Appendix B: North Hertfordshire Sustainability Principles – Assessment

Site: Land to the north of the Grange (LG1)

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	The masterplan addresses this by emphasising the creation of a development with garden city principles where residents can easily access key local facilities by walking or cycling. The plan includes a new 2FE primary school, neighbourhood-level retail and community facilities, and a sustainable mobility hub, all designed to form a vibrant neighbourhood centre. One of the core principles of the masterplan is to maximise the co-location of these facilities to ensure they are easily accessible on foot or by bicycle. By placing the local centre uses (such as retail, school, and community facilities) in the most accessible locations, the masterplan aims to support natural exercise and foster walkable interactions among residents. This strategic co-location ensures that daily needs can be met within a short walk or cycle ride from any home within the development. The masterplan's approach promotes a healthy, active lifestyle while reducing reliance on cars, thereby supporting sustainable urban living.
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	The masterplan strongly aligns with this criteria by prioritising sustainable and active travel as a core principle of the development. Several key strategies are proposed to ensure that walking and cycling are the safest, easiest, and most direct forms of transport linking key destinations: Active Travel Networks: The masterplan emphasises the creation of safe and attractive active travel networks that effectively link the development to the surrounding wider context. This includes developing a robust public transport strategy in collaboration with North Hertfordshire Council (NHC) and Hertfordshire County Council (HCC).

Principle		*Commentary*
		Permeable Streets: Streets are designed to be permeable and integrated with the landscape, minimising detours and dead-ends for walking and cycling. This design ensures direct and efficient routes for active travel. Traffic Management: Traffic and speed management measures will be integrated, particularly along the avenue, to prioritse active travel, slow down cars, and prevent rat-running. This approach reduces the dominance of vehicles and enhances safety for pedestrians and cyclists. Co-location of Facilities: By co-locating facilities such as retail, schools, and community centre in accessible locations, the masterplan maximises opportunities for walking and cycling, supporting natural exercise and reducing reliance on cars. Sustainable Mobility Hub: The masterplan proposes the early implementation of a sustainable mobility hub, including features like electric vehicles (EV), car clubs, and bike shares, to support at least a 10% modal shift towards sustainable transport. This hub will evolve over time to accommodate changing travel habits, potentially repurposing parking spaces for alternative uses as car use declines. Pedestrian Priority: Site-wide principles are set to design the movement network, streets, and spaces to embed pedestrian priority and support active travel, helping to deliver a minimum 10% modal shift. Overall, the masterplan's comprehensive approach to promoting active travel and managing vehicle dominance through filtered permeability and other measures ensures alignment with the policy requirement to prioritise walking and cycling as primary modes of transport.
3. The active travel network of pedestrian and cycle routes should incorporate a series of	Met	The masterplan effectively aligns with the principle by promoting walking and cycling through a permeable and connected street pattern, facilitating safe and

Principle		Commentary
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.		legible routes. It establishes direct commuter routes to key destinations and facilities while preserving tranquil green routes for recreational trips. The design integrates natural desire lines, linking into the existing Public Rights of Way network and extending to surrounding settlements, Radwell Meadows, and the Etonbury Green Wheel. Additionally, a Greenway extension link preserves the rural character of existing greenways, allowing users to bypass the new development. This comprehensive approach ensures accessibility to both urban amenities and rural recreational areas, promoting active travel and enhancing the overall quality of the environment.
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	Cycle routes are proposed through the new development, accommodating the national cycle way and Letchworth Greenway. Strong pedestrian and cycle permeability is aligned with natural desire lines that link into and extend the existing PRoW network to support access to the Grange Estate, main destinations and recreational movement.
5. Public transport stops with a frequent service should be provided in general no more than 400 m from each house	Partially Met *(detail to follow)*	The masterplan aims to ensure that all homes are within a 400-meter walking distance to a bus stop. The intention is to strategically place designated bus stops along the main avenue. However, details regarding bus service frequencies and specific bus stop locations are still under consideration. Additionally, provisions for an adequate bus turning area within the site are planned, utilising the internal road network as a loop and/or a turning circle to facilitate efficient bus routes and accommodate frequent service
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.	Partially Met *(detail to follow)*	The primary street is defined and multi-functional and a network of cycling and walking routes are established, but will require more detail and definition at the outline application stage.
7. Car parking provision should be located so it does not detract from the streetscene and	Met	The masterplan addresses this by integrating structural planting within street sections to blend parking areas with the landscape, proposing additional

Principle		*Commentary*
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		parking for the Grange Recreation Ground with shared use during off-peak times, and considering communal parking solutions like car barns with PV panels and green roofs. These measures ensure parking does not detract from the street scene and support active, public, and shared modes of transport as the most convenient options for residents.
8. 100% of parking (both on plot and communal) should include a choice of electric vehicle charging informed by site suitability and assessment.	Met	The masterplan commits to the provision of electric vehicle (EV) charging infrastructure for all modes of transport. Specifically, it ensures that each dwelling will have a minimum of one active EV charging point from the outset.
Community		
9. Community, education and retail uses and flexible space should be co-located with green space to form community hubs and support social interaction, health and well-being and linked trips. These spaces should be provided early on in the development to support community cohesion.	Met	The masterplan co-locates key local facilities, such as a new 2FE primary school, neighbourhood-level retail, community facilities, and a sustainable mobility hub, to create a vibrant neighbourhood centre. These facilities are situated next to a public square along the Grange recreation ground boundary, enhancing opportunities for social interaction and linked trips. The early phases of the development will emphasise integrating these spaces with the Grange Recreation Ground, reinforcing its role as a central park and connecting it to the existing social infrastructure of the Grange Estate.
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	The development will include a mobility hub within LG1, designed to connect various sustainable modes of travel with people. This hub will serve as a high-quality public realm space, integrating shared transport measures with public transport and active travel. Key components of the mobility hub will include a bus stop, car club, cycle hire, lockers, electric vehicle charging points, centralised delivery lockers, and potentially a co-working space and small café. Strategically located in proximity to the Grange Recreation Ground, the neighbourhood centre, and the Letchworth Greenway/NCN12, the mobility hub will ensure easy access for residents. Additionally, its proximity to the 'reserve' school site will support access to and from school using active travel modes.
11. Neighbourhoods should be designed with a range of densities that define their character responding to local character and context.	Met	The masterplan aligns with this principle by incorporating a number of character areas with blend of formal and informal spaces, with variations in massing, building heights, densities, built form, and open space configurations. The

Principle		*Commentary*
Higher densities should be located in and around the neighbourhood centres/community hubs. Lower densities around countryside edges.		character and density of built form vary across the masterplan, with stronger and fairly continuous development along primary and secondary streets, transitioning to more informal and looser development along tertiary streets. Higher densities are concentrated around the neighbourhood centre and community hubs, fostering a vibrant and active urban core. In contrast, lower densities are situated around the countryside edges, respecting the rural character and preserving open landscapes.
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 achieve the maximum benefits for people, wildlife and the wider environment.	Met	The masterplan outlines in its Strategic Green Infrastructure Framework it that integrates various elements to create a connected and accessible multi-functional green space network. This framework serves as a pivot between garden and city, connecting Letchworth with the Grange Estate, agricultural fields, and adjacent settlements. It protects and enhances existing natural features such as hedgerows, shelterbelts, woodlands, and mature trees, while also providing additional open spaces for recreation and amenity, including a new linear park, allotments, and play areas. Surrounding green spaces will complement and extend the central green space, enhancing connectivity within the development. Moreover, the landscape framework incorporates additional native habitat to improve ecological connectivity and deliver a biodiversity net gain, with planting aimed at promoting climate resilience.
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	Extensive work has been undertaken to comply with the Fields in Trust requirements and collaborative work has been progressed with the Council in relation to the Grange Rec and how this can be enhanced. Further detail will be required at the outline application stage, including clarification on Section 106 contributions
14. Green infrastructure should actively mitigate any unavoidable harmful environmental impacts of development on soil or air quality and minimise light pollution	Met	The masterplan is landscape led, with a clear GI structure that has regard to the context, surroundings and enhances the natural environment.

Principle		*Commentary*
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.	Partially Met (further details at the outline stage)	A commitment is in place to deliver a SUDS solution and the framework can accommodate this. Further detail will be required at the outline application stage on the SUDS design.
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 boundary to enhance ecological functionality and connectivity	Met	The masterplan aims to protect and enhance existing hedgerows to create wildlife corridors that contribute to a local nature recovery network. The plan includes protective buffers of native scrub, wildflower grassland, and drainage features to provide habitats for invertebrates, pollinators, small mammals, and birds. The retention and active management of native scrub areas, tree-lined shelterbelts, and plantation woodlands within the site are designed to enhance biodiversity. Additionally, the masterplan proposes new areas of broadleaved woodland, mixed scrub, hedgerows, meadows, wetlands, and ponds as part of the sustainable drainage system, ensuring ecological connectivity and functionality both within and beyond the site boundary.
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 effectively meets this principle by prioritising biodiversity net gain (BNG) within the development. Through assessments using the Biodiversity Metric and following guidelines provided, the masterplan demonstrates a significant net gain of biodiversity. The varied mosaic of habitats within and surrounding the site, including woodland, scrub, and grassland, provides an opportunity for enhancement. Additional native planting and the incorporation of new drainage features and wetlands contribute not only to climate resilience and adaptation but also to the improvement of ecological corridors and biodiversity net gain. The assessment indicates a substantial net gain of 18.06% for area-based habitats and 19.34% for linear habitats and hedgerows, surpassing the required 10% threshold.
18. All streets should be designed to incorporate nature-rich green and blue infrastructure and connect people with nature, provide urban	Met (detail to follow)	The street network integrates structured planting and sustainable urban drainage systems (SUDs) features to enhance ecological value and connect people with nature. Secondary streets are designed to include swales, either in the middle or on the sides, to manage surface water sustainably while providing

Principle		*Commentary*
cooling and sustainably manage surface water.		urban cooling. More detail on the type of trees and SUDs detail will be required as part of subsequent stages.
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 (detail to follow)	While the specific types and species of trees and planting will be determined in later stages, the strategic masterplan clearly emphasises the ambition to incorporate these benefits through thoughtful planting and drainage strategy across the development.
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 (detail to follow)	The masterplan highlights the use of native species in site and plot boundaries, streets, and green spaces. It aims to complement existing native planting and ensure diversity by selecting tree species appropriate to landscape character. It also emphasises creating a connected nature-rich network of green spaces using native, climate-resilient, and adaptive species, thereby promoting biodiversity and enhancing ecological connectivity. More detail will follow as part of a design code and/or planning application.
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	Met (detail to follow)	One of the design implications of landscape and environmental character is to incorporate additional man-made habitat features, such as hibernacula, log piles, and bat, bird, and invertebrate boxes within the development. These features aim to enhance refuge opportunities for various species. While the strategic masterplan provides a strategic overview, more detailed plans for implementing domestic scale features to support wildlife will be provided as part of the outline planning application.
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.	Partially met (detail to follow)	The masterplan highlights and acknowledges the importance of stewardship and coordinated management of green spaces and community infrastructure. It highlights the development of a site-wide stewardship strategy aimed at ensuring a sustainable approach to managing green spaces, public realm, and community spaces in line with the objectives outlined in the Strategic Masterplan. Key tenets of the stewardship strategy include maintaining non-adopted highways, footpaths, open spaces, and landscape/ecological attributes to protect and retain the core aspirations of the masterplan.

Principle		*Commentary*
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.	Met (detail to follow)	The masterplan has the ambition to minimise carbon emissions and maximise energy efficiency by aiming to adhere to and potentially exceed the Future Homes Standard, which will take effect in 2025. The LG1 development is committed to being zero carbon ready, incorporating discussions with North Herts Council and the appointed development partner. The plan also considers opportunities to surpass these benchmarks, aligning with commercial viability and potential certifications like BREEAM and BHL Commendation. Additionally, the masterplan outlines eight topic areas for further development and exploration in later stages, to ensure a holistic approach to sustainability.
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.	Met (detail to follow	The masterplan showcases housing innovation by dedicating parts of the site to demonstrate various construction and design methods, as well as different tenures. The masterplan encourages the use of sustainable construction standards to ensure environmentally responsible and resource-efficient practices. Furthermore, the masterplan explores eight key topics (as mentioned above), that include the mention of sensitive construction methods, modern methods of construction, and a circular approach to construction materials, which will be further developed in subsequent stages.
25. All new development should meet or exceed nationally prescribed water efficiency standards and include measures to reduce water consumption including water efficient appliances and water recycling systems.	Not addressed at this stage	One of the sustainability eight topics to be further explored in the next stages of the project is water efficiency. This exploration will include supporting groundwater recharge through the management of surface water, managing and mitigating surface water flood through sustainable urban drainage, and exploring opportunities for the reuse and recycling of wastewater.