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1. Introduction

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1.1 Overview

Charlton Riverside has tremendous potential to become an exemplary new urban district within Royal Greenwich, integrating the Riverside with the existing Charlton community, connecting to the transport network and creating a thriving new neighbourhood which combines homes with employment, community uses and open spaces. Charlton Riverside will be an important and critical piece of the Thames riverside landscape, connecting Greenwich Peninsula to Woolwich town centre. Both of these areas have already undergone major changes in recent years with further developments planned or underway including new homes and transport connections so now is the time to build on that momentum to benefit existing and new communities in and around Charlton Riverside.

The transformational potential of Charlton Riverside was originally identified in 2008 when it was designated as part of an Opportunity Area by the Mayor of London, and then more clearly defined in the 2011 London Plan\(^1\). Royal Borough of Greenwich (Royal Borough) prepared and adopted a Supplementary Planning Document (SPD) for Charlton Riverside in April 2012\(^2\) to provide a strategic planning framework to oversee a major transformation of the area. Since 2012, the Royal Borough has adopted its Core Strategy\(^3\) (July 2014) which sets out its targets of 3,500 to 5,000 new homes at Charlton Riverside, and has faced increasing pressure from landowners, development interests and other key stakeholders for further clarity on the future of the area and what types of development will be allowed in the area. It has therefore commissioned this draft SPD to provide a refreshed masterplan and more detailed guidance for development at Charlton Riverside.

1.2 The SPD Area

The area covered by this SPD is shown in Figure 1.1. It is located in south east London in the Royal Borough of Greenwich and within the Thames Gateway. Charlton Riverside covers 122.33 hectares and is bounded to the north by the River Thames, Horn Link Way/Peartree Way to the west, Warspite Road to the east, and Woolwich Road to the south. It also includes part of Charlton Church Lane leading to/from Charlton railway station.

Today it is home to around 400 different businesses across a range of industrial sectors, including strategically important aggregates industries on the western edge of the site, two small groups of housing off Anchor and Hope Lane, some education uses at its eastern end, Eastmoor Street Park and the iconic Thames Barrier.

1.3 Purpose of the SPD

The purpose of this draft SPD is to provide clear planning guidance for the sustainable regeneration and redevelopment of the Charlton Riverside site with a greater level of direction on development than that provided by the 2012 SPD and which is in line with the adopted Core Strategy. The SPD will facilitate a co-ordinated approach to development that will provide new jobs and homes. It will set out the principles and parameters for development to achieve the vision. This will include planning policy advice for future planning applications, the nature of acceptable development, potential land uses, urban design requirements and potential Section 106 planning obligations/Community Infrastructure Levy (CIL) contributions.

1.4 Structure of the SPD

The remainder of this document is structured as follows:

- Chapter 2 sets out the vision and objectives for Charlton Riverside;
- Chapter 3 provides an overview of the baseline conditions and policy context of the site;
- Chapter 4 sets out requirements for a residentially diverse Charlton Riverside;
- Chapter 5 describes an economically active Charlton Riverside;
- Chapter 6 looks at how we might deliver a connected and accessible Charlton Riverside;
- Chapter 7 considers the nature of an integrated and lifetime ready Charlton Riverside;

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2 Charlton Riverside Masterplan SPD, Royal Borough of Greenwich, April 2012
3 Royal Greenwich Local Plan: Core Strategy with Detailed Policies, Royal Borough of Greenwich, July 2014
• Chapter 8 looks at what makes a well-designed Charlton Riverside;
• Chapter 9 addresses the issues relating to the creation of a sustainable and resilient Charlton Riverside, capable of adapting to change;
• Chapter 10 considers how to provide for a viable and deliverable Charlton Riverside;
• Chapter 11 explains the provisions of the Development Framework;
• Chapter 12 looks at the illustrative masterplan, and
• Chapter 13 addresses issues relating to phasing, costing and delivery

1.5 Stakeholder Engagement
This draft SPD has been prepared in consultation with key stakeholders. During the preparation of this draft SPD, a series of meetings, workshops and drop-in sessions have been held with key stakeholders including commercial landowners, businesses, developers, residential and community groups, service providers, senior officers from the Royal Borough and statutory agencies such as the Environment Agency (EA) and Transport for London (TfL).

Representations from key stakeholders and landowners in response to the recent Site Allocations DPD (March 2016) which identifies Charlton Riverside as a key regeneration area have also been considered as part of the preparation of this draft SPD.

Feedback from the pre-engagement consultation is summarised at Appendix C.

The second stage of formal public consultation, also known as Regulation 12 consultation, is on this draft SPD and responses received during this stage will be considered and incorporated into the final version of the SPD, prior to its adoption. Once adopted, although not part of the Royal Borough’s development plan, the SPD will be a material consideration to be taken into account by the Royal Borough when taking planning decisions.

1.6 Masterplanning Process
Chapter 4 provides a brief summary of the baseline studies that have been undertaken by the consultant team who have taken an integrated and evidence-led approach to masterplanning. This has included three day long workshops bringing together the full consultancy team, senior officers from the relevant Royal Borough departments, selected external stakeholders including the Environment Agency and Transport for London. The technical specialists have all undertaken baseline studies – a combination of desktop and site surveys where appropriate – in the following disciplines: urban design and masterplanning; architecture; landscape; transport planning; town planning; built and cultural heritage; townscape; ecology; property market and viability assessment; land assembly; flood risk; sustainability; ground conditions; utilities and infrastructure; and air quality and noise.

4 Regulation 12 of the Town and Country Planning (Local Development) (England) Regulations 2012

Presentation at a stakeholder event

Stakeholders reviewing the emerging plans for Charlton Riverside
1.7 Appendices
This draft SPD includes the following appendices:
A: Baseline Conditions;
B: Planning Context
C: Summary of stakeholder engagement to date,
and
D: Glossary.

1.8 How to use this SPD
The principles and guidance set out in this
document draw upon the baseline analysis,
melding that understanding of the site and its
potential with the objectives Royal Greenwich
has identified as forming the core of the Vision.
The design principles, grouped into Themes that
relate to the Vision and Objectives for Charlton
Riverside, are intended to provide guidance
for developers as to what is expected from
their proposals in respect of a number of key
components that would, typically, be addressed
at the planning application stage. These are
high level design principles and developers will
be required to supply sufficient detail to show
how they respond positively to the guidance and
meet the objectives of the Vision for Charlton
Riverside.

Figure 1.2, opposite, sets out the relationship
between this SPD, and the Vision and Objectives
for Charlton Riverside, and wider planning policy
(Core Strategy and other Local Plan Documents).

Figure 1.2: Basis of this SPD and how it should be used
Industrial activity on the River Thames at Angerstein Wharf, Charlton Riverside
2. Vision and Objectives

2.1 Vision

2.2 Objectives
2.1 Vision
The vision is underpinned by the following principles:

• An additional 5,000 - 7,500 homes (based on a more detailed assessment of the site’s capacity);
• 50% family housing and 35% affordable housing;
• Low to medium rise development (3-6 storeys);
• An additional 4,000 jobs (over and above existing employment);
• Integration of employment uses into new development;
• Transport networks that reflect historic routes;
• In future years, in the SIL area, subject to appropriate relocation, de-designation and new transport infrastructure being provided, some taller buildings may be permitted to transition into the Millennium Village and Peninsula;
• Respect for heritage assets, and
• Creative design response to the need for flood protection.

A Vision for Charlton Riverside
Charlton Riverside is set to become a mixed-use quarter, characterized by medium-rise housing and a significant proportion of family homes. The site’s industrial heritage will shape a series of new neighbourhoods, with a network of streets and open spaces reflecting the historical network of paths and boundaries. New industrial technology will guide the area’s future, integrating innovative and creative employment uses into the new development. There will be new schools and facilities, and transport routes will encourage public transport, walking and cycling. Improvements to Charlton station and Woolwich Road will help to integrate new development with the rest of Charlton.
2.2 Objectives

A number of objectives follow on from this vision for Charlton Riverside which has emerged through our analysis of the site, policy context and consultation with stakeholders. At the heart of each objective is the aspiration to deliver development which is both transformative and also firmly rooted in history and that sense of place which defines Charlton Riverside.

To that end, each of these high level objectives – and the resultant development principles as set out in the following chapter - will seek to use existing assets and ‘hidden gems’ (be it buildings, activities of groups of people active on the site) to better integrate the new development with the existing, to make connections and reinforce existing relationships, and to create new linkages where the opportunities arise.

The aim is to achieve high density development at a human scale, creating a strong sense of place. This can be achieved through medium rise, rather than tower blocks. Paris and Madrid are characterized by mid-rise development and yet achieve almost double the density of London’s densest boroughs. Examples in London include Edgware Green, Edgware (81 homes/ha), Silchester (More West), Kensington and Chelsea (122 homes/ha) and St John’s Hill, Wandsworth (231 homes/ha).

New development must positively contribute to the following objectives – many of them overlap in parts - to make Charlton Riverside:

- Residentially diverse;
- Economically active;
- Connected and accessible;
- Integrated and lifetime ready;
- Well designed;
- Sustainable and resilient, and
- Viable and deliverable.

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5 Redefining Density: Making the most of London’s land to build more and better homes, London First/Savills, September 2015
1. A residentially diverse Charlton Riverside

Provide a range of housing types and tenures, including a significant proportion of family housing, to ensure that local residents have the opportunity to be part of the new development. Housing will be provided at a human scale (typically varying between 3 to 6 storeys) and actively contribute to a sense of place.

2. An economically active Charlton Riverside

Employment provision will be as important to the regeneration of Charlton Riverside as new housing. The proposed mix of uses, including provision of a range of new workspace units and housing types and sizes, will encourage a wide spectrum of people to live and work there.

3. A connected and accessible Charlton Riverside

Create new, public-transport accessible routes and walkable neighbourhoods throughout the development area, increase accessibility to the Thames Path, re-design Woolwich road to prioritise public transport, pedestrians and cyclists, and create a green bridge or green link connecting Charlton Riverside with areas south of the Woolwich Road. Allow for future provision of a Waterfront Rapid Transit route connecting Thamesmead to the Peninsula via Charlton Riverside.

4. An integrated and lifetime ready Charlton Riverside

Ensure appropriate provision of schools and community facilities within neighbourhoods to ensure development benefits all residents. Ensure that there is sufficient and flexible space provided within the development blocks and movement network for potential changes of use over time to meet the needs of the community over its lifetime; with open spaces designed to meet the recreation and leisure needs of all age groups, from young children to the elderly.
5. A well designed Charlton Riverside

Ensure that the design and layout of new development, including building heights, is appropriate to the topography and neighbourhood character of the area. High quality design, build, materials and finish will characterise built development at Charlton Riverside. Design of housing and employment uses will be able to accommodate change of use over time. A high quality public realm, and new development that positively addresses streets, including Woolwich Road, will encourage active use of public spaces. Development at Charlton Riverside will seek to create a series of character areas, drawing on local assets including the River, Thames Barrier, historic buildings and green spaces.

6. A sustainable and resilient Charlton Riverside, capable of adapting to change

Ensure that natural assets, including water supply and disposal, habitat and open space are managed appropriately and new development is designed to maximise energy efficiency of buildings and the wider environment through measures to combat climate change. Public space will be carefully located, and well designed and managed, consisting of a combination of new public open space, enhancement of existing open space and provision of accessible private open space.

7. A viable and deliverable Charlton Riverside

A programme of phased development will ensure that the requisite infrastructure is put in place to support the intensification of housing, employment and community uses. Royal Greenwich will work with developers on appropriate delivery mechanisms and potential meanwhile uses to maximise community benefit. Developers will be required to contribute to the costs of open space, education, transport, etc., and development will only be permitted where the appropriate infrastructure is provided up front.
Barrier Park, Charlton Riverside, with Siemens factory building behind
3. Context

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3.1 Introduction

The wider area, within which Charlton Riverside is located, has seen a number of regeneration initiatives in recent years, some complete and others ongoing. To the west, significant development has already taken place at Greenwich Peninsula including the Greenwich Millennium Village, the O2 Arena and University of Greenwich; to the east, Royal Arsenal, Crossrail and Love Lane, in Woolwich Centre. On the opposite bank of the Thames, the Royal Docks area is being redeveloped as are new residential areas around the Thames Barrier Park, including Royal Wharf.

There is clearly increasing development momentum across the eastern part of London, with a number of larger sites, in particular, being promoted as having the potential for delivering significant numbers of new homes and jobs. The spatial arrangement, scale and relationships between and among these development opportunities is perhaps best captured by the City in the East initiative promoted by the Mayor of London (see figure 3.1, opposite). There are similarities, in terms of scale and, sometimes setting which link these opportunity sites, but each one has a very particular development history and context that sets it apart, in detail, from the other sites.

Understanding how Charlton Riverside has evolved over time, and mapping the existing context, both in terms of its physical attributes ad the policy context in which development will be delivered, helps to better define the nature of the opportunity relating to development of this site, at scale.

This SPD, therefore, is underpinned by baseline analysis which provides the evidence base for the masterplan and development principles that provide direction and guidance for potential developers at Charlton Riverside.

The baseline analysis of the site’s physical attributes and current condition is set out, in detail, in Appendix A. Appendix B provides more detail as to the policies, at national, regional and local level in relation to the development themes identified in Section 2.

3.2 Baseline Conditions Overview

Figure 3.2 shows the current conditions at Charlton Riverside, with key occupants and activities and the principal movement routes identified. The following section sets out the key physical conditions with potential to impact on the extent and form of any new development at Charlton Riverside.

Figure 3.1: The City in the East (Mayor of London, 2015)
Figure 3.2: Charlton Riverside
Mix of Uses

The existing mix of uses at Charlton Riverside comprises non-residential uses with a concentration of small scale manufacturing and small scale industries in the east of the site with lower density, wholesale and retail activities in the south and west of the site.

Charlton Riverside is home to almost 350 businesses, which together provide around 5,600 jobs. At 94 employees/ha, Charlton Riverside presents a dense site of employment, particularly in relation to densities for industrial land across London which averages at 69 employees/ha (Charlton Riverside draft Employment and Heritage Study, 2016).

Retail and manufacturing provide 19% and 14% of total jobs on site respectively. Services (13%), construction (12%) and arts & culture (10%) also contribute substantially as employment providers in the area. While both retail and services are more traditional sources of denser employment sites, the high proportion of jobs in both construction-related sectors and arts and culture reflect two distinct specialisms of the Charlton Riverside area (Charlton Riverside draft Employment and Heritage Study, 2016). The central part of the site tends towards lower density employment activities, while the more intensive employment activities are located in older buildings to the east or newer, commercial activities to the west. This spatial distribution of employment activity is one reason why the central part of the site is considered a suitable location for the early phases of masterplan development.
Figure 3.3: Economic activity at Charlton Riverside (Reproduced by Permission of We Made That, 2016)
**Building Heights**

Charlton Riverside is characterised by industrial buildings between 1 and 3 storeys in height. There are a few taller buildings (the Sainsbury’s logistics hub, the Siemens buildings and some of the industrial structures on the wharves), but they are not typical of building heights within the study area.

Charlton riverside is relatively low lying with lower building heights affording views towards the higher land in the South and East. There are important views into and across Charlton Riverside from both the north and the south, and these have been important considerations in framing the masterplan proposals. These views will need to be addressed by detailed development proposals.

The selection of images, opposite, shows that there is a variety of built form across the Charlton Riverside site, both in terms of height and massing. Taller buildings, where they do exist, tend to be older buildings and not more than 4-6 storeys (the Thames Barrier building being the exception). The prevailing pattern of building heights, however, tends to be industrial/commercial buildings of 1-3 storeys.

![Figure 3.4: Existing building heights](image)
Aggregates industry plant and structures

Former Siemens’ works on Westminster Estate

Former office building, Anchor and Hope Lane

Residential development, Atlas and Derrick Gardens

Panorama showing Charlton Riverside site, viewed from the north west, with key taller buildings and structures identified
**Flood Risk**

The majority of Charlton Riverside is located within Flood Zone 3. Widespread areas have been identified as susceptible to surface water flooding, due to low lying land. The Environment Agency’s TE2100 Plan (2012) anticipates river defences being raised by 1m up to 2100, to manage expected sea level change to 2135. Downriver of the Thames Barrier, TE2100 requires flood defences to be raised by 1.1m by 2070.

If development comes forward in a piecemeal fashion, it will need to satisfy the TE2100 conditions on a site-by-site basis. This is potentially problematic for a variety of reasons, not least timing/phasing and co-ordination. For this reason, this SPD advocates a more comprehensive approach to delivery.

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**Figure 3.5: Flood risk**
Public Transport & Accessibility

There are remnants of a network of historic routes which derive from the site once having been flood pasture. These consist of:

- The historic East-West Route along the old southern bank of the Thames along Woolwich Road
- A series of North South routes which correspond with historic field boundaries levees and dykes and footpaths.

These routes will give shape and structure to the future urban form at Charlton Riverside. Some of these historic routes are complete and connected, while others have been truncated or all but completely lost as a consequence of development. Here these routes have been lost of disturbed the intention is to reintroduce them on or as close as possible to, the original line.

The site is currently not well-served by public transport - there is no Underground or DLR provision and the site is served, primarily, by limited bus services. This results in a low PTAL score for many parts of the site (see Figure 3.5), which reduces the potential for very high density development.

PTAL (public transport accessibility level) measures the level of access to different modes of public transport, within a specified geographical area. In London, a higher PTAL usually means there is potential for higher density of development.

Figure 3.6: Public Transport Accessibility Level (PTAL)
3.3 Open Space
Charlton Riverside has limited open space with the main component comprising the sequence of spaces linking Woolwich Road to the Thames Barrier, on the eastern edge of the study area.

The fine grain of land ownership across the site has the potential to make delivery of site-wide open space more challenging and will require co-ordination among land owners and with Royal Greenwich, so ensure delivery of open space that provides for the day-to-day needs of residents and contributes to the character and sense of place at Charlton Riverside.

Key
A  Barrier Park (small local park/open space)
B  Thames Barrier/Eastmoor Street Park (local park)
C  Maryon Park (local park)
D  Maryon Wilson Park (local park)
E  Samuel Street (amenity green park)
F  Repository Woods (amenity green park)
G  Harvey Gardens (amenity green park)
H  Charlton Athletic FC (private outdoor sports/playing fields)
I  Westcombe Park Railsides (natural/semi-natural urban green space)
J  Station Crescent (natural/semi-natural urban green space)
K  East Greenwich Pleasance (local park)
L  Ecology Park & Southern Park (local park)
M  Peninsula Riverside Walkway (linear open space/green corridor)
N  Central Park (local park)
O  River Thames

Figure 3.7: Existing open space
3.4 Planning Policy Summary

It is important to fully understand the existing policy context for Charlton Riverside to establish the planning parameters for the development. The relevant core policy documents are:

• National Planning Policy Framework (NPPF), adopted in March 2012;
• The London Pan: the Spatial Development Strategy for London consolidated with Alterations since 2011, adopted in March 2016; and

The planning policies in the Core Strategy relating to each theme are listed in Table 3A, below.

The evidence has been taken from the South East London Strategic Housing Market Assessment (SHMA 2009). The table below outlines this fully:

Table 3A: Housing requirements (from SHMA)

<table>
<thead>
<tr>
<th></th>
<th>Total (%)</th>
<th>Housing Market (%)</th>
<th>Intermediate Housing (%)</th>
<th>Social Rented (%)</th>
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</thead>
<tbody>
<tr>
<td>1 &amp; 2 bedrooms</td>
<td>48.8</td>
<td>56</td>
<td>18</td>
<td>26</td>
</tr>
<tr>
<td>3 &amp; 4+ bedrooms</td>
<td>51.2</td>
<td>29</td>
<td>31</td>
<td>40</td>
</tr>
</tbody>
</table>

Policy H3 of the Core Strategy 2014

Developments of ten or more homes or residential sites of 0.5 hectares or more will be required to provide at least 35% affordable housing. The precise percentage, distribution and type of affordable housing will be determined by the particular circumstances of the site and development, including financial viability.

Policy H5 of the Core Strategy 2014

New residential development, redevelopment, refurbishment or conversions will be expected to achieve a high quality of housing design including:

• Achievement of the code for sustainable homes level 4 (or equivalent at the time of building);
• A presumption against single aspect north facing units;
• Achievement of lifetime home standards, and
• Family housing should have access to adequate amenity space on site.

A Residually Diverse Charlton Riverside

Policy H1 of the Core Strategy 2014

Charlton Riverside is one of RBG’s six strategic development locations and will be transformed into an attractive and vibrant mixed use urban quarter providing 3,500 – 5,000 new homes. It is identified as an opportunity area in the London Plan.

Policy H2 of the Core Strategy 2014

A mix of housing types and sizes will be required on all developments including conversions and should contain a mix of 3, 4, and 4+ units.

Policy H2 of the Core Strategy 2014

Outlines the need requirements for different housing types across the Royal Borough.
<table>
<thead>
<tr>
<th>Themes</th>
<th>Sub-themes</th>
<th>National Policy (National Planning Policy Framework and supporting documents)</th>
<th>Regional Policy (London Plan &amp; supporting documents)</th>
<th>Local Policy (Local Plans, including Core Strategy, and supporting documents)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A residentially diverse Charlton Riverside</td>
<td>Housing</td>
<td>Paras. 50, 58 and 61</td>
<td>Policies 3.3, 3.4, 3.5, 3.8, 3.9 and 3.10</td>
<td>Policies H1, H2, H3 and H5 South East London SHMA (2009) Affordable Housing Viability Assessment (revised 2012)</td>
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<td>An economically active Charlton Riverside</td>
<td>Employment</td>
<td>Para 2.1</td>
<td>Policy 2.17</td>
<td>Policies EA2 and EA4</td>
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<td>A connected and accessible Charlton Riverside</td>
<td>Transport</td>
<td>Policies 6.1, 6.2, 6.7, 6.9, 6.10, 6.11, 6.12 and 6.13.</td>
<td>Policies IM3, IM4, IM5, IM(a) IM(b), and IM(c) Local Implementation plan (for transport) (2011) Cycling Strategy (2014)</td>
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<td>An integrated and socially successful Charlton Riverside</td>
<td>Heritage assets</td>
<td>Policies 7.8 and 7.9</td>
<td>Policies DH3, DH(g), DH(i), DH(j) and DH(k)</td>
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<td>Community infrastructure</td>
<td>Para 69</td>
<td>Policies 3.2, 3.18 and 3.19</td>
<td>Policies CH1, CH2, IM1 Infrastructure Delivery Plan Greener Greenwich SPD, Strategic Needs Assessment (2012)</td>
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<td>Protected heritage assets</td>
<td>Policies 7.8 and 7.9</td>
<td>Policies DH3, DH(g), DH(i), DH(j) and DH(k)</td>
<td>Tall Buildings Assessment (2011)</td>
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<td>Open space</td>
<td>Policies 2.18, 7.17, 7.18, 7.19 and 7.21</td>
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<td>Policies E(a), E(b), E(c), E(d) and E(e)</td>
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<td>Waste</td>
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<td>A viable and deliverable Charlton Riverside</td>
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An Economically Active Charlton Riverside
Policy EA2 of the Core Strategy 2014
Employment will be consolidated to maximise the use of land whilst maintaining employment levels in the waterfront area. The new development at Charlton Riverside will require sufficient buffering from the retained strategic industrial location land and the safeguarded Riverside, Angerstein and Murphy’s Wharves to minimise the potential for conflicts of use and interference to new residents. The core strategy also states that there will be an intensification of use of employment land resulting in no net loss of employment across the Royal Borough of Greenwich.

Policy EA4 of the Core Strategy 2014
Identifies as strategic industrial locations Charlton Riverside East, an Industrial Business Park (IBP) and Charlton Riverside West (including Aggregates Zone), a Preferred Industrial Location (PIL).

Charlton Riverside exhibits particular concentrations of businesses and jobs in both the construction and creative sector. As a London-wide growth sector and a local hub, creative activities in the area should be nurtured and supported to grow on the site. Construction and construction-related activities are also well-represented, are London-serving and provide a source of good local jobs as should be supported to remain in the area. Drawing a strong link to the area’s employment heritage, metal manufacturing continued to operate in a particular concentration in Charlton Riverside and the sector’s skilled employment offering and heritage links should be supported to remain in the area (Charlton Riverside draft Employment and Heritage Study, 2016).

A Connected and Accessible Charlton Riverside
Policy IM3 of the Core Strategy 2014
The Royal Borough will support transport schemes that are critical to Royal Greenwich’s development including protecting and enhancing river bus services and piers.

Policy IM4 of the Core Strategy 2014
All development in Royal Greenwich should contribute to improved accessibility and safety to reduce the use of the private car and the need to travel. Development should be designed for the needs of pedestrians, cyclists and public transport users first.

Policy IM5 of the Core Strategy 2014
The impact and movement of goods and materials on the road network will be minimised and Angerstein, Murphy’s and Riverside Wharves will be safeguarded for river-based cargo handling. The railhead at Angerstein Wharf will be safeguarded for aggregate distribution.

Policy IM(a) of the Core Strategy 2014
When planning transport provision, developers should have regard to the road hierarchy, speed management, traffic calming and provision of shared spaces.

Policy IM(b) of the Core Strategy 2014
New developments should include a range of measures for pedestrians and cyclists.

Policy IM(c) of the Core Strategy 2014
Developments must adhere to the Royal Boroughs Car Parking Policies.

An Integrated and Lifetime Ready Charlton Riverside
Policy DH3 of the Core Strategy 2014
The Royal Borough will protect and enhance heritage assets, applying a presumption in favour of the preservation of statutory listed buildings and their settings.

Policy DH(g) of the Core Strategy 2014
Planning permission will only be given for development which will not have a materially adverse effect on the overall perspective and essential quality of the view identified as Thameside panorama from the Thames Barrier open space.

Policy DH(i) of the Core Strategy 2014
There will be a presumption in favour of listed buildings. Proposals for external or internal alterations or additions to listed buildings should respect the integrity of the buildings and harmonise with their special architectural or historical character. The Charlton Riverside Employment Land And Heritage Study 2016 recommends the establishment of conservation areas and listing of certain buildings.
Policy DH (j) of the Core Strategy 2014
In considering proposals affecting locally listed buildings, substantial weight will be given to protecting and conserving the particular characteristics that count for their designation.

Policy DH(k) of the Core Strategy 2014
The Royal Borough will seek a high quality of design respecting the special character of the River Thames including developing and enhancing the areas links with the river and contributing to the completion of a continuous public riverside footpath and cycle way.

Policy CH1 of the Core Strategy 2014
All development must include measures that help to create and maintain cohesive communities, that encourage diversity and reduce inequalities between areas, including development of community facilities.

Policy CH2 of the Core Strategy 2014
All development must allow and enable residents to lead healthier and active lifestyles.

Policy IM1 of the Core Strategy 2014
The Royal Borough will ensure, through the use of conditions and planning obligations attached to planning permissions, that all qualifying development provides for the infrastructure, facilities, amenities and other planning benefits that are necessary to support and serve it and too offset any consequential planning loss to the local area in a way that secures the best use of land and a properly planned well designed, accessible and integrated environment.

A Well Designed Charlton Riverside
Policy H5 of the Core Strategy 2014
New residential development, redevelopment, refurbishment or conversions will be expected to achieve a high quality of housing design

Policy DH1 of the Core Strategy 2014
All developments are required to be of a high quality of design and too demonstrate that they positively contribute to the improvement of both built and natural environments.

Policy DH2 of the Core Strategy 2014
For Charlton Riverside tall buildings may be appropriate as long as there is adequate public transport to support these and existing consideration is given to existing historical assets and distinctive characteristic features.

Policy IM2 of the Core Strategy 2014
The Royal Borough will follow an approach based on the waste hierarchy; encouraging reuse then recycling and composting before energy recovery and disposal. Providing support with appropriate infrastructure.

A Sustainable and Resilient Charlton Riverside
Policy OS1 of the Core Strategy 2014
Access to existing, public and private open space will be safeguarded and enhanced.

Policy OS2 of the Core Strategy 2014
All metropolitan open land will be maintained and its open character will be protected from further development.

Policy OS3 of the Core Strategy 2014
The South East London Greenchain and associated Greenchain walk will be promoted and enhanced.

Policy OS4 of the Core Strategy 2014
Royal Greenwich’s rich Biodiversity and Geodiversity will be protected, restored and enhanced.

Policy IM1 of the Core Strategy 2014
Policy IM1 as per 3.2.4. Development should provide adequate physical and social infrastructure to meet any additional demand created.

The Core Strategy states that infrastructure may be delivered by the developer, the council or in partnership.
Connections and directions, Anchor and Hope Lane, Charlton Riverside
4. Development Concept

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4.5 Green and Blue Infrastructure 37
4.1 Development Concept

The Development Concept, opposite, draws on the baseline analysis and Royal Greenwich’s aspirations for the site, as set out in the Vision for Charlton Riverside.

The Development Concept provides a high level framework for the spatial planning of Charlton Riverside. In broad terms, the Development Concept provides direction as follows:

• Identifies where development opportunity exists;
• Identifies those parts of Charlton Riverside where it is not expected that there will be significant change in built form or land use;
• Shows the network of primary connections, including new and upgraded roads;
• Sets out a rationale for a series of mixed use neighbourhood and local centres to provide for the day-to-day needs of residents, employees and visitors;
• Proposes locations for new community hubs, focused on education sites, both new and existing, and
• Identifies a Green Infrastructure strategy comprising a network of spaces (both new and existing) linked by a series of green routes and streets with a focus on providing improved access to and use of, the River Thames, via a new promenade along the line of the Thames Path.

Figure 4.1: Development Concept Plan

Key

- Site boundary
- Potential development zones
- Retained as existing
- Neighbourhood & local centres
- Schools/community hubs
- Local open space
- Necklace of riverside parks
- Principal movement routes
- Primary, strategic green links
- Secondary, strategic green links
- Local green links
- Thames Path, a new riverside promenade
- Landmark events
- Key gateways
4.2 Movement Network

Woolwich Road is an obstacle to north-south movement and presents an environment that is very hostile to pedestrians. There is considerable potential for this route to retain its capacity and continue to fulfil its role as a strategic east-west route, but with a character and layout that makes for a much more pleasant, attractive and safer pedestrian space. Resolving the issues relating to Woolwich Road is fundamental to delivering a successful development outcome that benefits the wider area beyond Charlton Riverside. To that end, a separate study has been commissioned to look at the detail of this space and potential solutions to the various transport and place-making challenges. The Woolwich Road Study should be read in conjunction with this SPD.

Bugsby’s Way will continue to provide access for traffic using the river crossings, as well as providing access to the significant industrial and minerals sites to the north. There is scope, however, for this route to be re-planned to create a less hostile pedestrian environment.

From the junction of Anchor and Hope Lane and Bugsby’s Way, a new East-West route would open up access to potential development parcels and provide alternative circulation routes for public transport and local traffic. This route would use existing routes (public, where possible) and recovered historic routes, using property boundaries, wherever possible.

Figure 4.2: Movement concept
A new route, looping around the central parts of the site using a mix of existing and new/recovered historic routes, would loop around the central part of the site, adding another layer to the primary movement network and giving access to development parcels adjacent to the River Thames.

Secondary and tertiary movement networks would amplify and connect the primary routes, giving shape and form to the various development parcels.

Figure 4.3, opposite, shows how the movement concept translates into a network of primary, secondary and tertiary streets, predicated on the re-use of historic movement routes, wherever possible.

The existing passenger rail line and station will continue to serve Charlton Riverside, while the minerals line will remain in freight use as long as the aggregate wharves are in operation. If the aggregates wharves were to move in the future, the mineral railway should be safeguarded for passenger purposes. Along the River Thames, usage of the Thames Clipper service continues to grow and there is a real opportunity for the creation of a new Clipper Pier at Charlton Riverside.
### 4.3 Development Opportunity

A - The Westminster Estate has potential for some element of re-development varying between re-use of existing buildings (e.g., the Siemens Works) and replacement of some of the existing sheds to accommodate new infrastructure and allow for an intensification of industrial activity.

B - The central section of the site has the greatest potential of development, with much of the existing commercial activity either replaced by mixed use or more intensive forms of commercial/industrial activity.

C - The existing out-of-town retail activity does not conform with Royal Greenwich policy relating to town centres. There is potential for some of the retail activity to remain, potentially embedded within new neighbourhood or local centres, but with a significant change to a mixed use form of development.

D - The industrial activities would remain, but potentially with a change to a more intensive, higher value added form of activity.

E - Existing education provision would remain and be improved, while the existing mix of commercial activities would be re-focused on providing flexible space for SME and creative arts; existing residential and heritage assets would be retained.

F - The minerals wharves and adjoining commercial/industrial uses would remain, and any new development would have to reflect the continued presence of these non-residential uses.

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Figure 4.4: Development opportunity
Figure 4.5 illustrates how the larger land parcels identified in the development concept plan might be shaped and defined by the network of routes. This urban structure forms the basis for the development parameter plans that follow.
4.4 Centres and Hubs

A site as large as Charlton Riverside is capable of supporting a rich mix of retail, leisure, commercial and community uses. The spatial distribution of those uses needs to provide the best coverage and levels of access, while avoiding over-provision, duplication or gaps in provision. The Development Concept for Charlton Riverside proposes the following:

1 - A new neighbourhood centre, focused on the southern stretch of Anchor and Hope Lane. This will provide a mix of retail, food and drink, commercial leisure and community provision, as well as some employment space, that provides for the day-to-day needs of residents, employees and visitors to Charlton Riverside.

2 - A local centre, with a focus on providing a mix of uses that reflects its riverside location. The emphasis will be more on food and drink and commercial leisure associated with the open space and River Thames, with some element of retail and community uses that services the local area.

3 - A local centre, located on Woolwich Road, at the junction between new and existing communities. The emphasis will be more on providing local services, retail and community services.

S - Across the site, local schools will act as a focus for community provision, with co-location of key services and out-of-hours use of school facilities by community organisations.

Figure 4.6: Community Hubs
Figure 4.7 gives direction as to the location of the main centres (neighbourhood and local) and their relationship with the surrounding area. The plan also shows how the schools will be located, providing secondary provision of community facilities, in addition to their main education function.
4.5 Green and Blue Infrastructure

There is currently a deficit of open space at Charlton Riverside, and the introduction of a significant residential population will require additional provision of open space, sports facilities and children’s play. In addition, the site’s waterfront location, allied to new development that provides improved access to the waterfront, means that there will also be a need to create spaces along the Thames which complement development and celebrate the river.

The Green Infrastructure strategy, as proposed, is predicated on retaining existing strategic open space where it exists (the sequence of spaces leading up the Thames Barrier) and creating new space, where possible. There would also be a framework of local open spaces providing for the needs of the local areas within which they are situated, interconnected by a series of green routes (which might be tree lined streets or linear spaces) that integrates Charlton Riverside with its hinterland, but also connects it to the River Thames.

Along the river, an enhanced Thames Path would link a series of pocket parks arrayed along the southern bank of the Thames. These spaces would provide a series of destinations at key points, where development and open space combine to create attractive waterfront public space animated by occasional commercial activity.

Figure 4.8: Green and Blue Infrastructure
Figure 4.9 illustrates the spatial arrangement of the main public open spaces, including a new, consolidated Charlton Riverside Park, on the eastern edge of the site, and a network of interconnecting spaces that provide access to an enhanced Thames Path and the River Thames.
Existing residential development, Atlas Gardens, Charlton Riverside
5. Theme I - A Residentially Diverse Charlton Riverside

6.1 Introduction

6.2 Housing Type and Tenure

6.3 Scale, Massing and Density
5.1 Introduction

Although Charlton Riverside is, and will continue to be, an important employment location for Royal Greenwich, the nature of the commercial and industrial activities carried out are, in general, less traditional than they have been in the past. New residential development, therefore, will be introduced into a very different environment than the one that existed even 30 years ago, although it will still have to be designed, built and managed with reference to existing commercial and industrial activities.

Charlton Riverside has been identified in the Core Strategy as the location for a new mixed use urban quarter of 3,500 - 5000 new homes. The scale of the opportunity may be greater than what is set out in the Core Strategy, with potential for up to 7,500 new homes having been identified during the preparation of this SPD, but the delivery of new homes needs to be balanced against the retention of key existing uses, especially employment, so where development potential exists, it is clear that the land must be used efficiently. An uplift in housing numbers, possibly to 7,500 new dwellings, is predicated on the delivery of supporting infrastructure, including transport, open space, flood risk mitigation and social infrastructure, such as new schools and community facilities.

The housing delivered at Charlton Riverside will focus on the delivery of family housing and a significant proportion of affordable housing in keeping with the targets set out in the Core Strategy and the London Plan.

Figure 5.1: Residential development parcels
5.2 Housing Type and Tenure
Charlton Riverside will be comprised of a rich mix of different housing types to suit the needs of residents at all stages of life. More specifically, RBG is committed to a minimum of 50% of units built being provided for family housing. This is evidenced in policy H2 of the Core Strategy (2016), which outlines the requirements for different housing types across the Royal Borough.

Family dwellings might be individual houses (typically town houses over three floors), maisonettes or duplexes and larger apartments. These might be delivered in combination, with groupings of town houses or maisonettes with apartments above. Smaller apartments will also comprise part of the mix, as will assisted and sheltered accommodation and student accommodation.

Royal Greenwich is also seeking 35% affordable housing, with the actual quantum, type and mix to be addressed on a phase-by-phase or parcel-by-parcel basis, as appropriate, and subject to the test of viability (Royal Greenwich sets out its requirements in terms of viability assessments in its Planning Obligations SPD, 2016 and the Local Information Requirement List for Planning Applications, 2016). Affordable housing will be split as follows: 70% affordable rent and 30% intermediate tenure. Private Rental Sector (PRS) housing may be considered, although it is not anticipated that this would comprise more than 10% of the total housing provision.

These targets reflect Royal Greenwich’s aspiration that Charlton Riverside should be a mixed and balanced community, both in terms of the demographic make-up and the types of tenure available to residents. These new homes will be delivered in the context of a traditional pattern of streets, drawing on the historic network of routes that pre-dates the more recent development of Charlton Riverside.
5.3 Scale, Massing and Density

Overall the development will be split into smaller development blocks and parcels so that there are more frequent junctions of streets.

While there are other areas of London and, indeed, the Royal Borough of Greenwich, where tall buildings have been used to deliver density of development, there are several reasons why this is not considered appropriate at Charlton Riverside:

- The surrounding context, such as proximity to existing residential development, needs to be considered;
- Existing topography and views into and across the site from the north and south also merit consideration when contemplating building massing and height, and
- Low to medium level PTAL scores, allied to Charlton Riverside being a neighbourhood, rather than a metropolitan centre.

There is a significant precedent for low to medium rise, high density development in London. Some of the most attractive and desirable neighbourhoods in places like Kensington, Marylebone and Pimlico are characterised by low to medium-rise mixed use development, often with a mix of mansion block, townhouse, terraced and mews housing. This mixed provision can achieve high density, while creating places which are of a human scale, accessible and attractive. Development in these locations is predicated on a pattern of traditional streets, with a clear division between the public and private realms. This is a model of
development that characterises some of the most desirable, attractive and successful neighbourhoods in London and also in cities such as Paris, Berlin, Madrid and elsewhere. Taken together, a mixed provision of housing based on low to medium rise, high density development and a traditional pattern of streets has the potential to deliver housing numbers in a way that is characterful and attractive, while also ensuring an efficient use of land and sufficient density of population to support the fullest range of amenities and services.

For these reasons, low-to-medium rise, high density development is the preferred model for Charlton Riverside.

Typically, building heights will vary between 3 and 6 storeys, with the detailed consideration at design proposal and planning stages to ascertain what is appropriate for a specific location. Figure 5.2, opposite, provides guidance on typical maximum heights, to inform design thinking. It should be noted that a notional maximum building height in any given location does not mean that all buildings in that location can seek to achieve that height.

Variations in height within and between individual development blocks will help to give character to development, break up individual massing and allow light penetration into the interior of blocks.

There will be locations where some taller buildings might be considered appropriate, such as the neighbourhood core focused on the lower section of Anchor and Hope Lane, between the junctions with Bugsby’s Way in the north and Woolwich.
Road in the south. Proximity to the station, with a higher PTAL and the opportunity to mix commercial, leisure and other non-residential uses with housing means that relatively tall buildings could be considered in this location, but always in the context of a prevailing model of development that is low-to-medium rise, high density.

Development parcels immediately adjacent to the river may offer an opportunity for relatively taller buildings (up to 10 storeys), but not in the form of isolated point blocks which are significantly taller than the surrounding development as this then creates a problem of relative scale, overshadowing or other environmental issues.

Taller buildings should relate, both in terms of height and massing, but also in architectural treatment, to the adjacent development, be it new or existing. Development along the river should also seek to provide the same opportunities for family housing as other parts of Charlton Riverside and avoid creating concentrations of single housing types, either by tenure or size. The operational requirements of the Thames Barrier, including security, are also a consideration for any development proposals in proximity to that installation.

While PTAL is not the only factor influencing decisions about development density, it is an important one. In the context of London, where car ownership and access to private vehicles is lower than other parts of the UK, the provision of public transport services is crucial to delivering

Figure 5.3: Proposed revised PTAL
successful development. Development densities, shown in Figure 5.4, are predicated on the revised PTAL scores shown in Figure 5.3, opposite.

Policy 3.4 of the London Plan requires development to ‘optimise housing for different types of location output within the density range shown in Table 3.2’. The policy also notes that ‘(d) evelopment proposals which compromise this policy should be resisted.’

With reference to Table 3.2 of the London Plan, Charlton Riverside is an Urban location, because it is not within 800m of an International, Metropolitan or Major town centre. Most of the site has a PTAL score of 0-4, with core areas, close to the station, having a score of 5. In the London Plan, Urban areas are described as:

‘areas with predominantly dense development such as, for example, terraced houses, mansion blocks, a mix of different uses, medium building footprints and typically buildings of two to four storeys, located within 800 metres walking distance of a District centre or, along main arterial routes’

As a consequence, the densities shown are lower than they might be for a central area with high PTAL. For the most part, they are within the parameters set by the London Plan, with occasional anomalies relating to parcel size and the potential for slightly taller buildings. Overall, the average net density across the site, based on the proposed SPD layout, opposite, is 146 dwellings per hectare (dph).

Figure 5.4: Development densities
6. Theme 2 - An Economically Active Charlton Riverside

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6.6 Distribution of Employment at Charlton Riverside 57
6.1 Introduction
The existing mix of uses at Charlton Riverside is dominated by A and B class uses. Figure 7.1 shows that there is a rich mix of commercial activity by type and scale. The key issue for development proposals in this SPD will be managing the introduction of mixed use development in such a way to retain and enhance the contribution that Charlton Riverside makes to the economies of the royal borough of Greenwich and the wider London area. Developers will need to demonstrate as part of their planning applications how they have provided alternative employment spaces on site, not only to replace existing businesses but also create opportunities for new employment.

6.2 Existing Land Use
There are a number of significant non-residential land uses within Charlton Riverside which will be retained, some of which provide a great many existing jobs:
• Westminster Estate and associated areas;
• The strategic infrastructure associated with the Thames Barrier;
• Existing residential at Atlas and Derrick Gardens;
• The education uses to the south of Westminster Estate - the UTC and Windrush Primary School;
• The minerals wharves focused on Angerstein and Murphy’s Warves, and

Figure 6.1: Existing land use (at ground floor)
• The Strategic Industrial Land (SIL) to the north of Bugsby’s Way and west of Anchor and Hope Lane.

The area’s current employment profile reveals a range of employment activities on site which are compatible with mixed-used redevelopment. Both in terms of prevalent sector activities (services, retail, creative) and of workspace typologies (smaller units), the employment profile of Charlton Riverside suggests that many current uses are ‘mixable’ – more so than other key industrial locations studied in London (Charlton Riverside draft Employment and Heritage Study, 2016).

The Development Concept proposes that these areas remain in their current usage, albeit with the potential for some areas, such as the SIL and Westminster Estate, to be re-cast in such a way as to create higher value jobs and a greater breadth of employment opportunity for local people.

Within the areas identified as being available for mixed use development, there are a number of smaller, niche and valuable uses and users which should be retained and integrated into development proposals. By doing so, developers can maintain links with the history of Charlton Riverside, but also provide a richness and complexity of development from the very start. The photos, opposite, show some of the major existing economic activities at Charlton Riverside.
Figure 6.2: Economic activity at Charlton Riverside (from the Charlton Riverside Employment and Heritage Study, 2016)
6.3 Protection of SIL

It is recognised that the existing aggregates wharves have an important role to play in the economy of not only Greenwich, but the wider London region. There are, currently, a number of protected wharves, located in the north-west corner of the study area, where the level ad type of industrial activity is likely to come into conflict with residential development unless measures are identified for managing risk.

To that end, the SPD proposes the following measures:

- Employment land to the north of Bugsby’s Way, designated as SIL, will be retained in that designation and use to act as a buffer between any development likely to contain residential uses and the active wharves;
- Land to the north of Bugsby’s Way which is not SIL, and is currently given over to various commercial activities will form part of the buffer between new residential development and the wharves and will not be considered for residential development;
- Land immediately to the south of Bugsby’s Way, adjacent to the wharves, will have a skin of commercial development that will form the southernmost element of the buffer;
- A significant piece of public open space will run along the eastern edge of the mineral railway, to the south of Bugsby’s Way, with a combination of landform and structural planning being employed to mitigate the noise and visual impacts of the freight services, and
In the future, if the aggregates activities move from this location, there will be scope for mixed use development, and the retention of the mineral railway for passenger use.

6.4 Riverside Wharf

Riverside Wharf is also a protected wharf and is used for aggregates processing and transfer. The Core Strategy recognises this existing condition at Riverside Wharf, but also allows for a process of review with respect to its use and its protected status.

In the longer term, if activity at Riverside Wharf significantly reduces, its protected designation may be reviewed via the London Plan.

In the interim, development proposals adjacent to Riverside Wharf would be considered by the Royal Borough, but only where they allow a setback between any development that includes residential development and the wharf. Engineering standards will have to address any noise or air pollution issues with high performance solutions integrated into the building fabric.

Development may be delivered with Riverside Wharf operational, but it will have to be set back, and design standards will need to mitigate any potential air and noise pollution risk.

If Riverside Wharf loses its protected wharf status, and the industrial activity is relocated, additional development can be delivered, although it is expected that a significant portion of the Wharf will be given over to open space, potentially with a modified river defence allowing more immediate access to the river.

Figure 6.4: Riverside Wharf
6.5 Potential Mix of Ground and Upper Floor Uses

There will be opportunities for local retail, community, leisure and some employment uses to be embedded within new development where the primary use becomes residential. Figure 6.5 and 6.6 show the potential mix of ground floor and upper floor uses. The objective is that new residential development will where possible integrate with other uses to create a mix use neighbourhood. However, it will not always be possible for every development parcel to have a significant mix of non-residential uses at ground floor level.

Figure 6.5: Proposed ground floor uses
Figure 6.6: Proposed upper floor uses

Key
- Site boundary
- A class uses (retail/food & drink/professional services)
- B class uses (business/industry/storage & distribution)
- C1 class use (hotel)
- C3 class use (residential)
- D1 class use (education, community)
- Sui generis (mix of fire station, Thames Barrier and others)
- Mixed C1 Hotel with some A class uses
- Mixed A class with some B class uses
- Mixed B class with some A class uses
- Mixed C3 and A class uses
- Mixed C3 and B class uses
6.6 Distribution of Employment at Charlton Riverside

A number of employment activities, including food and drink production, small-scale manufacturing and makers and leisure uses, have the potential to be integrated into future development at Charlton Riverside as amenity and place-making features. A more public-facing features (front-end retail spaces, showrooms, open workshops) of these uses in future development could allow current industrial-type uses to contribute to the character of future developments, while retaining some of the key economic strengths of the area.

Currently, heritage assets along the eastern edge of the study site are accommodating a vibrant range of employment activities, often mixed within individual buildings. The character of these buildings, their flexibility to accommodate a range of uses and the current mix of manufacturing, creative, food & drink and services offer a clear precedent in terms of natural employment hubs. These buildings provide the strongest example of shared and mixed-use employment space across the site. This cluster (Bowater Road, the Commonwealth Buildings and Woolwich Dockyard Industrial Estate) should be promoted as a flagship for the character of the area and the capacity of currently under-occupied heritage assets to be brought back into employment use should be strongly considered.

Another key opportunity relates to the provision of start-up spaces and commercial accommodation providing for SME (small and medium sized enterprises), particularly those active in technology

Figure 6.7: Employment locations
and manufacturing innovation. Managed workspaces, particularly for enterprises with direct links to higher education institutions (including, but not limited to, the University of Greenwich) would deliver a new and different range of employment opportunities than currently exists at Charlton Riverside. Crucially, it would also be able to fit into a different physical model of development, one that is less tied to purpose-built industrial sheds. The flexibility and relatively low cost of older industrial buildings makes them attractive to SMEs, but that type of stock is in short supply at Charlton Riverside. As a consequence, new development that provides the types of workspaces favoured by smaller enterprises will be actively encouraged by Royal Greenwich.

The images, opposite, suggest some of the activities which might become a focus as the economic profile of Charlton Riverside changes over time.
The following principles will apply to employment land uses at Charlton Riverside:

• Designated SIL land will be retained in that use, whether development proposals come forward or not;

• The aggregates zone, safeguarded wharves and railfreight sites (as per the Core Strategy) in the north west corner of the site will be retained and any residential or mixed use development proposals will need to reflect that these are an important part of the local economy and have a strategic importance for Royal Greenwich and the wider London region (with the proviso that, in the future, if the aggregates activities re-locate, this part of the site may be de-designated as SIL and promoted for mixed use development);

• A buffer of non-residential uses will be maintained around the aggregates zone in the north west corner of the SPD area;

• Where existing businesses are impacted by new residential or mixed-use development, developers will be obliged to identify a relocation strategy which will consider options including:
  - Retention in situ, within the development parcel;
  - Relocation elsewhere in Charlton Riverside;
  - Relocation elsewhere in Royal Greenwich, and
  - Other relocation/mitigation measures.

• Existing creative industries will be retained and development proposals will be executed to show whether additional, suitable space might be provided for creative industries within the development;

• Where possible, and appropriate, a mix of uses will be delivered (residential, employment, community, commercial, etc.), integrated both horizontally and vertically within development parcels;

• Existing heritage assets will be retained wherever possible, and continue to offer employment space as part of development proposals, in addition to other uses;

• Where development proposals come forward in designated SIL areas, there will be a presumption in favour of a densification of employment areas, with more extensive low-head count uses being replaced by higher value added, higher head count enterprises; and

• Managed workspaces and accommodation suitable for start-up enterprises and SMEs will be actively pursued in any development proposals, on designated SIL land and other locations, where appropriate.
7. Theme 3 - A Connected and Accessible Charlton Riverside

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7.6 Hierarchy of Streets 70
7.1 Introduction

The proposed movement strategy for Charlton Riverside, as shown in Figure 8.1, is predicated on the creation of a network of streets, based on historic movement patterns with new linkages necessary to deliver development that is permeable, legible, characterful and safe.

Figure 7.1: Proposed network of streets

- Site boundary
- Primary streets
- Secondary streets
- Tertiary streets
- Historic route (1867 OS)
- Historic route (1894 OS)
- Historic route (1914 OS)
7.2 Hierarchy of Routes

There are four levels envisaged for the road hierarchy:

Primary - these are the main routes through the site; often strategic, as well as providing local access and circulation, they are the main public transport routes and will have a boulevard character;

Secondary - these routes are the mainstay of the movement network, and give the wider site its structure and form; they may also have public transport and, while narrower in section than the primary routes will still be substantial movement corridors;

Tertiary - these routes, typically, relate to residential areas and have a character and section that reflects that setting and context, and

Shared Surface/pedestrian priority - these are a form of tertiary street, but one where the relationship between vehicles and pedestrians is more balanced; these routes will often sit within development parcels providing access, circulation and penetration into the block, for example, in the development parcels adjacent to the River Thames.

Figure 7.2: Road hierarchy
All streets will be designed with reference to the Government’s Manual for Streets (2007), so that design speeds, road geometry, forward visibility, street furniture and materials, and general arrangement, will tend towards creating an environment where the needs and safety of pedestrians is paramount.

A central tenet of this guidance, is that all residential streets within Charlton Riverside, whether existing or new, will have a 20mph speed limit, except where they are strategic routes, where 30mph will apply.

On-street parking and the use of bus boxes, rather than lay-bys will help to manage traffic speeds, as will the prevalence of junctions and pedestrian crossings. Built development will also be expected by Royal Greenwich to help play a part in managing traffic speeds where buildings will - typically - be arranged perpendicular to the street, and the degree to which they are sited close to or on the plot line means they can be used to create enclosure and pinch points.

### 7.3 Public Transport

Public transport provision, in the right location and with the appropriate quality of service and frequency, is a fundamental part of the development opportunity at Charlton Riverside.

The new east-west route will be designed to support either new or re-routed bus services which will provide for the needs of residents in the newly activated development parcels to the

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**High streets designed with people in mind (Kensington High Street)**

**Tree lined residential streets**

**Active streets, well overlooked with lots of ground floor activity**

**Shared priority spaces in residential areas**
north and south of this route. At the same time, there is potential for additional routes, (new or re-routed) either along Woolwich Road or along an extended Riverside (see Figure 7.3). The number and frequency of new bus services will be the subject of more detailed discussions with TfL, however, a re-working of the initial bus priority route known as the Greenwich Waterfront Transit may be possible. The development concept is predicated on a mix of re-routing existing services to provide better coverage, and a limited number of new services. Any significant upgrades in the level and type of public transport provision, e.g., a new DLR or Underground connection, would result in a review of some of the SPD principles relating to density and heights.

Rail services to and from Charlton Station will improve slightly on the basis of Crossrail releasing some limited capacity on that line in the future. A new Thames Clipper Pier is proposed, somewhere in the vicinity of the Anchor and Hope Public House, and its delivery will need to be considered as part of any development proposals. Operational issues at both the Thames Barrier and the aggregates wharves dictate that a new Clipper Pier will be probably be located roughly in the location shown on the plan, opposite.

Figure 7.3: Proposed public transport
7.4 Walking and Cycling Routes
The Development Concept for Charlton is predicated on the creation of a network of streets and public spaces that support non-vehicular movement with a higher degree of connectivity and which is safe, direct and convenient. In addition, dedicated pedestrian routes along the river and though public open space will enhance the site’s accessibility. Providing a variety of options for pedestrians, by creating a block structure and green infrastructure that is permeable and allows for a variety of routes between key destinations, is a priority.

Figure 7.4: Walking routes
Cycle routes, whether dedicated, on-street or through public open space will provide another layer of permeability across Charlton Riverside. In addition to strategic walking and cycling routes (such as Thames Path and the proposed Cycle Superhighway 4) the network of routes via public streets and public open space will articulate and connect Charlton Riverside, both internally and with the surrounding neighbourhoods.

Figure 7.5: Cycle routes
A variety of different types of routes will be available for cyclists:

1. Designated, segregated cycle routes within the carriageway such as the Cycle Superhighway proposed for Woolwich Road (these will be along primary and some secondary and can be on- or off-street).

2. Unsegregated on-street cycle routes along secondary and tertiary streets.

3. Defined routes through public open space and along Thames Path.

4. Undefined routes through public open space.

The intention is that this network of cycleways will allow cyclists a choice in terms of the design and setting of the routes along which they travel, as well as a set of options which provides alternatives for getting from point A to point B anywhere within Charlton Riverside.
7.5 Access to the River Thames

The River Thames is probably the key asset that differentiates Charlton Riverside from many other strategic development sites. For that reason, there are a number of key design principles relating to movement, infrastructure improvements and development proposals adjacent to the river, the observance of which is a key requirement of this guidance.

Access to the River Thames is a priority and any development which seeks to inhibit, restrict or remove direct public access to the River Thames will not be permitted.

The Thames Path currently passes along the river bank through much of the Charlton Riverside site and it is expected that where there is direct access to the river, that will remain, while in those locations where there is not direct public access, it will be sought as a condition of planning permission, as and when applications are submitted.

A series of north-south routes will be provided, from the main body of the Charlton Riverside site, via public and semi-public spaces, connecting with the Thames Path and the sequence of small pocket parks interspersed between development parcels. It is intended that this network of routes will provide direct, convenient and attractive means of access to the River Thames from every part of Charlton Riverside and the hinterland beyond.

Figure 7.6 Access to the river
7.6 Thames Path

The Thames Path currently passes along the northern edge of Charlton Riverside. Immediately to the west of the Thames Barrier, the Thames Path sits adjacent to the Thames for the most part, although it sits back along Riverside (where Cory’s Wharf prohibits access to the river’s edge). Further west, there is relatively free access, albeit with minerals operations to either side and above the Path.

To the east of the Thames Barrier, the Thames Path will follow a new route along Bowater Road, before passing along a new cantilevered path attached to the river wall and from there back into the main riverside route adjacent to Harlinger Street. The aspiration exists for the Thames Path to relocate to the rear of the properties along Bowater Road, providing a continuous movement along the river edge. Future development proposals in the north eastern section of Westminster Estate, adjacent to the River Thames, will have to consider how this improved routing of the Thames Path and access to the river might be achieved.

Figure 7.7: View along the Thames Path to the Barrier
Where the Thames Path sits immediately adjacent to the river, a minimum depth of 10 metres will be maintained between the river defence line (typically the river edge) and adjacent development/building line. The intention is that a more open and accessible Thames Path, well overlooked by adjacent development, will create an attractive and well used public space adjacent to the River Thames. In addition, maintaining the 10m setback will allow greater access for inspection, maintenance, repair and replacement of the river defences (the 10m setback is required by the Environment Agency).

In terms of its character, as it passes through Charlton Riverside, the Thames Path is envisaged as being a riverside promenade, opening out onto the River Thames and framed by mixed use development that creates vitality and attracts people to the river front.
8. Theme 4 - An Integrated and Lifetime Ready Charlton Riverside

8.1 Introduction

8.2 Public Open Space Provision

8.3 Public Open Space Typologies

8.4 Charlton Riverside Park

8.5 Green Connection
8.1 Introduction

Whilst Charlton Riverside will be primarily a new, mixed use development, it will not just be for the benefit of new residents. It will also provide facilities and services for the existing residential communities in the surrounding area. The range of facilities provided will include all those components necessary for creating and supporting a sustainable and healthy community – incorporating existing and new residents - with a range of opportunities accessible by all. Community infrastructure that will be provided within the new development includes:

- Green infrastructure – including outdoor spaces and links between open spaces;
- Sport, leisure and recreational facilities (indoor and outdoor);
- Education – childcare provision (including crèches and nurseries,) schools, education and training centres;
- Arts and cultural facilities;
- Health and social facilities – medical or health services, social service and day centres;
- Community spaces – buildings used by voluntary sector groups, places of worship, community safety, facilities for youth provision and ancillary community uses, and
- Fire safety, policing and other criminal justice and community safety facilities.
Community infrastructure will need to be provided within reasonable walking distance from as many new homes as possible to ensure those who do not have access to their own transport can reach them easily and to encourage people to walk or cycle where possible, reducing reliance on private cars and promoting healthier lifestyles (in line with Core Strategy Policy CH2 Healthy Communities). In particular, family housing should, as far as practicable, be within reasonable walking distance of nursery and primary schools, local shops, play areas and amenities (in line with Core Strategy Policy H5 Housing Design). Key infrastructure will be delivered early in the development programme, especially social infrastructure, so that facilities and amenities are available to residents on first occupation.

Developers will be expected to work with Royal Greenwich and the various statutory and non-statutory providers to explore finding options and mechanisms that allow for delivery of new social infrastructure to the level of service provided and at the appropriate point in the delivery cycle. Endowment of certain assets will also be required, to ensure they are adequately funded and resourced. Alternative management and governance solutions may be considered by Royal Greenwich, depending on the nature of the community asset.

Figure 8.1: Sketch view of a local park
Providing education opportunities is critical to establishing a balanced and thriving community at Charlton Riverside. At present, the area includes the Royal Greenwich University Technical College (UTC) and Windrush Primary School at its eastern end. Charlton Riverside, when fully developed, is anticipated to include the following to support in excess of 5,000 new homes:

- Nursery and pre-school provision;
- Two primary schools, and
- One or possibly two new secondary schools.

There is also the potential for one, or both, of the new secondary schools to be through schools, providing from nursery through to sixth form. This will have a knock-on effect on the number and location of primary schools.

There will be a number of school sites within the SPD area, including the existing UTS/Windrush site. Given the importance of open space, and the pressure on the available land from competing land uses, school sites will be an important asset to the local community and will be made available at weekends and after school so that the local community might have access to sports and other recreation and learning facilities.

In particular, given the pressure on land and the need to provide outdoor sport opportunities for residents, local schools would have an important role to play in promoting the sporting activity and fostering healthy lifestyles. Formal and informal education and community group activities might also find a focus in school ground, both after school hours during the week and at weekends.

Figure 8.2: Community uses
8.2 Public Open Space Provision

Charlton Riverside currently has a deficit of open space, although Eastmoor Street Park, in the eastern area of the site, forms part of the South East London Green Chain and there is a play space at the Thames Barrier visitor centre.

The expansion of the residential population will require additional provision of open space, sports facilities and children’s play. There will also be a need to create spaces along the Thames which complement and celebrate the river. A framework of local open spaces, serving their local neighbourhoods, will be interconnected by a series of green routes (which might be tree-lined streets or linear spaces) that integrates Charlton Riverside with its hinterland and also connects it with the River Thames. Along the river, an enhanced Thames Path would link a series of pocket parks arrayed along the southern bank of the river. These spaces would provide a series of destinations at key points, where development and open space combine to create attractive waterfront public space animated by occasional commercial activity.
8.3 Public Open Space Typology

Public open space will, for the most part, be at a premium, so will have to be multi-functional providing amenity space, sports provision, children’s play, habitat and flood mitigation.

The open space typology set out in the Royal Borough of Greenwich Open Space Study (2008) will, as far as possible, be applied to new development at Charlton Riverside:

- Amenity Green Park;
- Pocket Park;
- Small Local Park/Open Space;
- Local Park;
- District Park;
- Metropolitan Park;
- Civic Spaces/Pedestrianised Areas;
- Linear Open Space/Green Corridors;
- Natural or Semi-natural Urban Greenspaces;
- Cemeteries and Church Yards;
- Allotments, Community Gardens and Urban Farms;
- Outdoor Sports Provision/Playing Fields (Education/Public/Private), and
- Provision for Young People and Teenagers.

Public open space will be provided at a rate appropriate to the scale of development and will be delivered in balance with housing completions.

Figure 8.4: Access to open space
There will be an emphasis on accessible, multi-functional open space provided in close proximity to residential development, such that no home will be more than 5 minutes’ walk from a substantial open space (i.e., greater than 1 hectare and equivalent to a local park). In addition, there will be a finer grain of smaller spaces – pocket parks, rain gardens, local play areas and civic spaces within development parcels, providing very immediate and instantly accessible open space adjacent to residential development.

It is also anticipated that private open space will be provided as part of residential development. Roof terraces and gardens should be considered to maximise access to usable open space and minimise impermeable surfaces. The amount and spatial distribution of each of the different types of open space will be addressed during pre-application discussions.

Figure 8.5: Private and semi-private open space
8.4 Charlton Riverside Park

The existing sequence of spaces leading from Woolwich Road to the Thames Barrier will be conjoined and expanded to create a new District Park. This enhanced space will include some components of land currently given over to employment uses. It will be big enough to accommodate the full range of open space functions and will serve as a resource for the adjacent primary and secondary schools.

This new Charlton Riverside Park will also be an important component of the wider surface water mitigation strategy for the whole of the Charlton Riverside SPD area. As the largest open space within the site, and having frontage onto the river, Charlton Riverside Park has the ability to act as the final receptor for significant volumes of surface flood water, prior to it being passed into the Thames. Spaces and facilities within the park will be designed to allow for this intermittent but important task.

Figure 8.6: Sketch view of Charlton Riverside Park
Formal gardens and amenity space

Areas for young people

Incidental spaces close to homes and places of work

Children’s play

Communal and social space, e.g., allotments

Formal sports provision
8.5 Green Connection

A key challenge along the Woolwich Road corridor is how to improve the connections across the Woolwich Road between Barrier Gardens and Maryon Park. There are three alternative options, a green bridge with a straight ramp (Figure 8.7), a green bridge with a zig-zag ramp (Figure 8.8) and a green zone (Figure 8.9).

A green bridge, in this location might become a landmark, in the same way as Mile End Bridge, in East London. An attractive structure, designed to fit with its context, both landscape and urban, would create a unique feature at an important gateway location at Charlton Riverside.

The cost of construction would be in the region of £12 million.

There are a number of challenges to the construction of a bridge:

• It will require pedestrians and cyclists to climb up to the level of the bridge deck in order to access it. For those already in Maryon Park, the local topography can be used to assist with this, but for those on the Woolwich Road or in Barrier Park this will require a series of steps and ramps to reach a point approximately at least eight metres above carriageway level.

• The ground level within Barrier Park falls down towards the River Thames. Any ramp that attempted to follow the alignment of the park would be chasing this fall and need to cross Eastmoor Lane and the buildings that front its northern edge. Alternatively, a series of steps and ramps could zig-zag east-west across the front of the park facing the Woolwich Road.

• Any bridge structure will create spaces underneath that will be difficult to manage and which may attract anti-social behaviour, but with careful design they could become assets used by local business or community groups.

• There are a number of significant trees which sit within the southern section of Eastmoor Street Park and some of these may be lost (although the loss would be offset, to some extent, by the new planting on the green bridge).

• The land take-up required to create the steps and ramps could reduce the amount of land available for development.

An alternative would be to introduce an improved, at-grade signalised pedestrian crossing in conjunction with additional enhancements to this section of the Woolwich Road. With both the two parks and the College (soon to be a Secondary school) and Primary school within this section of the Woolwich Road, it contains the most social infrastructure of any part of the Woolwich Road. This status can and should be better reflected in the design and function of the street. The section could be book-ended by ten metre wide, single-stage, signalised pedestrian and cycle crossings - one linking Barrier Park with Maryon Park and the other linking Windrush Primary School with Maryon Park. Both of these would be complemented by new entrances to Maryon Park.
Figure 8.7: Green Bridge Option 1
Figure 8.8: Green Bridge Option 2

- Eastmoor Place
- Barrier Park
- Woolwich Road
- Maryon Park

- Line of Bridge and Off-ramp
- Significant trees affected by off-ramp
that relocate the existing park gates further back, creating two welcoming public spaces.

The new Cycle Superhighway could run alongside the southern side of the carriageway and bus lanes could be introduced in both directions. The central reservation could be removed to enable the northern footway to be widened, providing greater capacity at the bus stop on this side of the street and the opportunity to introduce tree planting that would complement the park on the other side. Road markings would be kept to a minimum and the carriageway surface could be re-dressed with the addition of a coloured aggregate or similar to further change the character of this section of street.

The option of a 20 mph limit for this section could also be explored. The treatment of this section could act as an exemplar and catalyst for change along the other dual-carriageway sections of the Woolwich Road. As elements of the Charlton Riverside Masterplan come forward for development, the adjacent section of the Woolwich Road can be improved in parallel.

An illustration of what a green zone could look like is at Figure 8.9.

The cost of implementing the green crossing would be £750,000.

Royal Greenwich is keen to explore the Green Bridge option and that is, currently, the preferred solution.
9. Theme 5 - A Well-designed Charlton Riverside

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9.1 Introduction
Charlton Riverside will become a new, mixed use neighbourhood, with the introduction of more than 5,000 (and up to 7,500) new homes. Although large parcels of land will remain in commercial/industrial use, there will be a significant change in land use across the rest of the site to clusters of smaller scale retail, commercial and industrial at ground floor level, with residential above, together with some purely residential blocks. Where possible, and appropriate, a mix of uses (including commercial and employment) will be delivered, integrated both horizontally and vertically within development parcels.

9.2 Character Areas
The Development Concept envisages Charlton Riverside as having a series of character areas. The site is large enough to accommodate a variety of different development character areas or sub-neighbourhoods.

The key factors influencing the extent and nature of each of the character areas are as follows:
• Proximity to the River Thames and strategic open space;
• Quantum of employment/commercial activity relative to new residential development, and
• Spatial relationship with existing communities.

A set of high-level design and development principles will apply across all the character areas, albeit with the potential for localised variation in their application, depending on context.

Figure 9.1: Character areas
Neighbourhood Centre

The central area focused on the Neighbourhood Centre lends itself to the notion of a distinct character area. This is the location for most of the key commercial activities, including retail and leisure, which will serve the day-to-day needs of residents of Charlton Riverside and the communities close by. This area can be characterised as being more civic, both in terms of the built form and the public realm. It will also have the potential for taller buildings, potentially up to 10 storeys, with commercial, retail, leisure and community uses on the lower floors and residential above.

The Neighbourhood Centre will also be a transport and movement hub, with a confluence of bus, cycle and pedestrian routes and connections to the south, towards Charlton Station, and to the north, towards a new Clipper Pier.

Villages, East and West

These character areas have a large residential component, with a rich mix of complementary uses, such as schools and community facilities, interspersed with significant commercial activity at ground and lower floors on key routes and frontages.

There will be a greater proportion of houses within the residential mix and a focus on family provision in these areas. The public realm, including the mix of street types and the design and management of public space, will create a more intimate, village feel. Each of the Village character areas will look south, as well as north, making connections with existing residential areas via a re-designed Woolwich Road. These character areas are important interfaces between the new and the existing neighbourhoods of Charlton.

Charlton Park

This area is very much characterised by its relationship with key open space, particularly the new, enhanced Charlton Riverside Park. The interface between built form, mostly medium rise apartment blocks, and larger areas of open space will heavily influence the quality and sense of place. In addition, this space will act as a link between the Village East and Riverside character areas. In terms of built form, it will share some of the qualities of both the adjoining areas, with a gradient from a more intimate character (and a clearer delineation between public and private space) towards a more open urban grain and a greater mix of public and semi-private space towards the River Thames.
Riverside

This character area is very much shaped by its relationships with the River Thames, the river defences and the Thames Path.

The movement of people to and along the waterfront will influence block structures, building orientation and the interplay between the public and private realms. In particular, an enhanced Thames Path, with more of a promenade character and a series of small pocket parks leading back into the site, will create a very specific sense of place in this part of Charlton Riverside.

In terms of the mix of uses, there will be an opportunity for a range of commercial uses on lower floors in a number of development parcels, with residential above.

Westminster Estate

The Westminster Estate already has a strong character, with the older industrial buildings and the diverse range of commercial and industrial activities providing a very particular sense of place.

The intention is that the heritage assets and economic activity should be retained and, wherever possible, restored both in terms of their fabric and the rich mix of uses they once contained. New buildings and modifications to existing buildings will need to be designed in a sensitive manner to ensure the continued coherence of the character area. The design of the public realm will also need careful consideration, with a harder, more urban aesthetic being employed to complement the industrial character of the built fabric.

Bugsby’s Industrial

These two areas, one to the north of Bugsby’s Way and the other to the west of the mineral railway, will remain in commercial industrial use. However, there is an opportunity for them to be re-configured, with a focus on a different mix of employment uses rather than the predominant wholesale/retail use that currently exists. This will result in a different built form and a more positive relationship between building frontages and the public realm (especially Bugsby’s Way).

Internally, there will be a significant change in the way that the public realm functions and looks, with a mix of formal streets and public space, intermingled with more discrete parking and service yards, replacing the current arrangement of large surface area car parks and yards.
9.3 **Centres and Hubs**

A new neighbourhood centre, focused on the southern section of Anchor and Hope Lane would be the principal location for retail provision, with a mix of comparison and convenience shopping.

The new centre would be somewhere between a District Centre and a large Local Centre as defined in the Core Strategy. It is intended to provide for local needs and will support the Core Strategy policy that promotes Woolwich as the main Metropolitan Centre in the Royal Borough. It will complement the proposed (specialist) District Centre at North Greenwich and the Local Centre at Charlton Village. Retail units should be provided in a range of footprints and offer the opportunity of a range of tenants. There should be at least one medium scale food store.

In addition to the neighbourhood centre, there will be other locations where smaller retail hubs (or individual units) will be required. The western end of Woolwich Road and points close to and along the River Thames may be capable of supporting small groupings of retail in conjunction with other commercial uses. These opportunities should be actively pursued, particularly close to the river, as they will reinforce the River Thames and the sequence of spaces along the river, as a destination for visitors and residents.

![Figure 9.2: Neighbourhood and local centres](image)
Within the main body of the site, in addition to the neighbourhood and local centres, there will be the opportunity, for local retail which would be embedded within individual development parcels. These small, local shops would help to activate and animate street frontages, introduce non-residential uses at ground floor and provide for the day-to-day needs of resident and working populations in the immediate vicinity.

Figure 9.3: Neighbourhood Centre/High Street
9.4 Other Commercial Activities

There is relatively little in the way of food and drink provision at Charlton Riverside, with a couple of pubs and cafés scattered across the site. With the introduction of a new resident population and an existing, and potentially greater, employee population, there will clearly be both a demand and an opportunity to dramatically increase the level, mix and quality of food and drink provision. In addition, the existing provision, wherever possible, should be retained and enhanced, for example, with public realm improvements and better access.

Much of the new provision will be commercial, but there should, as far as possible, be a balance between local enterprises and regional and national providers. There is also an opportunity for provision to be made in community facilities, reinforcing these as hubs for social interaction and community cohesion.

The neighbourhood centre is an obvious location for some of these activities, as are the local centres and these might provide a mix ranging from sandwich shops through to higher end restaurants. There is also scope for occasional provision embedded within development parcels, potentially in conjunction with the locally focused retail, and this might include uses such as gyms, laundrettes, music and theatre or other services or amenities. There is also a very clear opportunity to deliver food and drink outlets close to and along the banks of the River Thames. With the potential to create more of a destination at key points along the river, it is essential that there should be a mix of commercial activity, including retail, but with a focus on opportunities for people to stop, eat and take their leisure.

Figure 9.4: Retail and commercial uses
9.5 Heritage assets
The Bowater Road area presents the substantial remains of an important industrial site - developed by the first multinational business in the UK, operating at the forefront of the telegraph and telephone industries. These technologies were central to the development of Britain’s overseas interests at the end of the Nineteenth Century and are thus of international significance. The contribution of Siemens, amongst other local firms, to both First and Second World War efforts significantly advanced developments in communications and supply lines, most particularly with the PLUTO pipeline, and after the war telecommunications continued to be an important industrial activity on the down-river Thames until the 1960s.

Aside from the intrinsic attraction of the waterside location, with its views across, up and down the river, the Charlton Riverside is significant for its former role as a transport and communications artery, serving riverside industries as well as the hinterland of Charlton and beyond. A number of structures and heritage features contribute to the narrative of the area’s development; from west to east these are:

• Angerstein & Murphy’s Wharfs
• Christie’s Wharf
• Corys Barge Works
• Durham Wharf
• Anchor & Hope Foreshore
• Maybanks Jetty
• Thames Wharf & Flint Glass Jetty
• Longs Wharf
• Thames Barrier
• Steam Factory (outside the masterplan boundary)

A strong planning and design rationale will be required for any proposals which result in the removal of buildings deemed to be heritage assets and planning applicants are encouraged to engage early in the planning process with Royal Greenwich on such sites.

To help inform the planning rationale for heritage assets within the SPD study area, the Heritage Study proposes a number of interventions to protect and enhance the existing built heritage.

These proposals include:
• Engage with Heritage England and the Environment Agency to explore the possibility of conferring listed status for the Thames Barrier and its curtilage (there is a recognition that such a designation may have consequences for ongoing operations and this would be a key consideration in any discussions);
• Seeking listed status for nos 18, 20 and 26 Bowater Road;
• Seeking locally listed status for a number of other buildings, including the remaining Siemens buildings, Howick Arms, Howick Mansions, Windrush School, the Hope and Anchor public house and Cory’s bargeworks;
• Designation of a conservation area encompassing the Thames Barrier, the Siemens buildings and Bowater Road, Windrush School and the easternmost section of the Woolwich Road within the SPD.
Figure 9.5: Historic assets map (from the Charlton Riverside Employment and Heritage Study, 2016)
and extending across to the Commonwealth buildings (Steam Factory) to the west of Warspite Road, and

• Designate a second Conservation Area encompassing Cory’s Wharf, Vaizey’s Wharf, the Hope and Anchor and Atlas and Derrick Gardens.

• Further detail on the assessment and its conclusions and recommendations is set out in the Charlton Riverside Employment Activities and Heritage Study.

The photos, opposite, show some of the key heritage assets identified by the Charlton Riverside Employment Activities and Heritage Study.

9.6 Residential

Royal Greenwich is committed to 50% family housing delivered in a low-to-medium rise, high density form. Family dwellings might be individual houses (typically town houses over three floors), maisonettes or duplexes and larger apartments. These might be delivered in combination, with groupings of town houses or maisonettes with apartments above. Smaller apartments will also comprise part of the mix, as will assisted and sheltered accommodation and student accommodation. Design standards for all residential development should have reference to the London Housing Design Guide and the Housing SPG, and any future revisions of these documents will apply.

Residential density will be calculated with reference to the London Plan Density Matrix, bearing in mind
that Charlton Riverside is not a central location and that PTAL is, typically, between 2 and 4 across much of the site. Should there be a significant change in transport infrastructure (e.g., new Underground or DLR connection), then Royal Greenwich will review the effect this has on the structure of the masterplan area.

Charlton Riverside is almost entirely located within zones of flood risk, both fluvial and surface water. Housing proposals will have to make reference to this risk and show how it has been mitigated by detailed design. The Environment Agency provides guidance in this matter and has advised that although the site is protected by both the Thames Barrier and river defences that will, eventually, be enhanced, the level of risk is such that certain measures must be incorporated into housing design. These include:

- Avoid locating habitable rooms on ground floors;
- Consider raising slab levels to provide ground floors with an element of free board relative to flood levels;
- Avoid any development space in basements or semi-basements, and
- Provide refuge spaces and safe means of escape from dwellings in a flood event.

Dwellings should have access to private individual or communal open space, as appropriate, sufficient for the needs of residents, accessible and well-managed.

Development should meet the requirements of the Greener Greenwich SPD in terms of waste and refuse management, and also consider alternative, innovative approaches to managing waste/recycling.

Development should incorporate, at the building and block level, those measures necessary to achieve high performance in terms of energy efficiency, water efficiency, heating, cooling and insulation.

Parking provision will have reference to the relevant Royal Greenwich and London Plan standards (Parking Standards: Minor Alterations to the London Plan, 2016, GLA). Development proposals will deliver the minimum required in terms of vehicular parking and maximise cycle parking. There will be a variety of parking solutions, including on-street, on plot/integral to individual buildings, in undercrofts and full and half-basements. Parking solutions should avoid creating dead frontages or structures that are out of scale with the surrounding development and should not interfere with the operations of ground floor, non-residential uses.

Housing should be well-designed, attractive, distinctive and use a palette of materials that reflect local context and are durable, sustainably sourced and of high quality.

9.7 Housing Design

The provision of dual aspect dwellings should be maximised and, where single aspect dwellings are provided, they should not be north facing.

Rear boundaries of properties should not back onto streets.
9.8 Residential Development Parcels

Typically, development blocks that comprise residential or residential led, mixed-use development will take the form of perimeter blocks with buildings aligned parallel to the street, resulting in a relatively high degree of continuity of frontage and enclosure of the street. This arrangement is best suited to managing the tensions between public and private space. In some locations, notably along the River Thames, a more open block structure will provide better physical access to the river and maximise views from residential properties. Buildings immediately adjacent to the Thames should sit perpendicular to the river, with buildings to the rear of the plot aligned parallel to both the river and the grid of streets. This arrangement will often result in the semi-public spaces within blocks, the management of which will need to be given careful consideration, particularly in terms of the relationships between these spaces and the Thames Path and any commercial uses fronting onto the river.

9.9 Residential Building Typologies

All residential proposals should have reference to the London Housing Design Guide (GLA, 2010) and Housing Supplementary Planning Guidance (GLA, 2016). Typically, residential development will take the form of townhouses, apartments and maisonettes, in single and dual aspect form. As noted elsewhere, much of the existing built form at Charlton Riverside comprises purpose built commercial or industrial buildings. Some of the more historic buildings, such as those which previously formed part of the Siemens
Works, have an internal layout that is relatively robust and flexible, capable of re-modelling for other uses and, consequently, should be retained and integrated into any development proposals.

**Townhouse**

Following on from Royal Greenwich’s objective to deliver 50% family homes at Charlton Riverside, it is clear that a significant proportion of any new housing built will be in the form of individual family houses. Given the need to balance the delivery of family homes with the efficient use of land and an appropriate density of development, it is proposed that individual family homes should take the form of three storey town houses, typically providing a minimum of three bedrooms.

There is scope for additional storeys above, to accommodate apartments, in some instances, although this will require careful consideration to meet access and design standards.

The detailed design of the townhouse typology, in terms of building heights, roof lines, plot width, parking provision, relationship with plot line and street and size and form of private garden space are matters for discussion at the pre-application and planning application stages.

**Dual Aspect Maisonettes/Apartments**

The London Housing Design Guide advises that all new developments proposals should, in the first instance, consider how they might deliver dual aspect housing. The benefits of dual aspect housing include increased daylight/direct sunlight, cross ventilation, better views and greater flexibility of in the use of internal space.
For this reason, the second housing typology proposed for Charlton Riverside is dual aspect housing, usually comprising a mix of maisonettes or apartments. These units will focus on providing family housing (minimum of three bedrooms) interspersed with 2 bed and, to a lesser degree, 1 bed flats.

Dual aspect dwellings can be used where the building has both an east-west or north-south axis. Typically, the building depth would be no more than 14 metres (excluding balconies), after which benefits of cross ventilation and sunlight penetration begin to decrease. A building or apartment depth of greater than 14 metres is likely to require artificial lighting in the centre of the building during daytime use, and is also difficult to naturally ventilate. Whilst dual aspect dwellings with a depth of more than 14 metres could be artificially lit and ventilated, there are significant benefits to natural daylighting and ventilation in terms of health and well-being of residents, operational costs and maintenance.

Building depth and orientation of units within the block will be a matter for detailed design.

There may be some instances where buildings have integral parking in a deck or semi-basement arrangement in the centre of the block. In these instances, ground floor maisonettes might be single aspect on the ground floor and dual above.

**Single Aspect Apartments**

There will be instances where blocks with a predominance of single aspect apartments might be required (albeit, perhaps, with dual aspect units on the corners). This might be for reasons of efficient use of land or awkward plot size and arrangement. Where single aspect dwellings are proposed, care
must be taken to ensure that the avoid having north-facing principal façades.

It may also be necessary to consider single aspect development in the vicinity of Riverside Wharf, in combination with building setbacks, to minimise potential conflicts between residential and industrial uses. Single aspect residential blocks might comprise a mix of apartments and maisonettes, and would typically comprise 1 and 2 bedroom units. As with dual aspect residential blocks, the detail in terms of dimensions and orientation would be dealt with at the appropriate stage in the design and planning process, however, it is proposed that single aspect dwellings should not be greater than 8 metres in depth (excluding balconies) and more generous floor to ceiling heights might considered to allow for greater sunlight penetration, especially at lower levels.
9.10 Ground Floor Uses

The ground floor of buildings fronting onto primary routes and key nodes will have more generous floor to ceiling heights and servicing options that allow for both residential and non-residential uses. For example, the London Housing Design Guide (section 5.4), proposes a minimum floor to ceiling height of 2.6m at ground floor, to allow for better light penetration. Although office space can be delivered with ceiling heights in the order of 2.7m, the SPD aims at a more varied mix of uses at ground floor. Consequently, for buildings on primary routes and key nodes, a floor to ceiling height of 3.5m is proposed, to allow for flexibility of use, over time.
9.11 Urban Grain

The plan opposite (Figure 9.11) illustrates how the buildings within development parcels (parallel to the line of the road and with a public face onto the street) might be arranged. This pattern of development parcels and blocks is called the urban grain. At Charlton Riverside it is proposed that this ‘grain’ of development is relatively fine, meaning that there is parcels are smaller, with more frequent junctions of streets. This creates a greater opportunity for street frontage, on the one hand, and a more permeable and accessible development, on the other.

Figure 9.11: Urban grain
**9.12 Active Frontages**

Active frontages are essential to successful place-making, given their capacity to create character and foster community by providing the opportunity for people to meet and engage in exchange (be it social or commercial). At Charlton Riverside, the scale of development is such that it will not be possible for every street frontage to be activated, at ground floor level, with non-residential uses. It is, therefore, important that the nature and location of non-residential ground floor uses is carefully planned to achieve maximum effect, with appropriately scaled and located clusters of activity balanced with the occasional standalone uses, again in the right location and with the right relationship with surrounding residential uses.

The main areas of active frontage will be where there is the greatest mix of non-residential uses at ground floor. This is concentrated within the neighbourhood centre along Anchor and Hope Lane, and the riverfront blocks. Secondary frontages will tend to be primarily residential, albeit with opportunities for localised commercial, retail and community uses creating hubs of activity. There is also considerable frontage onto open space and it is expected that where buildings have an immediate relationship with parks, sports pitches, etc., there will be an opportunity to create frontage that is more characterful, memorable and with a strong interface between built development and open space.

![Figure 9.12: Active frontages](image)

**Key**
- Site boundary
- Development parcels
- Primary Frontage
- Secondary frontage
- Frontage onto open space
9.13 Views and Vistas

There is considerable opportunity to create long and middle-distance views into, across and out of Charlton Riverside, and development proposals must show how these are captured, framed and protected. The Thames waterfront is important in that it affords broad views along the sweep of the river, out over the Thames Barrier and across to the Royal Docks. Views to the site, from either side along the south bank and from the north bank of the Thames are also important, and not only because of the potential for development to act as a visual stop along the waterfront.

Long views across Charlton Riverside and beyond, to the higher land to the south and east, are an important aspect of the character of this part of London and development proposals will be required to respect the existing relationship between built form and the topography/landscape.

Within the site, the creation of linear open spaces, flanked on either side by built form will provide the opportunity to create both interesting long and middle-distance views towards important visual stops (such as Thames Barrier, new and existing schools and commercial buildings, etc.) and also attractive assemblages of townscape and open space.
9.14 Development along the Thames

Development along the River Thames should seek to maximise access to the river, via routes through public and semi-public spaces. Views out onto the river from residential and mixed use development should be maximised, therefore, it is preferred that buildings should be arrayed perpendicular to the river, where possible. This arrangement will also help with daylight and shading, as continuous frontage along the north-facing facade of development blocks would create a less attractive and comfortable environment for pedestrians.

Figure 9.13: Views and vistas

Key
- Site boundary
- Development parcels
- Key townscape nodes/landmark buildings
- Important townscape views
- Important views to and from open space
- Important views across Thames
- Important views into and across the site from the north and west (towards Charlton behind)
As noted above, development will be set back from the river defence line by a minimum of 10 metres (including projections and any private/semi-private garden or service space), allowing a generous pedestrian/cycle space, which should be well overlooked by adjacent property.

There is potential for some additional height along the river front, with potential for buildings up to 10 storeys.

The images on the following page illustrate a variety of different approaches that might be adopted when designing and re-configuring the river defences.

Figure 9.14: Development adjacent to the River Thames
A sculpted, formal landscape leading down to the river

A harder urban edge, with commercial activities along the river

Water based leisure and events

A softer, ecological interface between development and the river
9.15 Streetscape and Public Realm

The public realm, comprising the streets and spaces between development parcels is a key component in creating development of quality and character.

While all public spaces will be designed with the aim of creating attractive, accessible and safe spaces, there are some parts of the public realm which have the potential to make a greater contribution to the sense of place and success of new development at Charlton Riverside. Figure 9.15 identifies these key spaces and routes.

Woolwich Road
As noted elsewhere in this SPD, the Woolwich Road is an important strategic route and a key public space/interface between Charlton Riverside and the Neighbourhoods to the south. A separate study, (Woolwich Road: Light Public Realm and Highways Improvements Study), has been commissioned by Royal Greenwich identify where the opportunities exist for modifications and improvements to the public realm along this route. The Woolwich Road Study will serve as a reference and supporting document to this SPD.

Anchor and Hope Lane
The route from the Anchor and Hope Pub Lane down to Charlton Station, via the Antigallican Junction, is a key space, providing connectivity north to south and links between some of the most important components of the development proposals (Charlton Station-the Neighbourhood Centre-Thames Clipper Pier). Given its length, and the varying character and mix of uses along this route, there will be a range of opportunities to enhance and improve it.
of treatments at different points along Anchor and Hope Lane. The southern end, running through the Neighbourhood Centre, will be more civic and will be designed to accommodate significant transport infrastructure. The stretch to the north, form the junction with Bugsby’s Way to the river, will be more subdued and offer a more relaxed space leading to the Thames Path.

**Bugsby’s Way and the East-west Link**

The new east-west link will need to be designed in such a way as to support key public transport infrastructure, set within a space whose character and quality reflect its location in the heart of a mixed use neighbourhood with significant residential development. While the movement component of the space is important, the social component, i.e., the spaces where people linger meet, and conduct their daily business is an important aspect of the east-west route. Bugsby’s Way, while retaining its importance as a strategic connection to the river crossings, will be reconfigured to share some of the character and quality of the east-west link, with a shared palette of materials and design approach.

**Thames Path**

The Thames Path is addressed, in detail, elsewhere in this document. It is a key movement route, providing strategic access to and along the River Thames, but it is also a place within Charlton Riverside, a linear park or promenade that brings life and vitality to adjacent development and allows residents access to the river. The requirements of TE2100 mean that the Thames Path will be upgraded at some point in the future, and the opportunity exists to marry those
Civic spaces, where people can gather and interact

Spaces which are interesting and stimulating

Co-ordinated use of good quality, appropriate materials

Spaces which are accessible, attractive and usable all day

improvements to the riverside proposals, to create a high quality environment that brings benefit to the new development, but which also derives benefit from the new commercial and leisure uses.

The public realm at Charlton Riverside should:
• Have a distinctive character, reflecting the heritage of the area, and create a sense of place;
• Be overlooked by the fronts of buildings;
• Have views along streets and through spaces that unfold as pedestrians walk along them;
• Incorporate careful design where there are changes in level to provide access for all;
• Provide diversity of uses balanced with consistent use of materials and appearance;
• Connect to other streets and spaces, so that people have a choice of convenient routes;
• Provide pedestrians with enough space to move around, with pavements of an adequate width and avoiding clutter;
• Link routes with green spaces, to encourage pedestrians and cyclists;
• Accommodate natural desire lines across spaces;
• Form part of a clear hierarchy of different routes;
• Use durable materials, sourced from sustainable sources, where possible;
• Design for water conservation and protection of water systems, and
• Have tree planting and street greening that provides character whilst also promoting local biodiversity, improving air quality, filtering noise, screening roads and cooling adjacent buildings.
10. Theme 6 - A Sustainable and Resilient Charlton Riverside

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10.2 Water Management Strategy 114
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10.4 Urban Greening 117
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10.1 Introduction
The proposed approach to achieving a sustainable and resilient Charlton Riverside, capable of adapting to change, is based on achieving an objective balance between environmental, social and economic issues, mitigating adverse effects and maximising positive outcomes. The approach is based on three strands comprising:

- Established standards – building on existing policies and targets;
- Going further – not necessarily piloting new technologies but being aware of emerging opportunities which can be capitalised upon; and
- Future proofing – looking ahead to emerging opportunities and building in flexibility to respond to change.

10.2 Water Management Strategy
The potential impact of new development on demand, supply and disposal of water will extend beyond the boundary of the masterplan. The Greater London Authority has commissioned an Integrated Water Management Study (IWMS) for the four Opportunity Areas (OAs) Charlton Riverside, Woolwich, Thamesmead and Abbey Wood, and Bexley Riverside.

The IWMS recommends a range of potential interventions at different scales, the aim being to enable strategic development sites to actively manage the water cycle and, especially, flood risk within their boundaries.

Figure 10.1: Water cycle management
Potential water management measures include:

- demand management;
- blue and green roofs;
- roof water recycling;
- grey water recycling;
- green source control measures;
- below ground storage;
- establishment of strategic SUDS networks;
- recharging groundwater;
- managing tidal and fluvial discharge;
- downstream stormwater retention ponds or wetlands, and
- stormwater and wastewater recycling.

The majority of Charlton Riverside is located within Flood Zone 3. Widespread areas have been identified as susceptible to surface water flooding, due to low lying land. The area is topographically fragmented, which may present constraints for gravitational conveyance of surface water. The expected density of development may also create spatial challenges for locating surface water conveyance, attenuation and treatment systems. However, the allocation of strategic open space within Charlton Riverside may be harnessed for these systems. Charlton Riverside’s location adjacent to the River Thames also affords an opportunity for tidal discharge of surface water:

The IWMS suggests that there are opportunities for local source control infiltration techniques, as a consequence of the prevailing geography, although this will be limited in several locations by potential contaminated land and made ground.

There is an opportunity and, almost certainly, a need to reduce surface water outflows to the combined sewer system, to off-set the increase in foul flows form the increase in development scale and density. A number of site-wide approaches are proposed. Charlton Riverside is underlain by a chalk aquifer, which is de-watered and likely to have sufficient capacity to accept the estimated rate of 10 Megalitres a day (Ml/d) surface water runoff from the local area via injection. This would be beneficial to groundwater resources within London, and also assist in locally raising the water table to minimise saline intrusion, due to ingress of water from the Thames estuary.

Water management in open spaces

Sustainable drainage in the public realm (streets)
10.3 Flood Risk Management

River defences for the Thames are subject to the requirements of the TE2100 Plan (Environment Agency, 2012). The Charlton Riverside site lies within the Greenwich Policy unit of the TE2100 Plan, with the majority of the site upriver of the Thames Barrier. TE2100 anticipates river defences being raised by 1m up to 2100, to manage expected sea level change to 2135. Downriver of the Thames Barrier, TE2100 requires flood defences to be raised by 1.1 by 2070.

It is expected that those development parcels immediately adjacent to the river will be responsible for the improvements to the river defences, in line with TE2100 requirements. Rather than simply raise the flood defence level in the form of a solid barrier, development proposals must maintain the current level of accessibility to the river and, where possible, provide additional opportunities to access the Thames. Raising ground levels adjacent to development parcels with railings along the river edge is the preferred approach, as a minimum.

It will also be possible for developers to vary the line of the flood defences, creating step backs and graded access to the river in some locations, while maintaining the TE2100 flood defence level. Such events could incorporate planting and create habitat which might be incorporated into open space along the river’s edge.

Figure 10.2: Integrating development with flood defences, for the stretch of river front above the Thames Barrier
10.4 Urban Greening

Wherever possible, there will be a requirement to protect existing and introduce new street tree planting, create incidental open space and use roof space and wall space to introduce planting. Even with the creation of significant new open space, Charlton Riverside will still be a very urban environment, one that is subject to the ongoing impacts of climate change and the urban heat island effect. Given the industrial nature of much of the site, there is considerable scope for a significant increase in tree cover. The benefits of tree planting, in an urban environment, are well documented, including reductions in pollution levels, shade and cooling in summer, improved mental health and reduced stress and sheltering of buildings with concomitant reductions in energy usage and cost.
10.5 Energy

The Greener Greenwich SPD (2014) sets out a strategy showing how new development at Charlton Riverside can reduce its energy consumption and carbon footprint.

The strategy is predicated on the following objectives:

- Be lean (use less energy)
- Be clean (supply energy efficiently)
- Be green (use renewable energy)

**Be Lean**

This objective requires new energy strategies for new development to begin with the building fabric and focus on the following:

- Passive solar design;
- Improved insulation/ventilation, and
- Energy efficient fixtures, fittings and appliances (including lighting) to A+ standard.

It is expected that refurbishment of existing buildings should adopt a similar approach, and there is guidance on how to manage the competing demands of heritage asset management and energy efficiency.

**Be Clean**

This objective focuses on delivery systems, including the potential for district heat and power and combined heating and cooling systems. There is scope at Charlton Riverside, given the proposed development form and densities for a range of delivery systems to be introduced.

**Be Green**

This last objective focuses on the use of renewable energy technologies. A variety of technologies are available and appropriate for Charlton Riverside (photo voltaic panels, solar hot water panels, biomass used in district heating, wind power, ground and air source heat pumps). Developers will be required to demonstrate how they propose to integrate these technologies into the built fabric of new and existing buildings in such a way as to meet the relevant Building Regulations requirements and the Royal Borough’s targets and aspirations for renewables.
10.6 Adaptability

Ensuring that Charlton Riverside can adapt with changing demands of its population, climate change and new technologies will be important for its longevity by:

• Designing layout and size of development blocks to allow for adaptation over time to meet changing demands;
• Designing ‘long life loose fit’ buildings that facilitate future adaptation to meet changing demands, including the changing climate (e.g. by providing flexible and generous layouts; by over-sizing gutters and downpipes to cope with higher intensity rainfall);
• Providing utility corridors (‘pipe subways’) allowing the placing of utility services (e.g. electricity, gas, water, heat, telecommunications) in structures that can be accessed without the need for excavation, avoiding traffic and pedestrian disruption and improving accessibility/adaptability, and
• Ensuring that if an energy centre for a decentralised energy network is provided that there is flexibility to expand this in future (e.g. to supply more neighbouring developments).
Inscription on Thames River Defence Wall, Charlton Riverside

THAMES HEAD

HERE THE THAMES PATH NATIONAL TRAIL BEGINS OR ENDS

DRAFT
11. Theme 7 - A Viable and Deliverable Charlton Riverside

11.1 Introduction 
11.2 Land Ownership 
11.3 Phasing 
11.4 Infrastructure Delivery 
11.5 Approach to Delivery 
11.6 Funding Sources
11.1 Introduction

This section sets out Royal Greenwich’s approach to delivering its vision for Charlton Riverside, in collaboration with all key stakeholders, a proposed phasing of delivery and the prioritisation of identified projects.

This SPD presents the Royal Borough’s vision for Charlton Riverside and it will be used to ensure that the delivery of development is consistent with the objectives that inform the Vision for Charlton Riverside.

It is an ambitious vision, envisaging wide-scale transformation of the area, but one that is considered to be achievable, deliverable and viable over the longer term. The Royal Borough, as the Local Planning Authority, will work closely with the key stakeholders to deliver a high quality, mixed-use neighbourhood at Charlton Riverside to meet the needs of existing and new residents and businesses.

It is important to note that, as well as being the Local Planning Authority, the Royal Borough is a key landowner in Charlton Riverside as the freeholder of around 10 sites in the central part of the study area between Anchor and Hope Lane and Eastmoor Street, as well as the University Technical College and Windrush Primary School east of Eastmoor Street. This land has the potential to make a significant contribution to the Royal Borough’s efforts to achieve its vision for Charlton Riverside, given its scale and strategic location within the SPD area.

Figure 11.1: Charlton Riverside
11.2 Land Ownership

The multiplicity of different ownerships varies by type as well as scale. There are a number of parcels in the ownership of (or optioned by) developers who are intent on delivering some form of development in the near future. Other parcels are in the ownership of investors and institutions whose approach to their landholdings is typically long-term and driven by a model of rental returns, albeit with the flexibility to re-appraise that approach as opportunities arise. There are also parcels owned by companies which operate in Charlton Riverside, and they are committed to remaining in the medium- to long-term, e.g., Angerstein and Murphy’s Wharves. Finally, there are a number of parcels in the ownership of smaller commercial entities, some of whom have bought land speculatively with a view of its development, while others have acquired land for their base of commercial operations.

The plan, opposite (Figure 11.1), gives some indication of the patchwork of land ownership across the site, as of November 2016. There are a number of land owners with numerous parcels (including the Royal Borough), although given the potential for the pattern of ownership to change rapidly, the plan does not identify which owners own which parcels. It is simply a snap-shop to illustrate the nature of the problem for delivery.

Figure 11.2: Land ownerships (as of November 2016)
11.3 Phasing

Delivering this major transformation will take place over a number of decades, in part because of the complexity of the land ownerships in the area. It is anticipated that some sites are more likely than others to come forward in the early phases due to land availability and willingness of the landowners and indeed a number of landowners are already preparing for the redevelopment of their sites as a result of the 2012 SPD and this document.

Figure 11.3 illustrates the anticipated phases of development based on a combination of factors including: availability and suitability of the site; landowner aspirations (where known), and neighbouring uses. The phasing is high level, and will become clearer with time, but the logic is as follows:

- Phase 1 encompasses the Westminster Estate, all of the land between Barrier Park and Anchor and Hope Land and the parcel to the west of Anchor and Hope Lane and south of Bugsby’s Way. This land is seen as being the most flexible and having the greatest potential for early delivery.
- Phase 2 relates to the mix of retail located to the south of Bugsby’s Way. While the aim of the SPD is that there should be a change to mixed use development with significant residential, it is recognised that delivery might not happen in this location until later in the current plan period, or could even slip into the next plan period.
- Phase 3 comprises the land immediately north of Bugsby’s Way, to either side of the southern extent of Lombard Wall (excluding

![Image: Figure 11.3: High level phasing](image-url)
the Sainsbury’s logistics site and the minerals wharves). While this land would remain in commercial use, there is scope for an intensification of use and a reconfiguration of development, which can happen, to some extent outside of the timelines for Phases 1 and 2.

There are a number of land parcels in Phase 1 with the potential for delivery at an early stage of the process (Figure 11.4). The Royal Borough owns land in some of these parcels, while others belong to landowners who have indicated a willingness to bring forward development proposals quickly. This would help create a real sense of momentum in Phase 1 and is likely to trigger other landowners to consider redevelopment.

One of the key challenges for phasing is the integration of new residential development with existing land uses which are likely to remain in the early phases. As stated in the Royal Borough’s Core Strategy, new development at Charlton Riverside will require sufficient buffering from the retained Strategic Industrial Location land and the safeguarded Riverside, Angerstein Wharf and Murphy’s Wharves to minimise the potential for conflicts of use and interference to new residents’ (Policy EA2 Charlton Riverside). In addition to those sites close to retained SIL or safeguarded wharves, planning applications for sites adjacent to those which are likely to remain in their current use for some time will need to show they have carefully considered access arrangements and levels of amenity.

Figure 11.4 Potential early delivery sites
11.4 Infrastructure Delivery

In order to support delivery of more than 5,000 new homes at Charlton Riverside, physical and social infrastructure will be required in the form of new primary and secondary roads, open spaces, affordable housing and primary and secondary schools amongst others. Delivery of this site-wide infrastructure is critical to the success of this area. These projects include:

- A new east-west link road;
- Public realm improvement to the Woolwich Road;
- Flood alleviation;
- Two/three new primary schools;
- At least one new secondary school;
- Public open space (continuing the link to Maryon Park) and the possibility of a green link or bridge connecting Eastmoor Street Park to Maryon Park over the Woolwich Road;
- Improvements to the Thames path;
- A new Thames ‘Clipper’ pier; and
- New civic amenity waste site.

The table, opposite, illustrates the type and quantum of infrastructure delivered by each phase of development (the notional phasing is shown in Figure 11.5).
<table>
<thead>
<tr>
<th>Phase</th>
<th>Housing</th>
<th>Employment</th>
<th>Education</th>
<th>Health</th>
<th>Open Space</th>
<th>Infrastructure</th>
</tr>
</thead>
<tbody>
<tr>
<td>1A</td>
<td>• 200 homes (approx)</td>
<td>• 3,500 jobs (approx)</td>
<td></td>
<td></td>
<td>• 0.2ha public open space</td>
<td>• Improvements to Woolwich Road</td>
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<tr>
<td>1B</td>
<td>• 4,800 homes (approx)</td>
<td>• 3,000 jobs (approx)</td>
<td>• 1 x 8FE (form entry) secondary school (potentially a ‘Through School for ages 3-18)</td>
<td>• 1 Primary Care Facility - 6 GPs - 6 dentists - support staff</td>
<td>• 600m improved Thames Path (almost 1 ha of land)</td>
<td>• Delivery of a new east-west route connecting Bugsby’s Way with Warspite Road</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>• 1-2 x 2FE primary school • 8 nursery/pre-school facilities</td>
<td>• Contributions to hospital places, mental health care provision, nursing home and extra care</td>
<td></td>
<td>• Improvements to Woolwich Road</td>
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<td></td>
<td></td>
<td></td>
<td>• Flood defence improvements (as per TE2100 requirements)</td>
</tr>
<tr>
<td>1C</td>
<td>• 1,000 homes (approx)</td>
<td>• 1,500 jobs (approx)</td>
<td>• 2 nursery/pre-school facilities</td>
<td>• 2 GPs • 2 dentists • Support staff • (either in PCF, above, or in a new facility)</td>
<td>• 0.8ha new open space</td>
<td>• Improvements to the southern end of Anchor and Hope Lane</td>
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<td></td>
<td>• Improvements to Woolwich Road</td>
</tr>
<tr>
<td>2</td>
<td>• 1,500 homes (approx)</td>
<td>• 1,500 jobs (approx)</td>
<td>• 1-2FE primary schools • 3 nursery/pre-school facilities</td>
<td>• 2 GPs • 2 dentists • Support staff • (either in PCF, above, or in a new facility)</td>
<td>• 2.5ha new open space</td>
<td>• Improvements to Bugsby’s Way</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Improvements to Woolwich Road</td>
</tr>
<tr>
<td>3A</td>
<td></td>
<td>• 450 jobs (approx)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3B</td>
<td></td>
<td>• 600 jobs (approx)</td>
<td></td>
<td></td>
<td></td>
<td>• Improvements to Bugsby’s Way</td>
</tr>
<tr>
<td>Strategic Industrial Land</td>
<td></td>
<td>• 250 jobs (approx)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>7,500 homes</td>
<td>10,800(^a) jobs</td>
<td>1 new secondary school 2-3 new primary schools 11 nursery/pre-school facilities</td>
<td>1 primary care facility 10 GPs 10 Dentists Healthcare contributions</td>
<td>14.5ha open space</td>
<td>New east-west link Improved Woolwich Road Enhanced flood defences</td>
</tr>
</tbody>
</table>

\(^a\) The Charlton Riverside Employment and Heritage Study (2016) states that, as of December 2016, there are approximately 5,600 jobs at Charlton Riverside. The figure for employment in this table allows for retention/substitution of some of the existing number of jobs, therefore, the potential uplift is, approximately, 5,200.

Table 11A: Phased delivery of homes, jobs and infrastructure
A good example of the major infrastructure required to support and enable development at Charlton Riverside is the proposed East-west route through the centre of the site. This new route will serve to open up the land to the east of Anchor and Hope Lane, providing a primary movement corridor along which public transport might run, and activating potential development parcels to either side. Where possible, the new route will use existing roads and routes, but it will be necessary for some sections to run along the edges of proposed development parcels.

A bus-gate will be introduced, as shown on Figure 11.5, allowing access for public transport, cyclists and emergency vehicles, at the eastern end of the new link (where it passes through an expanded Charlton Riverside Park). This will help ensure that this new route is perceived, and used, as an access road, rather than an alternative to the strategic route along Woolwich Road.

The east-west route is critical to delivering comprehensive at Charlton Riverside. In addition to creating a new link between Bugsby’s Way and Warspite Road, it provides connections to north and south, opening up potential development pots and creating connections throughout the core part of the site (Phase 1B). It is, therefore, essential that the east-west route is planned and delivered early in the overall development programme.
11.5 Approach to Delivery

It is clear that, while there is no one, single Master Developer with enough land under their control to shape delivery, it will be very difficult for the Royal Borough’s vision for Charlton Riverside to be achieved if the mode of delivery is predicated on each land owner, large and small, delivering their own parcel without any co-ordination or reference to other land owners.

Bringing together so many disparate land ownerships across a site as large and varied as Charlton Riverside is also a very difficult proposition. The Royal Borough is keen, however, that delivery should be predicated on an approach whereby groups of landowners work together to deliver development. This is particularly important given Royal Greenwich’s commitment to the comprehensive masterplan proposals set out in this SPD and the associated development and design principles which support that masterplan.

To that end, the Royal Borough proposes a series of smaller joint venture arrangements in key parts of the site, each having its own legal agreements and commitments in terms of local and site-wide infrastructure, in addition to the delivery of residential, commercial and employment.

It would look to take a lead in early delivery of development, partly to help set the tone in terms of the quality of development envisaged for Charlton Riverside, but also to set a benchmark in terms of the approach to delivery.
By creating smaller, more geographically focused joint ventures, the intention is that each grouping would be responsible for funding selected elements of the site wide infrastructure. For example, development parcels adjacent to the river would have responsibility for funding river defence improvements, while those groups lying along the line of the east-west route would contribute to that piece of infrastructure.

The parcels are large enough to allow for a comprehensive response to the development layout and principles set out in this SPD. At the same time, they are of a manageable size in terms of the number of potential partners. A few of the parcels are in single ownership, while others have between 2-5 main landowners (it is assumed that smaller landowners would be co-opted into any land agreements, or bought out/optioned by the larger land owners and developers).

<table>
<thead>
<tr>
<th>Selected Infrastructure Requirements</th>
<th>Approximate cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Primary Road infrastructure, including upgrades and improvements to Woolwich Road and the delivery of the East west Route</td>
<td>£10.5 million</td>
</tr>
<tr>
<td>Flood defence improvements, as per TE2100 document, including an enhanced Thames Path</td>
<td>£7 million</td>
</tr>
<tr>
<td>Education provision, including 2 new primary schools and 2 secondary schools</td>
<td>£105 million</td>
</tr>
<tr>
<td>Green infrastructure</td>
<td>£26 million</td>
</tr>
<tr>
<td>Green connection between Maryon Park and Charlton Riverside Park</td>
<td>£0.75-12 million</td>
</tr>
<tr>
<td>New Thames Clipper Pier</td>
<td>£3 million</td>
</tr>
<tr>
<td>Utilities, including off-site reinforcement of the networks</td>
<td>£54 million</td>
</tr>
<tr>
<td>Drainage, including surface water and foul</td>
<td>£14 million</td>
</tr>
<tr>
<td>Community investment, including health provision, sports and leisure (other than general GI), early years’ education, waste management</td>
<td>£98 million</td>
</tr>
</tbody>
</table>

Table 11B: Selected infrastructure costs
11.6 Funding Sources

As noted, above, one of the underlying considerations informing the proposed approach to delivery is the desire to manage the funding and delivery of key infrastructure.

Currently, Royal Greenwich has a relatively low Community Infrastructure Levy (CIL) rate for Charlton Riverside, which would probably not generate enough funds to pay for its important infrastructure, especially early in the delivery period. As a consequence, one option for Royal Greenwich would be to review the current CIL rate and set it at a level that would balance income to pay for infrastructure and viability, to maintain developer interest and activity.

Section 106 is also an option for the Royal Borough, but its use is potentially limited because of the constraint on the number of sites which can pool their S106 money to pay for infrastructure (hence the proposal for a joint venture approach). The plan, opposite, suggests one way of approaching the use of S106 to fund key infrastructure. In this scenario, a number of joint ventures or partnerships have their S106 contributions directed towards the delivery of specific infrastructure, such as the east-west link, river defences, or the acquisition of land for Charlton Riverside Park. There would still be a requirement to contribute towards other types of infrastructure, such as schools, open space, etc., but there would be a reconciliation against contributions towards the key items relating to each development ‘parcel’.

Figure 11.8: Contributions by development parcels
Another route to delivering this infrastructure might be to secure some form of loan from either central or regional government (either the GLA or TfL, as appropriate), which would help to unlock the wider development opportunity by forward funding investment in infrastructure. This initial investment would then be recovered over the course of the Plan period, as development comes forward.

The initial loan could either be re-paid, as soon as the Royal Borough is in funds, or re-invested, functioning almost as a rolling investment fund, which would only be repaid at a point in time when a significant amount of the site had been developed.

Royal Greenwich would also be willing to use CPO powers with appropriate CPO indemnity agreements from developers to secure infrastructure required. Royal Greenwich would also be willing to support developers in applying for funding to Large Sites Infrastructure Fund, etc.

Royal Greenwich might also consider prudent borrowing against its assets and, again, the intention would be to recover the cost of investing early in crucial infrastructure as developers bring their land to market.
12. Illustrative Masterplan

12.1 Introduction 136
12.2 Illustrative Masterplan 136
12.3 Vision for Charlton Riverside 139
12.1 Introduction
Following on from the Development Concept and Design Principles, set out above, it is helpful to show how development might be arranged, the key development components and their spatial arrangement. The Illustrative Masterplan, opposite, suggests how Charlton Riverside might look if the full extent of development opportunity is realised.

12.2 Illustrative Masterplan
The Illustrative Masterplan is not a detailed development proposal. It is intended to suggest how development might be delivered in a manner that is in keeping with the Design Principles and Vision for Charlton Riverside. It is recognised that detailed development proposals will be prepared by individual land owners or groups of developers working together and that, over time, the context in which these proposals come forward will have changed. However, Royal Greenwich is a significant landowner at Charlton Riverside and anticipates working with different parties to deliver development. Whether it is a party to a specific proposal or the planning authority responsible for making a planning decision, the Vision for Charlton Riverside, Design Principles and Illustrative Masterplan will inform Royal Greenwich’s approach to development at Charlton Riverside.
Figure 12.2: Sketch view of Charlton Riverside (from north east)
12.3 Vision for Charlton Riverside

Royal Greenwich proposes that Charlton Riverside will be a new mixed use neighbourhood, providing a mix of homes, jobs, education and leisure opportunities for the people of the Royal Borough and beyond. The sketch view, opposite, is graphic representation of that vision and how the site might look as the vision, and its key objectives, are realised.

The new neighbourhood will have a sizeable component of family housing, which means three bed dwellings and above. Given the character and composition of nearby developments at Greenwich Peninsula and Woolwich Arsenal, the Royal Borough is keen to see a different model of development, one that is focused more on larger, family dwellings set within a different type of urban environment. For that reason, the Royal Borough is promoting low to medium rise, high density development at Charlton Riverside, a model of development that is common in many parts of London.

The sketch view, opposite, gives a flavour of how such a model of development might be delivered. Low to medium rise, residential led, mixed use development blocks sit within and expanded matrix of open space which in its turn focuses on the River Thames,

Embedded within this mixed land use framework, existing and new commercial and industrial enterprises will help maintain Charlton Riverside’s importance as an economic driver for the Royal Borough and the wider south eastern London sub-region.

The Vision aspires to Charlton Riverside being a location of choice for people who want to live and work in the Royal Borough, with the emphasis on it being a place where people choose to bring up their families.

It is also an aspiration of Royal Greenwich that Charlton Riverside is not a separate entity or a gated community, but a new neighbourhood that is firmly integrated into its surroundings with linkages at every level to Charlton, the Peninsula and Woolwich.

To that end, Charlton Riverside is not intended to be a ‘riverside’ development in the usual sense. It will, obviously, be a place that reflects its location next to the Thames, and celebrates that connection. However, it is also intended to be a real London neighbourhood, with a form of development, a mix of land uses and a range of opportunity for its residents that clearly locates it in London and, specifically, the Royal Borough of Greenwich.
Thames Barrier Control Tower, Charlton Riverside
Appendices
Appendix A - Planning Policy Context

A.1 Introduction

This appendix provides more detail in respect of the relevant national, regional and local policy that creates the planning context for any development proposals in Charlton Riverside, the core documents being:

- National Planning Policy Framework (NPPF), adopted in March 2012;
- The London Pan: the Spatial Development Strategy for London consolidated with Alterations since 2011, adopted in March 2016; and

Where information was common to more than one document, the source used and listed below comprised either: the most up-to-date assessment; adopted policy text; or both of the above.

A.2 Charlton Riverside

**Regional policy: The London Plan**

The potential of Charlton Riverside was first recognised in the 2008 London Plan when it was designated an Opportunity Area, and Policy 2.13 encourages boroughs to progress and implement planning frameworks to realise the potential of such areas. Much of the new housing identified for Royal Greenwich, during the plan period to 2025, will be delivered in the Opportunity Areas of Charlton Riverside, Greenwich Peninsula and Woolwich (Policy 3.3).

**Local policy: Core Strategy**

The Royal Greenwich Local Plan: Core Strategy (adopted 2014) provides considerable direction in terms of the Royal Borough’s aspirations for the Charlton Riverside site, which is identified as a Strategic Development Location. In addition to site specific policies concerning the delivery of 3,500-5,000 new homes in a mixed-use urban quarter at Charlton Riverside, there are a number of thematic policies in respect of housing, employment, public transport, waterfront development, building heights, the quality of the built environment, open space and social infrastructure. Taken together, these provide the core policy basis for the re-development of Charlton Riverside.

In terms of site specific policy, Policy EA2 is the critical point of reference in the Core Strategy. This sets out a requirement for a new, high quality mixed use, river front development providing 3,500 to 5,000 new homes at Charlton Riverside.
Figure A.1: Royal Borough of Greenwich Core Strategy Policy Plan, (extract)
This new, mixed-use urban quarter will provide new community and education facilities, improved employment and commercial space (particularly for small businesses), new and improved open spaces and improvements to Charlton Rail Station and the Thames Path. The Core Strategy anticipates that just over 70% of the new housing will be delivered during the plan period, i.e. up to 2028 (commencing in 2017).

Thematic policies are explored in the relevant sections, below.

**Local policy: Emerging policy**
The Royal Borough also recently consulted on the Site Allocations Local Plan issues and options document (March 2016) which will eventually form part of the Local Plan, alongside the Core Strategy. This identifies Charlton Riverside as a key regeneration area with sites C1, C2 to C5 (inclusive) and C7 to C9 (inclusive) specifically identified. Stakeholder responses to this consultation have been considered as part of the preparation of this revised SPD.

**A.3 Housing**

**National Policy: NPPF**

The NPPF promotes the delivery of a wide choice of high quality homes, more opportunities for home ownership and the creation of sustainable, inclusive and mixed communities (paragraph 50) where housing meets the needs of all of its population, now and in the future. It also seeks to ensure that developments are: attractive; function well; have a strong sense of place, identity and history; and are safe and accessible by all (paras 58 and 61).

**Regional policy: The London Plan**
The London Plan sets out London-wide policy in respect of the delivery of new homes covering matters such as housing need and supply (Policy 3.3), optimising the potential of sites to deliver housing (Policy 3.4), the quality of the of the built environment and housing in particular (Policy 3.5), housing mix and choice (Policy 3.8) and the need for balanced communities, with a mix of opportunities and tenure (Policy 3.9) and sufficient levels of affordable housing to meet housing needs (Policy 3.10).

**Local policy: Core Strategy**

Policy H1 requires the delivery of 38,925 homes in the current plan period (a figure that will be reviewed and revised, as necessary). The vast majority of that housing provision will be delivered on brownfield land, and the Strategic Development locations, including Charlton Riverside, will have an important part to play in that delivery.

Policy H2 sets out the Royal Borough’s requirements in respect of housing mix and specifically references the need for larger, family housing (3 bed and larger). The Core Strategy cites the South East London Strategic Housing Market Assessment (SHMA, 2009), which identified the housing need in Royal Greenwich, including the need for a significant proportion of new housing to be family housing (across all the
A.4 Employment

National Policy: NPPF

Paragraph 21 states that local planning authorities should plan positively for the location, promotion and expansion of clusters or networks of knowledge driven, creative or high technology industries, and facilitate flexible working practices such as the integration of residential and commercial uses within the same unit.

Regional policy: The London Plan

Policy 2.17 states that Strategic Industrial Locations (SIL) should be promoted, managed and protected for their industrial and related capacity – Charlton Riverside has two SIL designations within its boundaries (see figure A.1). Development proposals in SIL areas will only be allowed if they fall within the industrial type activity or are part of a strategically co-ordinated process of SIL consolidation through an opportunity area planning framework or borough development plan document (such as Royal Greenwich’s Core Strategy). Development proposals adjacent to a SIL should not compromise the integrity or effectiveness of these locations in accommodating industrial type activities. The London Plan also states that strategic logistics provision should be concentrated on Preferred Industrial Locations (PILs), such as the Angerstein Wharf site, to maximise the use of rail and water-based infrastructure, whilst also encouraging more effective use of land.

Royal Greenwich falls within the category of boroughs who should adopt a ‘Managed’ transfer of industrial sites, according to the Mayor’s Supplementary Planning Guidance (SPG): Land for Industry and Transport (September 2012). This means that there is a benchmark figure of 50ha of SIL release in the Royal Borough up to 2031 which is consistent with the 2012 Employment Land Review. The SPG advises that the boroughs in this category should generally adopt a rigorous, but sensitively managed, approach to transfer of surplus capacity to other uses, whilst also ensuring adequate capacity for waste, logistics, and other functionally important uses.

Local policy: Core Strategy

Policy EA2 Charlton Riverside states that employment will be consolidated to maximise the use of land whilst maintaining employment levels in the waterfront area. New development at Charlton will require sufficient buffering from the retained SIL and the safeguarded Riverside, Angerstein and Murphy’s Wharves to minimise the potential for conflicts of use and interference to new residents. It is important to note that the Royal Borough intends to keep the status of Riverside Wharf under review on the basis that there may be justification for its release from safeguarding in the future or for its relocation.

Charlton Riverside includes both Industrial Park (IBP) and Preferred Industrial Location (PIL) designations. Under Policy EA4 Strategic Industrial Locations, IBPs are considered particularly suitable for activities that need better quality surroundings including research and development and light industrial. Offices and higher value added activities can yield higher job densities allowing employment uses to operate in close proximity to residential uses. The policy also recognises the importance of aggregates to the economy and the key role that the PIL land - including Angerstein and Murphy’s wharves - plays in the processing and transportation of aggregates to London and the south east.
A.5 Transport

Regional policy: The London Plan

Policy 6.1 commits to strategic delivery of development, with integrated solutions in terms of transport infrastructure. Policy 6.2 addresses the need for providing public transport capacity, with existing provision retained and enhance and new development being required to show how it either provides new capacity or safeguards the provision of new capacity in the future. Policy 6.7 sets out the requirements in terms of street-based transport, primarily the bus network, and the need for partnership across the various levels of government in London. Policy 6.9 gives direction in terms of cycle provision, with targets in terms of modal share (numbers of journeys by bike as a percentage of all journeys in London), and partnership across agencies to deliver cycle infrastructure. Policy 6.10 does the same for walking as a means of moving around London. Policies 6.11 and 6.12 address issues of congestion and road capacity. Policy 6.13 gives direction in terms of parking provision, with maximum levels of provision by dwelling size and a requirement that new development in areas of good public transport accessibility should seek to deliver parking at a rate of less than 1 space per dwelling.

Local policy: Core Strategy

In terms of minimising the impact of development on the road network at Charlton Riverside, Policies IM5 Freight safeguards Angerstein, Murphy’s and Riverside Wharves for river-based cargo handling and to relieve pressure on the road network. Charlton Riverside also has a safeguarded railhead for aggregates distribution. Policy IM(a) also discourages heavy goods vehicles from using local roads (except for essential deliveries) and states that traffic must not overwhelm the character of an area. Policies IM(a) and IM(b) both promote strategic and local cycling and pedestrian routes and ensuring the safety of cyclists and pedestrians. The eastern part of Charlton Riverside includes part of the Green Chain Walk and Capital Ring, strategic walking routes in/around London.

A.6 Flood Risk

National policy: NPPF

Inappropriate development in areas at risk of flooding should be avoided by directing development away from areas at highest risk, but where development is necessary, making it safe without increasing flood risk elsewhere (paragraph 100).

Regional policy: The London Plan

Policy 5.12 Flood Risk Management states that new developments should aim to reduce the risk of flooding and identify specific opportunities for flood risk management measures, particularly in areas adjacent to existing flood defences, such as Charlton Riverside. Development adjacent to flood defences will be required to protect the integrity of existing flood defences and wherever possible should aim to be set back from the banks of watercourses and those defences.
to allow their management, maintenance and upgrading to be undertaken in a sustainable and cost effective way.

Local policy: Core Strategy

The majority of Charlton Riverside falls within an area at risk from flooding (Flood Zone 3a). When building in this designation, the Royal Borough’s Strategic Flood Risk Assessment (SFRA) must be used to inform development and reduce flood risk (Policy E2 Flood Risk), and new development should be designed in line with the management of surface water. Whilst the area is afforded protection by the Thames Barrier, it is classified as a high residual flood risk area under Policy E3. As such, development should implement risk reduction measures with the primary aim of reducing risk to life and applicants should provide a flood risk assessment and flood plan.

A.7 Design

Regional policy: The London Plan

Policy 3.5 of the London Plan sets out the requirements in terms of the quality of the built environment that new residential development should seek to deliver. Chapter 7 of the Plan focuses on the quality of the built environment, generally, with policies providing direction in respect of the creation of neighbourhoods that are sustainable and will stand the test of time (Policy 7.1), accessibility and inclusivity (Policy 7.2), issues relating to crime (Policy 7.3), character of development (Policy 7.4) and public realm (Policy 7.5). Policy 7.7 sets out the policy with respect to tall buildings.

In addition, the Mayor’s Housing Supplementary Planning Guidance (SPG) and London Housing Design Guide provide guidance and direction across a similar range of themes, with a more specific focus on housing delivery.

Local policy: Core Strategy

Policy H5 sets out the Royal Borough’s requirements in respect of the design of new housing, and references Policy DH1, which sets out the Royal Borough’s requirements in terms of design quality, generally.

Charlton Riverside sits within the Thames Policy Area. Development here is covered by Policy DH(k) which requires a high quality design which respects the special character of the River Thames in that area, taking into account strategic and local views. Development should seek to protect and enhance the river and its foreshore for wildlife and nature conservation; avoid encroachment other than for river dependent uses; and contribute positively to the improvement of the local environment.

Policy DH2 and supporting paragraph 4.4.21 state that tall buildings may be appropriate at Charlton Riverside:

as long as the appropriate public transport infrastructure is delivered to support these and sufficient consideration is given to any existing historic assets and distinctive character features.

This policy should also be considered alongside Policy DH(k) discussed above.

A.8 Heritage Assets

Regional policy: The London Plan

Policies 7.8 and 7.9 give direction as to the nature and importance of London’s heritage assets and how these might be integrated into development proposals and provide a stimulus for regeneration.

Local policy: Core Strategy

The Core Strategy recognises the importance of Royal Greenwich’s heritage assets and provides direction as to how these should be retained, enhanced and, where possible, integrated into development proposals (Policy DH3). The importance of local views and vistas, particularly the Thames-side panorama from the open space adjacent to the Thames Barrier is highlighted (Policy DH(g)). Listed buildings (Policies DH9(i) and DH(j)) are also identified as making a positive contribution to the character of Royal Greenwich. Policy DH(k) addresses the importance of the heritage aspects of the Thames Policy Area.
A.9 Open Space
Regional policy: The London Plan
The London Plan seeks to: protect, promote, expand and manage London’s network of green infrastructure; protect against the loss of open space; and address provision in areas of deficiency (Policies 2.18 and 7.18). The western portion of the Charlton Riverside site is identified as an area deficient of local parks.

Local policy: Core Strategy
Charlton Riverside includes a strip of Metropolitan Open Land (MOL) connecting the Thames Barrier to Woolwich Road (Eastmoor Street Park), and further south to Maryon and Maryon Wilson Parks, Charlton Park and Woolwich Common.

Policies OS1, OS2, OS3 and OS(a) in the Core Strategy and Policy 7.17 in the London Plan give strong protection to MOL. Eastmoor Street Park also forms part of the South East London Green Chain and the associated Green Chain Walk will therefore need to be promoted and enhanced as an accessible, regional and outdoor recreational resource and visual amenity.

A.10 Environment
Regional policy: London Plan
Policies 7.14 Improving Air Quality and 7.15 Reducing Noise and Enhancing Soundscape, set out the requirements in terms of the quality of the wider environment and its significance for built development. Policy 7.19 Biodiversity and Access to Nature seek to protect designated sites and encourage the delivery of new sites for habitat and biodiversity. Associated policies cover geological conservation (7.20) and the management, maintenance and enhancement of trees and woodland (7.21).

Local policy: Core Strategy
Policies E(a), E(b) and E(c) focus on pollution, supporting London Plan Policies 7.14 and 7.15. The whole of Royal Greenwich is an Air Quality Management Area because of its existing poor air quality due to elevated mean concentrations of nitrogen dioxide (NO2) and particulate matter, largely as a result of local traffic. Developments should include design solutions, buffer zones or steps to promote greater use of sustainable transport modes.

The site includes two designated Site of Importance for National Conservation (SINCs) as shown on Figure A.1 – the Westcombe Park Railsides in the west, and Eastmoor Street Park in the east. Policy OS4 Biodiversity in the Core Strategy and London Plan Policy 7.19 seek to protect designated sites such as these. Development adjacent to protected SINCs will need to demonstrate that habitats will not be adversely affected.

A.11 Community Infrastructure
National policy: NPPF
Planning policies should aim for mixed-use developments, strong neighbourhood centres and active street frontages to encourage members of the community who do not normally mix, to interact with each other (paragraph 69).

Regional policy: The London Plan
The London Plan sees regenerating opportunity areas as a significant opportunity to improve health and reduce health inequalities (Policy 3.2). New development should be supported by necessary and accessible health and social infrastructure. This can be achieved through: ensuring employment and economic development meets the needs of the community; improving access to green and open spaces; supporting safe and sustainable transport systems; improving air quality; reducing noise; and ensuring that there are a good range of local services. Policies 3.18 Education Facilities and 3.19 Sports Facilities also seek to ensure that development proposals include provision of new or improved educational and sports and recreation facilities.

Local policy: Core Strategy
Policies CH1 (Cohesive Communities) and CH2 (Healthy Communities) provide direction in terms of social and community infrastructure provision in Royal Greenwich. The Infrastructure Delivery Plan and Joint Strategic Needs Assessment provide an evidence base for the levels and type of community infrastructure which it is expected will be delivered as part of
any new development. Policy IM1 (Infrastructure) requires all qualifying development to provide the requisite infrastructure, facilities and amenities necessary to serve and support that development and its associated population, as well as mitigating any negative impacts on the surrounding area and community.

**A.12 Sustainability**

There is much guidance that already exists at the regional and local level which this SPD does not seek to replicate; as such a brief overview is set out below.

**Regional policy: The London Plan**

The policies and targets in Chapter 5 of the London Plan comprehensively cover how development should respond to climate change in terms of: climate change mitigation – leading to zero carbon residential buildings from 2016 and zero carbon non-domestic buildings from 2019; sustainable design and construction; decentralised energy networks; renewable energy; overheating and cooling; urban greening; green roofs and development site environs; flood risk management; sustainable drainage; water and waste management; aggregates; and contaminated land. Further detail is provided in the Mayor’s Sustainable Design and Construction Supplementary Planning Guidance adopted in 2014.

**Local Policy: Core Strategy**

Core Strategy Policy DH1 Design covers all aspects of design for buildings including environmental sustainability in terms of appropriate layout and orientation, enhancing biodiversity, water efficiency, waste management and the integration of living roofs or walls. The Royal Borough expects all major developments to at least achieve ‘Excellence’ and will seek an ‘Outstanding’ rating wherever possible for non-residential buildings. It is supported by further detailed guidance in the Greener Greenwich SPD adopted in September 2014.

**A.12 Waste**

**Local policy: Core Strategy**

In line with the London Plan, Policy IM2 Waste Apportionment safeguards all existing waste transfer and management sites for waste management use, unless appropriate compensatory provision is made in appropriate locations. Days Aggregates on Lombard Walk is such a site (see Figure 2.1) and helps the Royal Borough meet its waste apportionment targets as set by the London Plan.
Appendix B - Baseline Condition

B.1 Introduction

The wider area, within which Charlton Riverside is located, has seen a number of regeneration initiatives in recent years, some complete and others ongoing. To the west, significant development has already taken place at Greenwich Peninsula including the Greenwich Millennium Village, the O2 Arena and University of Greenwich; to the east, Royal Arsenal, Crossrail and Love Lane, in Woolwich Centre. On the opposite bank of the Thames, the Royal Docks area is being redeveloped as are new residential areas around the Thames Barrier Park, including Royal Wharf.

There is clearly increasing development momentum across the eastern part of London, with a number of larger sites, in particular, being promoted as having the potential for delivering significant numbers of new homes and jobs. The spatial arrangement, scale and relationships between and among these development opportunities is perhaps best captured by the City in the East initiative promoted by the Mayor of London (see figure 4.1, opposite). There are similarities, in terms of scale and, sometimes setting which link these opportunity sites, but each one has a very particular development history and context that sets it apart, in detail, from the other sites.

Figure B1: The City in the East (Mayor of London, 2015)
Understanding how Charlton Riverside has evolved over time, and mapping the existing physical context both in terms of its strengths and weaknesses, helps to better define the nature of the opportunity relating to development of this site, at scale.

B.2 Development Context

Charlton Riverside comprises a relatively contiguous sequence of large development blocks given over, for the most part, to commercial and industrial land uses. It is bounded by the River Thames along its northern boundary and Woolwich Road (A206) the Charing Cross/Cannon Street rail line to the south. East-west movement along Woolwich Road and Bugsby’s Way is relatively easy, albeit along routes whose scale and design makes for an environment that is not attractive to pedestrians or cyclists. The Thames Path passes along the southern bank of the river, but not always immediately adjacent to the river itself, as there are numerous breaks and deviations to the route. North-south routes, connecting the residential areas to the south, across the site and up to the river are more prevalent through the central and eastern part of the site.

To the south lies Charlton, an established and mixed residential neighbourhood located on the higher land rising away from the river. To the west is Greenwich Peninsula, which has seen significant change over the last 20 years. To the east lies Woolwich, with Woolwich Docks immediately adjacent and, beyond that Woolwich Town Centre and Woolwich Arsenal.
B.3 Historic Development

In addition to the baseline research undertaken for the SPD, a separate Heritage Study was prepared by We Made That, in the autumn of 2016. The Heritage Study identified a number of assets which merit some form of protection via designation and as a consequence, retention as part of the masterplan supporting the SPD.

The Heritage Study gives considerable detail on the historic development of Charlton Riverside, which spans the period from the 16th century up to today. In particular, the Heritage Study goes into some detail on the history of industry and commerce at Charlton Riverside. Since it first passed from being flood meadow and marshland, and until fairly recently, Charlton Riverside went through a process of increasing intensification of industrial activity that mirrored the position throughout London and, indeed, the rest of the UK, as the Industrial Revolution changed the landscape of the city.

With that in mind, it is worth noting that Figure B2, opposite, shows how Charlton Riverside has changed markedly since the 1870s (the first OS plan). From predominantly arable land and marshland with only limited industrial development on its eastern and western boundaries, and along the river, Charlton Riverside evolved, over the next hundred years or so, into a site characterised by mixed manufacturing and engineering with small pockets of housing, allotments and sports grounds. Much of the development of the site occurred from 1920 onwards, and was very much focused
on industrial activity. Very little housing still exists today, with only Derrick and Atlas Gardens, which were built for staff working at Cory prior to 1920, remaining.

The plan opposite (Figure B3) is taken from the Heritage study and it shows the current position with respect to heritage assets, including listed buildings. Importantly, this plan also picks up on the persistence of some historic movement routes from the 18th century (and probably earlier). This network of historic routes has persisted through periods of change and intensification of use, and is sometimes evident in the modern street pattern, but often only hinted at by property and parcel boundaries. Some of these routes are public, while others are in private ownership, and many have been truncated by the insertion of buildings or re-directed to provide access to industrial plots.

**Implications for Masterplan**

The persistence and strength of the historic routes identified suggests there is scope for the masterplan for Charlton Riverside to use historic movement patterns as a key structuring element of the spatial plan underpinning the SPD. In addition, there is a collection of buildings in the north-east corner of the site (part of the Westminster Estate), which was formerly the Siemens factory. This site, if sensitively designed with appropriate responses from developers in terms of building massing, heights and the treatment of the public realm, could become a cultural and leisure hub for the wider development area.
Figure B3: Existing heritage assets at Charlton Riverside (from the Charlton Riverside Employment and Heritage Study, 2016)
B.4 Movement and Access

Charlton Riverside is not as well connected into the wider movement network as other parts of Royal Greenwich. The key connections are via Woolwich Road, which links the site with Woolwich to the east, and Greenwich and Greenwich Peninsula to the west. However, at present the area is undermined by a high volume of lorry movements associated with the aggregate wharves and the Sainsbury’s distribution centre on Lombard Wall. Both Bugsby’s Way and Woolwich Road are heavily trafficked and these act as significant barriers to pedestrian movement.

Within the site, the two key routes are Bugsby’s Way/Anchor and Hope Lane and Woolwich Road. From these principal roads, a number of secondary routes permeate through the site, although these are often fragmented, sometimes in private ownership and do not inter-connect or provide through route. Buses provide connections to the Jubilee Line at North Greenwich in the west and Woolwich Arsenal station and DLR in the east (and a new Crossrail Station in 2018). Charlton railway station to the south of Woolwich Road will provide the main public transport access in terms of travel to/from Central London and is expected to benefit from Crossrail freeing up train capacity during peak periods.

There are no strategic cycle routes at this time, although there are plans to extend Cycle Superhighway 4 from along Woolwich Road to Woolwich Town Centre. There are important pedestrian routes along the river (Thames

Figure B4: Historic routes and current structure
Path) and connecting into the wider open space network (the Green Chain) via Maryon Park, although at present, pedestrians have to navigate across the busy Woolwich Road to access Maryon Park via a staggered crossing.

There is potential to introduce a Thames Clipper Stop, which would provide an alternative means of accessing Central London, Docklands and other points along the river.

**Implications for masterplan:** improving east-west connections across the site and integrating Charlton Riverside into the wider road and public transport network is essential, as well as linking Eastmoor Street Park more directly to Maryon Park. Routes through the site must also be improved, particularly to encourage people to walk and cycle through it. The riverside sites are less accessible by public transport compared with those nearest Charlton station (see Figure 4.6) which may mitigate against higher density development, however, this may well be a positive in terms of providing a wider mix of homes, particularly family housing.

Figure B5: Strategic Movement Network
Figure B6: Local Transport Network
Figure B7: Public Transport and PTAL

Key
- Site boundary
- 161 bus route
- 177 bus route
- 180 bus route
- 472 bus route
- 486 bus route
- Thames Path
- Green Chain
- Thames Clipper Route
- Thames Clipper Pier
- Charlton station
- Railway line
- 400m bus catchment
PTAL (public transport accessibility level) measures the level of access to different modes of public transport, within a specified geographical area. In London, a higher PTAL usually means there is potential for higher density of development.

Figure B8: Proposed revised PTAL
B.5 Land Use

Charlton Riverside is occupied, almost entirely, by non-residential uses, with concentrations of related or complementary uses in different parts of the site.

There are groupings of wholesale and retail uses in the south-western corner of the site, and also along Woolwich Road and the Bugsby’s Way, which contain a wide range of different types of outlet.

The north western corner of the site is given over almost exclusively to minerals sites, which have occupied that location since the mid-19th century.

To the east of Anchor and Hope Lane in the central part of the site, there is a rich mix of uses across the full range of commercial and industrial use classes, with everything from large scale logistics, through advanced manufacturing to small scale service and light industrial uses.

The eastern end of the site supports a range of commercial uses, but is also the focus for a large number of creative industries and nationally important infrastructure related to the Thames Barrier.

**Implications for masterplan:** there are some parts of Charlton Riverside that will continue in non-residential usage as a consequence of planning designations and the strategic importance of the activities pursued in that part of the site. Managing these retained land uses will be an important consideration for masterplan and any future development proposals in this area.
B.6 Economic Activity

A joint Charlton Riverside Employment and Heritage Study was commissioned by Royal Greenwich to provide more detailed analysis of these key components of Charlton Riverside.

Within the broad land use categories, there is a rich mix of economic activity at Charlton Riverside, as shown in Figure B8, which is taken from the Employment and Heritage Study (prepared by We Made That). The variety of activity (by type and scale) is exemplified by large enterprises such as the Sainsbury’s distribution centre and Stone Foundries, mixed in with medium and small-scale units providing accommodation for a range of businesses including creative industries, music studios, niche food and drink suppliers and service providers. In total, there are some 350 different businesses on site providing approximately 5,600 jobs (a mix of full- and part-time) spread across all the sectors.

The study area has a higher density of jobs per hectare (94 employees/hectare) when compared with London as a whole (69 employees/hectare). This is, in part, a consequence of the introduction of retail and amenity uses into parts of the site, but also the persistence of dense, industrial uses in the centre of the site.

Retail (19%), manufacturing (14%), services (13%), construction (12%) and arts and culture (10%) are the most important employers. Construction (including the aggregates wharves) is the most extensive land use occupying 25% of the site.
Figure B10: Economic activity at Charlton Riverside (from the Charlton Riverside Employment and Heritage Study, 2016)
Key Sectors

Retail: accounts for 19% of the employment on site, X% of business and X% of floorspace. It includes a number of national retailers, occupying large footprints as well as a range of medium and smaller enterprises. The overall density of employment within the retail areas (66 employees per hectare) is lower than the site wide average because many of the retail outlets are large floorplate sites, with significant servicing and surface car parking areas, giving a relatively low plot ratio (proportion of floorspace to the actual site) of 0.28.

Manufacturing: accounts for 14% of the employment on site, 18% of business and 10% of floorspace. The manufacture of metals and machinery is the largest component within this sector (42%), and includes businesses such as Stone Foundries as well as a host of smaller, largely independent enterprises. The other major component of manufacturing is printing and publishing (29%), with a concentration of activity in the eastern part of the site, often located in a mix of modern and post-1945 sub-divided units.

Construction: accounts for 16% of the employment on site, 9% of business and 29% of floorspace. This sector encompasses a range of activities including aggregates handling, masonry, building contractors, trade counters, and building suppliers. The land take required for construction activities is extensive, partly as a consequence of the land required for the various aggregates

Figure B11: Distribution of business by type, employees & floorspace (from the Charlton Riverside Employment and Heritage Study, 2016)
industries, which process over 3.7 million tonnes of aggregate and concrete per annum. Employment density for the various construction and construction related industries is low, at 40 employees per hectare.

**Services:** accounts for 13% of the employment on site, 13% of business and 10% of floorspace. This sector includes education, public services, professional services and a host of other activities that do not fit with any of the other main sectors. Public services relate mainly to the Environment Agency’s presence at the Thames Barrier, while Greenwich UTC and Windrush School account for the education sector jobs.

**Building Types**

Most of the employment uses are located within buildings constructed post-1945, with the most modern buildings accommodating Sainsbury’s (wholesale and retail) Charlton Gate industrial estate and a number of other standalone warehouses. There is a large proportion of the site given over to yard space, but much of this relates to the aggregates wharves, otherwise yards tend to be smaller and relate to specific uses such as vehicle servicing. Surface car parking also accounts for a significant land take within the site. Typically, the average plot ratio across the site is 0.48 (the ratio of total floorspace as a proportion of the development parcel area). This is an average, however, and some parts of the site are much lower (as low as 0.21) as a consequence for the large, extensive yards and surface parking uses within plots.
Figure B12: Building types (from the Charlton Riverside Employment and Heritage Study, 2016)
Figure B13: Work space size at Charlton Riverside (from the Charlton Riverside Employment and Heritage Study, 2016)
Size of Business Premises

Work spaces vary greatly in size across Charlton Riverside, but there would appear to be a correlation between the age of the premises and its size. Buildings built before 1945 have an average size of 780 sqm, while the average size of buildings built post-2005 is 3,560 sqm.

The larger, more modern buildings are often dedicated to retail or wholesale use, while the smaller, older buildings are more mixed, in terms of their usage, with a greater likelihood of their being industrial.

Smaller units, with the concomitant greater mix of activities, are concentrated in the centre of the site, with the larger units located in the core retail and wholesale areas (to the south and west).

Types of Employment Site

In the central and eastern parts of the site, denser industrial activities predominate, while on the western side of the site open industrial land and retail sites are more common.

The dense industrial sites and industrial estates, together, account for 73% of businesses and 45% of jobs at Charlton Riverside, with a mix of small and medium scale enterprises predominating in these areas. Retail provides 11% of the business enterprises, but 23% of the jobs, reflecting the presence of larger, national retailers with significant numbers of staff (e.g., Sainsbury’s, close
**Figure B14:** Types of employment site at Charlton Riverside (from the Charlton Riverside Employment and Heritage Study, 2016)
to Woolwich Road has approximately 450 staff). Standalone warehousing and open industrial land, being less intensive in their use of land, have a higher floor space (14% ad 21%, respectively), but provide fewer jobs (15% and 10%).

**Implications for Masterplan**

Charlton Riverside is a relatively densely populated employment location (94 jobs per hectare) with low levels of vacancy (2.5%, at the time of writing). It is clear that it is a popular and successful employment location. The diverse mix of commercial activity and buildings has always been part of the character of Charlton Riverside and retaining this character, in some form or another, while introducing a significant component of residential uses, is central to the vision for the area’s future.

It is important that the SPD offers clear direction as to the future location and, where possible, type of employment opportunities envisaged for Charlton Riverside.

There are a number of existing sectors of employment (creative industries, retail, community, etc.) and a mix of smaller more flexible work spaces which offer a template for the type of commercial and industrial activity which might be either retained or delivered as part of truly mixed-use development proposals across Charlton Riverside. The potential for existing uses to contribute to place making and the physical character of Charlton Riverside. More public-facing aspects to these activities (food and drink production, leisure, creative arts) would help to animate spaces and provide destinations and interest for visitors and residents alike.

The relatively recent introduction of significant retail uses at Charlton Riverside has served to undermine the character and coherence of the area, while contributing to its ongoing economic vitality. A more intensive model of retail provision, one predicated on serving local needs and more tightly defined hinterland, and delivered as part of a genuinely mixed-use development form should be a priority at Charlton Riverside.

The heritage assets towards the north-east corner of the site offer some clues as to the ways in which a vibrant mix of uses might be accommodated in individual buildings. The flexibility of use and accommodation offered in this part of Charlton Riverside should be retained, making this location both a natural employment hub, but also an example of mixed use, including residential, which might inform development opportunities elsewhere on site.

The vision for Charlton Riverside envisages the range and mix of employment opportunity changing, over time, to offer a greater proportion of more highly skilled jobs, which in turn are higher value added and bring more to the wider economies of Royal Greenwich and London. The aim is that Charlton Riverside should also reflect, and take advantage of, relationships with the many higher and further educational institutions in Royal Greenwich. A more flexible, adaptable and ‘mixable’ suite of industrial premises would allow for such a change, as it would continue to support the existing mix of uses, while offering a range of floorplates, work spaces and contexts for newer industries and activities. Employment space which offers a less austere, monocultural industrial landscape with a greater mix of amenities, services, leisure opportunities open space and residential provision, will be fundamental to achieving this outcome.
B.7 Urban Form and Grain

The urban grain of Charlton Riverside - the pattern of development blocks and the buildings which sit within those blocks - is best described as 'coarse', meaning that it is characterised by large buildings sitting in large plots with significant amounts of open land surrounding the buildings. There are a number of very large parcels, with few roads (public or private) and very little public open space to help distinguish between one parcel and the next (see Figure 4.9 and 4.10, opposite).

There are quite distinct character areas within Charlton Riverside, each with its own particular spatial arrangement that differentiates it from other parts of this very large site.

South West Retail Quarter

This large tract of land sandwiched between Bugsby’s Way and the western section of Woolwich Road is occupied almost entirely by large, out-of-town style retail outlets. These have their own very specific urban form with large footprint buildings, housing one or more retail units, set back from the road and surrounded by large expanses of surface level car parking. There is little in the way of active frontage to streets and, although the parking areas are notionally accessible to pedestrians and permeable, they are not public realm in the true sense.

North West Minerals Quarter

This part of the site has been used for minerals processing and trans-shipment since the mid-19th

Figure B15: Existing figure ground
century. It comprises one large ‘superblock’ with frontage onto the River Thames and Bugsby’s Way (for a very short length). It is essentially inward looking, with large open spaces given over to minerals storage and processing, with few buildings or structures, other than those required for processing, storage or administration. There is little, if any, active frontage and the whole block is to some extent wrapped and buffered by other commercial parcels to the south and west. To the west, there is a very immediate and complex relationship with the eastern end of Greenwich Millennium Village, where new residential development on Peartree Way overlooks Angerstein Wharf (this residential development is outside the SPD study area).

**Mixed Industrial Core**

gain, this part of the site is characterised by a superblock which is for the most part, one single, continuous and impermeable development block. Within this superblock, there are a number of individual parcels each with its own access (sometimes shared) onto the main movement network. Building footprints tend to be medium to large in scale, although many of the buildings are subdivided and support a number of occupiers and uses. There is a lot of open land around buildings which serves a variety of functions - internal circulation, parking, servicing and storage. There is some element of active frontage, at least along the eastern edge, closer to Eastmoor Street Park (formerly Barrier Park), but the nature of the activities pursued in these

Figure B16: Existing character areas
areas means that the level of activity is relatively low and pedestrian footfall is low (car repairs, wholesale, office supplies, etc.).

The southern part of this character area has a number of retail and wholesale uses, where the pattern of development is more like that found in the South West Retail Quarter.

**Wholesale/Logistics**
This large parcel comprises a large Sainsbury’s logistics depot and some relatively smaller wholesale and trade retail units. As with other parts of the site the plot ratio of gross development area to overall parcel size is relatively low. There is little or no permeability through the site in any direction and little in the way of active, positive street frontage by any of the buildings or uses on site.

**Westminster Estate**
This area is also characterised by what amounts to a single, large block of development. Although there are roads penetrating this site and running east-west, they are private roads which are controlled at one or both ends, thus restricting through movement of pedestrians. Building footprints are medium to large, with a variety of ages and construction methods attesting to this area having the greatest heritage interest (with the Siemens buildings and others, especially towards the northern part of the estate, having survived). There is a greater sense of enclosure within this part of Charlton Riverside, especially towards the river, where the urban grain feels and looks much finer and less coarse than other parts.
of Charlton Riverside. The historic development pattern has been retained here to a greater extent than elsewhere, even when new buildings have replaced older development due to single ownership of this large estate.

There is a greater degree of active frontage in this part of Charlton Riverside and there is potential for this to be enhanced. The mix of activities in this part of the site derives in part, from the built form being more flexible, cheaper and better able to provide the type of environment that small scale, start up and creative industries in particular, require. The presence of these industries along with the retained historic built fabric, in turn, creates a particular sense of place, which reinforces the notion that this is a different sort of place to the other commercial areas at Charlton Riverside.

**Implications for masterplan:** there is an opportunity to create a finer grain of development, with smaller plot sizes set within a network of streets and thoroughfares to create a more human-scale, walkable neighbourhood. Much of the historic development pattern was predicated on large-scale industrial activity, which was superimposed on the older landscape character, but even this has itself been replaced by modern development forms and uses, especially in the southern and western parts of the wider Charlton Riverside site. Where the historic pattern of development does still exist in some shape or form - such as within the Westminster Estate, there is potentially considerable benefit to be gained from retaining and integrating these areas into the wider masterplan proposals.

### B.8 Built Fabric

As a consequence of much of the industrial activity which once characterised Charlton Riverside having been replaced by other uses, much of the historic built fabric has also been lost and replaced with a variety of more modern built forms, including brick and steel industrial and warehouse sheds, steel and glass retail outlets and prefabricated temporary commercial structures that have often survived longer than their intended design life.

Interspersed among these new structures there are a number of buildings that have survived from different periods of development at Charlton Riverside. These ‘hidden gems’ include Victorian industrial buildings (Siemens buildings) and schools (Windrush), 1930s offices (Stone Foundries), inter-war north-lit, brick built industrial structures (including the core of the Royal Greenwich UTC).

**Implications for the masterplan:** the majority of buildings in Charlton Riverside were designed and built for a very specific use - industrial - and at a time where specificity of use and built form were very much the fashion. The floor plans, internal spaces, construction grid, building heights (and probably substructures) and relationship with existing and potential new streets, public spaces and mixed-use development would all suggest that the more modern industrial buildings are generally incapable of conversion to other uses and, therefore, would be unlikely to be retained. Where commercial/industrial use continues, there may still be a case for renewal of some buildings (if they are at the end of their serviceable lives for example), or the construction of new, different and potentially more flexible and intensive form of commercial buildings.

Some of the older buildings, however, have the potential for re-use, and every opportunity to do so should be given careful consideration. There are some buildings, either because of the nature of the structure or the location of the building within the masterplan area, where the presumption will be for retention and re-use, rather than demolition and replacement. This might cause localised difficulties in some development parcels, but the longer-term benefits of retaining characterful, historic buildings in key locations within the site are manifold and should be realised, wherever possible.
B.9 **Townscape**

The existing townscape of Charlton Riverside (by which we mean the visual appearance of the streets and buildings in combination) is best described as mixed commercial/industrial. Functionality is often more important than the creation of beautiful streets and the way in which buildings, streets and open spaces relate very much to the mix of commercial activity and their day-to-day requirements.

The three main routes - the eastern section of Woolwich Road, Bugsby’s Way and the bottom half of Anchor and Hope Lane - are all major urban routes, which have been duelled and are designed to carry large volumes of traffic. The streetscape is one dominated by transport infrastructure with a sense of openness and lack of enclosure that is to the detriment of the townscape.

Within the site, the majority of the townscape reflects the prevailing uses and the period in which development occurred. In the Westminster Estate, for example, the historic development in the northern section demonstrates a more ordered and rigorous townscape, with buildings being of a scale appropriate to the street width, and presenting frontage onto the streets and squares which they frame. Immediately to the south, more modern development, in a form designed to provide for mixed industrial uses, is much more utilitarian and less concerned with addressing the street in any formal, constructive way.

In the central part of the site, other than along Anchor and Hope Lane and Woolwich Road, the
streets tend to be framed by low-rise industrial and commercial buildings that rarely address the street and parcels often have a range of secure boundaries that prevent any meaningful connection between street and development parcel. In addition, during working hours, there is a lot of ad hoc car parking, allied to numerous vehicle movements into and out of the various business premises, that create a cluttered, almost chaotic environment that has little in the way of any special character.

To either side of Bugsby’s Way, the combination of out-of-town and big box retail, combined with logistics and wholesale outlets, each having either large expanses of car parking or yard space creates a very loose urban form that tends to be anonymous and lacking any real sense of place.

The River Thames frontage is arguably the site’s strongest asset with a series of fabulous views along the working river towards the Greenwich Peninsula, Canary Wharf and Central London. The presence of the iconic Thames Barrier means that the site already has a London-wide landmark, and the site also benefits from direct connections with Maryon Park and London’s South East Green Chain at its eastern end. Whilst the northern edge of the site enjoys riverside views, the Woolwich Road creates a harsher environment along the southern edge, effectively cutting off Charlton Riverside from the rest of Charlton.

Implications for the Masterplan
There is an opportunity at Charlton Riverside for
a development model based on the establishment of a network of streets with development parcels populated by buildings that face onto and actively engage with those streets. By doing so, a more human-scale, walkable neighbourhood could be delivered, one that is not only attractive and characterful, but also legible and accessible.

The creation of townscape that reflects the Charlton Riverside’s proposed status as a new, mixed-use neighbourhood is an important consideration for the SPD and associated masterplan. The retention and integration of significant employment land within a wider mix of uses, including residential, requires development principles that address issues relating to the scale of streets and the associated development framing those streets, active frontages and flexibility of ground floor spaces and the vertical and horizontal mix of uses.

The design and ongoing management of the public realm will also be important to questions of townscape and place-making.

Figure B17: Public and private realm
B.10 Building Heights and Massing

Many of the buildings at Charlton Riverside are in industrial or commercial use, designed and constructed specifically for that purpose. Their height and massing reflects this use and the typologies that are typically employed for industrial buildings - see Figure 4.13 opposite. Many of the buildings are medium to large footprint, single storey constructions often brick and steel or steel cladding. Some buildings have an expanded ground floor to accommodate very specific activities, making them, in effect, two storey buildings. There are few tall buildings except for isolated examples such as the Sainsbury's warehouse, the Thames Barrier operations building and some of the Siemens Works buildings on the western edge of the Westminster Estate. There are a couple of structures in the minerals wharves which are the equivalent of eight storeys and above, but these tend to be located towards the centre of the site, with little or no context (save for the new residential development along Horn Lane).

Implications for the Masterplan

Given the potential for many of the existing commercial and industrial buildings to be replaced either by new mixed-use development or more intensive and denser commercial development, the existing heights and massing are not necessarily major considerations for new development. There will be locations however, where those buildings which are most likely to be retained on site - for example the residential blocks on Anchor and Hope Lane or along Woolwich Road - will need to be considered in the design of any new, adjacent residential development. Generally, however, across the site, the height and massing of new development will depend more on issues of character, townscape and Royal Greenwich’s ambitions for Charlton Riverside as a focus for family-housing led development.

Charlton Riverside is identified in the Core Strategy as a location where tall buildings may be appropriate, subject to the delivery of appropriate levels of transport infrastructure and due consideration of existing historic assets and distinctive character features. The Core Strategy notes that tall buildings are one model for achieving higher densities and allowing the potential of sites to be optimised, hence their often being located in town centres and near to major transport interchanges, which benefit from higher PTAL levels. It also notes that tall buildings are not the only model and that appropriate levels of density can be achieved by lower-rise development.

Charlton Riverside is not a designated town centre, nor does it have a major transport interchange or high levels of PTAL. While this SPD envisages improvements to public transport provision and enhanced pedestrian connections across the site, it is not considered likely that there will be a step-change in the levels of public transport, be it rail or bus, which would drastically improve the PTAL at Charlton Riverside. The density levels which might be considered appropriate for an urban, non-town centre site, with low or medium PTAL and a context of low rise residential development, where such context exists, would suggest that low-to-medium rise, high density development is appropriate at Charlton Riverside.

In terms of development context, where there are adjacencies that require consideration, such as, for example, relationships with existing residential development, the existing built form tends to be in the order of two or three storeys. For that reason low-to-medium rise, high density development is the preferred model for Charlton Riverside.

Royal Greenwich has set a target of 50% of housing delivered at Charlton Riverside being classified as family housing (i.e. 3 -4 bedrooms, whether it be a house, maisonette or apartment). There is a growing body of evidence6 from the UK and elsewhere, that family housing does not fit well with the tall building model of development. This is another reason why a low-to-medium rise, high density form of development is proposed at Charlton Riverside.

6 Create Streets, Policy Exchange, 2013
Figure B18: Existing building heights
B.11 Open Space

Historically, even up to the period immediately before World War II, there was considerable open space at Charlton Riverside, despite the presence of significant industrial development. Since the 1950s, almost all of the open space was lost to commercial or industrial development, so that today, Charlton Riverside has limited green infrastructure, although there is significant open space across the rest of Royal Greenwich (Figures 4.13 and 4.14). Currently, provision in the site is limited to the the open space adjacent to the Thames Barrier and Eastmoor Street Park (formerly Barrier Park) immediately to the south. This provides a visual connection over Woolwich Road to Maryon Park which leads south towards Maryon Wilson and Charlton Parks and Woolwich Common, part of the South East London Green Chain, a strategic network of open spaces that permeates through the wider area.

Overall, the site has limited ecological value but there are two SINCIs located on site, the Westcombe Park Railsides south of Angerstein’s Wharf and Eastmoor Street Park. The former is not publicly accessible; the latter contains widespread habitats such as amenity grassland and scattered trees. There is also a Site of Special Scientific Interest (SSSI) which occupies the western half of Maryon Park (Gilbert’s Pit), outside of the SPD area.

Implications for masterplan: there are opportunities to increase the quantity, quality and types of open space in Charlton Riverside.

Figure B19: Public open space in the Royal Borough of Greenwich
through its redevelopment with private gardens, tree-lined streets, and public parks and squares. This will have a number of environmental benefits such as encouraging biodiversity with a range of habitats for different species and providing shade, shelter and cooling with trees; social benefits by improving public health; and economic benefits by creating attractive places in which people choose to live, work and visit. There are also opportunities to downgrade Woolwich Road to reduce the amount of traffic it carries and therefore reduce pollutants, and new residential development will be separated from the safeguarded wharves by means of buffers provided by new workspace. Creation of walkable neighbourhoods and the provision of attractive cycling and walking routes will also help to promote low emission travel behaviour.

Figure B20: Public open space at Charlton Riverside

Key

A Barrier Park (small local park/open space)
B Thames Barrier/Eastmoor Street Park (local park)
C Maryon Park (local park)
D Maryon Wilson Park (local park)
E Samuel Street (amenity green park)
F Repository Woods (amenity green park)
G Harvey Gardens (amenity green park)
H Charlton Athletic FC (private outdoor sports/playing fields)
I Westcombe Park Railsides (natural/semi-natural urban green space)
J Station Crescent (natural/semi-natural urban green space)
K East Greenwich Pleasance (local park)
L Ecology Park & Southern Park (local park)
M Peninsula Riverside Walkway (linear open space/green corridor)
N Central Park (local park)
O River Thames
B.12 Environment

Operations at Murphy’s Wharf, especially at night, generate high noise levels and air quality monitoring locations along Woolwich Road are shown to have high nitrous oxide (NO₂) concentrations due to traffic levels.

Charlton Riverside has had a variety of industrial uses since the mid-1800s and recent ground investigations for various planning applications (which cover 15% of the area) have confirmed the presence of elevated levels of contaminants including metals, such as lead, and chemical compounds derived from fossil fuels. To allow the delivery of residential development on the site, there will be a need to address potential risk to human health during the design and construction phases of the planning process.

There is also a risk attached to the continued minerals operations in the west of the site, at Angerstein and Murphy’s Wharves and, also, at Riverside Wharf. Introducing residential development in close proximity to such uses would require careful and, potentially expensive, high-performance and maintenance technical solutions to mitigate any negative effects.

**Implications for masterplan:** the development concept will need to consider options for addressing any potential risks in respect of environmental quality, which may well have an impact on the spatial distribution of uses across Charlton Riverside,
B.13 Flood Risk and Topography

The SPD area is relatively flat and low lying, as shown in Figure 4.15, with relatively higher land located in the north west corner - it is not clear whether this higher land is natural or made ground associated with the minerals activities. Typically, ground levels vary between 5 and 15m AOD, with isolated high and low spots creating local variations that might provide interest in terms of townscape. The higher land, beyond the site to the south and south east reflects the more stable historic river banks behind the Woolwich Road.

In terms of flooding, the key issue for the site is that much of the site is located in Flood Zone 3 which is the zone of highest risk (see Figure 4.16). The site is afforded protection by the combined effect of the Thames Barrier and river wall defences but the residual risk of flood still needs to be considered in case of a breach, though the probability of this extreme event is very low.

There is also a risk of surface water flooding, as shown on Figure 4.17. This risk will need to be managed through the design process, for both the public realm/green infrastructure and at the building level. Royal Greenwich has prepared detailed guidance for developers as to how development should manage flood risk (Developers Guide for Flood Risk, 2015) and there is also substantial guidance and best practice available from the Environment Agency.

Figure B22: Flood Risk
**Implications for masterplan:** managing flood risk (from the Thames and surface water) will be a major consideration for any development proposals. For the purposes of this SPD, high level principles have been identified but detailed design proposals will be required from developers and these will have to be reviewed with Royal Greenwich and the Environment Agency.

In terms of topography, although the site demonstrates little in the way of significant topography and relief across its wider extent, there are localised areas where shallow depressions present an opportunity for some interesting interplay between levels, open space and built form.

![Figure B23: Topography](image)
B.15 Utilities & Infrastructure

Charlton Riverside is served, in the main, by primary utilities running along Woolwich Road and Bugsby’s Way.

In terms of electricity capacity, it is estimated that the current suite of sub-stations across the site can meet demand between 8.1-16.2MW, and there are plans for an new 132kV substation at Greenwich Peninsula, which may provide additional load.

A Thames Water trunk main runs through the site along Bugsby’s Way, and this needs to be maintained through any development stages or could be diverted to fit with the revised site layout. In terms of gas and telecomms, there are clearly services extending from the primary routes into the various development parcels, but the detail of those services is not known.

Implications for masterplan: Charlton Riverside is already furnished with the full suite of utilities serving the mix of uses currently on site, although the exact detail in terms of some services is not clear. The demand placed on those services is likely to change, as a consequence of 3,500-5,000 new homes, plus a different mix of commercial activity, so upgrades will, in all probability, be required. In addition, a new urban structure, with a modified network of streets will require new or diverted services to be installed to service development parcels. More detailed studies will be required, as development proposals come forward, to ascertain the nature and extent of upgrades, diversions and modification required.

Figure B24: Water infrastructure
Figure B25: Gas infrastructure
Figure B26: Electricity infrastructure
Figure B27: Telecommunications infrastructure
**B.16 Land Ownership**

There is a complex pattern of land ownership across the site. The western half of the site includes uses which are likely to remain in the medium- to long-term; the wharves are protected by planning policies and the Sainsbury’s distribution depot and some of the retail outlets have only recently been developed, are commercially successful and, therefore, likely to remain in use for some time.

In the central part of the site, east of Bugsby’s Way, there is more of a mix of uses including the Stone Foundries site and a substantial data centre, but a number of landowners have already indicated either a willingness to relocate or redevelop. Royal Greenwich has land interests in this area in the two residential areas at Atlas and Derrick Gardens and the adjacent Anchorage Point Industrial Estate. The eastern half of the site – particularly around Westmoor Street - has the greatest number of Royal Greenwich property assets and there are a number of other landowners who are interested in bringing forward development on their sites.

**Implications for masterplan:** there is a clear opportunity for a substantial first phase of development to be delivered, potentially with Royal Greenwich using its existing land holdings and working with other significant land interests in the eastern and central parts of the site. There is also scope for groups of landowners to work together to achieve more comprehensive development of larger parcels of land, which would potentially provide a benefit in terms of delivery and funding of key pieces of infrastructure, such as roads, open space and education.

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**Figure B28:** Land ownerships (as of November 2016)
Appendix C - Stakeholder Engagement

B.1 Introduction
The regulations relating to the preparation of Supplementary Planning Documents (SPD) requires a period of statutory consultation on a draft of the SPD, to allow all parties the opportunity to comment on the document. This statutory consultation is open to anyone to comment.

In addition, it is also good practice to engage with key stakeholders while preparing the SPD, to garner the thoughts and observations of those with an intimate knowledge or interest in the site.

To that end, Royal Greenwich carried out a process of pre-consultation engagement with a range of stakeholders, including:

- Greater London Authority (GLA);
- Transport for London (TfL);
- Environment Agency (EA);
- Internal workshops with relevant Royal Greenwich technical leads;
- Landowners;
- Occupiers and operators on site, and
- Civic societies and local interest groups.

The list of potential stakeholders was drawn up by reference to Royal Greenwich’s database of ownership and occupation within the study area and also its list of local interest groups, civic and amenity societies and other organisations with a thematic or geographical interest in the Royal Borough of Greenwich.

B.2 Pre-consultation events
The pre-consultation consultation itself took place over the summer of 2016, and provided stakeholders with the opportunity to share their knowledge of the site, their concerns and aspirations in respect of the potential for significant development within the study area and their suggestions as to what the key issues might be for the SPD consultant team and Royal Greenwich.

The engagement events included:

- Presentations using a series of information boards to explain the project (shown opposite);
- Question and answer sessions;
- Thematic workshops;
- One-to-one meetings with landowners;
- Drop-in sessions with landowners;
- Drop-in sessions with occupiers and operators, and
- Site visits with key stakeholders.

Stakeholders were invited to attend by letter, typically delivered a few weeks in advance to allow people to make preparations to attend.

B.3 Emerging themes for consideration
A number of key themes were identified by stakeholders and these included:

- Retention of industry, including protecting strategic industrial activities on the wharves;
- Open space provision;
- Protection of the foreshore;
- The need to manage ongoing maintenance and improvement of flood defences;
- Education requirements;
- Public transport investment;
- Building heights and density;
- The need to modify the character of Woolwich Road to connect Charlton Riverside with Charlton;
- Potential content and focus of the SPD;
- Air quality issues (arising from traffic and the activity on the wharves);
- Flood risk, especially from surface water;
- Mix of land uses across site;
- Integration of technology and the need to allow for ‘smart city’ principles to infuse the development.

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B.4 Capturing comments
The SPD consultant team attended all events and kept a record of comments and inputs from all attendees. These were tabulated into a pre-consultation engagement summary and fed into the masterplan and SPD development process, wherever possible. In those instances where it was not possible, or considered inappropriate to modify the approach to either the masterplan or SPD in respect of specific comments from stakeholders, a design and/or planning rationale was offered by way explanation.

B.5 Next steps
Following receipt of the draft SPD, Royal Greenwich will consider the document and, once it has been approved by the appropriate members and officers it will be published for the purposes of the statutory consultation period.

Following that consultation period, the SPD consultant team, working with Royal Greenwich officers will consider the comments received and how they might influence the final SPD.

Following that period of review, the final SPD will be submitted to Royal Greenwich for approval and adoption.