Appendix B: North Hertfordshire Sustainability Principles – Assessment

Site: NS1, North of Stevenage

Principle		Commentary
Transport		
1. New development should be planned around walkable 20-minute neighbourhoods so every home can walk or cycle to meet their daily needs (including primary schools, local shops and mobility hubs)	Met	Within the scheme, a community hub that could provide co-working spaces, meeting rooms, café and community hall is proposed in a central location. A Primary School and mobility hub is also proposed next to the community hub to create a local neighbourhood centre. The site is within a reasonable walking or cycling distance to a range of local services and facilities. This includes Lister hospital, a supermarket, pubs and the Old Town High Street.
2. Active travel should be prioritised over other modes of transport. Walking and cycling should be the safest easiest and most direct forms of transport linking key destinations. The dominance of vehicles on main routes will be reduced and managed through tools such as filtered permeability.	Met	Direct utility pedestrian and cycle links are provided from all areas of the site to the proposed central hub and into the adjoining Stevenage scheme. Filtered permeability will remove private vehicles from the centre of the scheme. The site is linked to the pedestrian and cycle network in Stevenage and National Cycle Route 12 which provides an off-road cycle path to Stevenage Town Centre. This route also connects to Letchworth. The active travel route hierarchy will be further developed through the Design Code for NS1.
3. The active travel network of pedestrian and cycle routes should incorporate a series of direct commuter routes to key destinations and facilities and slower and more tranquil green routes for recreational trips aligned to a connected green space network.	Met	The masterplan shows a series of formal active travel routes, informal routes through green space, edge and green lanes, public footpaths and pedestrian/cycle access points which provide key routes within the scheme and to connect to key places outside of the site. The masterplan contains illustrative plan views of street types which show the layout of the road, footpaths, cycle paths and tree planting. A more detailed active travel network framework will be provided in the Design Code.

Principle		Commentary
4. Cycle infrastructure should meet the core design principles and requirements of LTN 1/20 alongside protecting existing and providing new trees and landscape.	Met	The sections for the Gateway Street and Community Street provide segregated cycleways. On lower order streets, safe on carriageway cycling and / or shared spaces will be supported.
5. Public transport stops with a frequent service should be provided in general no more than 400 m from each house	Met	A bus route is included that will encourage sustainable travel for new residents. The proposed bus route balances accessibility with the potential attractiveness of the service. The significant majority of homes will be within 400m of a stop; some homes at the eastern edge of the site may fall just outside of this.
6. Flexible and durable high-quality streets accessible for a wide range of users should be designed to prioritise pedestrians, cyclists and public transport, effectively integrating the design of sustainable waste collection and designed in accordance with the most recent edition of Manual for Streets.	Met	The scheme includes streets that allow for pedestrians and cyclists and public transport (bus route from the west to the new local centre) to travel. A range of sections and principles are set out. Street design will be further refined and fixed through the Design Code and detailed permissions.
7. Car parking provision should be located so it does not detract from the streetscene and designed to ensure active, public and shared modes of travel remain the most convenient and accessible modes of transport for most people when leaving their home	Partially met *(detail to follow)*	The masterplan proposes a mix of parking facilities such as: • Rear courtyard parking • On-plot parking is proposed • Frontage parking Further information on parking will be provided through the Design Code for NS1.
8. 100% of parking (both on plot and communal) should include a choice of electric vehicle charging informed by site suitability and assessment.	Partially met *(detail to follow)*	The scheme proposes that charging infrastructure for electric vehicles will be installed to dwellings in line with Approved Part S of the Building Regulations.
Community		
9. Community, education and retail uses and flexible space should be co-located with green space to form community hubs and	Met	The masterplan co-locates uses. The proposed community hub and primary school are located at the centre of the site. A proposed civic space is shown outside the community hub to contain a mobility hub and

Principle		Commentary
support social interaction, health and well-being and linked trips. These spaces should be provided early on in the development to support community cohesion.		interfacing with formal open space and play provision (play area, multi-use games area and community orchard) that will act as a gateway to the central green corridor and as the key active travel link between the two residential villages. Phasing will be set out and secured through subsequent planning approvals.
10. For larger scale development mobility hubs should be provided to connect multiple sustainable modes of travel with people, such as public transport, electric vehicles, electric bike infrastructure and clubs, delivery service pick-ups alongside other neighbourhood centre facilities (such as food stores, cafes, child care facilities, GP surgeries, home working hubs and community space)	Met	It is envisaged that the mobility hub at the centre of the site will provide a site for a bus stop, club car parking spaces, bike and scooter hire. A smaller minihub will be provided centrally in the eastern area of the site, in part to offset the fact that a small number of properties in this area may be located more than 400m from the hub.
11. Neighbourhoods should be designed with a range of densities that define their character responding to local character and context. Higher densities should be located in and around the neighbourhood centres/community hubs. Lower densities around countryside edges.	Met	The masterplan provides a framework for building heights and density. The proposed density scales are reflective of the landscape topography. The proposed Central Park will divide the scheme with the eastern and northern parcels providing lower density of 25-35 dwellings per hectare. This takes into consideration the rural context/countryside edges. The western parcels will provide 35-40 dwellings per hectare to create an urban setting next to the school site, mobility hub and community hub. A series of high-level character areas and principles are established. These will be further evolved and refined through the Design Code.
Green Infrastructure		
12. A connected and accessible multi-functional green space network should be created and distributed across the development carefully combining active travel routes, recreational, play, sport, allotment, sustainable urban drainage and ecological enhancements and	Met	A green infrastructure framework is included in the masterplan. It demonstrates how the scheme will provide a green infrastructure network linking public open space and recreation spaces. Green corridors are proposed through the scheme linking residential areas to the proposed local neighbourhood centre, Graveley, Stevenage's housing scheme H03 and the new Forster Country Park. Included within the green space network is multi-functional open spaces, play areas, allotments and SUDs.

Principle		Commentary
achieve the maximum benefits for people, wildlife and the wider environment.		A landscape buffer for existing hedgerows and trees is also proposed to maximise and protect existing wildlife and habitats.
13. The amount, type and location of green space should be informed by the application of the Fields in Trust Standards where sport, recreation and play facilities (including buildings) should be located in prominent and accessible locations so they can serve the community well.	Met	Green space provision is informed by, and exceeds, the Fields in Trust standards. Sport England have advised and agreed that contributions should be made to off-site formal sports provision. Open space is well distributed through the site.
14. Green infrastructure should actively mitigate any unavoidable harmful environmental impacts of development on soil or air quality and minimise light pollution	Met	Landscape buffers are proposed to prevent any harm to existing trees and hedgerows. The Biodiversity Framework identifies a sensitive lighting zone around the site perimeter. Utility walking and cycling routes have been directed to the edges of the green corridors rather than through their centre.
15. Sustainable urban drainage should use above ground features to manage flood risk, mimic natural drainage patterns, maintain the natural water cycle improve water quality and include measures to enhance habitat creation through aquatic and marginal planting.	Met	The scheme includes two proposed drainage attenuation basins to manage flood risk and provide water drainage. These are sited at the north-east corner of the site, close to the pedestrian and cycle access point to Graveley, and along the northern boundary. These locations are informed by the topography of the site and a gravity-led approach to drainage. The Design Code will provide the opportunity to consider detailed, street-scale interventions such as swales and rain gardens that will complement these and provide pathways towards them. The Lead Local Flood Authority did not participate in the masterplan but will be a statutory consultee on future planning applications. Any responses will inform the further design development of the sustainable urban drainage strategy.
16. Existing ecological assets should be retained, protected and enhanced and connected through links, corridors and stepping stones with existing and planned ecological features and networks within and beyond the site	Met	The majority of the ecological interest is to the perimeter of the site as the central areas have been long-standing agricultural uses. Existing hedges and trees will be retained where possible. Additional planting will be provided along the eastern boundary in particular to reinforce the Ten Acre Wood while respecting the heritage interest of the adjoining Chesfield

Principle		Commentary
boundary to enhance ecological functionality and connectivity		Park. 12m buffers are shown provided around the site boundaries in line with Local Plan policy.
17. New development should deliver at least 10% biodiversity net gain within the site boundary or where this cannot be achieved off site habitat enhancement and creation on land under control by the developer within a local distance to the site or a council owned site in a nature opportunity/recovery area	Met	The masterplan demonstrates at least 10% BNG can be delivered within the site. The calculations at this stage take a precautionary approach. They show gains of 10.6%-10.7% based upon the assumptions and level of detail that are appropriate and available at this stage. The masterplan commits to seeking opportunities to enhance this baseline position as elements of the scheme design, such as the access point and the precise nature of the proposed open spaces, are evolved through the Design Code and fixed through any detailed application(s).
18. All streets should be designed to incorporate nature-rich green and blue infrastructure and connect people with nature, provide urban cooling and sustainably manage surface water.	Met	The masterplan provides information on landscape and character which includes the provision of green and blue infrastructure. The illustrative street sections show space for trees and planting. Detailed information on this will be included in the Design Code for NS1.
19. All streets should include tree planting that is best able to absorb carbon and airborne pollutants, attenuate surface water run-off, cool the atmosphere and provide shade and shelter	Met	Tree planting is proposed throughout the scheme and shown in the street plans, sections and scheme illustrations. Further details will be set out in the Design Code.
20. New development should avoid invasive species and maximise the use of native species in site and plot boundaries streets and green spaces to appropriate to local soil conditions and landscape character, ensuring both species and vegetation diversity	Met	The masterplan commits to native species being a core aspect of new planting and tree schemes reflecting local context and character. Where beneficial, additional non-native species will be used to bolster diversity, amenity value, resilience and food / foraging opportunities for wildlife.
21. All new development should utilise domestic scale features to support wildlife such as integral bird nests, bat roosts and invertebrate boxes across the site	Not addressed at this stage	Domestic-scale design measures to support wildlife will be included in the Design Code and / or secured by condition on relevant permissions.

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22. The management and maintenance of green space and other community infrastructure should be agreed in the early stages of planning and design to ensure the proposed condition, quality, functionality and benefits of the green space in the long term.	Not addressed at this stage	The management approach has not been set at masterplan stage for this scheme. Stewardship will be considered and secured through the outline planning application and associated legal agreement.
Energy & Water		
23. New development should demonstrate how carbon emissions will be minimised and energy efficiency maximised through fabric performance, passive design and using renewable technologies such as photovoltaics, solar thermal, biomass, ground/air source heat pumps, wind and hydro. The choice of renewables should be informed by site assessment and suitability. Achieving standards beyond the minimum requirements of building regulations is strongly encouraged.	Partially met (*detail to follow)*	The masterplan includes a Sustainability and Energy Framework for the site which responds to national and local policy requirements. Passive and active design measures will be incorporated to improve insulation, reduce heat loss and avoid excessive requirements for heating and cooling. Electric heating and water systems will be installed which would make the homes net zero in operation when the UK electricity grid decarbonises. Further information on renewable technologies such as heat pumps and solar panels will be included in the Design Code for NS1. The masterplan includes a clear commitment to investigating the feasibility of these technologies.
24. New development should minimise carbon emissions through reducing embodied energy through the selection of construction and building materials and processes. The use of sustainable construction standards such as BREAAM, Housing Quality Mark and Passivhaus are encouraged to demonstrate processes that are environmentally responsible and resource efficient.	Not addressed at this stage	See above. Information on construction, building materials and processes will be included in the Design Code for NS1.
25. All new development should meet or exceed nationally prescribed water efficiency standards and include measures to reduce	Met	The masterplan commits to designing new homes to use less than the Local Plan's enhanced target of 105 litres of water per day per person. It will exceed these nationally prescribed standards, by specifying water

Principle		Commentary
water consumption including water efficient appliances and water recycling systems.		efficient and low flow fittings to all areas. Further information will be included in the Design Code for NS1.