





## *4.0 The Masterplan*

# 4.1 The Masterplan

In which we describe the illustrative masterplan that has been developed for the site following the engagement process with the community and stake holders.

The masterplan described in this document has been developed from two initial competition schemes developed by Tovatt Architects with Klas Tham and URBED. These fed into the Design for Change process that worked with local people to understand the site and its relationship with Brentford and to develop a series of options. These options were appraised and subject to further consultation which led to the emergence of a preferred option. This in turn has been tested technically and financially, and discussed with the planning authority and other statutory consultees.

The resulting plan is an illustrative plan. By this we mean a plan that illustrates how the site could look in the future. It includes a range of assumptions about the design of the scheme the nature of the house types and mix, the design of the landscape etc... The illustrative plan shows that all of these aspects of the scheme work and satisfy the objectives of planning policy.

The aim of the masterplan is to create an urban neighbourhood that grows over time with different blocks designed by a number of architects. We are seeking to create a framework that, on the one hand ensures that the vision is delivered, while on the other hand retaining the flexibility for each block to develop a separate identity and to respond to market conditions at the time that they are developed.

This outline application therefore seeks approval for the amount of development and the proposed mix of uses. Access, layout, scale, appearance and landscaping are reserved for subsequent approval. The application is supported by a suite of documents that establish a framework of controls and guidelines for the future implementation and design development of the site. These documents include;



The illustrative Masterplan

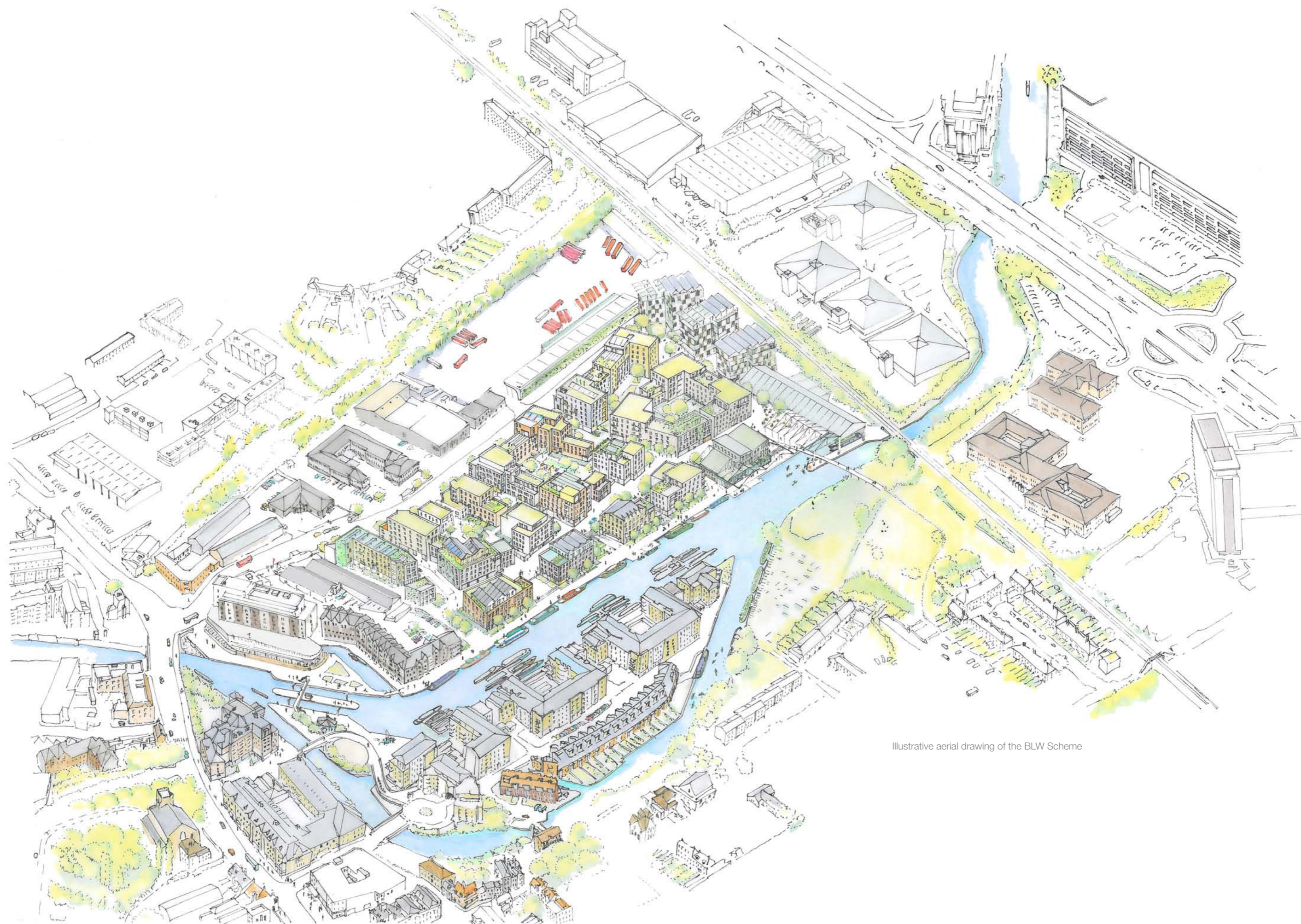
**The Development Specification and place-making principles (BLW SD2):** This define the main components of the scheme, the type of planning application, its scope, the description of the development and the quantum and mix of uses. It also includes a set of prescriptive and illustrative design rules for key elements of the scheme such as the public realm network, the parameters for Block B, the measures to achieve privacy distances, the arrangement of parking, works to the overhanging warehouses and bus depot. These principles relate to elements of the scheme that we need to fix to ensure that policy standards are met by the scheme.

**The Regulatory Plans (BLW SD3):** A set of 14 plans that set out the parameters of the scheme. These fix the main front faces of each block, the heights and the parameters for the courtyards. These elements are to be fixed by the consent and create a three dimensional envelope within which future buildings will be contained. The aim by fixing these parameters is to allow scope for individual expression within this envelope.

**The illustrative masterplan:** The plans and descriptions within this Design and Access Statement provide an interpretation as to how the vision for the site might be delivered in practice within the parameters set out in the regulatory plans.

In addition an environmental impact assessment is submitted as part of the application.

This chapter described the illustrative plan as to how the site could be developed. It describes the content of the scheme; the retained structures, the mix of uses, the height and massing and means of access by various means. We also discuss the waterspace strategy developed with British Waterways and the sustainability strategy for the scheme.



Illustrative aerial drawing of the BLW Scheme

# 4.2 Waterspace Strategy

In which we describe the draft waterspace strategy developed for the section of the Grand Union Canal through Brentford by British Waterways that has influenced the development of the masterplan.



The existing overhanging sheds

## BW’s Vision for Brentford:

“We seek to create a revitalised waterway corridor through Brentford, which maximises water-based opportunities for sustainable commercial, social, tourism, environmental and heritage benefits, thereby securing a future for Brentford’s historic waterways”.

Brentford is an important and historic gateway to Britain’s extensive network of navigable canals and rivers, with a strategic position on the River Thames and a wealth of waterway heritage. Following the decline in commercial freight carrying on the local stretch of the River Thames, the waterways in Brentford have been transformed. Their historic role as a freight transport artery and interchange has been reinvented. The waterways are now a multi-functional form of green/blue infrastructure for primarily leisure-based uses and a focal point for a cluster of water-related and leisure businesses. The multi-functional uses include acting as a catalyst for regeneration, a cluster for boatyards and other boat-related businesses, contributing to flood management, being a tourism, cultural, leisure and recreation resource as well as a heritage landscape, open space and ecological resource and a sustainable transport corridor.

The waterspace strategy drawn up by British Waterways seeks to encourage growth in boat numbers and help re-establish Brentford as a major boating and visitor destination by creating an attractive and vibrant waterside location as well as ensuring new waterside developments optimise opportunities to enhance, integrate with and embrace the waterways. The strategy that covers the area from the River Thames to Osterley Lock explores the added value of the waterspace so that it is not just a backdrop to development but a leisure and commercial attraction in its own right.

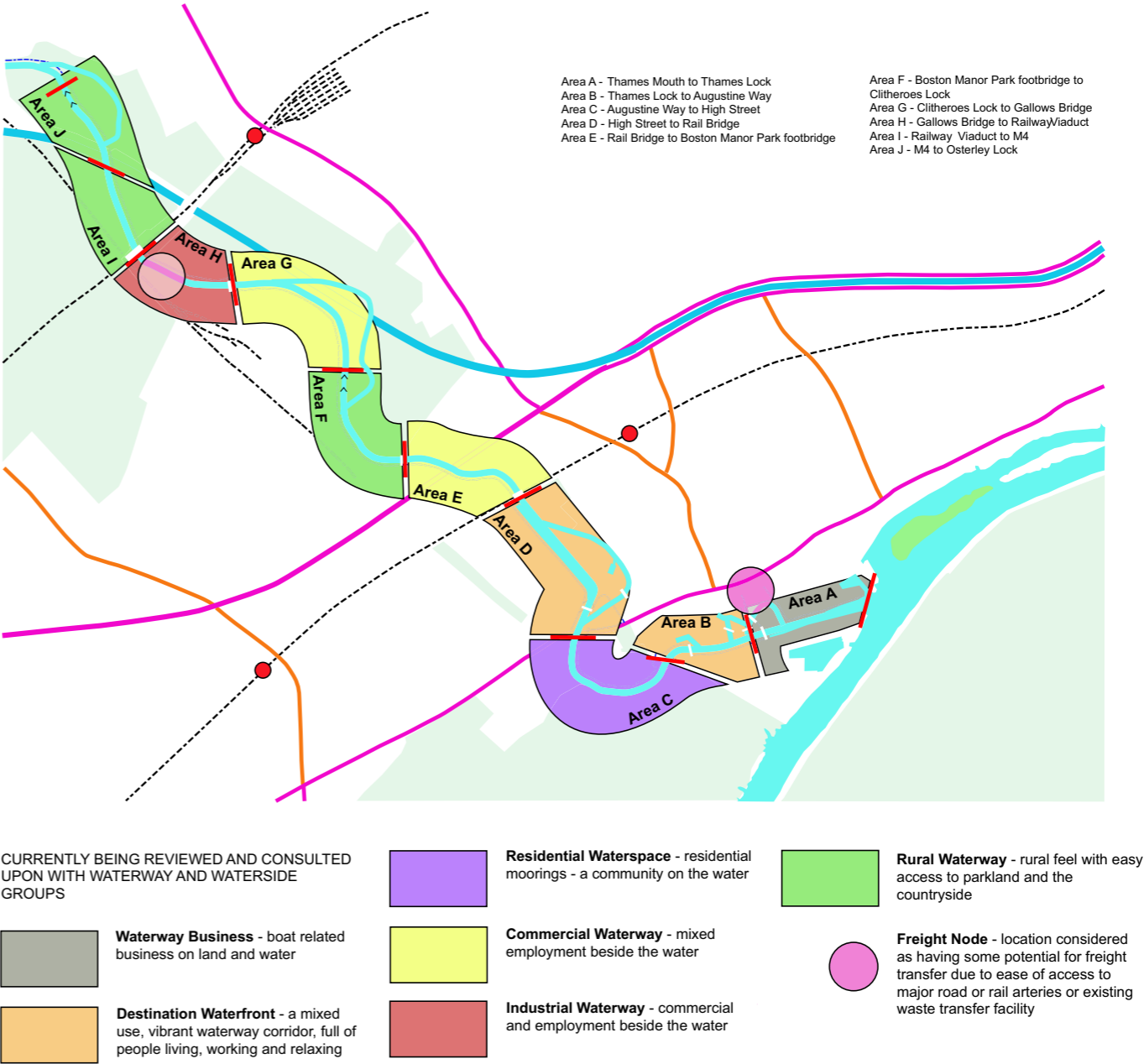
The analysis described in the previous chapters shows that the waterspace in Brentford is one of the factors that makes it difficult to move around the town and reduces the size of its catchment area. The waterspace strategy is therefore important to turn this negative into a positive by using the water as a unifying factor through the town and particularly linking the High Street, with Brentford Lock and onwards to the Great West Road. To do this, it is important that opportunities are taken through the development of under utilized areas such as Brentford Lock West and land south of the High Street recognize the potential of the canal and fully exploit the potential that it represents.

The strategy for BLW aims to retain the leisure moorings along the eastern bank of the canal and increase the number of visitor and creative use moorings along the Western Bank.

The strategy has also explored freight-use of the waterways through Brentford. British Waterways promotes waterborne freight transport, wherever practical, economic and environmentally desirable. The strategy highlights two potential sites for this, opposite MSO on the High Street and adjacent to the rail head on Transport Avenue. However there is no current or emerging market for freight

by water in Brentford. These would appear to offer the best opportunities and provide easy access to the road and rail networks without having to pass through residential areas or create extra pressure on road junctions.

Flexibility is a key principle for the Brentford Waterspace Strategy, as it will have to respond to seasonal differences in demand and to forthcoming development opportunities. However, the key principles of increasing visitor numbers, improving connectivity and enhancing the waterside environment are, hopefully, proposals that will bring the optimum benefit to Brentford.





September 2010

## Brentford Lock Waterspace Proposals

Grand Union Canal\_Brentford\_London

# 4.3 Energy and Sustainability

In which we describe the approach to sustainability that is integral to the scheme including targets of energy saving and CO2 reductions, waste and recycling and water use.

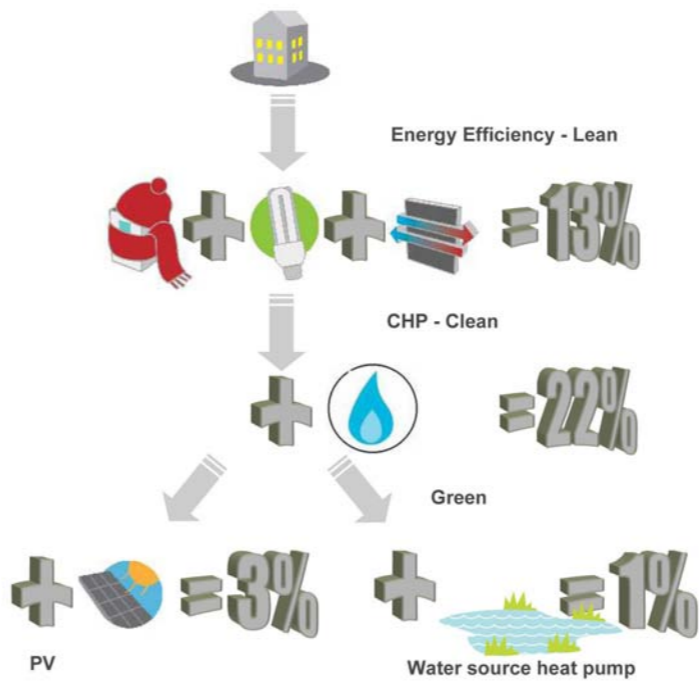
ISIS’ are guided by its Sustainability Charter. This sets strict targets on issues such as design, regeneration, wellbeing and sustainability. The latter includes reducing CO2 emissions and car-dependency, waste minimisation, the impact of construction materials and local food production. ISIS is also committed to meeting or exceeding the standards set out in the London Plan and the LBH Sustainability Checklist.

This commitment relates to the development of the site but ISIS has also undertaken analysis of the wider Brentford area to ascertain whether there are any other energy and environmental sustainability opportunities that the BLW scheme could contribute to. This work has been presented to the Isleworth and Brentford Area Committee (IBAC) and one of the main findings was that a number of clusters of existing buildings in Brentford could be linked together to enable investment in low carbon infrastructure through decentralised energy (see main plan). The study recommended further technical evaluation, which Isis would be prepared to assist with. However the following information relates solely to the BLW site.

## 4.3.1 Lean, Clean and Green

The energy strategy for the site is focused first on energy efficiency of the building stock (Lean) and then where appropriate on-site generation with low carbon technologies (Clean). In the absence of detailed design work energy efficient targets are just that. The energy consumption and CO2 emissions for the scheme based on 2006 Building Regulations would be 1,900 tCO2/year and ISIS are committed to a 20% reduction on this level from energy efficiency measures. This will be achieved through high levels of insulation and airtightness. The preferred approach may then be the inclusion of a gas-fired CHP engine and a communal heat network where appropriate, which will give further CO2 reductions of around 23%. This centralised CHP system and heat network will allow the scheme to be future-proofed by allowing conversion to more sustainable fuel sources (Green), such as biogas or fuel cells, at a later date. It will also allow the system to link to a wider Brentford energy system if that became possible.

As part of the scheme development other renewable energy has been explored including heat pumps, solar thermal, photovoltaics (PV), and wood fuelled biomass boilers. A PV area could be included with CHP and 800m2 of panels would give a further CO2 reduction of around 3%. Ground source or canal heat pumps could be used but would produce a small proportion of the heat requirement and



Energy Hierarchy Steps

give CO2 savings of only around 1%. To provide flexibility in response to uncertainty in future legislation and incentives it is proposed that the final decision on what technology to include would be made at detailed design stage according to the guiding framework of targets set in the energy strategy. All residential units on the site will achieve a minimum of Code for Sustainable Homes Level 4..

## 4.3.2 Reuse, Recycle, Recover

ISIS is exploring the addition of a ‘free shop’ to the scheme to where goods can be swapped (reused) rather than thrown out. Recycling will take place through the LBH collection arrangements which is well developed, especially the separate collection of kitchen food waste (although confirmation is being sought that this is possible from apartments). Recycling facilities will be provided to LBH’s requirements although ISIS would like to explore reducing communal bin sizing for residual household waste and have sized bin stores accordingly. Advanced underground vacume waste systems have been explored but are not compatible with LBH’s current systems.

## 4.3.3 Water Usage

Good water efficiency is the starting point and items such as dual flush toilets, low-flow fittings and water efficient



Malmö, Sweden - Mixed used development shows solar panels and green roofs in action

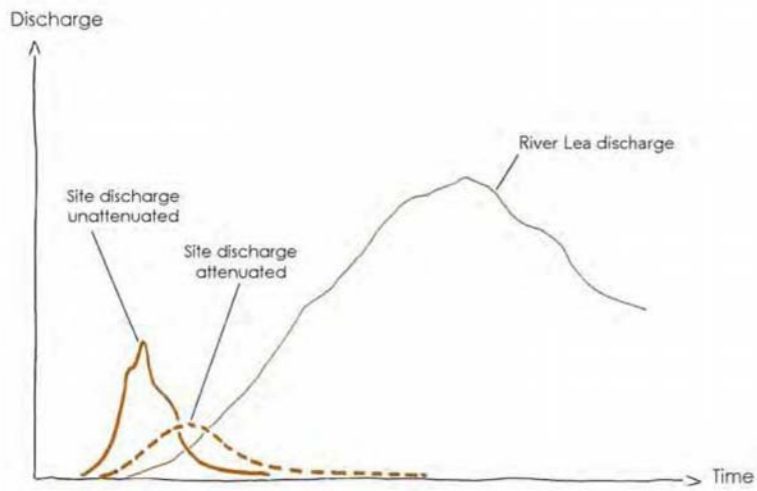
appliances will be used to achieve Code for Sustainable Homes Levels 3 and 4 targets of 105 litres per person per day. ISIS has explored rain water harvesting to go beyond this but this is only viable for the toilets in the commercial units and the bus station.

## 4.3.4 Flood Risk / Surface Water Drainage

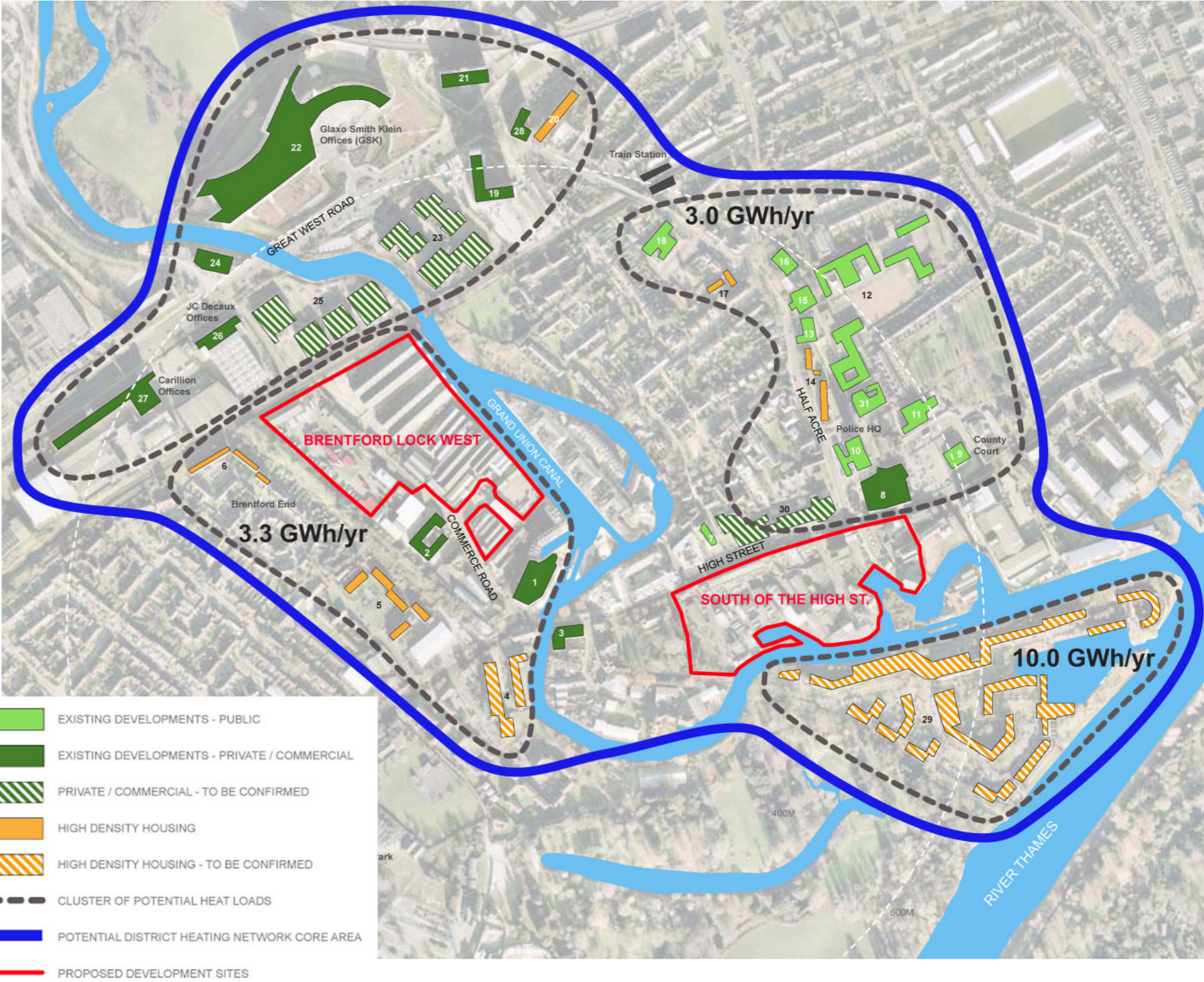
The site is predominantly located within flood zone 1 with small sections within flood zone 2. The development will be set at a level above 6.357m AOD and there will therefore be no flood issues. Surface water run off will be reduced. However an approach is proposed similar to the Olympic Park (see graph to the right) which, like Brentford is at the bottom of its river’s catchment. In these situations it is preferable to not attenuate drainage flows and discharge as early as possible before the occurrence of peak flow in the river. 30% of the roof surface of the new buildings will be covered by intensive green roofs, that may be used as rooftop gardens and 70% of the remainder will be covered by extensive green or brown roofs with a shallower build-up. Storage capacity will also be maximised in the granular pavement sub-base of the podium courtyard to store runoff. In this way runoff will be stored as close as possible to its source and the requirement for balancing storage provision and associated use of materials and resources will be minimised.



This is the roof of a Berlin bank which is using redundant space to help generate renewable energy



Olympic Park discharge timing



Potential energy clusters within Brentford - This concept was presented to LBH, Isleworth and IBAC

## 4.4 *Layout*

In which we describe the way in which buildings, routes and open spaces are provided within the development and their relationship to the buildings and spaces outside of the development.



Model of illustrative masterplan

The masterplan is designed as a new urban neighbourhood for Brentford and not a housing enclave. If it is to operate as a neighbourhood it needs to have certain characteristics. It needs a mix of uses so that there are people living and working in the area and there is activity throughout the week and the day. It needs to have a character that is diverse and fine grained with reminders of the the area's past alongside new architecture. It needs to be reasonably dense so that there are sufficient people to bring it to life. It needs to have public spaces that are opening and welcome to everyone rather than just the residents of the area. It needs some public uses like restaurants and cafe bars that can attract people to the site and give them something to do. In doing this we are creating an urban neighbourhood to compliment rather than compete with the town centre.

The neighbourhood is based around 4 main blocks. These blocks are created through a series of narrow streets which run from Commerce Road down to the Waterfront. The layout and character of these blocks and spaces between and within them are based around a number of character areas. These character areas are designed to create a variety of spaces which will be used by a number of different people at different times of the the day. The character areas include a Commercial hub; the Waterspace; side streets; Commerce Road and the internal courtyards. These are described over the following pages. Before this though we set out our attitude towards the existing strutures on the site and the role they have to play in illustrative plan.