

Ham Close Regeneration

Planning Application:
Lighting Strategy Framework

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Project

Ham Close Regeneration

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Note

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1.0 Introduction

This document has been produced in support of the Full Planning Application for the site at Ham Close, Ham, Richmond Upon Thames, TW10 7PG. Ham Close is currently owned by Richmond Housing Partnership (RHP) and the London Borough of Richmond Upon Thames Council (LBRuT). Hill Residential have been selected as the developer of the project. Ham Close regeneration, will replace existing homes and community facilities. Hill Residential have appointed a full design team to develop the proposals. The applicant and design team have engaged in pre-application discussions with local authority; LBRuT and Richmond Design Review Panel to develop the detailed design for this submission as well as the Greater London Authority.

This document sets out the lighting strategy and will act as a framework for the future detailed design of the external lighting at Ham Close. This report should be read in conjunction with additional documents which form this application. A full outline of documents can be found in the Planning Statement.

Project Overview

The proposal of 14 apartment blocks and 42 houses replaces 192 existing homes across 14 apartment blocks. The proposed scheme comprises 452 residential homes of a mixture of sizes, split across various tenures. These include Market Sale, Social Rent and London Affordable Rent (reprovision and additional), London Living Rent, London Shared Ownership and Leaseholder re-provision. 10% of homes are M4(3) - Wheelchair User Dwellings. The remaining 90% are M4(2) - Accessible and Adaptable Dwellings. Also being re-provided is the existing Ham Youth Club and Richmond Makerlabs.

Vision

The vision for Ham Close is to deliver homes of exemplary architecture to compliment the rich historic context of Ham. At the same time, embedding sustainability, and community into the proposals in a way that not only physically shapes the proposals, but can also grow and develop over time bringing added benefit to the residents and wider community. Our ambition is to provide more and better homes that local people can afford. Our intention is that the Ham Close regeneration will leave a positive legacy that will endure long after handover; setting a benchmark not only for quality of design and construction, but also for the level of community involvement ensuring that new and existing communities share and enjoy the benefits of this transformational proposal.

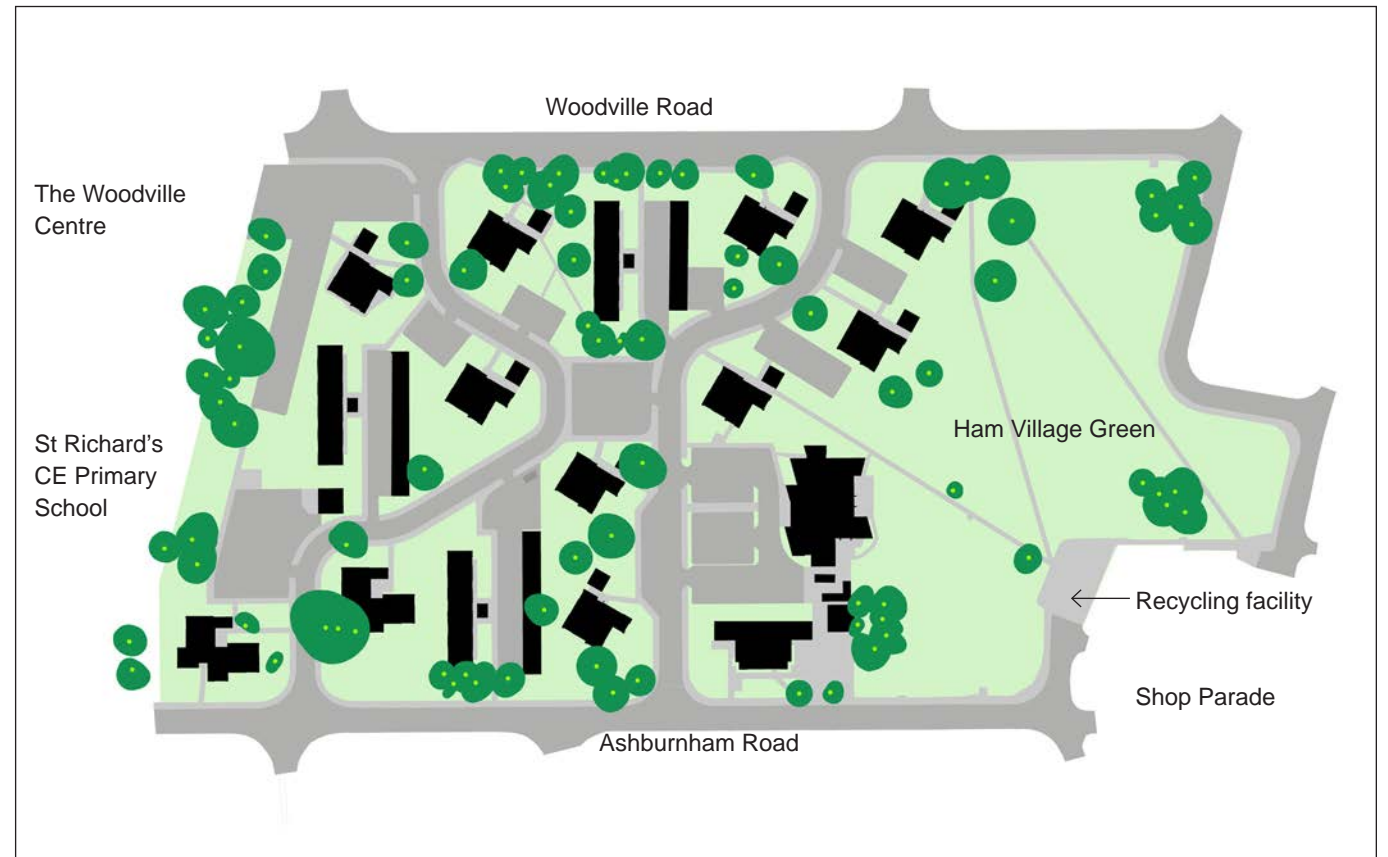
Existing Context

The site is bordered by highways to the north and south, with residential properties adjacent to these routes. A small shopping parade is located to the southeast of the site. Ham Village Green borders the eastern boundary, while the Woodville Centre and St Richards School Playing Fields are located to the west.

Woodville Road and Ashburnham Road are both illuminated by street columns, as is Ham Close which provides vehicle links through the site. The columns extend into adjacent residential parking areas accessed via Ham Close. A small spur road and recycling point to the west of the shopping parade is also lit by column mounted lighting.

The existing residential buildings feature lighting along deck access routes and adjacent to communal entrances, generally fixed to the building structure.

Pathways and features within the Village Green are not lit, with lighting only on the periphery related to the existing highway network. The school fields and Woodville Centre to the west are not illuminated other than for localised lighting attached to buildings.



Existing Site Plan



Existing lighting columns within Ham Close parking areas



Existing lighting columns on Ashburnham Road



Existing lighting columns on Ham Close

2.0 Masterplan Space Hierarchy

The masterplan establishes a hierarchy of outdoor amenity space. Ham Close will be home to many people whilst also a place to play and relax. The site will boast open green spaces linked to Ham Village Green and more intimate private spaces principally for residential amenity.

The areas are broken down as follows:

- Publicly Accessible Open Space - New Linear Park integrated with Ham Village Green
- Communal Courtyards - Shared amenity space for residents. General public access deterred but not prohibited with garden gates providing access.
- Private Amenity/Defensive Space - Terraces and private gardens associated with adjacent ground floor dwellings. No public access.
- Streetscape - Publicly accessible places for pedestrian access, cycling, vehicle servicing and limited parking. Streets within the development will be privately maintained by RHP.



Proposed space hierarchy diagram

3.0 Lighting Strategy and Design Principles

Lighting Strategy

The purpose of this strategy is to help create a suitably lit environment for Ham Close. Light will be used to provide safe passage through the development after dark, which will help reinforce a sense of security.

The primary objectives of this Lighting Strategy are:

- To minimise light pollution, glare and flicker;
- To generate a low energy solution that is easy to maintain;
- To create a cohesive lit environment after dark;
- To establish a visual hierarchy of the lighting to assist wayfinding;
- To protect and support surrounding habitats;
- To use appropriate levels of light with respect to security and safety without over-lighting.

Recommendations from Bat Emergence Survey Report (Greengage, March 2022)

The lighting strategy takes account of the recommendations given in the Bat Emergence Survey. Given the sites suburban location, the site is subject to existing levels of noise and light disturbance, from traffic and street/security lighting. The lighting strategy is designed to aspire to guidance from the BCT and Institute of Lighting Professionals (ILP)³, offering the potential to enhance the value of the site for bats. Features which should be incorporated include:

- Use of low-UV warm-white LED bulbs with directional, downward facing and shielded lights;
- Lighting pointing away from areas of newly implemented green infrastructure on site, bat boxes and existing green infrastructure within the zone of influence of the development; and
- Consideration of external lights subject to curfew controls where possible with lights on movement sensors to reduce light pollution when not needed.

Lighting Design Principles

A range of strategic lighting design principles have been developed for the project and are relevant to all areas of the site.

Accessibility and Wayfinding

- Lighting proposals must support the various needs of those visiting and inhabiting Ham Close after dark. This includes wheelchair users, people with visual impairments, the young, the elderly and those with special needs.
- Designs should avoid excessive contrasts, direct and reflected sources of glare, control shadow and limit potentially confusing upward lighting.
- Wayfinding at night will be largely left to artificial light and preserved natural darkness. Routes will be brought to prominence with lighting while others allowed to visually recede.

Safe Environment

- Adequate levels of illumination will be provided to enable people to see in the absence of natural daylight.
- The extent of visibility after dark will vary by area, with some requiring high levels, whilst others will simply need a basic understanding of scale and the ability to identify a safe path.
- Lighting should not inhibit adaptation of the eye through excessive contrast and glare.

Sustainability and Operation

- Light levels will be minimised when and where possible but without compromise to safety and security.
- The amount of light, its distribution, direction, and the way it is delivered and controlled must all be carefully designed. Over-lighting and light pollution (particularly light trespass) must be avoided.
- All amenity lighting will remain operational between dusk and dawn. Proposals should seek to minimise the complexity of the control system to minimise future maintenance and operational costs.

Protecting Wildlife

- The lowest appropriate amount of light should be used to achieve the needs of the various routes and spaces.
- The afore mentioned Bat emergence survey makes several recommendations for lighting designs to minimise impact on the site's nocturnal wildlife.

Light Pollution, Flicker and Glare

- Light pollution should be minimised wherever possible. Lighting should comply with both the ILP guidance notes for the reduction of light pollution and the CIBSE SLL lighting guides.
- The following principles should be applied:
 - Luminaires will be lockable where possible to ensure that they are not accidentally refocused during maintenance works.
 - Provision should be made for accessories that control upward light spill and reduce glare or light trespass.
 - Lighting will be carefully focused once installed.

Lamps and Luminaires

- The colour temperature of the lamps will vary dependant on location and use. LED Technology is proposed for all areas of the site.
- Lighting must be designed to the prevailing best practice and in general to British Standards and Regulations. Individual lighting schemes should utilise long life, efficient light sources and control gear to help minimise long term maintenance and energy costs.
- The general principle for the site is to use only warm white light, with a colour temperature of 2700-3200K, for all pedestrian routes and spaces. This simple approach will help create a warm and inviting environment after dark and is consistent with the ecological recommendations.

4.0 Proposals

Ham Close is predominantly a residential neighbourhood, lighting will be calmed to allow for privacy and the general well-being of residents. Lighting has been configured according to use after dark, this approach ensures that visitors subconsciously understand the various spaces and adjoining routes. To help achieve this a lighting hierarchy has been developed, with emphasis placed on elements that contribute most in terms of wayfinding and added character.

The ambient (warm white) light layer is used to provide a safe and secure environment and general illumination to the various routes and spaces. Accent lighting is proposed at key marker points around the Richmond MakerLabs and Ham Community Centre.

The lighting proposals are focused around both access routes for people and vehicles to utilise, and the intermediary spaces throughout the scheme.

Access Routes

Street with Vehicle Use

- Lighting columns will be located to the edge of the street, with a warm white light directed to illuminate footpaths and carriageway. Lighting will provide horizontal illumination with good uniformity to ensure good visibility without causing visual distraction.
- Light fittings will be optically controlled to prevent light spill into properties. Fittings will feature glare shields to hide lamp sources from view.

Primary Pedestrian Routes with limited vehicle access

- These will follow similar characteristics to the streets but with a varied colour temperature to reflect the predominantly pedestrianised nature of the route. The light fitting will have more of a lantern head to reflect the nature of the route and parkland / amenity space character.
- Similar optic controls will be installed to prevent light spill.

Secondary Pedestrian Routes to access buildings

- Extension of the primary street character but with reduced lux levels. The change in light character is reflective of the pedestrian nature of the route.
- Bollards may be considered appropriate in localised instances in combination with column lighting.

Outdoor Spaces

Linear Park and Community Centre

- Lighting will be limited to the key routes identified. Facilities such as the play areas will not be illuminated to minimise use after dark thereby avoiding disturbance to neighbouring properties.
- Limited accent lighting will be provided around the MakersLab and Community Centre to highlight these as destination points and facilitate community use after dark.

Residential Communal Courtyards

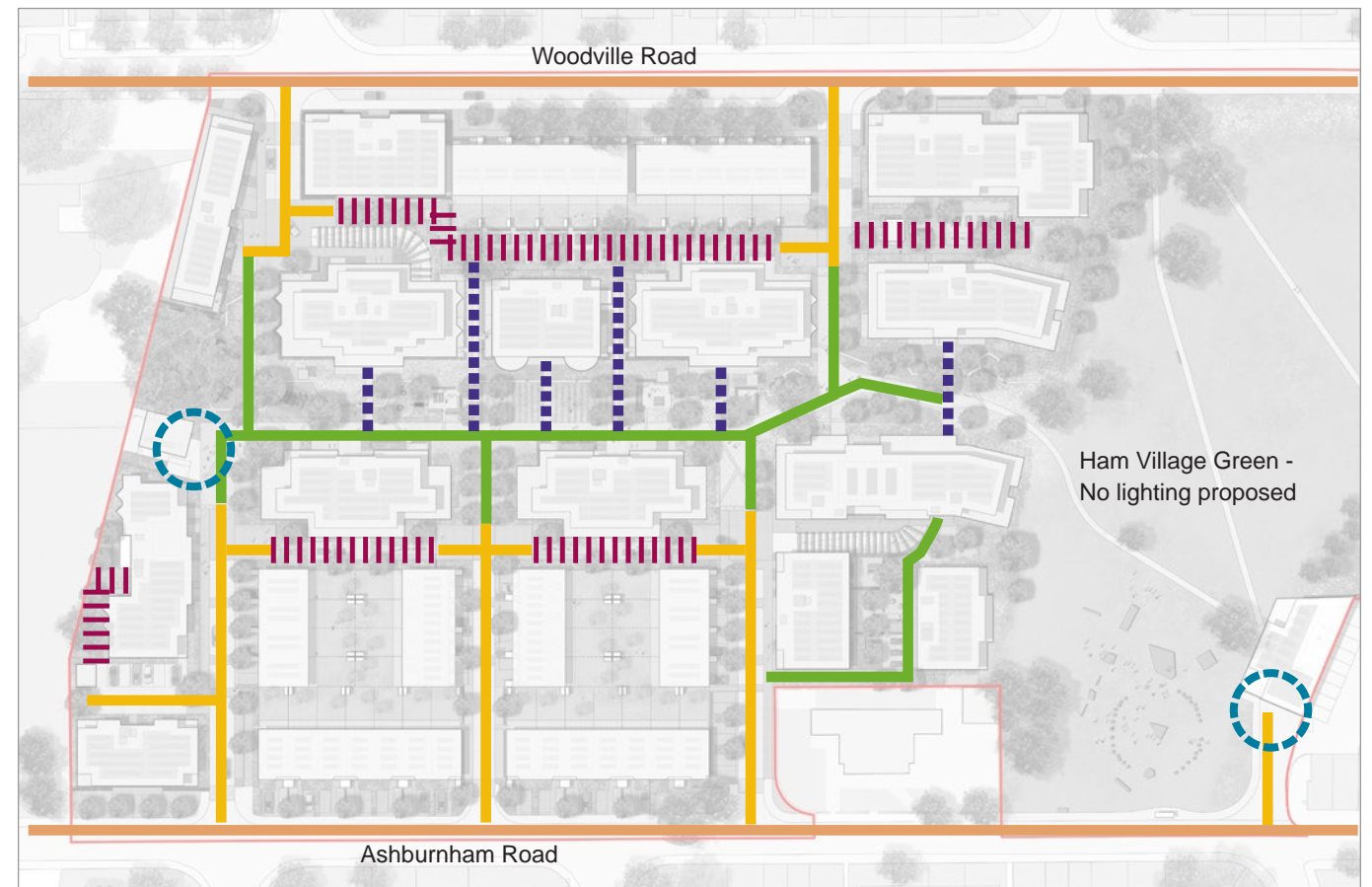
- Gateways into the Residential Courtyards will be warm and welcoming, with the internal spaces providing a tranquil quality.
- Except for the pedestrian routes identified, all lighting should be low level, utilising bollards, and landscape related lighting. Additional lighting to entrances may be added but controlled.

Other Design Criteria

- Lighting to the green edges of the site will be limited to taper to 0 Lux around the Village Green and adjacent school grounds. No new lighting is proposed within the Village Green to maintain the existing after dark light conditions. Lit access to the residential areas at night will be provided via the streets and identified pedestrian routes, as will access to the Community Centre.
- Lighting within the site will be designed to integrate with off-site highway lighting to ensure a coordinated approach to the design.

Item	Access Route Type		
	Highway Secondary	Pedestrian Primary	Pedestrian Secondary
Lighting Class	P3 (7.5 lux)	P3 (7.5 lux)	P4 (5 lux)
Lighting Source and Temperature	LED / 3000K	LED / 2700K	LED / 2700K
Colour Rendering	RA85 +	RA85 +	RA85 +
Column Height	5-6m	4-5m	4-5m

Table: Lighting preferences by route type



Proposed lighting strategy diagram

Key

- Off-site adopted highway
- Street with vehicle use
- Primary pedestrian routes with limited vehicle access
- Secondary pedestrian routes to access buildings
- Opportunities for accent lighting to Community Centre and MakersLab
- ||||| Residential Communal Courtyards

4.0 Proposals

Lighting Precedent Images

The precedent images here are used to convey the look and feel of the night time environment based on the proposed strategy.

A fully detailed lighting proposal will be developed by a specialist lighting designer at the detailed design stage based on the framework set out within this report.



Typical light column arrangement to street



Typical light with adjusted lantern fitting to park and pedestrian routes



Lighting bollards to courtyard spaces