

# LA3 LAND AT WEST HEMEL HEMPSTEAD

## NON - TECHNICAL SUMMARY

# 1 Introduction

1.1.1 BDW Trading Ltd (Barratt David Wilson), Taylor Wimpey UK Ltd, Stimpsons and Bletsoes have submitted a hybrid planning application to Dacorum Borough Council for a housing led development to the west of Hemel Hempstead, pursuant to Policy LA3 of the adopted Site Allocations Development Plan Document (2017) to provide for up to 1100 dwellings (with up to 40% affordable housing), comprising full planning proposals for a first phase of 350 dwellings (including associated development) and outline planning proposals (including means of access) for the remaining 750 dwellings. The Site is known as 'Land at West Hemel'.

## 1.2 Environmental Impact Assessment

1.2.1 Environmental Impact Assessment (EIA) is a process through which the likely significant environmental effects of a development proposal can be identified and where possible adverse effects avoided or mitigated, this process is then reported in the Environmental Statement (ES), which is submitted with a planning application.

1.2.2 A non-technical summary (NTS) is provided to assist a wider public understanding of the environmental effects of a project. This is the NTS for the proposal, a stand-alone document which is made available in addition to the full ES.

## 1.3 Description of the Site and Local Context

1.3.1 The extent of the Application Site is shown by the red line on Figure 1.1, which comprises around 51.82 hectares of south-facing sloping farmland on the western edge of Hemel Hempstead. It is broadly located to the west of the established neighbourhoods of Chaulden and Warners End, to the north east of the hamlets of Winkwell/Bourne End/Pouchen End, and to the north of the A41 dual carriageway, the Grand Union Canal and the west coast mainline railway.

1.3.2 In terms of local features, the Site is to the north of Chaulden Lane, east of Pouchen End Lane, and to the west of the built up residential areas of Fields End, Warners End and Chaulden. A network of shelter belts and hedgerows border the 13 fields which form the Site and there is a telecommunications mast located to the south of the Site's centre, which is outside the planning application site boundary.

1.3.3 Access would be taken from two main points. A new junction would be created with Long Chaulden close to the centre of the Site's eastern boundary between Newlands Way and Middle Hill. A second main access would be created from The Avenue to the north east of the Site, which connects through the neighbourhood of Fields End to Berkhamsted Road via an existing mini-roundabout.

1.3.4 The Site slopes from higher ground in the north down to lower ground in the south. At its highest point, at its northern boundary with Pouchen End Lane, the site itself lies at 158m Above Ordnance Datum (AOD), sloping down to 126m AOD to the south-east at Long Chaulden and then from the centre of the site, directly down to the south at Chaulden End Lane, where it is 97m at its lowest point.

1.3.5 The Chilterns Area of Outstanding Natural Beauty lies approximately 0.8km to the west of the site, although the Site and surrounding landscape are characterised more as an urban fringe

landscape rather than the wooded hillsides more typical of the majority of the Chilterns.

**Figure 1.1: Site location and access**



1.3.6 A National Grid high pressure gas pipeline runs underground across the centre of the Site, broadly from the northwest to southeast. The layout of the Proposed Development has taken this key constraint into account and ensures appropriate land use separation buffers and open space in the adjoining areas.

1.3.7 There are four public rights of way which either adjoin or cross the Site (refer to Figure 1.2) as follows:

- footpath 91 crosses in an east-west direction to the south of the Site centre from Rowcroft to Pouchen End Lane, broadly coincident with the gas pipeline corridor and an existing shelter belt.
- footpath 20 originates to the north of the Site on Fields End Lane, and runs from the Site's north-eastern corner along part of the eastern boundary to Long Chaulden.
- footpath 21 runs along part of the Site's northern boundary from Pouchen End Lane in the north west to the north-eastern corner of the Site where it meets footpath 20 and 22.
- footpath 22 runs off-site from the point where footpaths 21 and 20 meet in the Site's north-east corner, east into the neighbourhood of Fields End just to the north of Squirrel Chase before then connecting with The Avenue.

Figure 1.2: Public rights of way



1.3.8 The geology of the Site includes clay, flints, and chalk, which is a principal aquifer. The geology has implications for building foundations and drainage methods. This has been taken into account, and appropriate foundations and drainage design incorporated.

1.3.9 The entire Site lies within Flood Zone 1. This is classified as low risk land where flooding from rivers is very unlikely (having a less than 0.1% (1 in 1,000) chance of flooding occurring in any one year). Most of the UK is within Flood Zone 1. Parts of the site are at a higher risk of surface water flooding, these are generally sloping field boundaries within the site, and are generally limited in extent. The drainage strategy for the site fully accounts for these to ensure that flooding potential is limited.

#### 1.4 The development assessed

1.4.1 In summary, the development proposed is a hybrid planning application for a mixed use residential led development to the west of Hemel Hempstead, pursuant to Policy LA3 of the adopted Site Allocations Development Plan Document (2017) to provide for up to 1100 dwellings (with up to 40% affordable housing). It comprises:

- a full planning application for the first phase of 350 dwellings plus associated development (as set out in more detail below); and,
- an outline application for the remainder of the Site, with means of access for determination, with this proposing 750 dwellings and a range of mixed uses, including a community hub, a site for a primary school and other facilities (as set out in more detail below).

- 1.4.2 Overall the application proposes the development of up to 1100 new dwellings (including affordable housing), land for up to a seven pitch gypsy and traveller site, together with landscaping, roads, footpaths and cycleways, ecological mitigation, sustainable drainage systems, earthworks, public open space, one Neighbourhood Equipped Area of Play (NEAP), two Locally Equipped Areas of Play (LEAP) and a Community Games Area (CGA), together with a Community Hub comprising :-
- a) a site for a primary school and associated nursery with playing fields on a site of up to 2.1 hectares (incl. community games area).
  - b) specialist accommodation for the elderly with up to 70 rooms (Use Class C2 or C3).
  - c) a convenience store of up to 450 sq.m. (A1).
  - d) three retail units each of 100 sq.m. (A1, A2, A3, A4 and A5).
  - e) a community facility of up to 175 sq. m. (D1).
  - f) a medical facility or other use of up to 100 sq. m. (A1, C3 or D1).
  - g) a children's day nursery of up to 450 sq m (D1).
  - h) a shared car park.
- 1.4.3 The components of the overall application being submitted as a full application comprise :-
- a new vehicular access to Long Chaulden.
  - a new vehicular access extension from The Avenue.
  - an emergency access to Chaulden Lane.
  - a new vehicular access from Chaulden Lane serving only the land for up to a seven pitch gypsy and traveller site and access to a foul drainage pumping station.
  - a foul drainage pumping station to Chaulden Lane and the associated connecting sewer.
  - the creation of the first phase of 350 new dwellings and associated landscaping (including affordable housing); together with associated public open space and associated landscaping, roads, footpaths and cycleways, ecological mitigation area, sustainable drainage systems, earthworks, and one associated Local Equipped Area of Play (LEAP).
- 1.4.4 The Environmental Statement assesses the above development including transport movements, together with associated elements including improvements to a small number of nearby road junctions and a sewer connection to the nearby Berkhamsted Waste Water Treatment Works. Key plans and figures are provided at the end of this NTS.

## **2 Landscape character and visual amenity**

- 2.1.1 The likely significant effects of the proposed development in terms of landscape and visual amenity has been assessed by an experienced Chartered Landscape Architect using a methodology based on the Guidelines for Landscape and Visual Impact Assessment, Third Edition, by the Landscape Institute and Institute of Environmental Assessment and Management.
- 2.1.2 The study area for the purposes of the visual impact assessment focuses on the 'zone of visual

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influence', that is the area within which the proposed development would be most visible from.

- 2.1.3 Landscape effects are a result of physical changes within the landscape which may contribute to changes in its character and how this is experienced. These effects need to be considered alongside changes already happening within the landscape, which help define the character of it. Landscape character of the wider area has also been assessed.
- 2.1.4 The assessment of effects on visual amenity takes account of the landscape and visual context, and the potential visibility of the proposed development from various types of location. Examples of locations where potential visual effects could occur include settlements and private residences, users of public rights of way, and people using roads. To determine where the development would potentially be visible from a computer generated 'Zone of Theoretical Visibility' was generated. Site visits were then undertaken to judge the extent of the potential visibility in more detail. A number of representative viewpoints were identified upon which to base the assessment. These are locations where there is potential visibility of the site, but are restricted to those areas which are generally publicly accessible.
- 2.1.5 The site does not lie within an area designated for its scenic quality, although it is less than one kilometre from the Chilterns Area of Outstanding Natural Beauty (AONB). The site is not within the Green Belt, as confirmed by Dacorum Borough Council's Site Allocation Development Plan. The screening effects of landform and existing vegetation ensure that there are no key views of the site from the AONB. Similarly, there are limited views towards the AONB which the development would obscure.
- 2.1.6 The site is situated within National Character Area 110 Chilterns. The character of the area is described by Natural England, although the assessment concludes that the site itself is not considered to be typical of the wider landscape character area given its urban fringe location and the effect this has. In May 2004, the Landscape Character Assessment for Dacorum was published, with the site covered by two Landscape Character Areas (LCAs), the southern part of the site lies within Area 118 - Lower Bulbourne Valley, whilst its northern area lies within Area 120 - Little Heath Uplands. That assessment indicates that the character of these areas is influenced both by the urban edge of Hemel Hempstead and transport corridors along the valley floor.
- 2.1.7 There would be inevitable effects on the landscape during the construction phase of the development, but given the character of the site and the surroundings these are not considered to be significant. Whilst no footpaths would physically be affected by the construction activity, there are likely to be effects due to the introduction of construction activity into views from these footpaths. In particular, a major indirect adverse effect is predicted on footpath 21 and a moderate adverse indirect effect on footpaths 20 (The Chiltern Way) and 91 during the construction period. Some moderate adverse effects could also occur as a result of the limited removal of trees from the site to facilitate the construction.
- 2.1.8 Visual effects during the construction period will also affect the users of footpaths 20, 21 and 91 and will also affect the users of Pouchen End Lane, Chaulden Lane, Little Hay Golf Complex, the Hertfordshire Way, a short stretch of the Grand Union Canal Walk, and Westbrook Hay and Sheethangers Common. However, views from these locations focus on the southern part of the site only, because the northern fields are located further back on a sloping plateau which screens them from views. Glimpsed views from residential properties on streets adjacent to the site are also likely during the construction period given their proximity. Similarly, some views of the site are likely from residents further south at Box Lane

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and Felden.

- 2.1.9 Once construction of the development is complete, the effect on the landscape character of the site is considered to be moderate adverse, with residential development becoming a permanent element in the landscape. The footpaths internal to the Site would benefit from new surfaces making them easier to use, but these would be within an urban environment rather than the current semi-rural environment.
- 2.1.10 Without additional landscape mitigation the overall degree of visibility and visual effects would be similar to that of the construction period, with significant impacts relating to users of the public footpaths that cross the site, users of recreational lanes, footpaths and open access land in the wider area, residential properties immediately adjacent to the site's boundaries and residential properties in the Box Lane and Felden areas to the south-east.
- 2.1.11 Mitigation measures have been defined as part of the development proposals, and are shown in the submitted ES Parameter Plans, the Illustrative Masterplan and the Illustrative Green Infrastructure Plan included at the end of this NTS, which confirm the following:
- Retention of the network of mature trees and hedgerows and further supplementing and reinforcing these networks with new planting.
  - Compensation for the loss of a small area of native woodland at the Long Chaulden entrance with a larger area of new woodland on the site's western boundary.
  - Chalk Grassland: Informal open space would incorporate significant swathes of chalk grassland, creating a chalk downland feel, with occasional scattered shrubs/trees.
  - Reptile Receptor Area: An area of open chalk grassland on the western side of the proposed Pouchen Park would be retained as a reptile receptor area. This would be managed so no more than 50% of the entire grassland would be cut in any one year and will be informally demarked with a timber knee rail, and presented as a 'nature conservation area' to justify its likely less well kept look.
  - Dry Attenuation Basins (south): Dry basins in the southern part of the site would be managed as chalk grassland, and sown with a calcareous wildflower/grass mix, with chalky subsoils exposed and arisings used to create chalk/'butterfly' banks. No additional topsoil or organics would be added. Any wetter areas would be allowed to develop into calcareous fen/wet flush habitats.
  - Dry Attenuation Basins (north): In the northern part of the site, where chalky substrates are not present a similar approach would be taken, but with a wildflower mix suited to the conditions.
  - SUDS-Conveyance features: Swales would be treated as attenuation basins, with wet wildflower seed mixes sown. The ditches in chalky areas would be allowed to develop into fen/wet flush habitats where possible.
  - Wet Attenuation Basins: The two attenuation basins at the Long Chaulden entrance would be designed to include a variety of vegetation and habitats, including submerged/emergent and marginal plant species at the edges and wet grassland/marsh within the freeboard areas. The detailed design of the pond could also include a 'shoal' of shallower land at the eastern end and areas of deeper water to prevent invasion by reeds and bulrushes for example.
  - Retained hedges/treelines: These key wildlife corridors will include reinforcing with underplanting and the provision of long grass/wildflower margins where possible. These scalloped margins will create an 'ecotone' gradient, grading from the existing hedgerow through low shrubs, ruderals to long grassland (woodland edge/hedge seed mix). Hedgerows will be trimmed and laid as necessary to ensure the good long-term health of

the features. Adjacent to the Chiltern Way, the hedgerow will be reduced to approximately 1.2m in height to enhance natural surveillance and strengthen the hedgerow structure.

- Woodland Mitigation Area: An area of new woodland will be provided adjacent to the site's western boundary to compensate for the loss of a small area of existing woodland close to the Long Chaulden frontage. This will be larger than the area that will be lost.
- Opportunity for community orchard within the Pouchen Park.
- Opportunity for community food-growing garden adjacent to Community Hub.

2.1.12 With these mitigation measures in place, the assessment concludes that the only significant adverse landscape effect will be on the land use on the site, which will see the introduction of c.36ha of new buildings and associated infrastructure on land that is currently in agricultural use. The c.15.5ha of green infrastructure that will be incorporated within the scheme will be managed so as to achieve a more wildlife friendly and attractive landscape than that is currently the case, helping to offset the loss. There will be moderate beneficial effects on the existing footpaths that run through the site, resurfacing them to enhance accessibility. Whilst the setting of the paths will change significantly, the new views need not be of lower quality than the existing views.

2.1.13 With regards to residual visual impact, views from the north and east will generally be well screened by existing and proposed vegetation around the site boundaries. The main significant adverse visual effects will be on views from the elevated recreational areas to the south of the site, where the southern and central parts of the development will form a clear element within a wider panoramic view. These views, from Little Hay Golf Complex and Westbrook Hay, already include a relatively extensive area of Hemel Hempstead as well as some elements of transport infrastructure associated with the A41 and West Coast Mainline railway and the proposed development will therefore appear as a sympathetic extension to existing housing in Chaulden and Warner's End. Overall the residual adverse effects here will be 'moderate adverse'. Residents on the eastern side of Pouchen End and within Middle Hill may also experience 'moderate adverse' effects with views of new housing beyond their rear gardens.

### **3 Ecology and biodiversity**

3.1.1 There are no nature conservation designations covering the Site. However, Shrubhill Common Local Nature Reserve (LNR) and Shrubhill Common North Local Wildlife Site (LWS) are present c.20m southeast of the Site. Without mitigation, significant adverse effects at the Local level are predicted in respect of these designations. Measures have therefore been set out to mitigate these effects, including the design of habitat corridors maintaining links to the common.

3.1.2 Chiltern Beechwoods Special Area of Conservation (SAC) and Roughdown Common Site of Special Scientific Interest (SSSI) are present further afield. No significant adverse effects are predicted in respect of these designations owing to their distance from the site.

3.1.3 There are five other non-statutory nature conservation designations (all LWSs) within 1km of the survey area. No significant adverse effects are predicted in respect of these designations.

3.1.4 A range of ecological surveys have been undertaken at the Site for habitats, plants and animals. The site is characterised by common farmland habitats, dominated by pasture and



arable land, of limited ecological interest. Habitats of greater interest include mature hedgerows, broadleaved woodland and neutral semi-improved grassland, which are all considered to be important at the Local level. Measures to mitigate the severance of hedgerows, the small loss of woodland and loss of grassland have been set out, including substantive habitat creation and management regimes.

- 3.1.5 No great crested newt or dormouse populations were recorded on-site or within adjacent land. Badgers setts and a small population of slow worm were recorded, with measures set out to avoid offences being caused under their relevant protective legislation. The breeding bird assemblage was found to be of importance at the Local level, given the number of species recorded, and appropriate measures are set out to mitigate significant adverse effects of habitat loss.
- 3.1.6 No bat roosts have been confirmed on-site. Bat surveys and monitoring found the Site to be utilised by at least seven species, dominated by common pipistrelle activity and focused along field boundaries. The Site is considered to be of Local importance in respect of bats, with the likely interest of their invertebrates prey considered of Local importance based on habitat structure, type and species-diversity. Measures have been proposed to mitigate the effect of habitat loss and flight-line severance, including habitat creation, management and creation of bat 'hop-overs' at hedge severance points. Measures to minimise light spill on retained and created habitats are also proposed for bats and their night-time prey.
- 3.1.7 Ecological enhancement measures have been proposed, to deliver net gain of tree cover as well as increase the range, structure and species-diversity of habitats. Specific features, such as bird and bat boxes, will also provide opportunities for these groups at the Site.
- 3.1.8 Measures to safeguard ecology during construction will be detailed within a Construction Environmental Management Plan (CEMP). Ecological mitigation and enhancement measures will be detailed within a Landscape and Ecology Management Plan (LEMP). The LEMP would include both short- and long-term management and monitoring regimes to ensure mitigation and enhancement measures are successfully delivered.
- 3.1.9 The proposed scheme will inevitably change the agricultural ecology of the Site, favouring certain species and groups over others. However, subject to the implementation of proposed mitigation and enhancement measures, including long term management and monitoring, the overall interest of the site will be maintained, with no significant adverse effects predicted in respect of ecology.

## **4 Archaeology and heritage**

- 4.1.1 The impact of the proposed development on archaeology and heritage has been assessed, including the potential effects of the proposed development on the known archaeological resources on the Site as identified through a programme of archaeological work comprising a desk-based assessment, geophysical survey and archaeological trenched evaluation. Potential effects on built heritage assets and their settings are also assessed and a mitigation strategy to deal with the identified effects on the buried archaeological resource has been agreed with the local authority.
- 4.1.2 The National Planning Policy Framework (NPPF) and its accompanying guidance lays out the requirements for proper assessment of the historic environment. The NPPF defines heritage

assets, and refers to the need to understand potential effects on the significance of heritage assets through impacts on their physical fabric and their settings. Other guidance, such as that provided by Historic England, defines setting and lays out a process for assessing impacts on settings.

- 4.1.3 Local planning policy also sets out the Local Planning Authority's stance on archaeology and built heritage assets, and the processes by which their significance(s) can be assessed.
- 4.1.4 The methodology of assessment follows that laid down in the Design Manual for Roads and Bridges (DRMB) Volume 11, where a series of tables allows for the assignment on a measured scale of the significance and sensitivity of heritage assets to change; the magnitude of the change; and the consequent significance of the effect. Highly sensitive heritage assets would be designated sites such as Scheduled Monuments and listed buildings.
- 4.1.5 The archaeological significance of the site was assessed through a desk-based assessment, a combined historic landscape assessment and geophysical survey, and an archaeological evaluation.
- 4.1.6 The assessments concluded that there were no archaeological heritage assets identified within the site that would be of more than county importance at most. The assessments did identify two areas of archaeological interest within the site, a concentration of Prehistoric activity in the northern part of the site, including ditches, pits and post-holes containing pottery of broadly Iron Age date, suggesting a dispersed settlement located along a ridge of higher ground and a concentration of Roman activity in the central part of the site, situated on a small headland. The evidence suggested small-scale agricultural activity.
- 4.1.7 In terms of built heritage, the assets identified by the local authority were also assessed for potential impacts on their settings. Overall, there is only one non-designated built heritage asset of Low sensitivity (Former Stables and Barns east of Pouchen End Lane) which might suffer a slight adverse impact on its sensitivity. This would result in a Negligible significance of effect to the significance of that asset.
- 4.1.8 The archaeological assets would suffer all of their impact during the construction phase, resulting in a minor to moderate adverse impact. The built heritage assets would be affected during the occupation stage, resulting in a negligible effect on the significance of one asset.
- 4.1.9 In terms of mitigation, the local authority archaeological advisor has agreed a programme of archaeological works comprising an archaeological strip, map and sample exercise over the two areas of identified archaeological interest. This mitigation would reduce the impact on the buried archaeological heritage to minor, and can be secured by planning condition.
- 4.1.10 The key finding of the assessment is that the proposed development will have a very limited effect on the historic environment as a whole, and in no case will significant harm arise to any individual heritage asset.

## **5 Transport and access**

- 5.1.1 The environmental implications of the proposed development have been assessed against the existing and future baseline transport situation to quantify the extent of any environmental effects. Assessments have been undertaken in accordance with accepted guidelines to determine the effect of traffic upon severance, driver delay, pedestrian delay, pedestrian

amenity, accidents and safety, dust and dirt and hazardous loads.

- 5.1.2 Construction activities would be carefully managed through implementation of a Construction and Environmental Management Plan. This would ensure that HGV movements were carefully controlled along appropriate routes to and from the site focussing on the existing primary road network and subsequently the wider strategic road network. Good management practices including wheel washing facilities, sheeting of vehicles and appropriate operational working hours would also contribute towards minimising the effect of construction traffic. These can all be controlled by planning condition.
- 5.1.3 The Site is a sustainable location from which future residents can access the wider facilities in Hemel Hempstead by foot, cycle and public transport. In addition, the proposed development provides a layout to encourage walking and cycling and provides shops, services and a site for a primary school to meet some of the future residents' day to day needs on foot. Public transport improvements are also proposed. The design work demonstrates a safe means of access to the site for cars, cyclists and pedestrians, and includes improvements to nearby junctions in order to reduce congestion. The main access points to the Site will be from Long Chaulden to the east and The Avenue to the north east.
- 5.1.4 As one of the two main access points to the Site, The Avenue would see a large percentage increase in traffic compared to the existing situation. However, taking into consideration the very low existing traffic volumes currently using this route, the actual volume of traffic resulting from the Proposed Development is well below that which is likely to cause unacceptable effects.
- 5.1.5 Overall, it is considered that with appropriate mitigation measures on the wider transport network in place the residual environmental effects of traffic will be negligible, with a significant beneficial reduction in driver delays.

## **6 Noise and vibration**

- 6.1.1 The baseline noise and vibration conditions measured on the application site are suitable for residential development and relevant noise and vibration standards would be readily achieved by way of routine design measures, which can be implemented by way of routine planning conditions.
- 6.1.2 During construction of the development, some residual but temporary construction noise effects are to be expected for dwellings close to parts of the east boundaries of the application site but mainly only during the initial earthmoving/concreting phases when larger machinery may be working close to the site boundary. Thereafter, the effects of routine 'house building' works would have only a minor effect on existing dwellings. The site operations would at all times be governed by a Code of Construction Practice that would implement appropriate controls to minimise off-site levels of noise and vibration as agreed with the Local Planning Authority through a planning condition.
- 6.1.3 For the completed development, some noise control measures will be required for new dwellings at the fringes of the residential area that lie closest to the noise from Chaulden Lane and the railway. These measures will include the use of appropriate window designs to satisfy internal noise standards, and a site layout that screens garden areas from the direct effects of noise, e.g. the placing of gardens used for amenity purposes behind dwellings.

- 6.1.4 In situations where dwellings are located adjacent to local roads and railway, internal noise standards would tend to be exceeded with windows open for ventilation, although this situation is common to most urban development areas close to transportation noise sources. The installation of passive acoustic ventilators to habitable rooms facing the transportation noise sources would enable a degree of ventilation without noise intrusion and enable relevant noise standards to be met at all times.
- 6.1.5 Matters relating to window design and ventilation can be dealt with during the detailed design and implemented by way of a routine planning condition.
- 6.1.6 Due to the separation distance from the railway, no adverse vibration effects are calculated to arise due to the railway.
- 6.1.7 The development will generate additional traffic movements on parts of the local road network, but, with the exception of The Avenue, which represents one of the main access routes to the development, the noise changes due to development traffic would amount to a negligible impact having imperceptible effects on the local noise climate. For The Avenue, the traffic contribution generated by development would more than double the existing flow, as a consequence the noise changes for existing dwellings adjacent to this road amount to a minor/moderate impact in the short term, and a negligible/minor impact in the long term. However, the overall noise level adjacent to the road would continue to represent a relatively low level of noise exposure that would not adversely affect residential amenity for occupiers of existing dwellings adjacent to The Avenue.

## **7 Air quality**

- 7.1.1 Air quality within the Borough of Dacorum is generally good and, with the exception of three designated Air Quality Management Areas (AQMA), the closest being in London Road, Apsley, approximately 2.5km to the southeast of the development site, air quality objectives are met. Since 'relevant exposure' is already present adjacent to the site, i.e. existing residential dwellings are present adjacent to the site and local roads and these have already been considered within Dacorum Borough Council's reviews and assessments and adjudged to satisfy relevant air quality standards, the same conclusions will apply for new dwellings on the application site. Namely, all air quality objectives are satisfied on the site and at dwellings adjacent to the routes to the proposed development site, therefore, the site is acceptable for residential development.
- 7.1.2 During construction of the development, dust particles may be released during the initial construction phases of the proposed development, i.e. most particularly during site preparation and earthworks. At such times, the prevailing wind direction will be from the southwest, therefore, should wind pick-up occur, dust may be blown to the northeast and hence towards some of the areas of existing residential development that lie to the east of the site. Without appropriate site management practices, the potential would exist for localised air quality impacts to occur from dust and site plant emissions during some construction works along the eastern site boundary. Such effects would be mitigated by a Code of Construction Practice, which would implement appropriate controls to minimise off-site levels of dust and emissions as agreed with the Local Planning Authority, and result in only limited minor impacts, this can be secured through a planning condition.
- 7.1.3 Following completion of the development, the local concentrations of air pollution would

continue to remain below the air quality objectives and the level of change due to traffic generated by development would be very small and would not have a significant impact upon local air quality. Under current planning guidance, the ambient concentrations of local traffic emissions are predicted to be 75% or less of the air quality objectives, which equates to development having a negligible impact on local air quality.

- 7.1.4 The development is not predicted to contribute to air quality exceedances or lead to the designation of a new AQMA, nor would it significantly increase emissions or lead to new exposure to emissions considered to be significant. Therefore, the air quality issues for the proposed development are not deemed to be a significant consideration and the matter can proceed to a planning decision.

## **8 Hydrology, flood risk and drainage**

- 8.1.1 The potential hydrological impacts associated with the proposed development, during both the construction and operational phases, have been considered.
- 8.1.2 The site is currently in agricultural use with few existing drainage features on site. These include some field drains and an existing man-made flood alleviation dry pond, which discharges into the local surface water sewer in Long Chaulden. There are no public sewers within the site boundary.
- 8.1.3 There are no recorded historic incidents of flooding at the site. All potential sources of flood risk at the application site have been assessed, and the risks of flooding occurring at the application site have all been assessed as low.
- 8.1.4 On site testing indicates that there is a potential for groundwater drainage through the underlying sub soils. As such, infiltration drainage techniques have been considered as a main method of surface water disposal.
- 8.1.5 The retention of major surface water run-off will be achieved using “Sustainable Drainage Systems” (SuDS). This will incorporate open space features such as wet/dry ponds, infiltration basins/swales and local porous paving through to the use of deep-bore and shallow soakaways at the end of the surface water treatment train or control at source via pervious pavements.
- 8.1.6 As set out above, surface water runoff from the proposed development will be mainly disposed via shallow and deep-bore infiltration techniques. However, the surface water runoff from the eastern part of the proposed development will be discharged into the local sewer on Long Chaulden at a rate not exceeding the existing rate.
- 8.1.7 The groundwater source protection zone (total catchment) is located to the south of the development and requires protection from pollution risk. Therefore, no deep-bore soakaways will be located within the southern part of the site, and the maximum depth of deep-bore soakaways proposed for the northern part of the site will be approximately 25.0m below existing ground, thereby maintaining more than 10m of buffer, which will mitigate any risk to the groundwater sources.
- 8.1.8 The application of SuDS will also provide a good water quality, which is particularly important for the downstream watercourses and groundwater sources. In order to assess the risk of pollution to groundwater, a Groundwater Risk assessment has been conducted as part of the Geo-Environmental Assessment. This assessment confirmed that there is a low risk to

groundwater from the proposed development at this location. In addition, the change of use from agricultural to residential will reduce the run-off and leaching of agricultural pollutants derived from manure, fertilisers, pesticides and herbicides.

- 8.1.9 During the construction phase, a range of mitigation measures have been recommended which should form part of a site-specific Construction and Environmental Management Plan (CEMP) within which all contractor activities will be undertaken. These measures include a temporary drainage network where necessary, to ensure adequate levels of pollution treatment prior to discharge from site.
- 8.1.10 There will be no significant interference to any known flood paths for the 1 in 100-year flood event (allowing for climate change) in the implementation of this development, as a result of which there will be no impact on flood risk elsewhere. In addition, the outline surface water drainage strategy will incorporate drainage techniques to reduce surface water run-off rates from the site to a rate not greater than the existing green field discharges to the local sewer in Long Chaulden, for storm return periods up to the 1 in 100-year event, allowing for the detrimental effects of climate change. Therefore, it is not considered that there will be significant cumulative impacts on flooding.
- 8.1.11 With regard to foul drainage, flows from part of the first phase (up to 100 dwellings) will be connected to the existing local sewer, with the rest of the site served by a new dedicated off site rising main between the Development and the existing Waste Water Treatment Work (WWTW) at Berkhamsted. This will ensure that the sewer networks continue to operate satisfactorily and that there is no increase in the risk of foul water flooding.
- 8.1.12 The construction and operation of the proposed development could have moderate to minor adverse impacts on the surrounding water environment (in terms of surface water runoff, water quality and foul drainage) should suitable mitigation not be incorporated. However, with the mitigation secured in the Parameter Plans and outline drainage strategies, the significance of residual impacts upon the local water environment ranges from minor adverse to negligible.

## **9 Socio-economics**

- 9.1.1 The assessment has looked at the provision of up to 1,100 residential dwellings, a care facility with 70 rooms and a gypsy and traveller site of up to 7 pitches. Using an average occupation of 2.4 people per dwelling, the scheme could accommodate a population of around 2,710 people, which represents an increase of about 3% above the current population of the study area. Around 65%, (1,769), of those working-age people could be expected to be economically active (working or seeking work). The proposed development will include up to 40% affordable housing, which is considered a positive benefit to the local area.
- 9.1.2 The proposed community hub could accommodate a variety of uses, such as a crèche/nursery, community building, and local shops and provide local employment. Additionally, teaching and support staff would be required for a new primary school, and staff will be required for the children's day nursery and care home. Overall, some 152-195 jobs could be created from these uses.
- 9.1.3 The proposed development would also directly support some 251 full time equivalent (FTE) jobs in construction.
- 9.1.4 Using information collected by the Office for National Statistics, household spending by the new residents on items likely to be purchased in the local area is estimated to be some £23

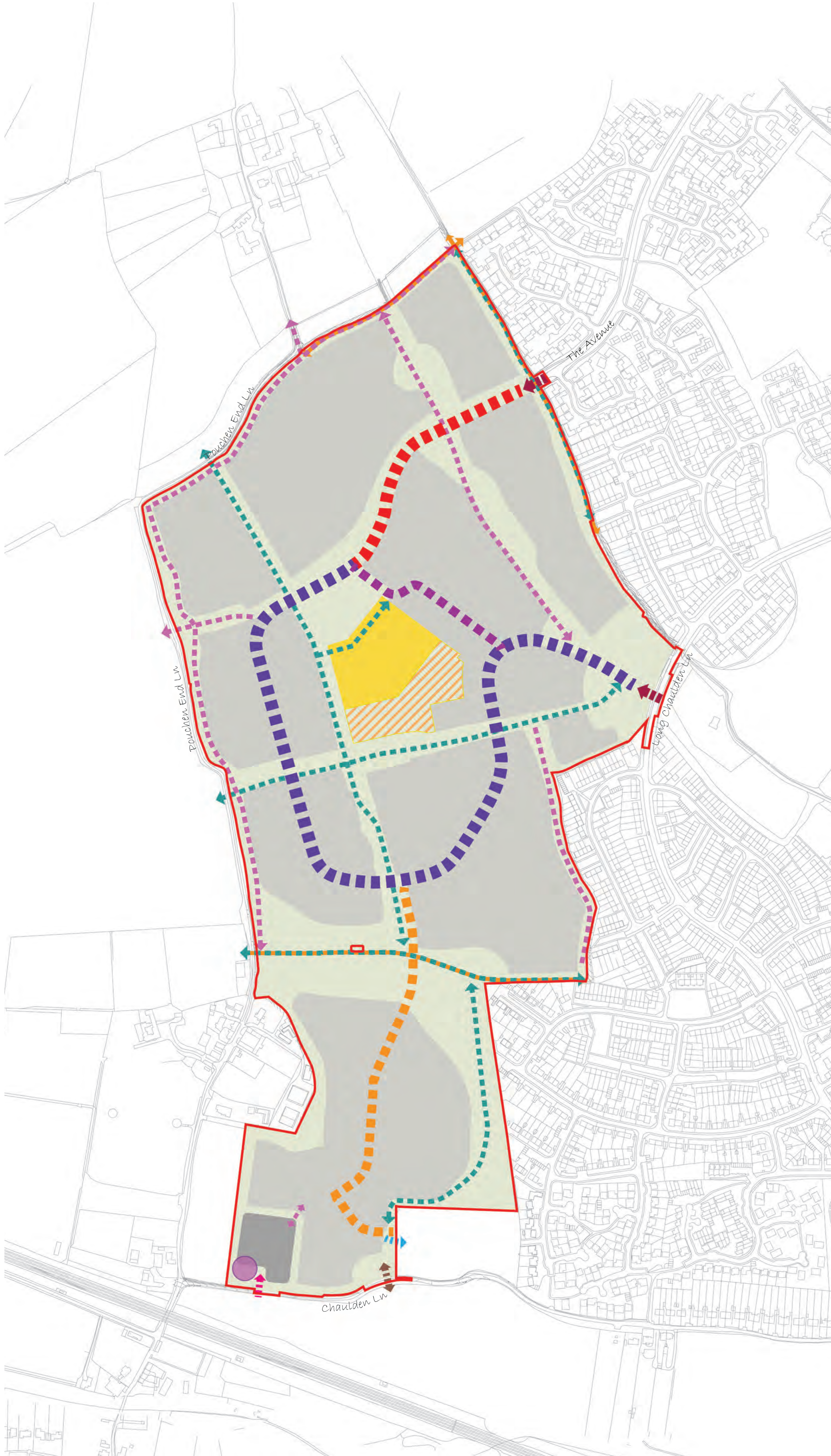
million each year.

- 9.1.5 The proposed development would significantly exceed the overall provision of open space required under Policy 76 of the Dacorum Local Plan 2004 providing both formal and informal open space on-site, including a community games area for formal play, a formal Neighbourhood Equipped Area of Play, and two Locally Equipped Areas of Play.
- 9.1.6 As the overall mix of housing size and type is not fixed at this stage, it is only possible to broadly predict the likely number of school-age pupils that would live in the development. Notwithstanding this, the layout of the proposal includes land suitable to build a new primary school with long-term beneficial effects.
- 9.1.7 In terms of primary healthcare, there are a number of GP surgeries within 4km of the site. All these surgeries are accepting new patients, which suggests that there is sufficient capacity to deal with the additional demand that would be generated by the development. In addition, the Proposed Development includes the flexibility to provide a medical facility of up to 100 sq.m. on the Site.
- 9.1.8 In conclusion a range of minor and moderate beneficial socio-economic effects would arise as a result of the proposed development.

## 10 Summary

- 10.1.1 This is the Non Technical Summary to the Environmental Statement which provides an environmental impact assessment of the Proposed Development at West Hemel.
- 10.1.2 The Environmental Statement contains a series of detailed assessments undertaken in accordance with the relevant guidelines. These have identified a range of adverse and beneficial effects on the environment and socio-economic characteristics of the area. The assessments identify appropriate avoidance or mitigation measures, either inherent within the design and layout of the Proposed Development, or as additional mitigation to be addressed through the imposition of planning conditions. With these mitigation measures in place, the assessments conclude that the Proposed Development would only result in limited significant adverse landscape and visual effects, and would also lead to a number of positive effects. The ES also confirms that there would be no significant cumulative effects.
- 10.1.3 The full Environmental Statement can be obtained on CD for no charge from: Savills Planning, Wessex House, Priors Walk, Wimborne, BH21 1PB and will also be available on Dacorum Borough Council's planning applications website.
- 10.1.4 The ES and other planning application documents can also be viewed during normal office hours at Dacorum Borough Council, The Forum, Marlowes, Hemel Hempstead, Hertfordshire, HP1 1DN.
- 10.1.5 Any comments on the planning application should be forwarded to Dacorum Borough Council's planning department at the address above.

**Figure 3.1: Movement  
 Parameter Plan**



- Vehicular Access
- Primary Road / Bus Route
- Primary Road
- Secondary Road / Bus Route
- Secondary Access Road
- Existing Public Rights of Way to be retained
- Indicative Pedestrian and Cycle Leisure Route
- Indicative Pedestrian Leisure Route
- Existing Public Rights of Way/ New Pedestrian and Cycle Leisure Route
- Existing Public Rights of Way/ New Pedestrian Leisure Route
- Vehicular Access to Traveller Site
- Potential Connection to HCC Site
- Emergency Access and Pedestrian/ Cycle access
- Proposed Development
- Primary School Land (including School Buildings and Playing Fields)
- 2 Form Entry School Extension Land
- Foul Water Pumping Station
- Traveller Site
- Green Infrastructure
- Site Boundary

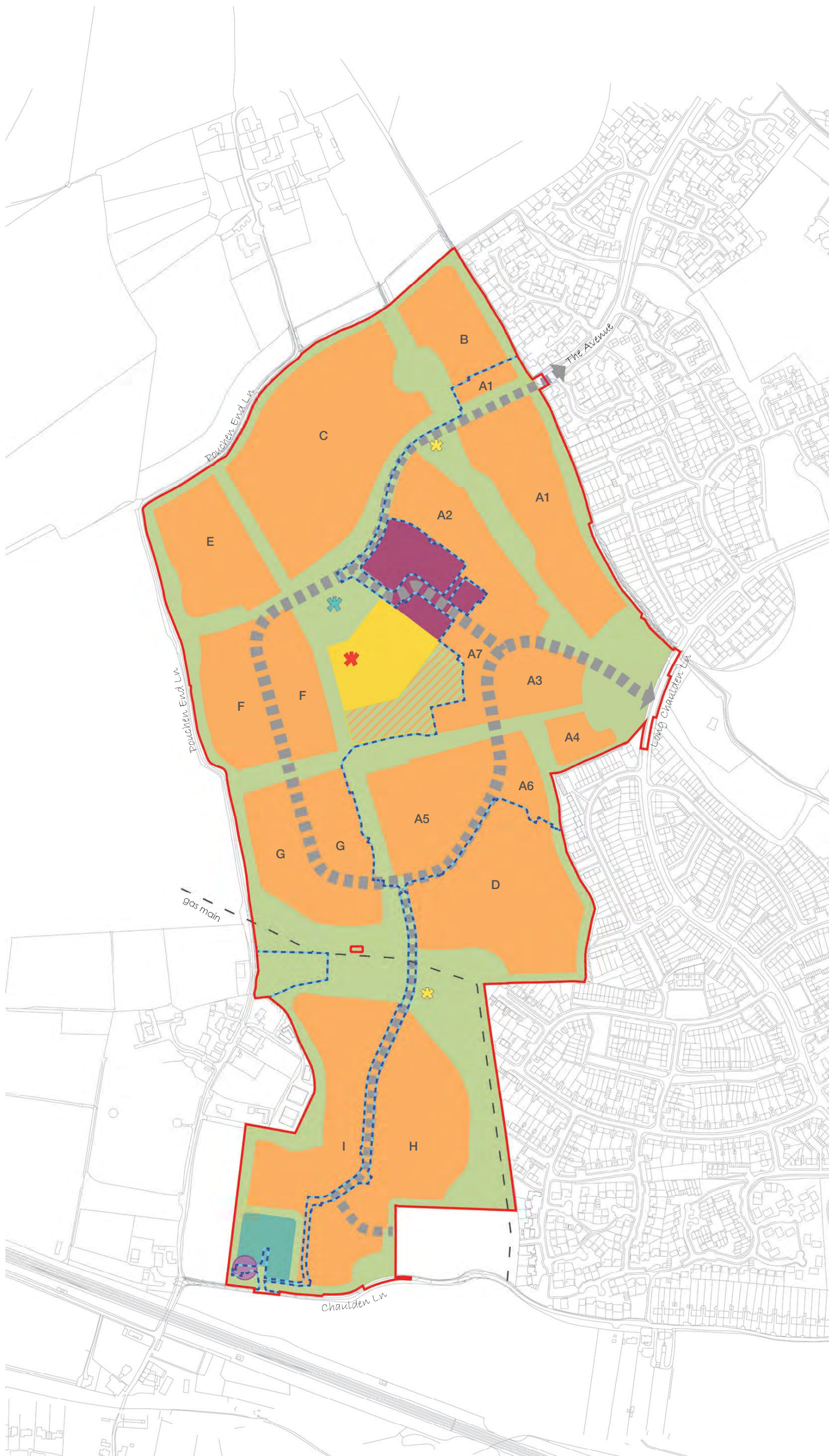
Note: All features and areas are subject to a horizontal tolerance of  $\pm 10m$ .



title Figure 3.1: Movement Parameter Plan	
client Taylor Wimpey & Barratt Homes	
project LA3, Hemel Hempstead	
job no OXPL 360034	date 03 March 2017
drawing no PP001	drawn by SP/SM
revision M (27 June 2018mmm)	checked by RB



**Figure 3.2: Land Use Parameter Plan**



- Residential
  - Primary School (including School Buildings and Playing Fields)
  - 2 Form Entry School Extension Land
  - Community Hub
  - Traveller Site
  - Pumping Station
  - Illustrative Green Infrastructure
- Indicative Location of Play & Sports Facilities:
- ✖ Community Sports
  - ✖ Neighbourhood Equipped Area for Play (NEAP)
  - ✖ Local Equipped Area for Play (LEAP)
- B Environmental Statement Parcel Reference
  - Highways Infrastructure
  - Phase 1 Boundary
  - Site Boundary
















Note: All features and areas are subject to a horizontal tolerance of ±10m.



title Figure 3.2: Land Use Parameter Plan	
client Taylor Wimpey & Barratt Homes	
project LA3, Hemel Hempstead	
job no OXPL 360034	date 7 March 2017
drawing no PP002	drawn by SP/SM
revision Q (27 June 2018)	checked by RB

**Figure 3.3: Green Infrastructure Parameter Plan**



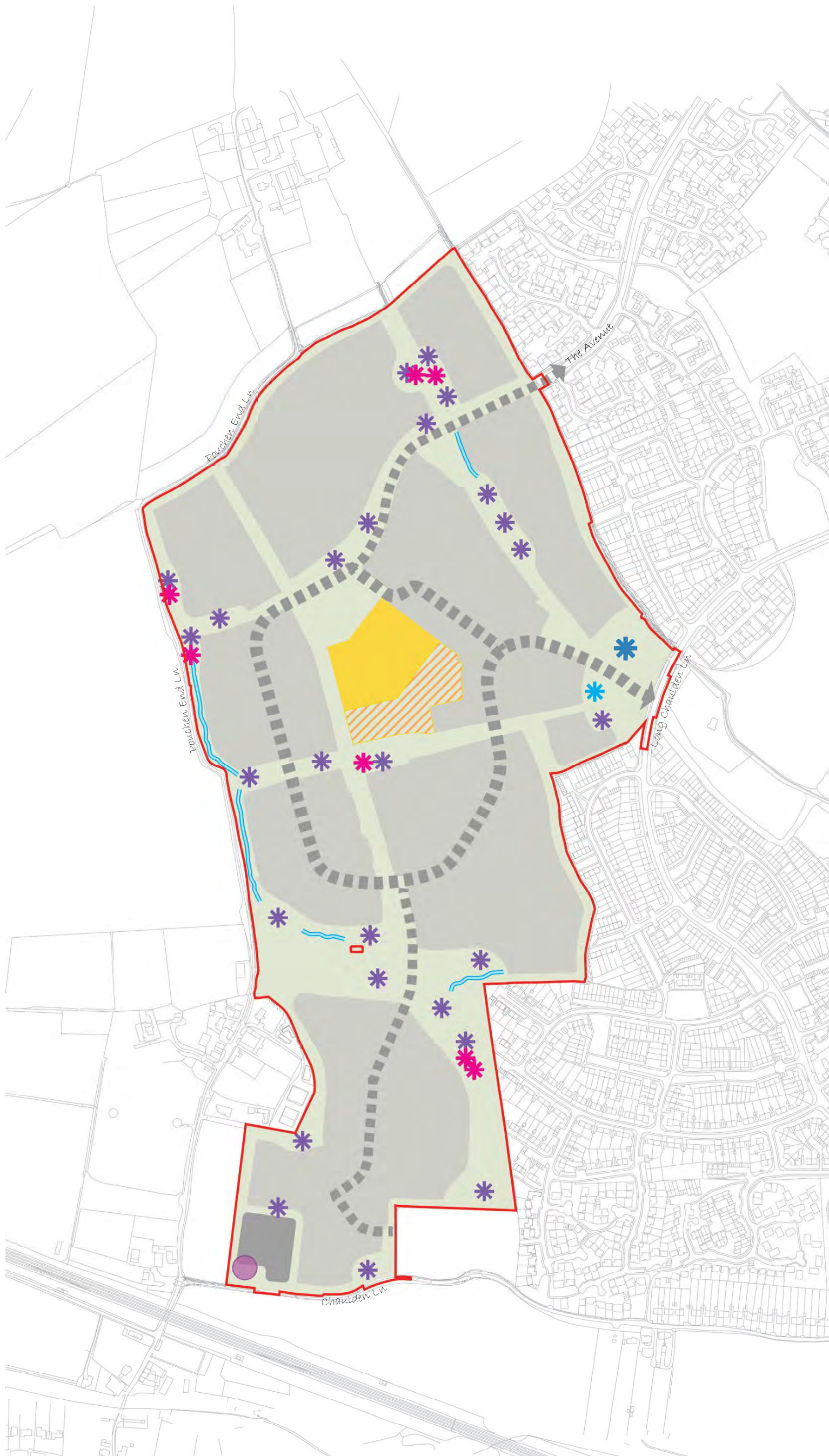
-  Existing Vegetation to be Retained
-  Existing Vegetation to be Removed
-  Existing Trees to be Removed
-  SUDS - Attenuation Basin
-  Existing Basin to be Retained and Enhanced as Permanent Pond
-  Illustrative Green Infrastructure
- Indicative Location of Play & Sports Facilities:
  -  Community Sports
  -  Neighbourhood Equipped Area for Play (NEAP)
  -  Local Equipped Area for Play (LEAP)
-  Highways Infrastructure
-  Proposed Development
-  Primary School Land (including School Buildings and Playing Fields)
-  2 Form Entry School Extension Land
-  Traveller Site
-  Site Boundary














Note: All features and areas are subject to a horizontal tolerance of  $\pm 10m$ .



title Figure 3.3: Green Infrastructure Parameter Plan	
client Taylor Wimpey & Barratt Homes	
project LA3, Hemel Hempstead	
job no OXPL 360034	date 07 March 2017
drawing no PP003	drawn by SP/SM
revision M (27 June 2018)	checked by RB

**Figure 3.4: Hydrology  
 Parameter Plan**



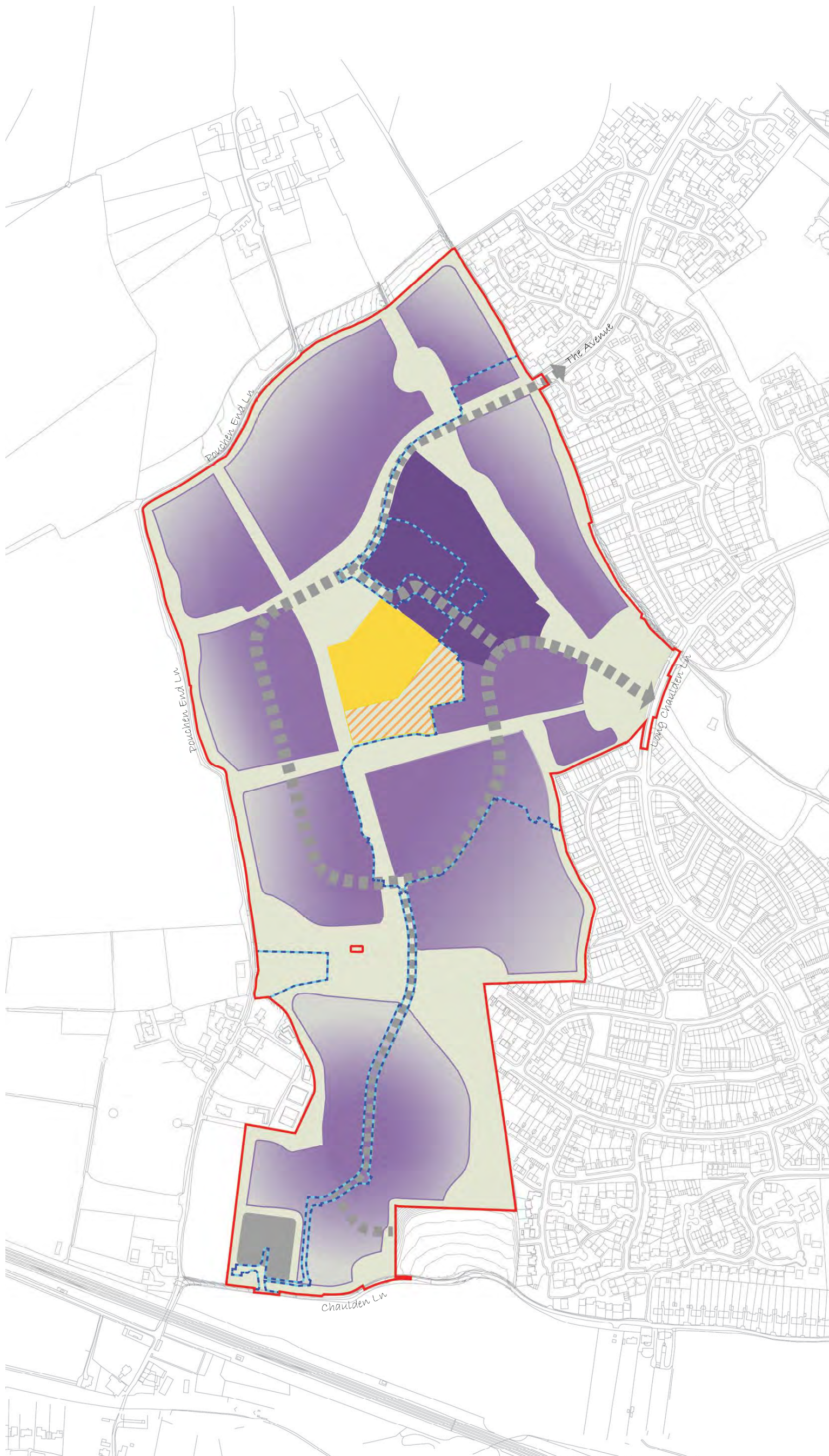
-  Attenuation basin
-  Deep Bore Soakaway
-  Existing Basin to be Retained and Enhanced as a Permanent Pond
-  Attenuation Basin Designed as a Permanently Wet Pond
-  Swale
-  Foul water Pumping Station
-  Highways Infrastructure
-  Proposed Development
-  Primary School Land (including School Buildings fronting Community Hub)
-  2 Form Entry School Extension Land
-  Traveller Site
-  Illustrative Green Infrastructure
-  Site Boundary

Note: All features and areas are subject to a horizontal tolerance of  $\pm 10m$ .



title Figure 3.4: Hydrology Parameter Plan	
client Taylor Wimpey & Barratt Homes	
project LA3, Hemel Hempstead	
job no OXPL 360034	date 07 March 2017
drawing no PP004	drawn by SP/SM
revision M (27 June 2018)	checked by RB

**Figure 3.5: Building Heights  
 Parameter Plan**



- Up to four storeys  
(15m to roof ridge line)
- Up to three storeys  
(13m to roof ridge line)
- Up to two storeys  
(10m to roof ridge line)
- Highways Infrastructure
- Primary School Land (including Buildings up to 13m ridge height fronting the Community Hub square)
- 2 Form Entry School Extension Land (including Buildings up to 13m ridge height)
- Traveller Site (Mobile Homes and Ancillary Buildings up to 6m ridge height)
- Illustrative Green Infrastructure
- Phase 1 Boundary
- Site Boundary

Notes

- All features and areas are subject to a horizontal tolerance of  $\pm 10m$ .
- Heights are from existing ground level which is subject to a vertical tolerance of  $\pm 2m$ .



title Figure 3.5: Building Heights Parameter Plan	
client Taylor Wimpey & Barratt Homes	
project LA3, Hemel Hempstead	
job no OXPL 360034	date 07 March 2017
drawing no PP005	drawn by SP/SM
revision P (27 June 2018)	checked by RB

# Illustrative Masterplan



- 01 Primary School and Playing Field (including nursery)
- 02 Private Nursery
- 03 Mixed Use (including 450 sq.m. convenience store & 3no. 100 sq.m. retail units, with apartments above)
- 04 Mixed Use (including 175 sq.m. Community Hall & 1no. 100 sq.m. retail unit or GP facility, with apartments above)
- 05 Care Home (70 bed)
- 06 Shared square
- 07 Reserved Land for 2 Form Entry Extension or Residential Infill
- 08 Proposed travellers site
- 09 Potential Future Residential Development on I ICC Land

### Movement

- Indicative Pedestrian and/or Cycle Leisure Route

### Play and Sport

- Neighbourhood Equipped Area for Play (NEAP)
- Local Equipped Area for Play (LEAP)
- Informal play (logs, boulders, bunds etc)
- Fitness trail station
- Possible Community Garden
- Hard-surfaced Community Games Area

### Drainage and Utilities

- Indicative SUDS Attenuation Feature
- SUDS attenuation basin designed as a permanently wet pond
- Gas pipeline location

### Vegetation

- Existing trees and hedgerows to be retained
- Community Orchard

### Wildlife Conservation & Habitat Creation

- Reptile receptor area
- Compensatory woodland

- Phase 1 Boundary
- Site Boundary
- HCC Site
- In

Scale 1:2000 (BA1)

\*Drawing to be used for illustrative purposes only. Subject to further detailed and technical studies.

### Illustrative Masterplan

client Taylor Wimpey & Barratt Homes

project Field End Farm, Hemel Hempstead

job no. OXPL 360034

date 12 May 2017

drawing no. IM001

drawn by SM

revision H (27 June 2018)

checked by PF/RR

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- Proposed built form
- Proposed travellers site
- Drainage**
  - Existing basin reconfigured as permanently wet pond
  - Proposed attenuation basin
  - Proposed attenuation basin (permanently wet)
  - Proposed swale
  - Gas pipeline location
- Movement**
  - Proposed 3m wide cycle/pedestrian leisure route
  - Proposed 2m wide pedestrian leisure route
  - Existing public right of way (Chilterns Way) retained and upgraded to 2-3m wide cycle/pedestrian leisure route
  - Existing public right of way retained and upgraded to 2m wide pedestrian route
  - Existing public right of way returned and upgraded to 3m wide pedestrian/ cycle route
- Play and Sport**
  - Proposed Neighbourhood Equipped Area for Play (NEAP)
  - Proposed Local Equipped Area for Play (LEAP)
  - Informal play (logs, boulders, bunds etc)
  - Community games area
  - Fitness trail station
- Vegetation**
  - Existing tree retained
  - Root Protection Area
  - Existing tree or hedgerow removed
  - Proposed tree planting
  - Proposed avenue tree planting on primary streets (indicative location)
  - School playing fields ( 2 Form Entry Extension or Residential)
  - Native grassland or amenity grass
  - Community Orchard
  - Community Garden and Food Growing
- Wildlife Conservation & Habitat Creation**
  - Reptile receptor area
  - 1** Existing grassland retained, harrowed, sowed with yellow rattle & overseeded with wildflower mix
  - 2** Compensatory woodland
  - 3** Green connection to Shrubhill Common reinforced
  - 4** Hedgerows and treelines designed as woodland edge 'ecotone' with scrub and grass margins
  - Site Boundary
  - North

Scale 1:2000

\*Drawing to be used for illustrative purposes only. Subject to further detailed and technical studies.

title	Illustrative Green Infrastructure		
client	Taylor Wimpey & Barratt Homes		
project	Field End Farm, Hemel Hempstead		
job no	OXPL 360034	date	20 March 2017
drawing no	GI002	drawn by	SM
revision	G (27 June 2018)	checked by	RB

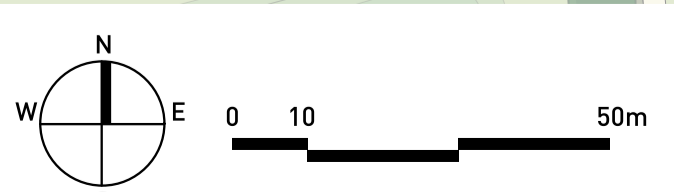


savills.com/urbandesign



- KEY**
- APPLICATION BOUNDARY
  - BUILT FORM FRONTAGE:**
    - BF1: PRIMARY STREET
    - BF2: GREEN EDGE/CORRIDORS
    - BF3: NEIGHBOURHOOD HOUSING
  - BUILT FORM TENURE:**
    - OPEN MARKET HOUSING
    - AFFORDABLE HOUSING
  - LANDSCAPING:**
    - EXISTING TREES TO BE RETAINED
    - INDICATIVE PROPOSED PLANTING
    - EXISTING PROW
  - ENCLOSURE DETAILS:**  
(Please refer to hard landscaping plans for further details)
    - 1.8M HIGH BRICK WALL
    - 1.8M HIGH CLOSE BOARDED FENCE
    - 1.8M HIGH LARCH LAP FENCE
    - 1.2M HIGH BLACK ESTATE RAILING
    - 1.1M HIGH BLACK VERTICAL RAILINGS
    - 0.4M HIGH TIMBER KNEE RAIL
    - BOLLARDS
  - SURFACE TREATMENTS:**  
(Please refer to hard landscaping plans for further details)
    - TARMAC
    - BLOCK PAVING OR SIMILAR APPROVED TO FOCAL SPACES
    - CONTRASTING BLOCK PAVING OR SIMILAR APPROVED TO PRIVATE DRIVES
    - CONCRETE SET PAVING BLOCK PAVING
    - GAS GOVERNOR LOCATION
    - SUB-STATION LOCATION

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LA3, LAND WEST OF HEMEL HEMPSTEAD - COMPOSITE PHASE 1 SITE LAYOUT

