

HIGH PATH ESTATE

Outline Planning Application

By

Clarion Housing Group Ltd

SUSTAINABILITY STATEMENT

November 2017



CLARION
HOUSING GROUP

HIGH PATH ESTATE

SUSTAINABILITY STATEMENT

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Architecture
Urban Design
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Landscape
Sustainability
Project Services
Planning
Transport Planning
Interiors
Research

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Client	Clarion Housing Group
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Executive Summary

This Sustainability Statement has been prepared by PRP for The Applicant (please see Planning statement for further detail) in support of an outline planning application submitted to the London Borough of Merton (LBM) for the redevelopment of the High Path Estate in South Wimbledon. The application is submitted in parallel with two other outline planning applications for the redevelopment of the Ravensbury Estate in Morden and Eastfields Estate, Mitcham.

The proposed scheme aims to provide future and existing residents across the estate with greater opportunities for independent, affordable secure living.

The development will deliver up to 1570 dwellings which mainly include family houses, apartments, mews and town houses. Tenures include provision of affordable and private housing. There are also non-residential elements comprising of flexible floor space which can provide spaces for cafés, shops, restaurants, offices, a gym, and community uses.

The Applicant has committed to adopt the BREEAM Communities standard approach to the High Path development, the standard will be implemented as far as possible. For the non-residential buildings in the development there is the aim to achieve a BREEAM New Construction 'Very Good' rating.

The project seeks to regenerate and revitalise the existing High Path Estate, which is classed as brownfield land, where the proposed density and land uses will optimise the potential of the land.

The proposed energy strategy will ensure that the development will reduce carbon dioxide emissions by 35% against Building Regulations 2013. This will be achieved by providing a district heating network (with CHP), enhanced performance building fabric and photovoltaic panels. In order to meet the 100% reduction in CO₂ emissions, any remaining shortfall in CO₂ emissions will be subject to the carbon offsetting mechanism.

The developer and design team aim to implement design measures that will allow for water consumption to be reduced to 105 litres/ person/ day (excluding external water use).

The developer will commit to selecting building elements and materials to be:

- 'A+' to 'D' rated under the Green Guide for Specification,
- with reduced replacement, maintenance and cleaning needs, for the life cycle of the development
- reused on site, sourced locally or with short and/or certified supply chains and manufacturing processes.

Pollution, as a result of the development, both in operation or during construction will be minimised. Measures will be implemented to control and reduce potential pollution sources that may affect soil, water and the air quality. Waste recycling facilities will be available on site and during the construction stage. The contractor will be expected to reduce waste arising from the works and to achieve high levels of waste being diverted from landfill. It is expected that an array of suitable measures will be implemented to reduce noise affecting nearby

properties and sensitive receptors. Light pollution will be minimised by implementing best practice guidelines from the Institute of Lighting Professionals in regards to obtrusive lighting.

The site accessibility is excellent. A tube station, several bus routes and amenities are located in close proximity, reducing the residents need to travel. In order to mitigate any potential impacts that an increase in local population might bring, it is also proposed that flexible work units and non-residential uses are created on site; cycle storage spaces will be introduced for residents and visitors; car club parking will be available; electric car charging points will be installed and car parking will be limited on site to incentivise the use of public transport.

The residents' health and wellbeing has been at the centre of the design proposals, where extensive and varied amenity areas have been designed, which intend to promote access to nature. These are distributed across the site and will feature the central neighbourhood park as the flag ship open space on site. The proposed amenity areas will each feature diverse planting species, to enhance the ecological value of the site. Many of the existing trees on site will be kept and will be integrated in the proposed landscape scheme. Play areas in the form of play spaces for children and extensive lawns have been introduced. The dwellings will have generous, yet balanced, openable windows to optimise access to daylight while promoting natural ventilation.

The engagement and collaboration of the existing residents and community, as well as the future occupants is critical to the project success. The existing community has been engaged in the process since 2013 and the feedback collected has been a significant driver of the proposals.

The proposals are inclusive and promote pedestrian safety and overall security by providing restricted access to the private spaces and dwellings; ensure that public/communal areas are overlooked and are well lit and have been designed to be Part M compliant. A proportion of dwellings will be wheelchair accessible/adaptable.

The introduction of green roofs, rain gardens and extensive soft landscaped areas will have immense benefits on the development, not only will these contribute to the reduction of surface water run-off but they will also reduce the effects of climate change, as these will help reduce local air temperatures. Trees will contribute to over shading in the warmer summer periods, while still allowing daylight penetration during the darker and colder winter months. The introduction of balconies and the use of a light coloured materials palette in the facades will increase the albedo effect.

Appropriate digital solutions will be used throughout the design, delivery and occupancy phases to improve efficiency, effective community engagement and governance and smooth management. Where feasible, residents and other key stakeholders will be trained and supported in increasing digital skills and confidence. Travel information packs, home user guides and building user guides will be distributed to inform the residents and occupiers on how to use the facilities and technologies that are been provided, as well as access sustainable modes of transport. Efforts will be made to collect feedback from the residents and to educate them on how to optimise the use of their homes and reduce energy and water bills.

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The non-residential spaces that will be created as part of the development will also increase the number of local jobs available to the residents. The Applicant will seek to engage with the proposed local businesses to explore opportunities that create places for long term and/or disabled unemployed residents. During the construction stage the developer will require contractors to give employment opportunities to existing local unemployed residents as a priority and local residents in general.

Overall the proposed development achieves a good standard of sustainability which seeks to minimise its impact on the local environment during the life cycle of the development and provide scope and encouragement for the future residents to adopt sustainable, resilient and participative lifestyles.

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1. Introduction

- 1.1.1. This Sustainability Statement has been prepared by PRP for The Applicant (please see Planning statement for further detail) in support of an outline planning application submitted to the London Borough of Merton (LBM) for the redevelopment of the High Path Estate in South Wimbledon. The application is submitted in parallel with two other outline planning applications for the redevelopment of the Ravensbury Estate, Morden and Eastfields Estate, Mitcham.
- 1.1.2. This statement should be read in conjunction with other supporting documents submitted with the planning application including the Town Planning Statement prepared by Savills, the Design and Access Statement and the Design Code prepared by PRP, which explain the Proposed Development in more detail and relate them to the surrounding context and planning policy framework for the Site. For a complete list of the reports used to inform this Sustainability Statement please refer to the 'References' section, at the end of this statement.
- 1.1.3. The assessment work undertaken for the redevelopment proposal takes into account the Phase 1 development for which a separate full planning application (LBM ref: 16/P3738) was submitted in September 2016.
- 1.1.4. Where reference is made to Site, this relates to the area bound in red on the Site Location Plan (Drawing Ref: AA4586_2001).
- 1.1.5. Where reference is made to Estate / High Path Estate, this relates to the area bound in red, plus the garages that form part of the first phase planning application.
- 1.1.6. Where reference is made to the Wider Masterplan / Masterplan, this relates to the combined area of the Site and the first phase which incorporates the Old Lampworks.

The Site

- 1.1.7. The High Path Estate is situated in the South Wimbledon area of the Borough and is located directly adjacent to the South Wimbledon Underground Station, which is on the Northern Line.
- 1.1.8. The Estate currently comprises 608 residential dwellings in a mixture of tower blocks, flats, maisonettes and terraced houses and accommodates a mix of tenures including private ownership phase and affordable rent. The number of storey across the site ranges from 1 to 10.
- 1.1.9. The Site is bounded to the north by Merton High Street; to the east by Abbey Road; to the south by High Path; and to the west by Morden Road.
- 1.1.10. The first phase of the regeneration comprises an area to the south east of the Site consisting of disused garages, a play area and The Old Lampworks industrial warehouse building. As noted, this phase is the subject of a separate full planning application.

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1.1.11. The Site is located within the South Wimbledon / Colliers Wood Area of Intensification designated in the London Plan and is located within an area characterised by a mix of uses, with Merton High Street predominantly formed of commercial ground floor uses with two storeys of residential above, to the north, and predominantly comprises brick built Victorian terraced housing, to the north and east. To the south of the Estate on the opposite side of High Path is Merton Abbey Primary School; further south is Merton Industrial Park with warehouse and industrial buildings predominantly two storeys in height and to the east of the site is a Sainsbury's superstore and retail park.

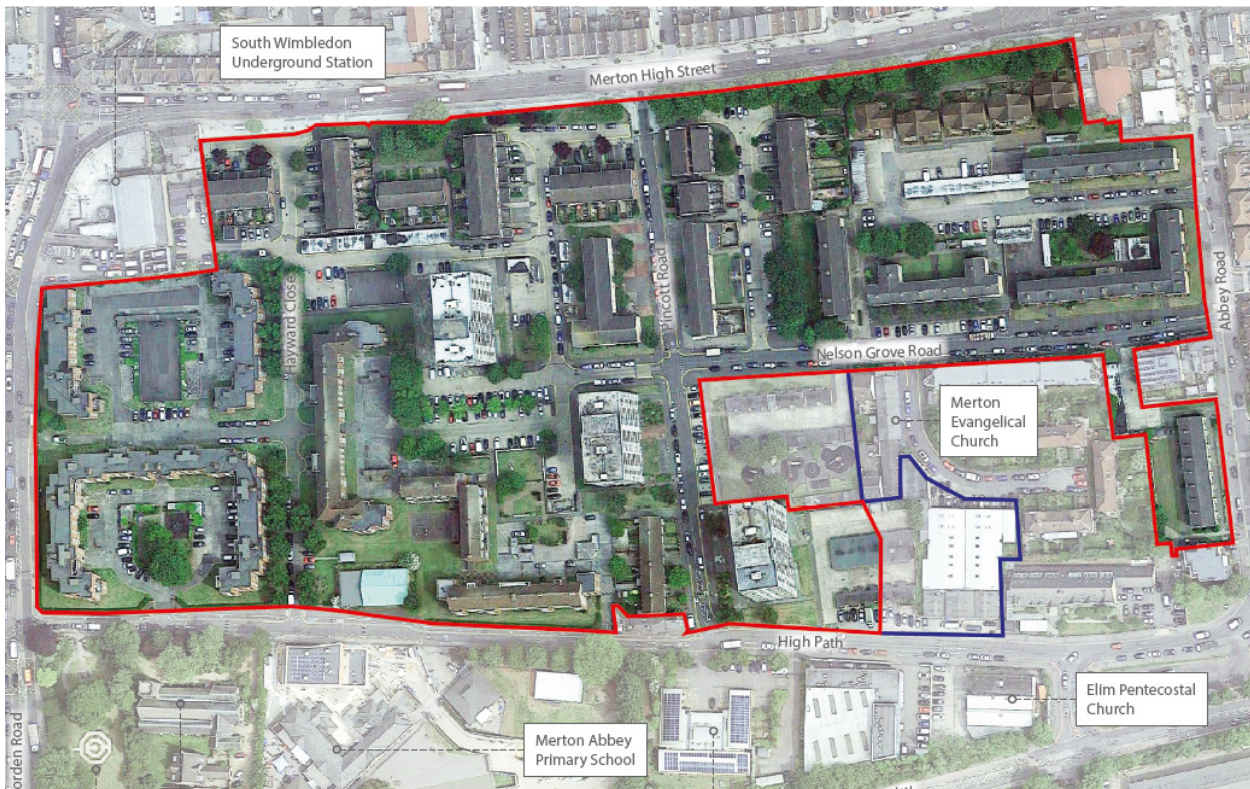


Figure 1 - Aerial view of existing site

Description of the Proposed Development

1.1.12. The description of Proposed Development for this outline planning application is set out below:

"Outline planning application (with all matters reserved, except in relation to parameter plans) for the comprehensive phased regeneration of the High Path Estate comprising the demolition of all existing buildings and structures; erection of new buildings ranging from 1 to a maximum of 10 storeys providing up to 1570 residential units (C3 Use Class); provision of up to 9,900 sqm of commercial and community floorspace (including replacement and new floorspace, comprising: up to 2,700 sqm of Use Class A1 and/or A2, and/or A3 and/or A4 floorspace, up to 4,100 sqm of Use Class B1 (Office) floorspace, up to 1,250 sqm of flexible work units (Use Class B1), up to 1,250 sqm of Use Class D1 (community) floorspace; up to 600 sqm of Use Class D2 (Gym) floorspace); provision of new neighbourhood park and other communal amenity spaces, including children's play space; new public realm, landscaping works and new lighting; cycle parking spaces (including visitor cycle parking) and car parking spaces (including within ground level podiums), together with associated highways and utilities works."

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- Key
- Application boundary
 - Blue line boundary - Phase 1

Figure 2 – High Path indicative site plan

1.1.13. Parameters and design coding are provided in respect of the Layout, Scale, Access, Appearance and Landscape which are to be submitted as Reserved Matters.

Structure and Purpose of this Report

1.1.14. This Sustainability Statement has been prepared to provide an assessment of sustainability considerations relevant to the Proposed Development having regard to the national, regional and local planning policy framework. The Proposed Development is assessed having regard to the following:

- Development Plan policies contained in:
 - London Plan (inc. Minor Alterations, 2016); and
 - London Borough of Merton (LBM) Local Plan, comprising:
 - Core Planning Strategy (2011);
 - The Sites and Policies Plan and Policies Plan(2014); and
 - South London Waste Plan (2012).
- Material considerations including:
 - National Planning Policy Framework (NPPF);
 - Planning Practice Guidance (PPG);
 - Draft Estates Plan (2016);

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- Adopted Mayor of London Supplementary Planning Guidance (SPG), including the Sustainable Design and Construction SPG (April 2014);
 - Adopted LBM Supplementary Planning Guidance/ Documents; and
 - Emerging planning policies and guidance.
- Sustainability Brief

2. Methodology

2.1.1. This Sustainability Statement has been structured around the GLA's and Merton Council's sustainable development aims and objectives, and demonstrates the sustainability features included in the Proposed Development. Specifically, the Proposed Development has been assessed against the following topics, as these are listed in the London Plan and the Mayor of London Sustainable Design and Construction SPG:

- Land, Site Layout and Building Design; Efficiency;
- Energy, Carbon Dioxide Emissions and Renewable Energy;
- Water;
- Materials and Waste;
- Nature Conservation and biodiversity;
- Adapting to Climate change and greening the city; and
- Pollution Management– Land, Air, Noise, Light and Water

2.1.2. In addition to the above topics, this sustainability statement also seeks to demonstrate how the sustainability measures proposed for the development will meet the sustainability themes and principles contained within the applicant's sustainability brief and strategic vision for the development. As such, several additional topics have been built into this statement:

- Transport and movement;
- Governance and management;
- Health and social wellbeing;
- Digital inclusion;
- Financial resilience; and
- Employment and economy.

2.1.3. The following sections detail the sustainability credentials of the Proposed Development, against the above topics. The sustainability measures described in this Sustainability Statement were developed in consultation with members of the project team.

3. Context

- 3.1.1. The following section sets out the current main policies and guidance documents on sustainability issues, including emerging local policies, where they are known.

Planning Policy

- 3.1.2. The government has recognised the need to ensure the long term sustainability of new developments and their communities, and as a policy response, has published the National Planning Policy Framework (March 2012) to replace the suite of existing material policies and guidance documents. Section 38(6) of the Planning and Compulsory Purchase Act 2004 requires planning applications to be determined in accordance with the provisions of the Development Plan unless material considerations indicate otherwise.
- 3.1.3. The development proposal outlined in the sections below will be assessed against prevailing National Planning Policy Framework (NPPF) and policies contained within London Plan, London Borough of Merton adopted Core Planning Strategy and Sites and Policies Plan.

National Planning Policy Framework

- 3.1.4. The National Planning Policy Framework here on referred to as the NPPF, was adopted in March 2012 and sets out the Government's planning policies for England and how these are expected to be applied. The adoption of the NPPF also triggered the revocation of a number of documents including Planning Policy Statements and Planning Policy Guidance (listed within Annex 3 of the NPPF). While the NPPF has amended certain aspects of the planning system, it does not change the statutory status of the Development Plan as the starting point for decision making. The NPPF constitutes guidance for local planning authorities and decision takers and therefore acts as a material planning consideration in determining applications.
- 3.1.5. The provisions within the Framework that are relevant to this application include the presumption in favour of sustainable development which is seen as the golden thread running through the planning and decision-making process. For the decision-making process the Framework seeks decision takers to approve development proposals that accord with the Development Plan without delay. Paragraph 49 of the NPPF states that housing applications should be considered in the context of the presumption in favour of sustainable development.
- 3.1.6. A key objective of the Framework is focused on delivering a wide choice of high quality houses outlined in Chapter 6 and in particular the Framework's emphasis is on local authorities to boost significantly the supply of housing.
- 3.1.7. The Framework (Paragraph 14) gives strong policy emphasis through the presumption in favour of sustainable development in that planning application which accord with the aspirations set out in the

Framework should be approved unless adverse impacts significantly and demonstrably outweigh the benefits of development. The presumption should be at the centre of all planning application decisions.

3.1.8. The definition of sustainable development within NPPF refers both to the Brundtland definition as “the development that meets the needs of the present without compromising the ability of future generations to meet their own needs”, and the ‘Securing the Future’ - five guiding principles set out in the UK Sustainable Development Strategy. These five ‘guiding principles’ of sustainable development look at sustainability in its wider context, addressing not only environmental sustainability but also social and economic concerns.

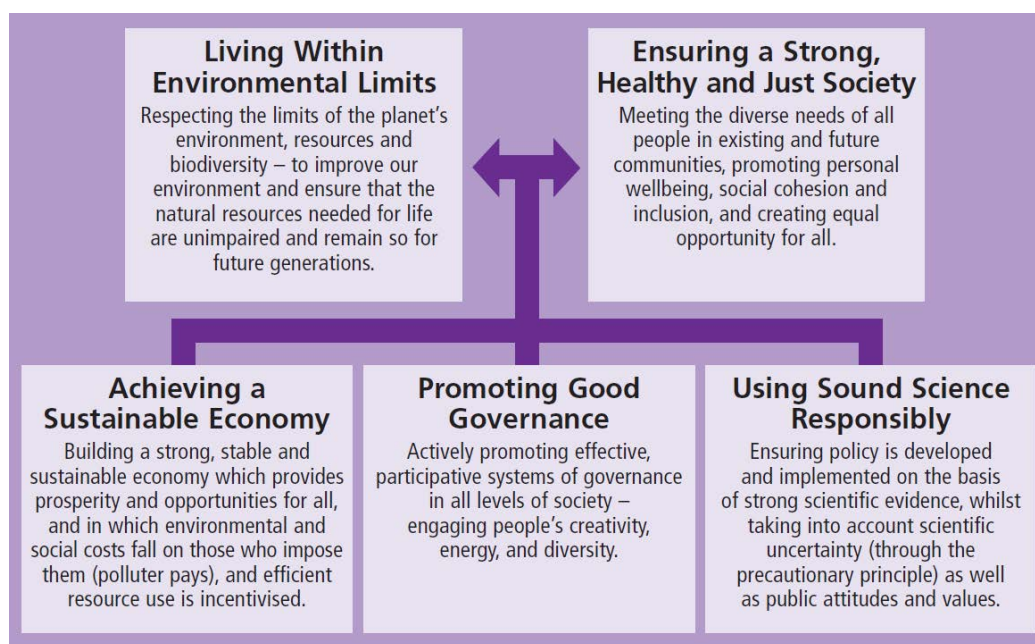


Figure 3 - The five guiding principles under the UK Sustainable Development Strategy¹

Regional Policy

3.1.9. The Mayor of London shares, with the boroughs and the Corporation of the City of London, the responsibility for strategic planning in London. The spatial development strategy (SDS) for London is now known as the "London Plan" and it sets out an integrated economic, environmental, transport and social framework for the development of London over the next 20–25 years. The following regional policies and guidance therefore apply to the development:

- The London Plan, Spatial Development Strategy for London (Adopted Jul 2015), including minor alterations to the London Plan (March 2016)
- Mayor of London Supplementary Planning Guidance (SPG) on Housing (Adopted March 2016)
- Mayor of London SPG on Sustainable Design and Construction (Adopted April 2014)

¹ HM Government (2005) Securing the Future: delivering UK sustainable development strategy.

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- Mayor of London SPG on The Control of Dust and Emissions during Construction and Demolition (Adopted June 2014)

Local Policy

- 3.1.10. The London Borough of Merton has developed and adopted its new spatial development plan for Merton: Local Plan. The Local Plan includes, amongst others, the following local policies and guidance, which apply to the development:

Core Planning Strategy – Local Development Framework (2011 – 2026)

- Policy CS13– Open Space, nature conservation, leisure and culture
- Policy CS15 – Climate Change
- Policy CS16 – Flood Risk Management
- Policy CS17 – Waste Management
- Policy CS18 - Active Transport

Sites and Policies Plan and Policies Map (July 2014)

London Borough of Merton Estates Local Plan (2017)

- Policy EPH6 Environmental Protection
- Policy EPH7 - Landscape

Sustainability Brief

- 3.1.11. The Applicant have produced a Sustainability Brief which outline their aspiration/commitment to improve and enhance the life chances of its housing stock residents, while improving the supply and quality of housing in Merton. The document will be referred to as The Sustainability Brief from hereon.
- 3.1.12. This section sets out the sustainability vision (long-term commitment), framework and principles that underpin the development project.

Vision

- 3.1.13. "The Merton Regeneration Project will provide all residents with greater opportunities for independent, affordable and secure living. The approach puts people at the centre - involving residents at all stages to take ownership of the opportunities, and help shape the sustainable future of their communities. The homes, spaces, facilities and services across the communities will support residents in both improving their quality of life and making sustainable lifestyle choices. By taking an integrated approach and a long-term perspective, MRP will provide "great places in to the future", The Sustainability Brief, July 2016.

Framework

3.1.14. In order to deliver The Applicant’s sustainability vision for the regeneration project, a framework has been prepared. This framework uses a structure of themes, which covers the triple-bottom-line and is informed by a range of drivers. The combination of a number of processes aims at providing the successful delivery of outcomes. Please refer to Figure 4 below.

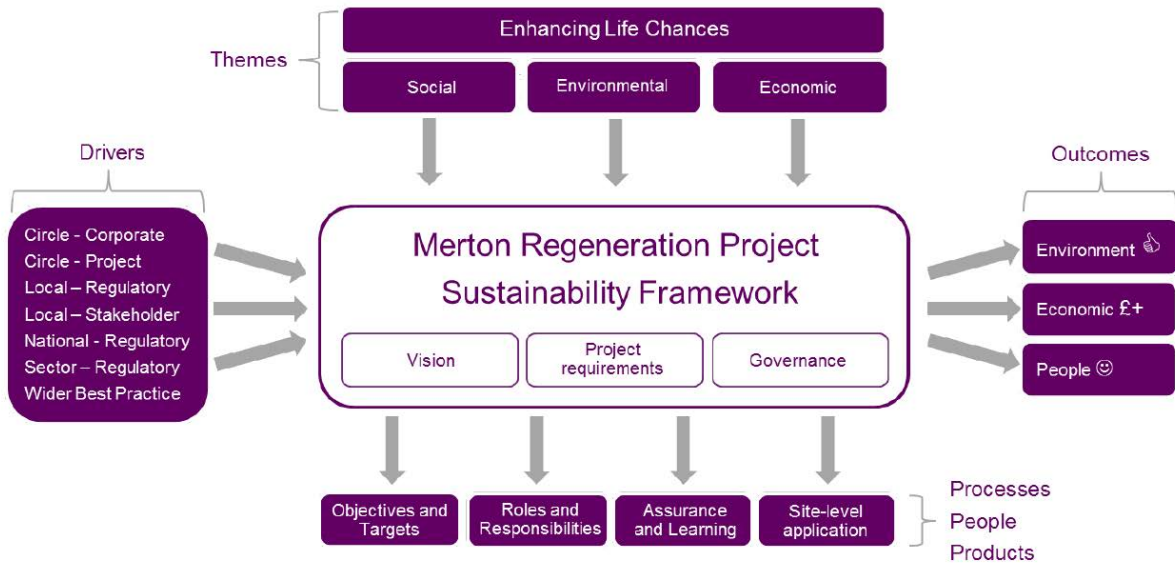


Figure 4 - Merton Regeneration Project Sustainability Framework

Principles and Themes

3.1.15. As part of, and to complement, the Sustainability Framework, a set of Themes and Principles have been developed to provide the structure to record, embed and track performance against objectives and targets. The Themes are as Figure 5 below:

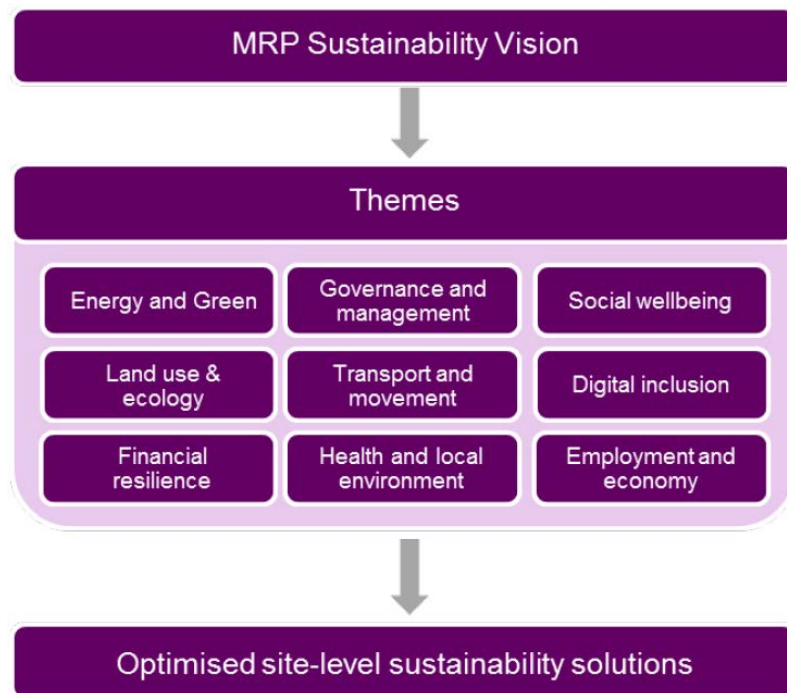


Figure 5 - Summary of the Sustainability Brief Themes

3.1.16. To complement the Vision and Framework a set of principles has been established. These will represent the outcome priorities of the programme and are to be used as guides to inform decision-making when selecting the best solutions for the customers, programme and sites. Please see below the list of principles:

- Optimised affordability for residents
- Delivers best social and economic value - hard wired for low maintenance
- Contribute to a learning legacy
- Support community inclusivity and ownership - "doing with not doing to"
- Leanness and simplicity - technology, control, management and operation
- Enable residents to stay in their homes longer
- Long-life and loose-fit to future proof against changes (climate, demographic, etc.)

Other Standards - BREEAM Communities and BREEAM New Construction

3.1.17. As part of the several drivers influencing the design of the development proposal, The Applicant has identified BREEAM Communities as a best practice methodology that should be used to inform the urban design principles of the High Path project.

3.1.18. BREEAM is an Environmental Assessment Method and rating system for buildings developed and launched by the Building Research Establishment (BRE) in 1990. A BREEAM assessment uses recognised

measures of performance, which are set against established benchmarks, to evaluate a building's specification, design, construction and use.

- 3.1.19. BREEAM Communities is a simple and flexible route to improving, measuring and certifying the sustainability of large-scale development plans. It provides a framework to support planners, local authorities, developers and investors through the master planning process, before embarking on procurement, detailed building level design and construction. The standard is applied during the early planning and design stages of a development. It offers a holistic framework with key target benchmarks that assists decision makers to better understand and improve upon the impact their decisions will have upon the longer term environmental, social and economic aspects of the development.
- 3.1.20. The BREEAM New Construction methodology can be used to assess any building type at design stage (Interim stage certificate) or at Post Construction stage (Final Stage certificate). The building will be awarded a rating based on its environmental performance, which ranges from: PASS (30%), GOOD (45%), VERY GOOD (55%), EXCELLENT (70%) and OUTSTANDING (85%).

4. Sustainability Assessment

- 4.1.1. As part of the drive towards designing and building developments that address future generations' needs by implementing adequate sustainability measures in current proposals, the sections below highlight the way how the proposed development will integrate sustainability within its proposals.
- 4.1.2. The Applicant has committed to adopt the BREEAM Communities standard approach to the High Path development, the standard will be implemented as far as possible with the aim of achieving interim certification at this stage of the project.
- 4.1.3. There is also the commitment to not only apply the BREEAM Communities principles but to achieve a BREEAM New Construction 'Very Good' rating for all the proposed non-residential buildings on the site.

4.2 Land Site Layout and Building Design

Land use

- 4.2.1. The existing site can be classed as brownfield land, which is currently occupied by the High Path Estate (including tower blocks, flats, maisonettes and terraced houses). The project aims at regenerating the whole area, creating a new, vibrant and inclusive mixed use development and community, where all residents will have greater opportunities for independent, affordable and secure living. The preferred location of non-residential uses will be along the main roads delimitating the overall site, like Merton High Street and Morden Road, reflecting existing uses along these roads.



Figure 6 – Indicative Land Use

4.2.2. The density proposed for the site has been carefully designed so that while not overwhelming the neighbouring sites, still delivers an appropriate quantity of dwellings per hectare, as detailed in the Design and Access Statement (DAS), prepared by PRP. Consideration has been given to the building heights across the site; the highest densities are located around the neighbourhood park area (where there will be a better sense of openness) and the western boundary (close to the busy Morden Road and Tube Station). Some of the calmer inner streets will feature stacked maisonettes. The eastern boundary will feature lower densities, mainly houses (along Abbey Road) creating a closer linkage with the surrounding urban fabric.

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Figure 7 – Indicative Building Heights

4.2.3. A daylight, sunlight and overshadowing report has been prepared by PRP. Please refer to PRP's report for detailed information about this subject. In this report two options were analysed and a summary of the results can be found below:

Indicative option:

4.2.4. According to the report the results of the Vertical Sky Component (VSC) assessment show that good levels of daylight will be retained across most of the surrounding properties with the proposed development in place. The results of the No-Skyline (NSL) analysis showed that most of the surrounding properties assessed will experience negligible to minor impacts from the proposed development.

4.2.5. The results of the Probable Sunlight Hours test show that most of the surrounding properties analysed will retain good levels of sunlight with proposed development in place, both on an annual basis and during the winter period. This ensures that opportunities for passive solar gain in winter are preserved.

4.2.6. With regards to the overshadowing analysis of the surrounding spaces it was concluded that the proposed Indicative option of the master plan will have a negligible impact on the sunlight availability of the open spaces located around the proposed development.

Parameter option

- 4.2.7. The daylight impact for the Maximum Parameter option followed the same methodology as the analysis for the Indicative option.
- 4.2.8. The results of the VSC assessment show that most of the windows will experience negligible to minor impacts from the proposed development. The results of the NSL analysis identified that most of the rooms assessed will retain good levels of daylight after proposed development is in place.
- 4.2.9. The results of the Probable Sunlight Hours analysis for the Maximum Parameter option show that good levels of sunlight will be achieved by most of the surrounding properties on an annual basis and during the winter period.

Flood Risk Assessment

- 4.2.10. A Flood Risk Assessment (FRA) has been prepared by Peter Brett Associates LLP (PBA) to support an outline planning application for the redevelopment of the High Path Estate.
- 4.2.11. In accordance to the FRA the eastern sector of the site is located within Flood Zone 1 'Low Probability' with the western sector and some isolated areas in the centre of the site located within Flood Zone 2 'Medium Probability'.
- 4.2.12. The site is also susceptible to elevated groundwater and surface water flooding with areas of higher surface water susceptibility and surface water flow paths located within the site boundary and the immediate vicinity. There is a 'Low' to 'Medium' susceptibility flow route located along Nelson Grove Road and a 'Low' susceptibility flow route located along Rodney Place to High Path.
- 4.2.13. In order to mitigate the risk of fluvial flooding associated with the Flood Zone 2 area, it is proposed that finished floor levels are set at a minimum level of 14.77 mAOD, which is the modelled undefended site specific 1 in 1000 (0.1%) Annual Probability fluvial flood level and, in line with standard practice, is considered to represent a proxy for the 1 in 100 (1%) Annual Probability plus 70% climate change event. For areas located within Flood Zone 1, it is likely that finished floor levels will need to be set up to 250mm above the general surrounding external ground levels in order to mitigate the risk of surface water and groundwater flooding. These mitigation strategies will be developed at the reserved matters stage.
- 4.2.14. The FRA concludes that the future occupants and users of the proposed development are expected to be at negligible risk of flooding.

Surface Water Run Off

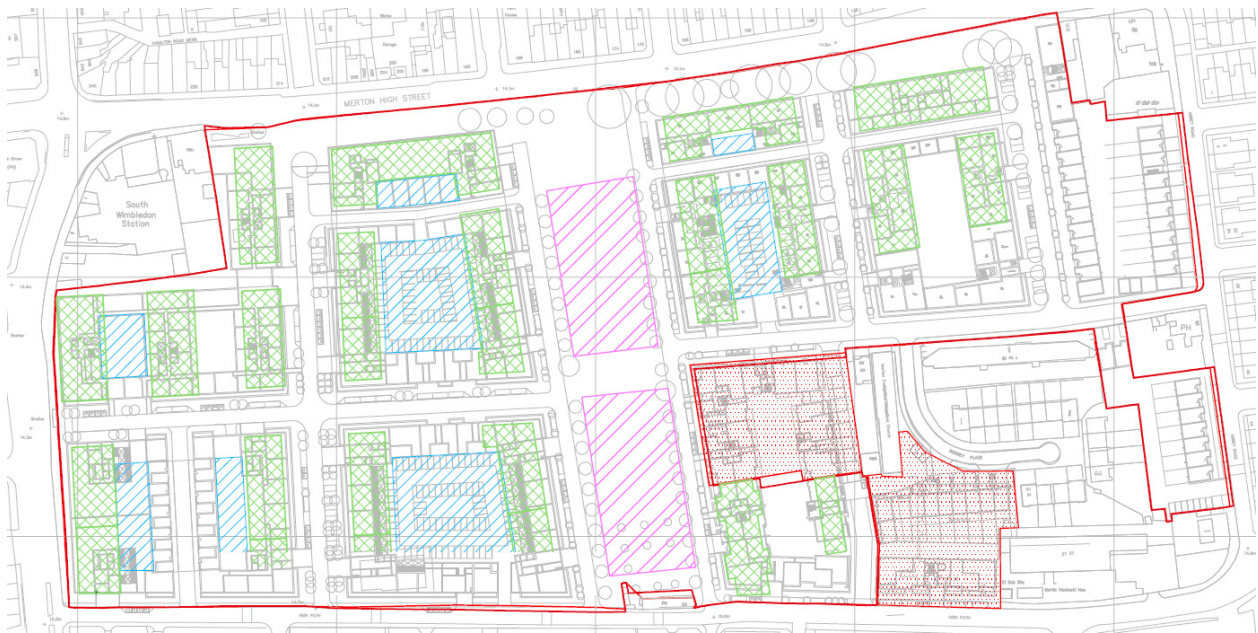
- 4.2.15. It is proposed that the High Path development will reduce the runoff in order to provide betterment and reduce the risk of flooding. The aim is to reduce the runoff " by at least 50%" from the current discharge as calculated in the SUDS Strategy Report produced by AECOM. It has been estimated, based

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on a 50% reduction, that the proposed discharge for the development will be no greater than 349.65l/s for a 1:100 year return period + 40% climate change.

- 4.2.16. The project team aims to achieve the above mentioned targets by proposing a series of measures on site as described and illustrated below. The surface water run-off strategy has been prepared by AECOM.
- 4.2.17. The neighbourhood park will have a dual purpose: an open recreational space for the residents to appreciate and congregate, as well as a swale, to where surface water will be directed and where it will slowly infiltrate onto the soil.
- 4.2.18. At the podium deck, its construction will generally allow for a usable surface such as permeable block or slab paving to be created, which facilitates a free flowing layer addressing drainage requirements during low flow, whilst the layer beneath provides attenuation capacity during and after storm events.
- 4.2.19. Permeable block paving (non infiltration) is a familiar method of SuDS that will be incorporated into the non-adoptable hard landscaping design.
- 4.2.20. Swales and ponds will be created on the neighbourhood park, these will retain and infiltrate surrounding surface water run-off.
- 4.2.21. Green/brown roofs will be installed on the buildings. These will intercept, retain and filter precipitation, contributing to the reduction of volume runoff and attenuating peak flows. The processes involved are:
- retention of rainwater in the substrate and drainage layers;
 - irrigation of plants and subsequent release by plants as vapour (transpiration);
 - use of water for plant photosynthesis; and
 - evaporation from substrate due to wind and sun.
- 4.2.22. Any unmitigated surface water run-off will be released to the foul sewerage system for the new development and into the existing combined public sewer which flows through the site, subject to agreement with Thames Water.



LEGEND






	SWALE AREA (4500m ²)
	GREEN/BROWN ROOF AREA (14150m ²)
	PODIUM DECK AREA (5365m ²)
	PHASE 1 (NOT PART OF THIS APPLICATION)
	SITE BOUNDARY

Figure 8 – Indicative SUDS across the High Path development

Food Growing

- 4.2.23. As part of the continuous drive to improve the regeneration project for High Path there is the aspiration to create self-build play with potential area for food growing. The aim is to support skills development and community cohesion. Local residents could be invited to use and take care of the food growing spaces, enhancing sense of ownership and care. Local schools could be invited to be involved by providing educational sessions on, for example: food growing, nature, water and nitrogen cycles, etc.
- 4.2.24. The temporary growing spaces could be created in designated communal areas, whose location will be dependent on the demolition and construction programme, providing the opportunity to use space that would otherwise be underused. It is expected that the food growing spaces may be containerised, to enable them to be relocated within the estate as the demolition and construction works progress. Every effort will be made to ensure the spaces have access to water, are south facing, not heavily overshadowed and are sheltered from the wind.
- 4.2.25. It is expected that by providing these spaces a significant contribution is made to the creation of a stronger tight knit community.

4.3 Energy, Carbon Dioxide Emissions and Renewable Energy

Energy strategy

- 4.3.1. An Energy Statement has been prepared to identify how the proposed development at High Path, will address the energy and CO₂ emission reduction policies set out in the London Plan and the London Borough of Merton's planning policy. In line with these policies, both the wholly domestic and the non-domestic elements of the development must achieve a 35% reduction in CO₂ emissions on-site. The residential elements of the development should additionally achieve a 100% reduction in CO₂ emissions, with a minimum of 35% being achieved locally, over the Building Regulations Approved Document Part L (2013) baseline.
- 4.3.2. The strategy is based on the Energy Hierarchy, and follows the GLA energy assessment guidance (March 2016), as follows:
- ↪ Use less energy (be lean);
 - ↪ Supply energy efficiently (be clean); and
 - ↪ Use renewable energy (be green).
- 4.3.3. Energy demand will be curbed by incorporating measures including high levels of thermal insulation, detailing to reduce air permeability and thermal bridging, and low-energy lighting. It has been assumed that High Path will have a Design Air Permeability of, no more than, 4.0 m³/m²/hr @ 50 Pa and that windows will be high performance double glazed units. The non-residential elements will use the same building fabric specification.
- 4.3.4. Mechanical Ventilation with Heat Recovery (MVHR) will be specified in all flats and maisonettes and distributed Mechanical Extract Ventilation (dMEV) will be specified in the houses. Mechanical cooling is not proposed for any of the residential elements; however it is likely to be installed in the commercial spaces.
- 4.3.5. The above measures will contribute to reduce the carbon emissions from the development by approximately 2%.
- 4.3.6. All dwellings and commercial spaces will be connected to a district heat network. The network will feature a 90.3% efficient CHP unit, supplying ~55% of the total annual heat. The CHP will be complemented by gas boilers with a seasonal efficiency of 95%, which will provide the balance of the heat. It has been estimated that the proposed space and water heating strategy will reduce the carbon emissions by 33%. It is noted that the district heat network is sized to serve the future Phase 1 development, though this is part of a separate planning application and has not been included in these calculations.
- 4.3.7. It is proposed that low or zero carbon technologies will be installed on the development. Based on a preliminary analysis, the PVs were found to be the most effective solution and the proposal is to install

125 kWp of PVs on the flat roofs (that are not overshadowed). The installation of PVs will reduce the carbon emissions by approximately 3%.

- 4.3.8. Any remaining shortfall in CO₂ emissions will be subject to carbon offsetting facilities, which will include the investigation of options using the following hierarchy:
- Further on-site reductions; and for
 - Carbon reduction projects within the Borough. This will be explored in conjunction with London Borough Merton, in particular the opportunity to undertake improvements in The Applicant existing affordable housing stock; and / or
 - Financial contribution.

Energy Efficient White goods

- 4.3.9. Information and advice on the purchasing of white goods will be provided within the dwellings Home User Guide. This will contain information about the EU Energy Labelling Scheme and other energy efficiency indicators. Where the installation of white goods is the responsibility of the developer the aim will be to install A+ rated white goods.

Energy Efficient Lighting

- 4.3.10. Lighting to all dwellings and communal areas, within each building, will be provided by low energy LED or CFL lamps. External lighting will use compact fluorescent lamps and/or LEDs, be equipped with appropriate presence-detection and daylight cut-off devices.

Metering and controls

- 4.3.11. Heating controls will include 7-day programmers to both the living and sleeping zones, allowing each dwelling to set different temperatures in different rooms at different times. This will avoid the unnecessary heating of rooms not in use at particular times of the day.
- 4.3.12. Energy bills will account for individual heat usage and 'Smart' meters with accurate recordings for both heat and electricity use will be provided in each dwelling. The aim is to facilitate occupants to have the ability of being able to trace their consumption habits and be able to adapt behaviours. Control over energy consumption will provide an improved level of control over budgets and household finances.

4.4 Water

Reducing Potable Water Use

- 4.4.1. Water availability is a basic service within each home. Occupants can reduce their bills, energy consumption (via hot water) and their personal impact on water stress if the dwellings and external areas are designed to facilitate the reduction of water consumption. The developer and design team aim to implement design measures that will allow for water consumption to be reduced to 105 litres/ person/ day (excluding external water use). This target will allow the project to meet policy and will be achieved by introducing: dual flush toilets, reduced water flow wash hand basin and kitchen taps, baths with a lower overflow capacity and efficient water usage showers.
- 4.4.2. The proposed strategy for reducing water demand has been prepared for the High Path masterplan with careful consideration of the proposed uses in Phase 1, which mirror each other to promote consistency across the dwellings.
- 4.4.3. In order to predict the likely water consumption (as designed), calculations have been carried out using the water calculation prediction method used in Building Regulations Part G. Reducing water consumption to 105 l/p/d will provide a saving of approximately 13% against the mandatory minimum.

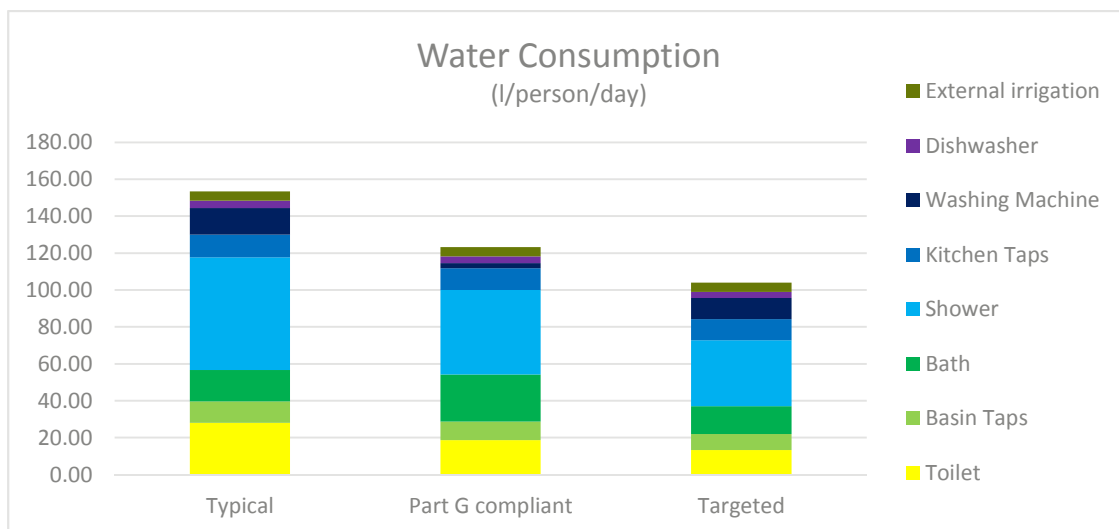


Figure 9 – Water Consumption targets for High Path

- 4.4.4. The planting strategy for the soft landscaping scheme will be selected based on many requirements, one of the main considerations will be to select plants, for both communal and private gardens, which are indigenous and will rely less on water for thriving. The hard landscaping materials will be selected so that they will have lower cleaning needs.
- 4.4.5. Residents will also be provided with information on how to lower water usage in their gardens and within the dwellings, promoting conscious use of valuable resources.

Alternative Sources of Water

Rainwater

4.4.6. Rainwater harvesting systems to supply rainwater to individual dwellings and non-residential premises have not been considered as part of the designs for various reasons:

- Density of the development precludes opportunities to install larger communal rainwater tanks underground;
- Limited availability of areas for rainwater collection as the vast majority of roofs will be green/brown roofs and the rainwater will be used as part of irrigation strategy;
- The on-going maintenance liability of rainwater collection systems, including pumps and tanks combined with the low cost of mains potable water make the investment unviable at current water tariffs;
- The houses are likely to be fitted with water butts.

4.4.7. Several of the blocks at High Path will include green roofs, which serve to harvest a significant quantity of rainwater before dispersing any residual rainwater through the surface water drainage network. It is deemed this will be a more cost effective and beneficial use of rainwater as the green roofs will contribute to the overall biodiversity of the site as well as improve the quality of run-off, provide additional vegetation and reduce the urban heat island effect in this dense development.

Greywater

4.4.8. The installation of a greywater system was discounted for the High Path site as the focus for the project is to install water fittings that will facilitate water consumption reduction. Subsequently the amount of greywater being produced by the residents will be reduced. The installation of a cleaning plant, distribution network has a high capital cost, spatial implications and high operational costs due to maintenance.

4.4.9. In this scenario the installation of a greywater collection and cleaning system and resupply network, becomes far less viable, even if considering the whole life cycle.

Metering

4.4.10. Meters can play an important role in encouraging people to control and reduce their water consumption. It is expected that, where feasible, all dwellings in the High Path new development will be individually metered.

4.5 Materials and Waste

Environmental Performance of Materials

- 4.5.1. Determining the overall environmental impact of construction materials is a complex process that takes into account issues such as: durability; energy and other resources used in manufacture; pollution and emissions resulting from manufacture; and the likelihood of re-use or potential for recycling at the end of their life.
- 4.5.2. One of the tools available to support developers and project teams in their choices is the Green Guide to Specification, by BRE. The Green Guide considers typical UK construction specifications and compares their environmental impact on a scale of A+ (lowest environmental impact) to E (greatest environmental impact). Comparisons are made using specifications that achieve the same levels of performance and the environmental impact is for a complete lifecycle (from manufacture to end of life disposal).
- 4.5.3. An optimised approach will be adopted by the developer (as also previously indicated for Phase 1) to include targeting 'A+' to 'D' ratings for key building elements (e.g. Roof, Floors, Internal Walls, External Walls, Windows, etc.), while at the same time, balancing other objectives including specification for reduced maintenance needs. Additionally, where practical and in keeping with planning objectives (relating to the appearance of buildings), construction methods will be selected that meet the higher ratings where possible and technically feasible.
- 4.5.4. The developer will seek to work with its supply chain, to optimise its procurement approach, ensuring that, where possible, recycled aggregates will be incorporated on the unbound applications across the site. Where feasible, non-contaminated demolition waste will be used in the sub-base for roads and pavements on-site.

Responsible Sourcing of Materials

- 4.5.5. Consideration will be given to the use of materials that are responsibly sourced: sustainably manufactured and with sustainable supply chains. There is the commitment to engage with the construction supply chain to embed and deliver optimised outcomes.
- 4.5.6. The project team will first aim at reusing the existing materials within the proposed new development. This approach will reduce the environmental impact of the supply chain associated with the development and will reduce the need for virgin materials.
- 4.5.7. For the elements where it is not possible and new materials are required, priority will be given to materials which are sourced locally, with short supply chains. Consideration will be given to the use of materials which have certified supply chains and manufacturing processes and are able to demonstrate their commitment and actions to reduce their ecological and carbon footprint. Materials with certifications/declarations such as: Fairtrade, Environmental Product Declarations, BES6001, ISO 14001, EMAS, timber certification, etc. will be prioritised.

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- 4.5.8. All timber will be sourced from sustainable sources; priority will be given to timber that is certified under one of the following schemes: FSC (Forestry Stewardship Council), PEFC (Pan European Forestry Council), CSA (Canadian Stewardship Council), or SFI (Sustainable Forestry Initiative).
- 4.5.9. To ensure that this requirement will be met, the certification requirements will be clearly included within the specification documents for this development.

Robustness and Resilience

- 4.5.10. Central to the developer priorities is the optimisation of long term affordability of the proposed development. There is a strong and firm commitment to select materials in accordance to its durability and resilience. Materials will be selected to ensure that material degradation and the frequency of replacement is minimised.
- 4.5.11. Consideration will be given to the selection of materials for areas like external walls, windows, doors, staircases, floor coverings, hard landscaping, etc. The aim is to reduce the occurrence of material degradation effects like discolouration, corrosion, abrasion, swelling, shrinkage, melting, wear and tear, etc.
- 4.5.12. The materials will be selected to facilitate maintenance and cleaning. Careful guidance, during the construction stage, will be given to the sub-contractors and installers to ensure that the materials are installed in accordance with the manufacturers specifications, as sometimes incorrect installation is responsible for quick replacement needs.

Construction Waste

- 4.5.13. The design team and The Applicant are committed to a strategic approach to managing materials and construction waste, and ensuring the impact on the environment is minimised by reducing the amount of waste sent to landfill.
- 4.5.14. A pre-demolition audit of the existing buildings, structures and surfaces will be prepared ahead of any demolition works (including soft stripping). Careful consideration will be given to the types and quantities of waste predicted to arise from the demolition works and, where feasible, materials will be maintained and reused on site. It is likely that a percentage of the aggregates used in the hard landscaping scheme will origin from crushed existing materials.
- 4.5.15. The site will be subject to a Site Waste Management Plan (SWMP), this document will allow the principal constructor to properly monitor waste being produced on site and will support the project commitment to minimise, wherever possible, construction waste through best practice. There will be particular emphasis on reducing the amount of waste that is sent to landfill by reusing, recycling or even incinerating the waste being produced. Every effort will be made to try and reused onsite construction and excavation materials.

Operational Waste

- 4.5.16. The impact that a new development has on waste is mainly incurred during occupation not the construction phase. This site has been designed with the intention of reducing the quantity of waste that is sent to landfill by providing residents with the facilities to recycle a number of materials, removing them from the waste stream. Information will also be provided to educate occupants about the waste stream and benefits of recycling.
- 4.5.17. An integrated waste strategy for the site has been developed. The strategy is aligned with the proposals put forward as part of the Phase 1 planning application, allowing the developer to optimise and improve the waste collection and recycling strategies for the area. The proposal is that the waste should be split into several streams:
- paper & card,
 - other 'dry mixed recyclables',
 - food waste,
 - garden waste,
 - general waste,
 - bulky items.
- 4.5.18. The collection of the 2 main recyclable waste streams (paper & card and other recyclables) will be available to all dwellings as it is proposed that an Underground Refuse Storage (URS) system is installed at several points in the High Path Estate regeneration.
- 4.5.19. For multi-occupancy buildings, food waste is to be stored in an outdoor metal housing in a convenient location for residents. Exact locations of food waste stores will be confirmed at the reserved matters stage. A secure location will restrict vandalism, odour and the potential to attract vermin. For individual households an external caddy will be available.
- 4.5.20. Any garden waste generated in the communal areas will be removed by a private contractor as part of the maintenance plan for the building. Therefore for multi-occupancy buildings without private gardens, no separate garden waste collection has been assumed.
- 4.5.21. For private gardens with rear access, the bin is to be stored in the garden. For gardens without rear access, a bin at the front of the property or central storage area will be provided.
- 4.5.22. A bulky waste store (for every 50 dwellings) has been allowed for within the general building layout.
- 4.5.23. Commercial producers of waste have a legal duty to make their own proper and environmentally sound arrangements for the storage, collection and disposal of their waste. A conventional waste storage system has been incorporated within the Proposed Development to provide commercial flexibility to each occupier.
- 4.5.24. The collection of waste within the URS is to be done by a vehicle with a telescopic crane, which lifts the bins out of a concrete chamber.

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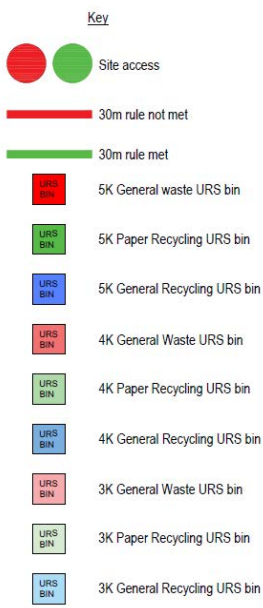
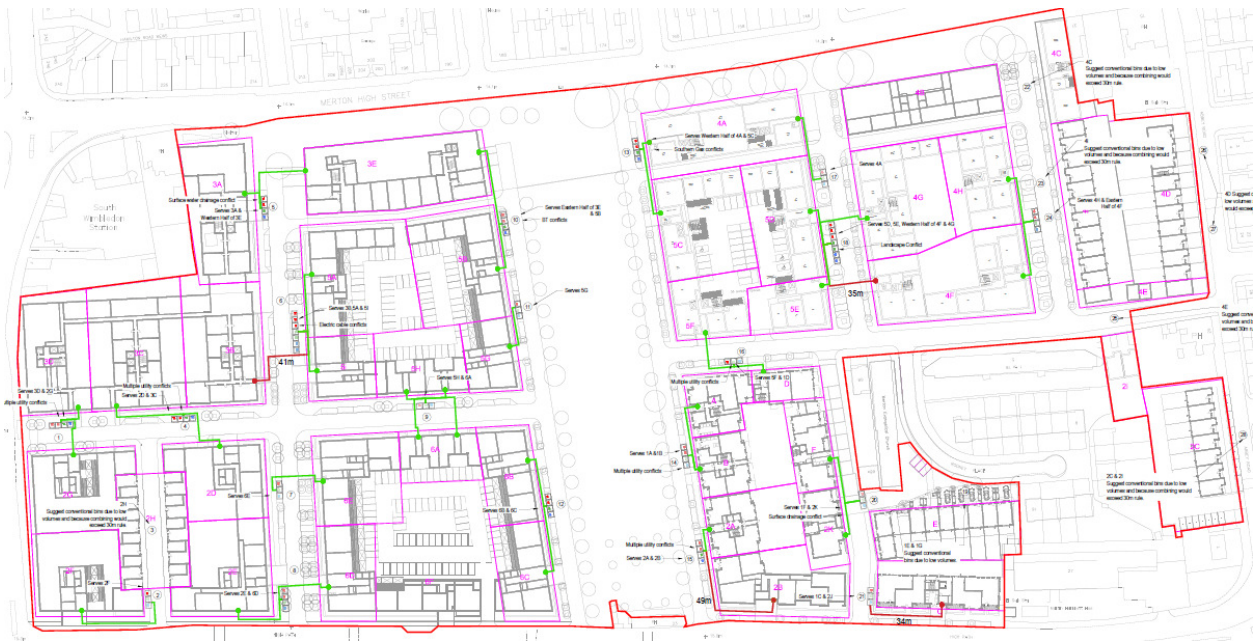


Figure 10 - Location of communal and private refuse stores

4.5.25. In addition to refuse store areas, all homes will be provided with enough space inside a kitchen cupboard to allow the storage of recyclable materials. Residents will be able to conveniently store recyclable materials as they are generated, before transferring them to the external refuse and recycling collection facilities.

4.6 Nature Conservation and Biodiversity

Ecological Assessment

- 4.6.1. Both an Arboricultural Impact Assessment and a Preliminary Ecological Appraisal have been prepared, by Landscape Planning, for the High Path regeneration outline planning application. The habitat survey and mapping exercise was carried out on the 19 October 2016, using standard Phase 1 Habitat Survey methodology.
- 4.6.2. The survey was carried out in order to highlight the potential presence of protected species and habitats, as well as those of notable ecological value. In accordance to it the following habitats were identified on the existing High Path Estate site:
- ↪ Scrub,
 - ↪ Garages and hard standing,
 - ↪ Buildings,
 - ↪ Trees,
 - ↪ Introduced shrub and
 - ↪ Amenity grassland.
- 4.6.3. It has been found that the site only has the potential to support bats and nesting birds, meaning that the proposed development will need to comply with existing legislation and that any work that may otherwise be detrimental to ecology will have to be appropriately scheduled. There was no evidence on site of Great Crested Newts, reptiles or any other protected species.
- 4.6.4. The arboricultural assessment has found that on the current site (including Phase 1) there are 188 individual trees, 16 groups of trees and 13 hedges. The hedgerows are not likely to be classed as 'important'. The trees throughout the site are mostly low to modest amenity value and located within hard standing and public open space, with younger trees located within the site amongst the existing buildings, most of which are of lower quality and landscape value.
- 4.6.5. Some trees will be felled as they are in poor condition, dead or in decline; however others will need to be felled to facilitate the development. Several measures will be proposed to minimise the disruption on the retained trees, while the landscape plan will propose the introduction of new trees.

Ecological Protection and enhancement

- 4.6.6. Following the ecological and arboricultural survey findings, some mitigation measures are being proposed to protect the limited ecological interest of the site.
- 4.6.7. Even though no bats have been found to be using the site, it is proposed that bat boxes or tiles could be installed as part of the proposed development and landscape scheme.
- 4.6.8. It is recommended that the site is enhanced post development for the benefit of local biodiversity via the implementation of a landscape scheme that incorporates native and wildlife-friendly species.

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- 4.6.9. The inclusion of bird and bat boxes or tiles should also be considered as part of the development, even if this is not required as part of a mitigation scheme.
- 4.6.10. Mitigation measures to protect nesting birds will be required. It is advised that demolition and removal works can only be done outside of the nesting bird season (which is generally taken to be March to August, inclusive) or after they have been checked for bird nests by a suitably competent person.
- 4.6.11. Trees that are adjoining but not part of the site, or that are being retained within the site, should have a defined and maintained root protection area (RPA), using 'Reduced-Dig' cellular confinement sub-base systems, tree protective fencing, temporary ground protection and, where relevant, supervision by a consultant arboriculturist. To minimise the disruption on the retained trees, it is proposed that a 'reduced / no dig' surface is installed in the areas indicated on the Tree Protection Plan. These surfaces sit above ground level after surface vegetation removal and ensure that no tree roots are severed during their installation.
- 4.6.12. The landscape scheme, designed by PRP, is proposing to create several amenity areas: the courtyards and the neighbourhood park.
- 4.6.13. The courtyards will feature a mix of soft landscaping and hard landscaping.
- 4.6.14. The neighbourhood park has been designed to be central open space for the community to enjoy. It will feature central lawns and will be lined with trees on all sides, dynamic planting schemes and sensory gardens. Sensory planting to be a mix of robust evergreen species and herbaceous perennials.
- 4.6.15. Preference will be given across the site to use native plant species either bulbs, hedges or trees. Some of the tree species being considered are: cherry blossoms, quercus robur, liquidamber styraciflua, birch, corylus colurna. Betula pendula sp, Prunus sp, Sorbus Aucupari, Pyrus sp, Malus sp and sweet gum. The bulb species mixes are likely to include: Crocus sp, Galanthus nivalis, Narcissus sp and Hyacinthoides non-sccipta.
- 4.6.16. The majority of the defensible areas around the buildings will be created by the introduction of shrubs and hedges (e.g. Carpinus betulus). It is also proposed that native and wildlife friendly species are to be included in the planting proposal for the green/brown roofs. In some of the courtyards it is proposed that green walls are introduced and that these may feature ivy's.
- 4.6.17. Implementing the recommendations will ensure that there are no significant impacts upon protected species and that the proposals will be in conformity with relevant legislation and policy.

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KEY

- Defensible planting
- Grass
- Planting/Mix bulb
- Private patio access

Figure 11 - Indicative planting strategy

4.7 Adapting to Climate Change and Greening the City

Microclimate

- 4.7.1. Due to predicted changes in the climate, it is expected that the urban heat island effect will intensify over time. At the moment urban centres are typically a lot warmer than the surrounding countryside.
- 4.7.2. Throughout the site landscape planting of both trees and other plants is selected to be robust and resilient in order to withstand climate change and mediate against its excesses, providing shade cover, high levels of carbon sequestration and enhancing the Sustainable Urban Drainage Systems and air quality.
- 4.7.3. One of the most efficient ways of reducing the effect of urban heat island effect is to maximise the introduction of soft landscaped areas (especially directly adjacent to buildings), as these actively contribute to evaporative transpiration, reducing heat absorption from surfaces, while offering biodiversity benefits.
- 4.7.4. The development will feature an array of green and biodiverse landscaped areas, lots of trees along the streets and building facades, the neighbourhood park soft landscaped area and the different courtyards.
- 4.7.5. Green/brown roofs to be placed on the roofs. Please refer to the Design & Access statement for details of the landscape strategy.
- 4.7.6. The colour scheme proposed for the development will be using light/medium colours, particularly along the facades of some of the Blocks. The colours will help increase the albedo effect. The use of bricks as well as soft landscaping and trees will also contribute to the increase of the amount of sunlight that is reflected back to space, therefore reducing the surfaces temperature.

Buildings Overheating

- 4.7.7. PRP Sustainability has been working closely with the design team of the High Path Regeneration Masterplan to identify the problematic areas with potential risk of overheating.
- 4.7.8. It is therefore proposed, for the detailed stage of each future phase, that overheating analysis will be undertaken using dynamic simulation modelling (IES-VE - version 7.0.1.0), against current industry standards and guidelines. In order to assess overheating in buildings it is suggested that a sample set of residential units and communal spaces is selected to analyse the worst-case scenarios and typical units.
- 4.7.9. Based on the team's experience of similar projects and the planning application of High Path Regeneration Phase 1, it is suggested that the following passive mitigation measures are likely to be implemented on the detailed design stages to minimise the potential risk of overheating.
 - Provide ventilation panels in all habitable rooms located on the ground floor, this should be designed in conjunction with daylight availability to avoid restricting daylight entering the rooms.

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- Night time ventilation provision.
- Balconies (inset, bolt on) or horizontal shading devices on the south facades including set back top floors.
- Minimise the number of single aspect units particularly with pure East/West facing orientation. Alternatively, vertical shading devices on these facades should be considered.
- Maximise number of dual aspect units to provide cross ventilation.
- Provision of thermal mass.

4.7.10. Mitigation measures that are detailed and tailored to the project will be further analysed on the reserved matters stage for each phase of the proposed masterplan.

4.8 Pollution Management

Air Quality

- 4.8.1. An Air Quality Assessment has been prepared by Peter Brett Associates, the report has analysed air quality from the construction stage, from the proposed energy centre and air quality impact resultant from road and traffic emissions.
- 4.8.2. During demolition and construction, the main potential air quality pollutants are dust and locally elevated concentrations of PM10. During the construction and demolition activities the impacts of dust generation can be effectively mitigated by the incorporation of standard dust control measures such as damping down surfaces to prevent dust being generated during warm, dry conditions. With mitigation measures in place, no significant construction effects are predicted.
- 4.8.3. During operation, the main pollutants arising from road traffic and the proposed energy centre will be NO_x, NO₂ and PM10. According to the assessment undertaken to determine the possible impact of road traffic emissions on the future residents has concluded that, there are no predicted exceedances of air quality strategy objectives at any of the proposed residential receptor locations at ground and first floor levels. Overall, the site has been deemed suitable for residential development without the need for mitigation measures against poor air quality.
- 4.8.4. An evaluation of the impact of the proposed energy centre on local air quality has also been undertaken. It has been concluded that, with the current proposed design, emissions from the proposed energy centre will have a negligible impact on annual mean NO₂ concentrations at residential receptor locations in the vicinity of the stack with a stack height of 25 m above ground level.
- 4.8.5. Finally the development has been evaluated to confirm if it could be considered as 'Air Quality Neutral' in terms of transport and building emissions, as required by the London Plan. It has been determined that the proposed development complies with the 'Air Quality Neutral' requirements.

GWP and ODP

- 4.8.6. All insulation materials will be selected to be CFC and HCFC free, with a Global Warming Potential (GWP) of less than 5. This includes insulation for walls, roofs, hot water cylinders and pipework.

Noise

- 4.8.7. A noise and vibration assessment has been undertaken by Sharps and Redmore, for the redevelopment of High Path. The environmental noise surveys were carried out in 2014, where both long term and short term measurements were taken to establish background noise levels and vibration underground rail traffic.
- 4.8.8. The modelling results demonstrate that noise levels in all outdoor amenity areas would be below 55 dB LAeq(16hour).
- 4.8.9. The results also indicate that the majority of the facades of the proposed dwellings would be exposed to noise levels below 60 dB LAeq(16hour) and as such no special mitigation will be required. Standard

thermal double glazing with standard trickle vents or similar will be adequate to achieve internal levels in accordance with BS 8233:2014. For the facades that are in the range 60 to 70 dB LAeq(16hour), intermediate acoustic glazing systems with acoustic vents or acoustically treated Air Bricks, are likely to be required. For the small remaining number of facades that would be exposed to levels in excess of 70 dB LAeq(16hour), high performance acoustic glazing systems with ducted passive or mechanical ventilation system/heat recovery or high performance 'through-the-wall' ventilators may be required.

- 4.8.10. The final specification and design of any glazing systems will be determined at reserved matters stage.
- 4.8.11. Ventilation to residential apartments will need to be provided via acoustically treated vents in the window frame or walls, or via an alternative whole-building system. The acoustic performance of the vents should be at least equivalent to that of the glazing, so as not to degrade the sound insulation performance of the facade as a whole.
- 4.8.12. Noise from the commercial elements, along with plant and machinery noise emissions, can be controlled by implementing appropriate measures.
- 4.8.13. The development can, therefore, be designed to achieve acceptable standards for future and existing residents, in accordance with national standards.
- 4.8.14. During the construction stage, care will be taken to reduce noise and vibration arising from works on site. Measures will be implemented for each phase as per the construction management plan and adapted in accordance to proximity to the tube, surrounding sensitive receptors, time of day and day of the week. Where works need to occur outside normal hours, or may be particularly noisy, the neighbours will be informed.

Light Pollution

- 4.8.15. The developer will ensure that all external lighting and illumination installed for the external areas of the development will be in accordance with the guidance prepared by Spiers & Major (please refer for additional information) to "help bring about a successful and sustainable lighting solution, which not only respects the adjacent surroundings but also creates an enchanting and pleasing after dark experience for residents and visitors alike".
- 4.8.16. Careful consideration has been given to the effects that external lighting might have on nearby occupants and ecology, to avoiding light spilling and trespassing onto these sensitive receptors. A summary is provided below of the proposed guidelines to enhance occupants wellbeing and reduce the impact on nearby ecology:

Residents

- Reduce unnecessary glare and light spill;
- Introduce luminaires with good colour rendering;
- Minimise light spill into private property;

Ecology

- Avoid excess levels of illumination in ecologically sensitive areas;
- Minimise light trespass and upward light spill;
- Introduce a control system to switch off lighting to specific landscaped areas after an agreed time.

4.8.17. During construction, additional measures will be taken to prevent construction lighting affecting the amenity of residents or create a statutory nuisance, the developer will design and position external lighting to:

- Provide the minimum levels necessary for safe working
- Avoid disturbance to adjoining residents and occupiers
- Avoid creating dazzle or distraction for drivers using adjacent highways
- Seek to minimise light spillage or pollution
- Ensure that excess light does not fall on sensitive ecological habitats

Water and Land Pollution

Water

4.8.18. The proposed development will have limited number of parking areas, therefore it is not expected that the parking areas will be sources of pollution to the nearby soil and water. No oil separators or other types of pollution control measures will be required.

4.8.19. The energy strategy for the development will include a central gas fired CHP engine, therefore the risk of contamination from this type of sources is non-existent and mitigation measures are not required.

4.8.20. The buildings where commercial units will be located are likely to have HVAC plants, or similar, on the roof tops. As such, adequate control measures will be implemented to prevent water and soil contamination.

4.8.21. During construction, any chemicals will be carefully stored to prevent spillages. The Contractor will be required to adopt best practice policies in respect of water (ground and surface) pollution on site. The Pollution Prevention Guidelines (PPG6 will be adhered to and implemented on site). Examples of mitigation measures are likely to include:

- Inspection of existing protection measures; repair, empty and clean out before work starts on site.
- Plant, wheel and boot washing: will be carried out in a designated area of hard standing at least 10 metres from any surface waters, where relevant for the site.
- Site water run-off will be collected in a sump, with settled solids removed regularly and water recycled and reused where possible.
- Regular and up to date, adequate to site, staff training to ensure policies are followed

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- 4.8.22. The drainage systems for the Proposed Development shall meet the minimum requirements of Part H of the Building Regulations and will meet Thames Water's design requirements for adoption.

Land

- 4.8.23. A geoenvironmental assessment has been prepared by Peter Brett Associates and it concluded that the potential for significant contamination to be present across the site as a whole, associated with its residential history is considered to be Low. The potential for significant localised contamination associated with the former industrial uses is considered to be Moderate.
- 4.8.24. The geoenvironmental risk assessment indicates that any potential contaminants and hazardous ground gases do not by themselves represent an unacceptable risk to human health, controlled waters or ecology and wildlife associated with the development of the Site as currently proposed.
- 4.8.25. It is possible that basic mitigation measures including health and safety for construction workers and protected water supply pipes may need to be incorporated into the proposed development. Additional measures such as clean capping, ground gas and volatile hydrocarbons mitigation may be required in the areas identified to have elevated potential for ground contamination.

4.9 Transport & Movement

Reducing the need to travel. Encourage walking, cycling and low carbon transport options are key components of High Path.

Deriving multiple benefits from sustainable mobility choices: reduced pollution, financial savings, quieter streets, and improved health.

(from The Sustainability Brief)

- 4.9.1. Planning neighbourhoods with facilities such as shops, social infrastructure and bus stops close to homes reduces the reliance on the car and allows a wide range of disabled and older people to live more independently within a community.
- 4.9.2. The strategy of the overall masterplan is to reduce the reliance on cars and to mitigate their effect on the environment. Therefore it is essential that people can walk or cycle some distance to or between the various facilities with ease, and that there are accessible options available for people with disabilities.
- 4.9.3. It is therefore expected that future residents will be able to choose from a wide range of proposed accessibility services, reducing the development carbon footprint, while contributing to the local economy and vibrancy of the area.
- 4.9.4. A Transport Statement and Travel Plan have been prepared by WYG to assess and optimise the impact that transport and movement from residents will have in the area.

Public Transport

- 4.9.5. The High Path Estate site is located in the Greater London area, close to Wimbledon. Accessibility to public transport is deemed excellent, with a high range of different means of public transport available within proximity of the site. The Public Transport Accessibility Level (PTAL) for the site varies between '4' (Good) and '6a' (Excellent).
- 4.9.6. Access to the London Underground is one of the prominent accessibility features of the site. The following tube stations are in close proximity:
 - 250m of South Wimbledon London Underground (LU) Station
 - 650m walk from Colliers Wood LU Station
 - 1.4km walk from Wimbledon Station.

These stations are served by the Northern and District lines.

- 4.9.7. The nearest mainline rail station to the site is Haydons Road, which is located approximately a 1.4km walk north of the Site. Thameslink and Southern services operate from this station and provide services to various destinations including London King's Cross, Brighton, Luton Airport and Peterborough.
- 4.9.8. There is high accessibility to buses from the site. A number of bus stops, with a variety of destinations, is conveniently located within short walking distances. Bus stops are available on Merton High Street,

Merantun Way, Merton Road and Morden Road. The different bus stops are served by the following route numbers: 57, 131, 152, 200, 219 and 470.

Surrounding Amenities

4.9.9. Accessibility to amenities is also an important contributor to reducing the number of journeys residents will have to undertake on their daily lives. With a proposed development that will be demographically diverse, access to a wide range of amenities becomes an important factor.

4.9.10. The following number of amenities have been identified within a recommended walking distance:

Table 1 – Number of amenities within recommended travel time

Amenity	Number of amenities within recommended travel time
Employment	5+
Primary School	10+
Secondary School	1
Further Education	3
GP Surgeries	3
Hospitals	1
Food Stores	8
Cash Machine	10+

Pedestrian access and cycling

4.9.11. The site will be able to maintain most of the existing pedestrian access routes. It is proposed that access on foot will be available from all 4 main surrounding roads: Merton High Street, Merantun Way, Abbey Road and Morden Road, there are also several new primary and secondary access roads being proposed. Some of the proposed new roads will be private and will only allow access to refuse, servicing and emergency vehicles. These new private roads are intended to be a shared surface with some landscaping, to create a high quality urban area that will stimulate people to walk or cycle to their destination.

4.9.12. Please refer to the image below for an overview of proposed site access and movement:

High Path Regeneration Masterplan

Sustainability Statement

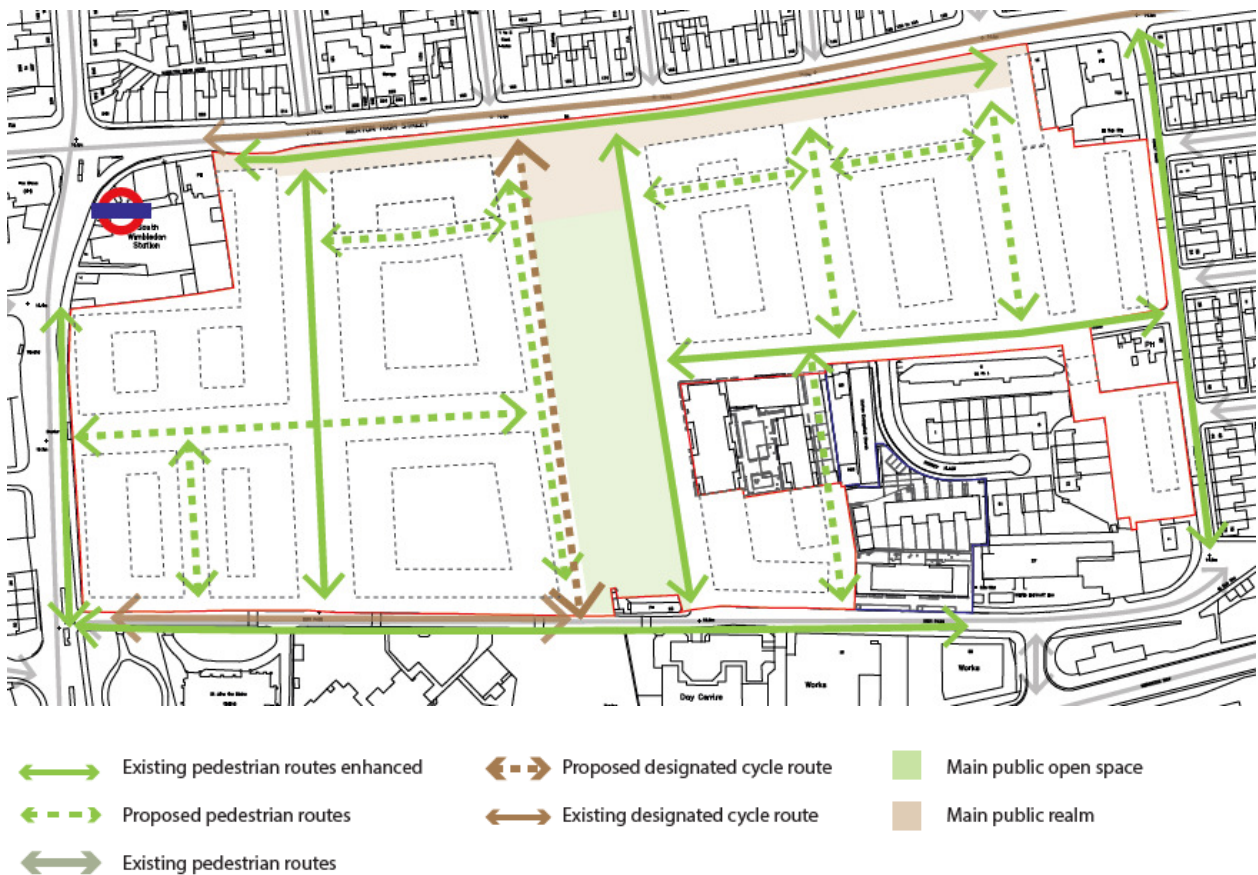


Figure 12 - Indicative Pedestrian and Cycle Movement

- 4.9.13. High Path is within close proximity of three cycle routes, the London Cycle Route 74 (Streatham), 29 (Sutton-Wimbledon) and CS7 (Cycle Superhighway, from Colliers Wood to the city). It is proposed that a designated cycle route is created along the main proposed open space, centre of the development, which will cross the site north to south, connecting Merantun Way with Merton High Street.
- 4.9.14. On-street Sheffield stand cycle parking is located on Merton High Street, adjacent to South Wimbledon Station. On-site cycle parking will be provided in line with London Plan cycle parking standards. To incentivise the use of the nearby routes, while contributing to healthier lifestyles and reduced development carbon footprint.
- 4.9.15. It is proposed that a substantial number of cycle parking will be created on site, in line with minimum cycle parking standards. Long stay cycle parking will be created within the footprint of the individual buildings with each residential unit having its own individual secure covered cycle parking storage. Short stay cycle parking for visitors of the development will also be provided in the form of Sheffield Stands within the public realm of the proposed development.
- 4.9.16. It has been estimated that the proposed development will be required to provide a minimum of 2669 long stay cycle parking spaces and 138 short stay cycle parking standards to comply with the London Plan.

Alternative Sustainable Transport Measures

- 4.9.17. It is also proposed that a Travel Plan coordinator role is created to ensure that the Travel Plan is continuously managed and will be implemented. The Travel Plan coordinator will also provide personalised travel planning advice to all residents and staff of the development, which could:
- include information on fastest route for accessing public transport services and stations and
 - accommodate specific journey planning requirements of mobility impaired persons living at the site.
- 4.9.18. Community Notice boards will be installed, possibly in the residential lobbies/entrance halls, offices and staff rooms, providing information about routes, maps and timetables for nearby transport public services.
- 4.9.19. Electric car charging points will be integrated into the design of the development in line with London Plan guidance, which requires a 20% active and 20% passive (future) provision for all new developments.
- 4.9.20. Broadband will be enabled in all residential units, allowing residents to subscribe services and improve the ability to work from home. Flexible work units will be part of the facilities to be made available. These will be available to residents, providing all residents with the opportunity to work close to home, in a designated working space and contributing to the reduction of the number of journeys.
- 4.9.21. There are currently 3 existing car clubs operating in the nearby area. Discussions have been started with Zip Car and it is anticipated that 2 to 4 car club vehicles could be included on the proposed development site.
- 4.9.22. A Travel Information Pack will be provided to all new households and employees. The aim is to raise awareness of sustainable transport initiatives being implemented and increase resident engagement with the travel plan coordinator.

Car Parking

- 4.9.23. Existing car parking in the High Path Estate exists in the form of unmarked, unrestricted spaces and some marked permit spaces. Currently there are no controlled parking zones within the site.
- 4.9.24. Some parking will be created across the site; however the overall aim is to reduce the residents and businesses reliance on cars. The overall provision will be of 304 spaces for the development (including Phase 1). The proposed parking provision is to be lower than the existing provision on-site. There will be a mix of parking as summarised below:
- Private on plot spaces (driveways and garages);
 - Potential to purchase a parking space (podium - allocated);
 - Shared parking area (podium – unallocated);
 - Residents permit parking (on-street, subject to a CPZ coming forward); and

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- Car club spaces (up to four spaces on-street).

4.9.25. No dedicated parking spaces are proposed for the non-residential elements of the site including, retail, office, leisure and community uses. Where required, disabled parking can be provided on street for the non-residential uses.

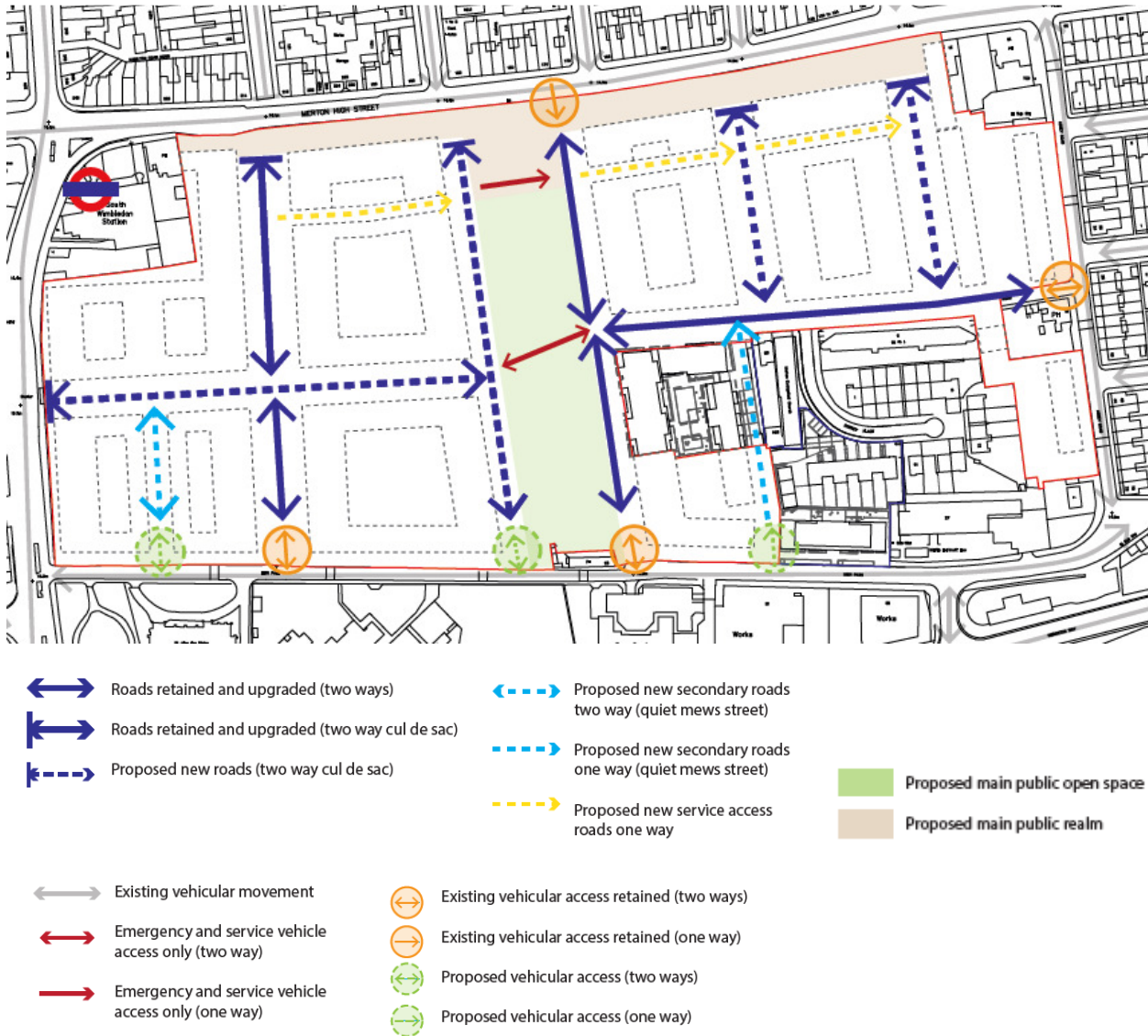


Figure 13 – Indicative vehicular movement on site

4.10 Governance and Management

Appropriate governance and management are critical to underpinning the long-term and sustainable success of communities.

As with the “hardware” of the built estates, these “software” elements need designing, developing and considered implementation.

(from The Sustainability Brief)

Consultation

- 4.10.1. An enormous effort has been made to ensure the existing residents and local community is properly brought on board and engaged with the regeneration project of the estate. The consultation process with the current community has been occurring since 2013.
- 4.10.2. A wide range of consultation methods have been used to incentivise community participation and engagement: coffee mornings and workshops, regeneration week with local school, self built play workshops with local students, public consultation events, youth group workshops, dissemination of information via newsletters, website and door knocking.
- 4.10.3. Since 2013 strengths and weaknesses within the estate have been identified. A number of topics have been explored with residents in terms of the wider masterplan regeneration. A range of technical surveys were also commissioned and a stock condition assessment was undertaken for the various building types in terms of their accessibility and environmental performance.
- 4.10.4. The main points that have arisen from the extensive consultation exercise have been the creation of:
 - ↪ a central park
 - ↪ more non-residential uses along Merton High Street and Morden Road
 - ↪ Community centre (to be located along Morden Road)
 - ↪ Internal courtyards with soft landscape and not just hard landscaping
- 4.10.5. All of the above points raised by the community have been taken on board by the design team and are incorporated within the proposed development masterplan.
- 4.10.6. The developer is also committed to on-going community engagement during the life cycle of the development. It is proposed that post occupancy evaluation (POE) exercises are conducted with the residents to determine occupant satisfaction with the dwellings, amenity areas and overall site management. The POE will identify areas where building fabric, building services providing heating, cooling and ventilation may not be operating as expected, showing where re commissioning may be required. The POE results will inform lessons learned that can be brought to future phases and projects. Feedback from resident surveys will be used to gather data on performance against financial resilience outcomes and to inform other future phases and projects with lessons learned.

Community Facilities, services and amenities

- 4.10.7. The proposed development will include provision of up to 9,900 sq m of flexible commercial and / or community floorspace (including replacement and new floorspace), comprising:
- up to 2,700 sq m of Use Class A1 and/or A2, and/or A3 and/or A4 floorspace;
 - up to 4,100 sq m of Use Class B1 (Office) floorspace;
 - up to 1,250 sq m of flexible work units (Use Class B1);
 - up to 1,250 sq m of Use Class D1 (community) floorspace; and
 - up 600 sq m of Use Class D2 (Gym) floorspace).
- 4.10.8. Flexible work units are proposed as part of the development and these would potentially reduce the need to travel for some residents. This provision provides residents with the opportunity to work close to home but in a designated working space.
- 4.10.9. In order to create a cohesive, engaged community it is proposed that several 'outside the box' initiatives will be explored for the High Path development. These may include the creation of a wider community hub where the local community may be encouraged and facilitated to assist with the day to day management of any facilities designed into the development.
- 4.10.10. Play areas will be created for children. These will be located in some of the larger courtyards and in the neighbourhood park. At the top and lower ends of the park, squares will enhance the site's connectivity with the adjoining communities and streets. The central park, remaining amenity areas, smaller roads and green/brown roofs will be managed and maintained by the development management team. The larger roads will be adopted and managed by the Local Authority.
- 4.10.11. The possibility of creating a Self Build Play area offers an opportunity to deliver a new multi-generational public space for everyone in High Path and the surrounding communities to use and enjoy. The truly hands-on experience of engagement, design and building, would aspire to unify the community and give residents and end-users a personal connection to the space and an opportunity to be a part of the High Path legacy. The proposed space is not a requirement but is instead a possible addition to the offer proposed for the neighbourhood.

Estate Management

- 4.10.12. Solutions for estate and building management will be developed to help ensure that quality, sustainability and affordability objectives are promoted in to the long-term. The approach will include: public realm and landscaped areas, as well as the operation and maintenance of the proposed district energy network.
- 4.10.13. The Applicant will be developing and implementing a long term management programme for the habitats and landscaped areas on site. The landscape management team will receive guidance and will focus on the management of any protected features, new and existing habitats, species specific guidance, soil maintenance, watering, trimming, location of plants (sun, shade, etc.). It is possible that

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the plan could offer an opportunity to engage residents and maybe be used for the Routes2Work training programme.

- 4.10.14. It is expected that all drainage features described in this report will be adopted and/or maintained by a management company competent in maintaining specialist SuDS.
- 4.10.15. The neighbourhood park, the road along it (western side) and some smaller roads on site are to be maintained and managed by The Applicant, the main roads that transverse the site will be adopted by the Local Authority.

4.11 Health and Social Wellbeing

High levels of social wellbeing are an important determinant in enhancing life choices for all residents. The High Path scheme will provide places and services to encourage active social and meaningful lives can help promote good health and happiness.

(from The Sustainability Brief)

Diversity and Tenure

- 4.11.1. The proposed dwelling mix includes 1570 dwellings with the following mix of uses and residential typologies:
- Mixed use blocks
 - Apartment buildings
 - Family homes
 - Hybrid family accommodation (stacked maisonettes)
 - Town houses and
 - Mews Houses
 - Cafés, shops, restaurants, offices, a gym, and community uses.
- 4.11.2. There is a good mix of tenures proposed for the High Path Estate regeneration plan, where the aim is to provide:
- Affordable housing,
 - Private housing
- 4.11.3. The buildings with dwellings offer a range of accommodation over 1 to 3 storeys, and building heights up to 10 storeys, catering for professionals, families as well as the young, children and the elderly.
- 4.11.4. It is expected that the proposed diversity will allow the development to be a dynamic, multi-cultural and multi-generational community, where there is a solution for everyone's day to day housing needs.

Inclusive Design

- 4.11.5. Inclusive design is central to the High Path development and extends to all parts of the public realm and built form. The overarching aims are that all parts of the development:
- Can be used safely and easily by as many people as possible without due effort, separation or special treatment;
 - Offer the freedom to choose and the ability to participate equally in the mainstream activities of the development; and
 - Value diversity and difference.

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- 4.11.6. The key access principles are inclusive, secure and step-free design, with accessible routes to all public areas and avoidance of barriers to anyone with disabilities or impaired mobility. The standards adopted include:
- The accessibility and inclusivity requirements as set out in Building Regulations Approved Document M (2015)
 - The safety provision as of set out in Building Regulations Approved Documents B & K (2013)
 - The Nationally described Space Standards for England
 - The security requirements of Building Regulations Approved Document Part Q (2015) (and the principles of Secured by Design standard)
 - GLA Housing SPG
 - Accessible London: Achieving an Inclusive Environment, 2015, GLA
- 4.11.7. The development will provide an improved pedestrian environment with an emphasis on Primary Access Routes. Considerations will include step free access, unobstructed sight lines and rest seating. Where routes slope, care will be taken to ensure that gradients are gentle.
- 4.11.8. Several new homes will be wheelchair accessible/adaptable designed to comply or adapt to Building Regulations Part M4(3). Where these may be located on higher levels 2 lifts will be fitted, to ensure that there is always one lift functioning if the other is being maintained/ repaired. The remaining dwellings will comply fully with Building Regulations M4(2) standards.
- 4.11.9. On-going detailed consultation will continue with every household prior to allocation of a new home, to ensure that wherever possible, the new home meets their specific requirements.
- 4.11.10. The transitional food growing spaces will be designed to be accessible to all users, by creating at least part of them as raised beds/containers.
- 4.11.11. Disabled car parking bays will be provided on-street across the Estate, it is understood that these will be in line with currently policy requirements with standard on-street spaces being converted to disabled bays for the use of disabled/wheel chair users, if the needs arise. The private secure parking podiums will also include a number of disabled parking spaces in line with policy requirements.
- 4.11.12. The Travel Plan Coordinator will provide personalised travel planning advice to all residents and staff of the development. This service will also accommodate specific journey planning requirements of mobility impaired persons living at the site.

Health in Dwellings

- 4.11.13. Dwellings will be designed with the aim of minimising the occurrence of materials that are not healthy for their occupants. Indoor air quality will be promoted by the use of materials with reduced or no emissions of volatile organic compounds (VOCs), as these have harmful effects on human health. Where occurring, the following materials will be carefully selected: paints, carpets, floor coverings, ceiling tiles, exposed woods/timber, varnishes, sealants, etc.

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- 4.11.14. The design team has taken into consideration the optimisation of the number of apartments and houses that will be dual aspect (some may be triple aspect) in order to maximise natural light and cross ventilation. The designs will aim to have generous windows to bedrooms and living rooms so to achieve optimum levels of natural light. Access to daylight will be balanced with the need to minimise the risk of overheating.

Safety and Security

- 4.11.15. Safe, legible and accessible open spaces will be provided in order to improve quality of life and community cohesion. The landscape proposal aims to create a safe, attractive and legible public realm that maximise the amenity and biodiversity within the site. All the streets will be overlooked either by dwellings or by non-residential spaces and there will be a clear distinction between public and private spaces.
- 4.11.16. Access to dwellings has been designed to ensure increased security at all times with front doors of the building facing onto streets and car parking spaces located with easy and secure access either underneath the building or close to the main hub of the building. Hedges will be used to create defensible spaces along the park. In the mews small pots and plants will delineate the residents' private spaces.
- 4.11.17. The permeability of the masterplan will be improved through the provision of well-maintained, legible routes with adequate lighting and signage, allowing residents to access local facilities and public transport modes safely.

External spaces and public realm

- 4.11.18. A site-wide strategy has been created that promotes a network of attractive and usable spaces, linked together by safe and high quality pedestrian routes through the site. One of the main drivers of the design was the desire to enable, where possible, resident's good access and views to green and ecologically valuable spaces, which will help improve and support health and wellbeing of occupants, in particular of elderly house bound occupants.
- 4.11.19. The re-provision of a good quality public realm and landscape promotes social integration and the design of the public realm has been tailored to encourage a pedestrian friendly feel to the overall area. The proposal is to create a landscape masterplan with multi-functional spaces, some with incidental play and seating spaces, to be efficient for various users and designed to accommodate a multitude of activities.
- 4.11.20. The High Path Estate will offer courtyard spaces, with hard and soft landscaped areas including play and seating arrangements. At the heart of the development a neighbourhood park will feature a plaza on the north boundary extensive lawn areas, sensory gardens, rain gardens, lines of trees along the streets and public play facilities on the south boundary.
- 4.11.21. A play area for younger children will be provided in the Neighbourhood Park. This will be a 1750sqm open space with a range of different equipment. Additional play will be provided within the communal

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gardens. Overall, this will provide 3450sqm of play space on the estate. Due to space restrictions, the offer of play provided on the site is predominantly for age up to 12yrs, with the toddlers' activity concentrated within the courtyards and age 5-12yrs within the Neighbourhood Park.

- 4.11.22. The proposed solution is to provide an improve off-site open spaces, which will provide quality play spaces for older children in the form of a MUGA within walking distance of their homes, and with safe and easy access. The current suggested location is within the Abbey recreational grounds. Adequate highways improvement is proposed that will facilitate children's walk from their homes to the area of ball court.



Figure 14 - Indicative open spaces and play areas

Community Engagement during construction stage

- 4.11.23. The works will be carried out in accordance with Considerate Constructors Scheme and in such a way as to minimise the impact on the local environment and amenities.
- 4.11.24. A Sustainability Implementation Plan (SIP) will be developed to cover measures, initiatives and targets where appropriate against each of the nine sustainability Themes. Within the SIP, environmental matters will be addressed within an Environmental Management Plan (EMP).

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- 4.11.25. The EMP will identify a range of measures, in relation to aspects such as noise and vibration, dust and air pollution, contaminated land, ecology, water resources, archaeology, which will be utilised during the construction of the proposed development.
- 4.11.26. Health matters will be promoted during construction, including requiring construction methods to minimise pollution (air, land, water, noise, light). Wellbeing promotion will be included as part of a best practice construction health and safety programme.
- 4.11.27. The principal contractor will be required to develop and implement a stakeholder communications plan that includes community engagement before work commences on site. The plan shall include a public display of head or regional office contact information. A Liaison Officer will be appointed to manage public relations, information and press, relating to the construction works.
- 4.11.28. Contact details, emergency and out of hours contact details, a newsletter and notice boards will be made publicly available and visible.
- 4.11.29. The newsletter shall detail works to be undertaken in the forthcoming period, outlining with appropriate maps and diagrams any alterations to road traffic circulation required by the works and any other issues considered by the Contractor to be important.
- 4.11.30. Where 'out of hours' working has been authorised and has the potential to disturb occupiers of nearby residential and business premises, those occupiers must be notified at least seven days or as agreed in advance of those works, in line with relevant best practice and legislation.

4.12 Digital Inclusion

Digital inclusion is about more than getting residents online and improving their IT skills. It can unlock significant benefits including: community building, access to services and money saving opportunities, reductions in isolation.

(from The Sustainability Brief)

Digital Infrastructure

- 4.12.1. All dwellings will be broadband enabled prior to occupation, providing residents with the opportunity to sign up to an internet service provider. The travel plan coordinator will make reasonable endeavours to negotiate discounted broadband contracts with internet service providers to ensure that residents have an added incentive to consider working from home and web based shopping.
- 4.12.2. Flexible work units are proposed as part of the development and therefore would reduce the need to travel for some residents. This provides all residents with the opportunity to work close to home but in a designated working space.
- 4.12.3. Appropriate digital solutions will be used throughout the design, delivery and occupancy phases to improve efficiency, effective community engagement and governance, and smooth management.

Digital Access

- 4.12.4. Where feasible, residents and other key stakeholders will be trained and supported in increasing digital skills and confidence.
- 4.12.5. The use of sensors, data networks, controls and operational data will be optimised. Smart cities principles will be implemented, where benefits can be used to support the High Path key principles. All dwellings will have individual water meters and energy smart meters.
- 4.12.6. Consideration will be given to create an online community platform (e.g. web site, app etc.) to support the ongoing successful delivery of the High Path Sustainability Vision.
- 4.12.7. Feedback from resident surveys will be used to gather data on performance against digital inclusion outcomes. These could include: digital access and usage, levels of skills and confidence, evidence of residents reporting that use of internet and digital services makes their life easier.

4.13 Financial Resilience

Affordability for residents (all tenure) and for the applicant, from day one and in to the future, is an important objective for High Path.

Choices and solutions the design, delivery and operational phases must optimise affordability and resilience to financial shock.

(from The Sustainability Brief)

User Guides

- 4.13.1. All new households and employees will be provided with a Travel Information Pack (TIP) as part of their welcome pack. Travel information Packs (TIP) will be distributed to all residents and employees. The packs will be used to raise awareness of sustainable initiatives being implemented throughout the lifecycle of the Travel Plan including the promotion of key services and facilities, promotion of online shopping, promotion of car share clubs and promotion of membership to the London Cycling Campaign. The TIP will include contact details for the travel plan coordinator and on-site services. The TIP will invite residents and employees to raise their travel-related queries with the travel plan coordinator for consideration and discussion. A copy of the TIP will also be provided in the entrance lobby to each residential block as well as in staff communal areas.
- 4.13.2. A Home Information Pack and/or similar type of document will be distributed and/or made available to all residents. For example, the pack will have information :
- about the different technologies that can be found within the dwellings and, where relevant, the commercial units.
 - how to efficiently operate the technologies. It will provide guidance on behavioural changes to optimise the use of energy, water and resources in general.
 - how to contact the High Path management and residents association services will also be made available.
 - Etc.

Materials Resilience

- 4.13.3. The High Path Estate buildings and external spaces will be designed while considering the possible typical use scenarios, identifying areas of future degradation due to prolonged uses, local weather and environmental risks (for example possibility of flooding, strong winds, sun exposure, etc.) and future climate changes.
- 4.13.4. Materials used in the buildings and wider estate will be selected to reduce the on-going maintenance burden. This might include selection of materials:
- with extended lifecycles,

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- that are easily cleaned, for heavy duty use (where relevant) and do not require periodic re-painting/finishing,
- that are ultimately reusable and/or recyclable and
- that will not corrode, discolour, blister, rot or suffer dimensional changes.

Utilities Future Proofing

- 4.13.5. The homes will be designed to be efficient in terms of reducing energy and water use. The reduced water use will be achieved through the specification of efficient fixtures and fittings, as well as appropriate communal infrastructure.
- 4.13.6. Extensive local communal infrastructure will be installed, a district heat network, served by a on-site CHP and gas boilers will be created and will supply space and water heating to all dwellings and, where relevant, non-residential spaces. Some roofs will feature PVs, which will mean that the development is a step closer to becoming more self-sufficient and resilient. In addition, building fabric measures and efficient building services systems will be designed in to reduce energy demand on site.
- 4.13.7. All residential units will be broadband enabled prior to occupation.
- 4.13.8. Through appropriate support and guidance to residents, as well as comprehensive operational management approaches, the future-proofing of the estate from a utilities perspective will be promoted.

4.14 Employment and Economy

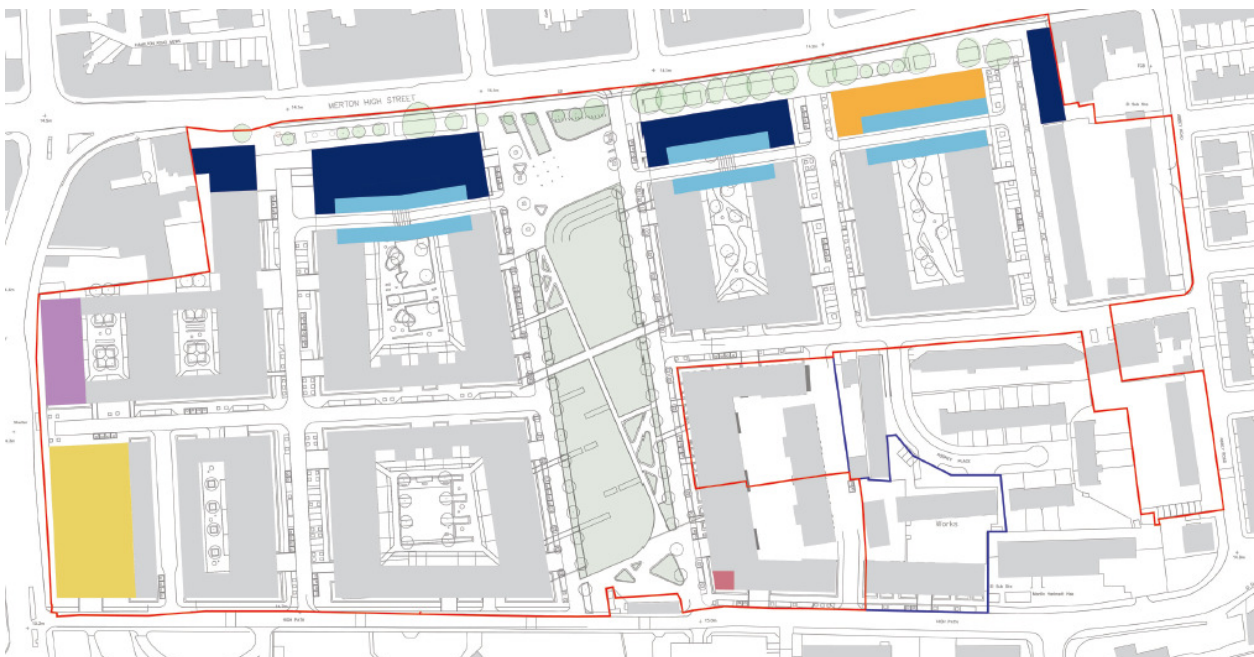
High Path seeks to provide safe and equitable places that support local prosperity.

Residents will be supported with training and opportunity to meet their potential and participate in a vibrant, locally resilient economy where money is spent locally.

(from The Sustainability Brief)

Local support initiatives

- 4.14.1. The proposed development will include provision of flexible commercial and / or community floor space (including replacement and new floor space), comprising: retail, office spaces, flexible work units, and community and gym units.



KEY

- Application boundary
- Blue line boundary - Phase 1
- Potential A1 - A3 uses (cafés, restaurants, shops)
- Potential B1 use (offices)
- Potential work units (B1)
- Potential community centre and site management office
- Potential retail with gymnasium above
- Potential location for reprovision of existing site convenience store

Figure 15 - Potential location of non-residential uses on site

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- 4.14.2. The redevelopment of the High Path Estate will significantly increase the resident population of the site and generate a corresponding increase in retail, leisure and services spend in the local area. In the absence of this new floor space, the new residents are unlikely to be able to satisfy their requirements locally, leading to less sustainable retail and leisure spend and travel patterns. It follows that the proposed development will not direct expenditure that would otherwise assist in the delivery of retail or leisure schemes in nearby defined centres.
- 4.14.3. Conversely, the additional residents at the High Path Estate will support investment in higher order centres through an increase in the available comparison expenditure.
- 4.14.4. The type of target occupier for the proposed office space differs significantly from the traditional medium sized corporate office markets. The floor space will complement existing office space in the area by providing more affordable start-up units that cannot typically be accommodated in Wimbledon Town Centre due to higher rental levels and development costs. The floor space will align itself well with Merton's high business start-up rates and encourage growth in new local businesses by residents, including those from the High Path Estate.
- 4.14.5. The proposed flexible work units, intended to meet this small scale operator demand, are not traditional town centre uses. The operational requirements for this type of space include low / affordable rents, flexible lease terms, and ground floor premises.

Employment Opportunities

- 4.14.6. The above mentioned non-residential spaces that will be created as part of the development will also increase the number of local jobs available to the residents. These businesses are likely to create work experience places, part time working opportunities for young people, elderly and parents.
- 4.14.7. The Applicant will seek to engage with the proposed local businesses to explore opportunities that create places for long term and/or disabled unemployed residents.
- 4.14.8. During the construction stage the developer will require contractors to give employment opportunities to existing local unemployed residents as a priority and local residents in general.

Fairness and Responsibility

- 4.14.9. The improved layout and accessibility to open space will provide benefits to residents of the site and the immediate surroundings. The aim is to address health and well-being issues identified in on-going consultations with residents at the site.
- 4.14.10. An improved living environment, through the delivery of higher quality housing will also help mitigate issues such as overcrowding; ease concerns over deprivation; and reduce poverty levels for the most vulnerable groups on High Path, such as children and pensioners, as identified in the socio-economic analysis.
- 4.14.11. An increase in the quality, mix and supply of housing will provide housing opportunities for existing residents. The inclusion of different types of homes including one, two and three bedroom flats,

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maisonettes and houses will help meet a diverse population's needs and resolve issues such as overcrowding in High Path.

- 4.14.12. The existing site provides for a mix of uses, including residential dwellings, local amenities and facilities. The provision for a variety of small shops will help cater for the needs of residents and support the local economy through employment arising at the facilities.
- 4.14.13. The development will also promote greater levels of health and well-being benefits for residents, arising from a safer living environment. More energy efficient housing will help alleviate fuel poverty, and contribute to improved physical and mental health.

5. References

- The Sustainability Brief, July 2016
- Design and Access Statement, by PRP (includes Spiers & Major Lighting Strategy)
- Statement for Community Involvement, by PRP
- Energy Statement, by PRP
- Flood Risk Assessment (FRA), by Peter Brett Associates LLP
- Ground Condition Assessment (Contamination and Stability), by Peter Brett Associates LLP
- Arboricultural Impact Assessment, by Landscape Planning Limited
- Preliminary Ecological Appraisal, by Landscape Planning Limited
- High Path Operational Waste Management Strategy, by Peter Brett Associates LLP
- Overheating analysis, by PRP
- Daylight, Sunlight and Overshadowing report, by PRP
- SuDS Strategy, Pre Planning Application Report, by AECOM
- Draft Framework Travel Plan, by WYG
- Transport Assessment, by WYG
- Draft Demolition & Construction Management Plan (DCMP), by Mace
- Assessment of Commercial Floorspace, by Savills
- Air Quality Assessment, by Peter Brett Associates
- Noise and Vibration Assessment, by Sharps Redmore
- Socio Economic Analysis, by Peter Brett Associates

HIGH PATH ESTATE
Outline Planning Application



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HOUSING GROUP

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