a red boundary line. The bottom image is an aerial photograph of the same area, also with a red boundary line.</p>	 <p>Manor Drive</p>  <p>Watford Drive</p>  <p>Forefield</p>	<p>The site is 9.7 ha in area and there are 145 dwellings within the site boundary.</p> <p>Net density for this area is 15 DPH.</p>	<p>The site consists of a mixture of house types from 1 storey bungalows to 2.5 storey detached houses.</p>

8. Luton Road, Harpenden	Map and Aerial Photographs	Photographs	Density Calculations	Notes
<p>Land enclosed by Luton Road to the North and Tuffnells Way to the South, Harpenden</p>	 <p>The top image is a map showing the site boundary in red, with buildings in yellow and green areas. The bottom image is an aerial photograph of the same area, also with the site boundary outlined in red.</p>	 <p>Ridge Avenue</p>  <p>Wells Close</p>  <p>Tuffnells Way</p>	<p>The site is 10.8 ha in area and there are 190 dwellings within the site boundary.</p> <p>Net density for this for this site is 17 DPH.</p>	<p>There is a mixture of house types. From 1 storey bungalows to 2 – 2.5 storey terraced and detached houses.</p> <p>Plot sizes vary from 1100 m2 to 215 m2.</p> <p>Most gardens are substantial and there is generally ample off street parking.</p>

9. Belmont Hill, St Albans

De Tany Court at Belmont Hill, St Albans (former playing fields)

Map and Aerial Photographs



Photographs



De Tany Ct and related open space (part of former playing field)



De Tany Ct



De Tany Ct

Density Calculations

The site is 2.24 ha in total and there are 80 dwellings within the site.

Main open spaces are 0.3 ha in total. These are retained parts of the former playing fields and can be regarded as more than amenity open space included in a net area.

Density of this site is **35 DPH**.

If calculated without play area and open space (south east of the site) the density of this site is **41 DPH**.

Notes

This is a residential area with a mix of 2-3 storey houses and maisonettes built in late 80s.

The site includes a substantial play area and riverside open space serving the wider area and small pockets of integral open space.

10. Elm Lawns Close, St Albans

Elm Lawns Close, off Avenue Road, St Albans

Map and Aerial Photographs



Photographs



Elm Lawns Close



Avenue Road

Density Calculations

The site is 0.4 ha in total and there are 24 dwellings within the site.
 Net density of this site is **60 DPH**.

Notes

This residential development is a mix of 2- 3 Storey houses
 This is a small site, but it illustrates higher density development with car parking in a cul de sac layout. It comprises housing in terraced form.

11. Land Rear of Sandridge Road, St Albans

Archers Fields; R/O 168 Sandridge Road, St Albans

Map and Aerial Photographs



Photographs



Sandridge Road



Archers Fields



Archers Fields

Density Calculations

The site is an urban infill of 0.75 ha in total. There are 27 dwellings within the site.

Net density of this site is **36 DPH**.

Notes

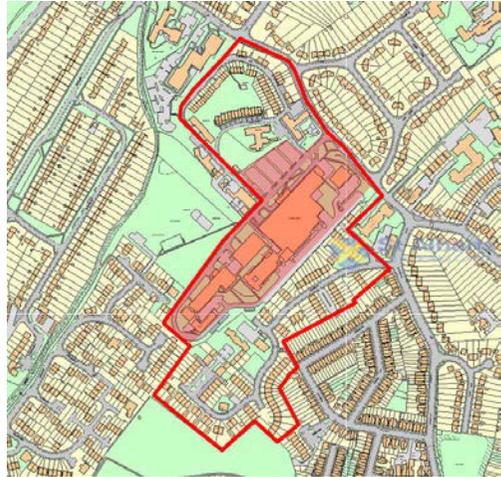
The site consists solely of 2 storey houses, with gardens. They are mainly terraced, but including some linked detached and detached. There is no integral / amenity open space. There is a substantial unused road frontage (south side of access road) which results in a lower density figure than the layout would achieve if the site were not urban infill, fitting into an existing urban layout.

12. Waverley Road, St Albans	Map and Aerial Photographs	Photographs	Density Calculations	Notes
<p>Pegasus Place off Waverley Road, St Albans</p>		 <p>Pegasus Place</p>  <p>Waverley Road</p>	<p>The site is an urban infill development of 0.74 ha in total. There are 36 dwellings within the site.</p> <p>Net density of this site is 49 DPH.</p>	<p>The site consists entirely of 2-3 storey terraced houses with associated parking and landscaping. The houses have small gardens. There is no integral amenity open space.</p>

13. St Albans Hospital Sites

Land adjacent St Albans Hospital, Waverley Road, St Albans.

Map and Aerial Photographs



Photographs



Goldsmith Way



Newmarket Ct



Waverley Road with entrance to St Albans City Hospital

Density Calculations

The overall site is 9.2 ha in total. The main hospital site (shaded in red) is 3.2 ha. There are approximately 290 dwellings within the remaining site (6 Ha).

Net density for the overall site is **48 DPH**.

Notes

The area includes a wide range of dwelling types including some substantial blocks of small flats.

The overall site calculation includes some significant areas of open space, the site of a hospice and other hospital related uses.

Densities within the overall site vary greatly.

Some sub areas where dwellings are predominantly 2 -3 storey houses are considered separately below.

1. Goldsmith Way



Goldsmith Way



The site shaded in red is 2 ha in total and there are 71 dwellings within selected site.

Net density for this site is **35 DPH**

Dwellings are 2-3 storey houses. Within the site there are pockets of open space and significant amount of on-street and off-street parking.

2. Newmarket Court



Newmarket Court



The site shaded in red is 1.1 ha in total and there are 43 dwellings within selected site.

Net density for this site is **39 DPH**

The site is a mixture of houses and flats with significant amount of on and off street parking space.

14. Station Road, Harpenden (a)

Mallard Mews / Station Road / Waveney Road, Harpenden

Map and Aerial Photographs



Photographs



Mallard Mews



Waveney Road



Station Road

Density Calculations

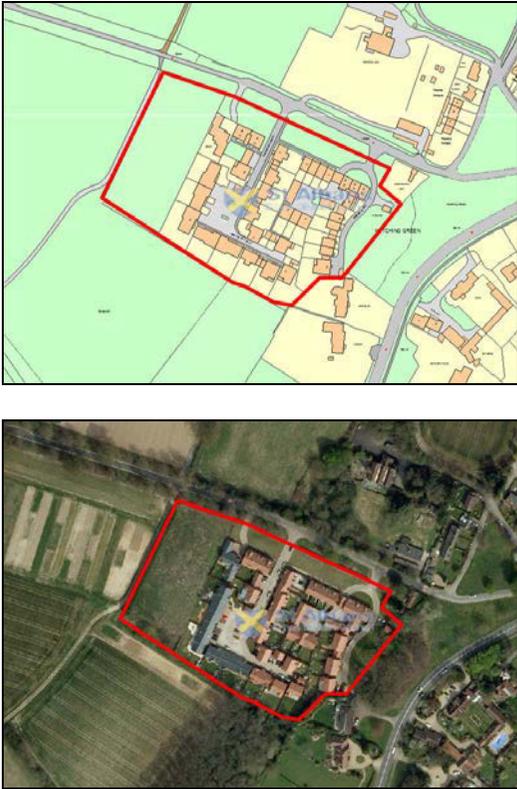
The site is 0.25 ha in total and there are 15 dwellings within the site.

Density of this site is **60 DPH.**

Notes

This is an infill development with a mix of 2.5 – 3 storey flats and houses and apartments. This is a part cul de sac part street frontage development.

15. Station Road, Harpenden (b)	Map and Aerial Photographs	Photographs	Density Calculations	Notes
<p>Station Road, Harpenden (flats)</p>		 <p>Station Road</p> <p>Station Road</p> <p>Station Road</p>	<p>The application site is 0.41 ha in total and there are 48 dwellings within the site.</p> <p>Net density of this site is 117 DPH.</p>	<p>This development consists of 2-3 three storey blocks of flats with associated parking spaces to rear of blocks.</p>

16. Redbourn Lane, Harpenden	Map and Aerial Photographs	Photographs	Density Calculations	Notes
<p>Former Central Science Laboratories, Redbourn Lane, Hatching Green, Harpenden</p>	 <p>The map and aerial photographs show the site boundary in red. The map is a planning map with various colored zones (green, yellow, orange). The aerial photograph shows the site's location relative to surrounding fields and roads.</p>	 <p>Three photographs are provided: a close-up of a brick building with a driveway, another view of a brick building with a driveway, and a view of a road leading to the site through greenery.</p> <p>Manor Close</p> <p>Manor Close</p> <p>Hatching Green (road leading to the site)</p>	<p>The overall site is 1.9 ha and there are 39 dwellings within the site.</p> <p>Density of this site is 20 DPH.</p> <p>If calculated without the surrounding open space (approx. 0.63 Ha) then the net density of this development is 32 DPH</p>	<p>This residential development includes 2 storey housing with a mix of terraced, linked detached and detached forms. There is a mix of on-street and off-street parking.</p> <p>There is a substantial setting of open space related to the overall character of the area. This more than integral amenity open space.</p>

17. Luton Road, Harpenden

40 Luton Road, Harpenden

Map and Aerial Photographs



Photographs



View from Townsend Road



View from Luton Road



Luton Road

Density Calculations

The site is 0.14 ha in total and there are 9 dwellings within the site.
Density of this site is **64 DPH.**

Notes

This residential development consists of 9 apartments in a 3 storey building with accommodation in the roof space and undercroft parking.

This is a small infill / redevelopment scheme, but it illustrates how higher density components within an overall area / scheme can contribute to character.

8. Assessment of Infrastructure Capacity

Table 2: Infrastructure to be assessed in the IDP

Infrastructure Category	Sector	Infrastructure Type
Social & Community Infrastructure	Health Infrastructure	<ul style="list-style-type: none"> • GPs • Hospitals & Acute Provision
	Health and Community Services	<ul style="list-style-type: none"> • Adult Care Services • Mental Health Care
	Education Infrastructure	<ul style="list-style-type: none"> • Primary Education • Secondary Education • Further Education • Early Education & Child Care Provision
	Emergency Services	<ul style="list-style-type: none"> • Police Services • Fire & Rescue Services
	Leisure and Cultural Facilities	<ul style="list-style-type: none"> • Sports & Leisure Facilities • Cultural Services & Public Realm • Libraries • Cemeteries
Green Infrastructure	Strategic Green Infrastructure	<ul style="list-style-type: none"> • Forests • Country Parks • Ecological Networks • Rights of Way • River Corridors • Flood risk
	Local Green Infrastructure	<ul style="list-style-type: none"> • Allotments • Amenity Green Space • Natural & Semi-Natural Green Space • Parks & Gardens • Playing Pitches • Children's Play Areas • Teenage Provision
Physical Infrastructure	Strategic & Local Transport	<ul style="list-style-type: none"> • Road Network • Public Transport • Walking & Cycling Infrastructure • Parking
Utilities	Water Infrastructure	<ul style="list-style-type: none"> • Water Supply • Water Drainage & Sewerage
	Energy Distribution	<ul style="list-style-type: none"> • Electricity Distribution • Electric Vehicle Charging • Gas Transmission & Distribution • Onsite Energy Provision
	Digital Infrastructure	<ul style="list-style-type: none"> • Internet Access
	Waste Infrastructure	<ul style="list-style-type: none"> • Waste & Recycling

Table 2.2 – Progress on Measures to Improve Air Quality

Measure No.	Measure	EU Category	EU Classification	Organisations involved and Funding Source	Planning Phase	Implementation Phase	Key Performance Indicator	Reduction in Pollutant / Emission from Measure	Progress to Date	Estimated Completion Date	Comments / Barrier to implementation
1	Investigate the status of on-street parking in the AQMA and determine if parking is contributing to traffic congestion at each junction. Investigate the provision of on-street loading facilities and co-ordinated timings of deliveries.	Traffic Management	Other	SADC/HCC	2017/18	2019	Parking restrictions in place	See note 1 at end of table	The Parking Team have been consulting on proposals to amend parking restrictions to improve traffic flows during 2019/20. Work on Belmont Hill has commenced. Loading restrictions are in place during peak traffic hours near the shops and these will continue to be enforced. This measure is within the ongoing work programme for new Traffic Regulation Orders being looked at annually.	2019/20	
2	SADC will assert comprehensive control over Part B/Part A2 processes for smaller scale industries under the environmental permitting (England & Wales) regulations 2007.	Environmental Permits	Other	SADC	NA	Annually	Number of inspection	See note 1 at end of table	All processes are risk rated annually and inspection frequency determined based upon risk. Programmed annual inspections to April 2018, are currently up to date. Processes operating without a permit are identified and appropriate enforcement action taken.	Continuous	
3	SADC will investigate complaints about nuisance (domestic and industrial emissions).	Public Information	Other	SADC	NA	On receipt	Time taken to resolve complaints	See note 1 at end of table	Complaints are investigated as and when received.	Continuous	
4	Continue to monitor air quality within the district and as necessary review the suitability of monitoring locations in line with DEFRA guidance TG16	Policy Guidance and Development Control	Other	SADC	2018	Continuous - Reviewed July 2018	Data capture	N/A	The details of diffusion tubes and continuous monitoring are recorded on http://www.stalbans.gov.uk/environmentandwaste/pollution/air-pollution/	Continuous	
5	To increase bus patronage and encourage modal shift from the car to public transport.	Transport Planning and Infrastructure	Bus route improvements	SADC/HCC		2017-19	Service numbers	See note 1 at end of table	St Albans Bus Users Forum provides a platform for bus users, bus service operators and HCC Passenger Transport Team to discuss services and hear about service improvements	Ongoing Meets twice yearly.	

Measure No.	Measure	EU Category	EU Classification	Organisations involved and Funding Source	Planning Phase	Implementation Phase	Key Performance Indicator	Reduction in Pollutant / Emission from Measure	Progress to Date	Estimated Completion Date	Comments / Barrier to implementation
6	To investigate the feasibility of a Clean Air Zone	Promoting Low Emission Transport	Low Emission Zone (LEZ)	SADC / HCC	2018	NA	Vehicle counts	N/A	To investigate suitability and eligibility for funding for Clean Air Zones via DEFRA		An Air Quality Update report was considered at the CESSC meeting held on 6th September 2018. At this point DEFRA had not released their eligibility criteria, but advised that they would in October 2018. St Albans were eligible to apply and submitted a bid on 30th November 2018. Grant awards ought to be released by March 2019.
7	Pilot the Station Travel Plan.	Promoting Travel Alternatives	Other	HCC	2010		Usage figures	See note 1 at end of table	Station Travel Plan – the travel plan documents are very limited in scope and it will require a Station Travel Plan working group to be established to take ownership of the plan and move towards achieving the objectives. It has been decided to wait until the station development is completed before setting up the working group.		
8	Community Rail Partnership (CRP) The Abbey Line.	Promoting Travel Alternatives	Promote use of rail and inland waterways	SADC/HCC	2010	2011-2016	Usage figures	See note 1 at end of table	Community Rail Partnership (The Abbey Line) – the shuttle bus was found not to be commercially viable so has been withdrawn. The CRP is working closely with the new operator LNR to find ways to engage with communities along the line. This includes a campaign to recruit more station adopters and a primary school engagement programme.		
9	Investigate possibility of road signs to discourage through traffic.	Traffic Management	Other	HCC	2017/18	2018/19	Traffic counts	See note 1 at end of table	Variable Message Signs to be activated during city centre events to inform motorists of delays and parking options.	Continuous	
10	Investigate introduction of additional electric charging at council car parks within the District	Promoting Low Emission Transport	Procuring alternative Refuelling infrastructure to promote Low Emission Vehicles, EV recharging, Gas fuel recharging	SADC	2019/20	2021/22	Usage figures	See note 1 at end of table	Further work on this measure is dependent on preferred service provision options arising from work on the procurement of the car parking contracts. Existing EV charge points in the District are owned and maintained by HCC. HCC is developing a strategy and guidance, together with a Framework to support local Councils proposing to extend existing capacity.	Continuous	

Measure No.	Measure	EU Category	EU Classification	Organisations involved and Funding Source	Planning Phase	Implementation Phase	Key Performance Indicator	Reduction in Pollutant / Emission from Measure	Progress to Date	Estimated Completion Date	Comments / Barrier to implementation
11	Consider requiring developers to install electric charging points in new developments under S106 agreements.	Promoting Low Emission Transport	Procuring alternative Refuelling infrastructure to promote Low Emission Vehicles, EV recharging, Gas fuel recharging	SADC	2018/19	Following implementation of SLP and subject to discussions with Planning Dept. for inclusion in the detailed Local Plan	Installation figures	See note 1 at end of table	We provided a response to the SLP consultation. Further discussions with the Planning Department regarding formulation of St Albans AQ Planning Policy Guidance to provide consistency of advice to developers across Herts & Beds are continuing. Electric Vehicle Charge Points to be installed in new Harpenden Sports and Leisure Centre	2019/20	
12	Consider an increase in car parking charges with the view to making bus travel a more attractive alternative.	Promoting Travel Alternatives	Other	SADC	2018/19	2019/20	Car park volume figures	See note 1 at end of table	Annual review undertaken. Potential price increase in car park charging is under negotiation.	Continuous	
13	Continue the Trees Against Pollution project and explore green wall/hedging opportunities	Transport Planning and Infrastructure	Other	SADC	2017/18	2018/19	Number of trees planted: 600,000	See note 1 at end of table	Heartwood Forest – this is a new mixed native woodland on private land owned by the Woodland Trust to the north of Sandridge village. The planting of 600,000 trees (mainly as whips or forestry transplants) on approximately 370 hectares commenced in 2009 and was completed in 2017/18, planted entirely by volunteers. Woodland planting has been negotiated on BRE and Harperbury and we are in negotiation on the current Hanstead Wood Application. SADC have an annual programme of tree planting within parks and open spaces (currently £6Kpa). In addition, a special tree planting project was set up to run 2016-2019, value £25K.	Continuous	

Measure No.	Measure	EU Category	EU Classification	Organisations involved and Funding Source	Planning Phase	Implementation Phase	Key Performance Indicator	Reduction in Pollutant / Emission from Measure	Progress to Date	Estimated Completion Date	Comments / Barrier to implementation
14	Cycling and walking strategy	Promoting Travel Alternatives	Promotion of cycling	SADC / HCC	2016/17	2018/19	Usage figures	See note 1 at end of table	<p>Cycling (2008) and Walking (2009) strategies in place. SADC Green Travel Plan sets out a range of actions to reduce emissions from staff travel.</p> <p>Staff cycle scheme to be relaunched in Spring 2019. Improvements and investments in cycling and walking infrastructure include;</p> <ul style="list-style-type: none"> • Implementation of the St Albans Green Ring route project. • Production of revised St Albans Cycling map to be launched Spring 2019. • Construction of cycle and walking paths in Verulamium Park. • Provision of secure cycle parking racks within the city centre and at rail stations. • Upgrading and resurfacing of the Alban Way Leisure path. • Installation of Trixie mirrors at key junctions within the city centre • Installation of new section of shared footpath/cyclepath London Road, St Albans • Early cycle release traffic signals at Hatfield Road, St Albans • Improved access to Nickey Line in Harpenden. • New link from Alban Way to St Albans City Rail station. • Provision of way finding monoliths within the city centre. 	Continuous	
15	Taxi emissions.	Promoting Low Emission Transport	Taxi Licensing conditions	SADC	2017/18	2018/19	Certificate of Compliance data	See note 1 at end of table	<p>Emissions controlled through Certificate of Compliance at garage check.</p> <p>The frequency of checks is dependent upon the age of the vehicles;</p> <p>1 – 5 years old; annually 5 – 7 years old; every 6 months</p> <p>Over 7 years old; every 4 months</p> <p>Vehicle Licence Conditions amended to include the following;</p> <p>Any taxi driver can licence a fully electric vehicle as long as it complies with the hackney carriage and private hire vehicle licence conditions. This type of vehicle attracts a discount of £60</p> <p>The Licensing and Regulatory committee have commissioned a feasibility study into the infrastructure/technological and financial implications of supporting electric taxis across the district. A draft action plan from the feasibility study task and finish group is a Licensing and Regulatory committee agenda item for its January 2019 meeting following the submittal of the grant.</p>	Continuous	

Measure No.	Measure	EU Category	EU Classification	Organisations involved and Funding Source	Planning Phase	Implementation Phase	Key Performance Indicator	Reduction in Pollutant / Emission from Measure	Progress to Date	Estimated Completion Date	Comments / Barrier to implementation
16	Campaign to raise awareness of air quality and the impact on air quality, of idling engines (when parked)	Public Information	Via the Internet	SADC	2016/17	2018/19	Media coverage	See note 1 at end of table	The Anti-idling campaign was run during 2017 and 2018. This raised awareness of the issue and urged car, van, lorry, bus and taxi drivers to switch off their engine when parked or stationary for more than a minute. It included social media activities, letters, school engagement activities, market stalls, Idling Action St Albans events and information leaflets issued with resident car parking permits. The following numbers were spoken to as part of the campaign: School engagement total 1,700; Community engagement 696 In 2019 we are looking at the possibility of installing street signage to encourage drivers outside schools to turn off their engines when stationary.	2019	
17	Retrofitting of existing bus fleet to lower pollutant emissions	Promoting Low Emission Transport	Other	SADC/HCC		N/A	Number of buses retrofitted	See note 1 at end of table	St Albans were part of a Herts & Beds bid application to DEFRA to work with Arriva Southern Counties to retrofit all pre-Euro 6 buses operating on the bus routes running through the Hertfordshire AQMAs. Arriva Southern Counties operate bus routes through AQMAs within five Local Authority Areas within Hertfordshire: Dacorum Borough Council, East Hertfordshire District Council, North Hertfordshire District Council, St Albans City and District Council and Watford Borough Council. The bid was to retrofit approx. 90 buses costing approx. £1.4 million. Funding was not awarded.	Complete	
18	Freight Management Plan	Freight and Delivery Management	Other	SADC	2014/17	2018	Numbers of vehicles and routes taken	TBC	Project is on hold pending possibility of feeding into larger scale project (feasibility of CAZ) subject to funding stream being available. Outcome of bid application due by March 19.	Ongoing	
NOTE 1 - It is not possible to specifically quantify the impact of small scale projects that the Council are working on with partners. However individual & cumulative AQ measures which reduce emissions are beneficial to improving pollutant levels both AQMA's and the District generally.											

6.1.3 Further analysis of the LP4 results shows there are 6 other locations within SADC which may require further mitigation considerations as detailed below. This report only contains high level suggestions of possible mitigation measures which should be investigated further by SADC/HCC.

Table 4: Commentary on sustainable transport measures in light of LP4 results from SC GTP Schemes

Package	Location	Scheme Code	Scheme Details	Scheme Details	Indicative Commentary on Schemes from LP4
PK 9	St Albans-Welwyn Garden City Connectivity	SM67	Coopers Green Lane Active Travel Infrastructure SW of Hatfield Avenue (towards St Albans)	Coopers Green Lane reimagined as a multi-modal corridor with reduced traffic speeds and provision made for pedestrians and cyclists. Segregated cycling and footway infrastructure along Coopers Green Lane to be provided as far as Sandpit Lane, and a new route along Sandpit Lane as far as Woodstock Road.	LP4 indicates there is congestion on the approaches to the Hatfield Avenue / Coopers Green Lane junction. Additionally some congestion on the approach to A1(M) junction. Any scheme which may reduce capacity is likely to intensify congestion and delays in this area.
		PR68	Coopers Green Lane Speed Limit Reduction	Reduced speed limit along Coopers Green Lane to support active transport infrastructure and reflect more urbanised environment along route adjacent to the NW Hatfield development	
		SM207	Sandpit Lane cycle improvements	New and improved cycle route provision along Sandpit Lane, off-road where feasible utilising footways which are widened and converted to shared use. Provide a link between Coopers Green Lane, the new Oaklands development, Verulam School and onwards towards St Albans city centre and the St Albans Green Ring	Some congestion shown in LP4 along Sandpit Lane, specifically at the Beechwood Avenue junction. Reducing capacity from roads to cycling infrastructure may be possible along some segments of Sandpit lane but near the town centre, off road options would be more cyclist friendly.

	SM153	St Albans Green Ring 'Spoke' Routes	St Albans Green Ring 'Spoke' Routes - New cycle 'spoke' route - better signposting between the City Station, Hatfield Road and the Alban Way in the vicinity of Flora Grove, Breakspear Avenue, Vanda Close and Camp Road.	<p>These measures would help reduce reliance on the private car in these areas. Routes between southern St Albans and Hatfield do experience some congestion, particularly around the A1081/A414 junction at London Colney and approaches to/from the A1(M). The Alban Way would provide a viable alternative to these routes and also reduce flows on the A1081 between London Colney and St Albans. LP4 modelling results would suggest that there is some capacity on the radial routes east of St Albans therefore there may be scope for some road space to reallocate to cycle lanes that link to the Alban Way.</p>
	PR154	Alban Way Lighting	Alban Way Lighting - Implement lighting along Alban Way, either 'always on' or sensor activated.	
	PR155	Alban Way Wayfinding	Alban Way Wayfinding - Wayfinding to Alban Way in St Albans And Hatfield. Extension of Alban Way branding/signage/wayfinding beyond the extents of the actual cycleway to provide easier wayfinding to it.	
	PR156	Alban Way Cycle Signage	Alban Way Cycle Signage- Improved cycle signage along Alban Way. Include 'reference point' signage to provide an indication to cyclists of where they are in relation to nearby prominent land use features, and distances/estimated journey times to key locations.	
	SM157	Alban Way Physical Improvements	Alban Way Physical Improvements -"Physical improvements including surface, crossings, general maintenance, etc. Maintain the crossing over the Abbey Line as a priority, and incorporate into any improvement scheme. Investigate sensor lighting. Manage vegetation along the route, and clear leaf mould regularly from the relatively new surface to avoid mud building up. Investigate widening and lighting the path as it passes through Hatfield, especially to the east of the Galleria, or consider alternative busier routes as part of the Hatfield regeneration plans."	
	PR158	Alban Way Marketing and Promotion	Alban Way Marketing and Promotion - Marketing and promotion of Alban Way as an attractive sustainable transport connection alongside Hatfield regeneration plans.	

PK28	Hatfield Road Corridor - St Albans	PR169	Hatfield Road Parking Study	Hatfield Road Parking Study - Undertake parking study to understand parking requirements and investigate potential for removal of parking along Hatfield Road. Prior to any changes being implemented, any study should also involve consultation with local residents and businesses and an impacts assessment undertaken to determine if there would be any detrimental effect on local businesses.	Hatfield Road suffers from congestion and delays at its eastern end approaching Hatfield. This could be combined with promotion of the Alban Way to encourage sustainable travel between the towns. COMET does not consider parking (which limits road capacity) and the road is only one lane in each direction, however any reduction in speed limit would probably increase the congestion along this route (or reallocate to parallel routes).
		PR170	Hatfield Road Bus Priority and Improvements	Investigate options for bus improvements, such as improved bus stops with real-time service information, and priority measures along Hatfield Road in order to improve reliability and reduce travel times on routes to Hatfield/WGC.	
		SM171	Hatfield Road Urban Realm Improvements	Hatfield Road Urban Realm Improvements - Urban Realm Improvements along Hatfield Road to improve conditions for pedestrians and improve amenity of the high street, potentially as a result of parking removal along all or part of the street as recommended by the parking study (PR169).	

PK34	St Albans-Hatfield Local Connectivity	SM180	Traffic Routing Signage	Traffic Routing Signage - Review and renew signage within St Albans and the surrounding area to ensure motorists are directed towards the A414 for making onward journeys on the A1(M).	LP4 indicates there is congestion on the approaches to the Hatfield Avenue / Coopers Green Lane junction. Any scheme which may reduce capacity is likely to intensify congestion and delays in this area.
		PR197	St Albans-Hatfield Local Bus Route Improvements	Support improvements to local stopping bus services between St Albans and Hatfield, including increased frequencies and extended hours of operation (Service 724 will need to be considered in conjunction with Bus Rapid Transit line which will provide wider connectivity across Hertfordshire).	
		SM67	Coopers Green Lane Active Travel Infrastructure (SW of Hatfield Avenue)	Coopers Green Lane Active Travel Infrastructure (SW of Hatfield Avenue) - Cycling and footway infrastructure along Coopers Green Lane, including link to Hatfield Business Park.	
		PR68	Coopers Green Lane Speed Limit Reduction	Reduced speed limit along Coopers Green Lane to support active transport infrastructure and reflect more urbanised environment along route due to Symondshyde development.	



9th December 2019

What is the justification for investment in Oaklands College?

Oaklands College is a general further education college. Further education colleges in England provide high-quality technical and professional education and training for young people and adults. They prepare over three million people with valuable skills for the workplace, helping to develop their career opportunities and strengthen the local, regional and national economy.

Colleges are inspirational places to learn because education and training is delivered by expert teaching staff in industry-standard facilities to ensure that students are ready to enter into the world of work, having experienced a realistic work environment that is up to date and reflects modern practice in the relevant industry. From basic skills to degrees, colleges offer first rate academic and vocational teaching, in a range of professions including engineering, hospitality, IT, construction and the creative arts.

Oaklands College is situated in St Albans and Welwyn Garden City in Hertfordshire. It is a large general Further Education college with land-based programmes offering an extensive range of provision in all 15 subject sector areas and all age groups. The Oaklands College catchment area covers three district or borough councils: Hertsmere, St Albans and Welwyn and Hatfield. The overall population is 350,000 (2011 Census), with approximately 12% of the population aged between 16-24 years.

The College's mission is:

“To provide the opportunities and the support to ensure our communities reach their full potential”

The strategic aims are:

Skills and behaviours - To equip students with the skills and behaviours they will need to play a productive role in the economy and in their communities

Curriculum - A high quality curriculum provision that meets the needs of students, employers and key stakeholders

People - A motivated staff team with high aspirations for all and an unrelenting focus on the mission and values of the college

Money - A clear focus on financial sustainability to enable investment in our students; now and in the future

Partnerships - Highly developed partnership working with key stakeholders which support the development of the college and its communities

The College has over 10,000 students. 3,200 of these are 16-18 year olds who are predominantly full-time on study programmes which will lead on to further education, higher education or employment. The College has a nationally recognised provision for students with high needs, with over 200 students accessing high needs funding, travelling from over

ten different local authorities. The College has an extensive and growing apprenticeship provision. It also offers higher education in partnerships with the University of Hertfordshire, as well as in its own right. The College also provides courses for adults to upskill or reskill, or to develop essential English and Maths skills, and to return to employment.

In November 2017 the Secretary of State, in relation to the planning decision for the Taylor Wimpey scheme and the redevelopment of the Oaklands College campus, recognised the weight that should be given to the educational development of the College:

“Like the Inspector, the Secretary of State considers that the importance of the delivery of high quality education is a national and local priority and he notes that this is common ground between the parties. He also notes Oaklands College is agreed to be the main provider of further education in the District and the quality of the educational offer at the College is not in dispute. The Inspector reports that many of the existing buildings are of very poor quality and are wholly unsuited to the provision of the high standard of education which the College continues to provide. Other buildings are temporary structures which have clearly outlived their normal life, and are in a poor state of repair (IR 193) and that a backlog of expensive maintenance has built up, and the running costs of the buildings have escalated (IR 194).”

The achievement of the 348 unit planning scheme with Taylor Wimpey has enabled Oaklands College to start delivery on the major campus redevelopment project that was so desperately needed. However, there are still some areas of the College that need development. This includes the following:

- Refurbishment/rebuild of remaining accommodation – animal management centre, carpentry and joinery, motor vehicle site
- Enhancement of on-site student restaurant “The Stables”
- Mansion house - refurbishment for use as community, business and educational benefit
- Athletics track to support Oaklands College athletes and additional sport facilities so support college and community needs

There is a requirement to improved access to the site. Investment is needed to provide enhanced and safer cycling and pedestrian access. An improved road infrastructure would enable buses to access the site so that students can access College in a much safer way and reduce the impact of local residents.

Although the major campus development has allowed for some upgrades to the infrastructure (water, gas, electricity etc) there is more investment required to provide an up to date and resilient site wide infrastructure that will enable the college to operate effectively in the long-term.

What is the evidence to support the provision of a hydrotherapy pool?

Phase one of the development at St Albans, the Discovery Centre, met the needs of those students with profound and complex or severe learning difficulties or disabilities who had previously been housed in the worst accommodation onsite. The new facilities are state-of-the-art and have already made a considerable difference to these students’

lives and opportunities. This provision, referred to internally and externally as “Springfield”, was already a unique offering nationally in terms of the scope and range of the education and care opportunities provided, and it now has enviable facilities to match its high reputation.

Demand for this provision continues to increase year on year due to the specialist nature of the facilities on offer, the quality of our provision, and the fact that there are limited alternatives available for people who have these specialist requirements.

Within this area there are a large number of students with severe and complex learning difficulties and disabilities, many of whom have life--limiting conditions and who require therapeutic input on a daily basis. Hydrotherapy is a highly effective way of aiding these students, but such facilities are currently not available onsite at the College; given the particular needs and requirements of many of the Springfield students, this means that a large proportion of those students do not have access to the facilities they need – at best not as regularly as their needs require, and at worst not at all.

Hydrotherapy is a form of treatment which involves immersing the body in water, typically maintained at a temperature of 34-35^oC (i.e. just below body temperature), which eases joint pain and ensures maximum comfort of movement. By immersing the body in water, pressure is taken off painful or stiff joints and as a result allows greater movement; over time this aids in the rebuilding of muscle strength and mobility.

Hydrotherapy is a fun and relaxing environment that students and patients respond to and which cannot be replicated easily in other environments. It is needed in order to maintain physical and mental progress and to prevent deterioration of students’ mobility, which in turn directly impacts on their daily life. Regular access to such facilities can prolong life and improve their overall health. This is particularly important for those students who are unable to walk unaided or use walking aids – within a hydrotherapy pool setting these students can often walk independently, significantly improving their self-esteem, as well as muscle maintenance and co-ordination.

Hydrotherapy also aids recovery from injury and surgery where other forms of therapy cannot be used – not just in relation to students with health or mobility issues, but also in relation to sports students, helping them to recover faster and more effectively from injuries and training sessions. In particular, hydrotherapy is an excellent way to aid the rehabilitation of those suffering from severe injuries where weight-bearing exercises cannot be performed; for example, Achilles rupture, fractured ankles and metatarsals.

Physiotherapy treatment in a hydrotherapy pool can offer a relaxed, warm and calming environment, with the effects of treatment being longer lasting due to the impact of the water’s heat on muscle activity.

College Need

Currently there is no hydrotherapy pool at the College, with students required to travel to the few specialist facilities in the surrounding areas, such as Keech Hospice in Bedford (23 miles from the College) or occasionally Breakspeare School in Abbots Langley (10 miles away). Historically there was provision within St Albans City Hospital (3 miles away), but this facility has now been closed down. It should be

noted that a 'normal' pool is not warm enough to provide the benefits as mentioned above.

Where alternatives are available, the ability of the College to utilise them is limited by general demand for such specialist facilities, plus the limitations of the students' particular needs. Travel to any of these facilities needs to be by mini bus, which in turn impacts on which and how many students can be taken, particularly considering the fact that the majority tend to be wheelchair-bound. The timing and duration of journeys also determine which students are able to access hydrotherapy, due to medications and feed times. For those who are able to access sessions off-site, a whole day's learning can often be lost just so that they can attend a 20 minute hydrotherapy session. Many of the Springfield students are as a result unable to access hydrotherapy at present.

The provision of a hydrotherapy pool at the College would alleviate these issues, providing access to the benefits of this treatment for all of the College's students. It would also provide continuity of care, as a lot of the College's students have previously regularly accessed hydrotherapy at school. Finally, it would enhance the students' college experience endlessly and further expands on the College's holistic approach to learning and care.

Finally, the provision of a hydrotherapy pool onsite would significantly enhance the College's curriculum offering within the Sports area, particularly courses concerning Prevention of Injuries as well as the HND and Foundation Degree courses in Sports, which include modules on hydrotherapy.

Community Need

It is also intended that the proposed facility will be available for wider community use, to both NHS and private patients and individuals. These benefits could include not only the wide range of care, rehabilitation and recovery options which hydrotherapy can provide, but could also be used in conjunction with the other facilities available at the College.

The proposed hydrotherapy pool could also provide a base for out-of-hours clubs and support groups for students, parents and carers.

It is intended that this community use would primarily take place outside of normal College hours. Given this and also the size of the proposed facility no significant increases in traffic or numbers of visitors onsite are foreseen as a result of these facilities.

