CITY
IN
THE
WEST

DEVELOPMENT SCENARIO TESTING
FOR THE ROYAL BOROUGH OF

KINGSTON
UPON THAMES

PART 2 **FEBRUARY 2017**

MAYOR OF LONDON

THE ROYAL BOROUGH OF
KINGSTON
UPON THAMES

CONTENTS

Development Scenario Testing for the
Royal Borough of Kingston Upon Thames

Development Scenario Testing Part 2
Summary Version B | 24-05-2017

1.0

SUMMARY

Introduction

Part 2 of this document sets out the development scenario testing. This has been undertaken on sites within the emerging areas of opportunity which are located outside of the agreed opportunity area boundary, but are identified in the Royal Borough of Kingston Upon Thames Direction of Travel that was adopted by Kingston Council and by the Mayor in October 2016. The purpose of this work is to identify the key development sites within the area, the site's constraints and the capacity for low, medium and high density redevelopment. It is not intended to set a preferred development approach for sites. It is a tool to enable further development capacity work and to under pin a transport assessment to assess the implications of different levels of growth and a Development Infrastructure Funding Study to look at the infrastructure needed to support growth in the borough.

The Direction of Travel sets out the Mayor's and the Council's aspirations to support and deliver significant growth of homes, jobs and investment. It is linked to the proposal for Crossrail 2 services to all 10 train stations within the borough. This will provide significant infrastructure to support the growth demands of the borough. This document seeks to investigate the opportunities for growth identified in the Direction of Travel, and looks at options for optimising development opportunities.

Policy context

Policy 3.4 of the London Plan seeks to optimise housing delivery. Table 3.2 provides guidance on the range of development densities that may be appropriate for development sites. It is not appropriate to apply Table 3.2 mechanistically. Its density ranges are broad, which allows for other factors relevant to optimising a site's potential, (such as local context, design and transport, social infrastructure and open space) to be taken into account. Where appropriate, the density ranges can provide a tool for increasing density in areas where transport proposals will improve public transport accessibility in the future.

The Mayor's Housing SPG explains that the size, scale and importance of large sites and opportunity areas in London's housing need means that optimising housing potential in these locations is considered to be a strategic context, recognising existing and planned transport accessibility and planned investment. Paragraph 7.5.8 explains that densities in opportunity areas and on other large sites may exceed the relevant density range in Table 3.2 of the London Plan. This is subject to development achieving the highest standards, in terms of residential and environmental quality. The extent to which this is possible will depend on anticipated infrastructure capacity whilst having regard to local character. The potential for higher levels of development to enable additional infrastructure capacity should be explored as part of the emerging opportunity area. Densities which exceed those shown in Table 3.2 of the London Plan have therefore been tested as part of this work.

Emerging areas of opportunity

The scenarios, as presented, are the product of a process through which land-use, height, urban form and local context have been assessed. A range of wider physical and policy constraints have also been reviewed as part of this process, through mapping and observation.

A series of appropriate typologies have been presented in order to better calibrate the scenario testing. These are: predominantly residential, residential-led mixed-use and commercial-led mixed-use. Educational-led mixed-use and sui generis and other sites have also been considered.

Through a series of workshops with GLA, TfL and RB Kingston officers, land-use, development potential have been discussed and refined. A number of pre-existing schemes and related undertakings have provided further intelligence to this process. A summary of the key constraints, considerations and caveats are set out in each case.

Scenarios

Three scenarios of low, medium and high levels of development have been tested.

Key notes/ assumptions on scenario methodology

Predominantly residential and residential-led mixed-use:

— The gross number of homes has been determined on the basis of dwellings per hectare, on the refined 'development emerging opportunity area' (accounting for key sensitivities).

— For residential-mix use 10% of the total proposed floorspace has been considered as commercial.

— Site analysis includes definition of different densities/heights on larger sites where sensitivities and adjacencies are deemed to introduce constraints on development capacity.

— In areas of low PTAL rating, the scenarios have sought to test increased density on the basis of expected improved transport connectivity and capacity. (As such, these scenarios exceed the densities set out in the London Plan on current PTAL rating).

— Consideration has been given to optimising housing potential, taking into account local context, character and design principles.

Commercial-led mixed-use:

— Potential 'generic' footprints have been determined for commercial-led mixed use sites in order to calculate gross m2. This includes refining the 'development of the emerging opportunity area' (accounting for key sensitivities).The vertically-mixed 'split' on commercial-led mixed-use assumes 50% residential use for the high density scenarios, 40% for medium density and 30% for low density.

Education:

— Where there is potential for densification or consolidation, 20% of the site within the emerging opportunity area is allocated for residential use (for the purposes of capacity testing).

Other sites including Sui Generis:

— Where there is potential for densification or consolidation, 20% of the site opportunity area is allocated for residential use (for the purposes of capacity testing).

Summary of density ranges

Based on the typologies presented within the Appendix, the following density ranges have been used in the development of the scenarios.

Predominantly residential
< 200 dph   (Low – medium density), 2-5 storeys
200-300 dph (Medium density), 5-10 storeys
400 + dph   (High density, estate regeneration specific), 16-20 Storeys

Residential-led mixed-use
(infill and densification sites)
< 350 dph   (Low – medium density), 6 storeys
350-400+ dph (Medium - high density), 7-10 storeys

Commercial-led mixed-use
Low – medium density, 2-5 storeys
Medium density, 5-8 storeys
High density, 9-16 storeys

Other/ generally:
Low density, <5 storeys
Medium density, 5-8 storeys
High density, 9-12 storeys
Anchor/ tall building, >16 storeys

Education
(20% gross site area assumed for residential)
< 200dph   (Low)
200-400 dph (Medium)
400+ dph   (High)

*dph = density per hectare

Development Area	Gross 'sensitivity tested' scenario figures					
	Low		Medium		High	
	Homes	Commercial (sqm)	Homes	Commercial (sqm)	Homes	Commercial (sqm)
New Malden	2,275	55,750	3,225	113,000	3,575	173,750
Berrylands	2,450	48,750	3,375	105,250	3,875	160,500
Tolworth	4,975	118,750	6,800	232,750	8,125	359,750
Chessington North and South	1,300	7,750	1,850	22,250	2,275	32,750
Total Emerging Area of Opportunity	**11,000**	**231,000**	**15,250**	**473,250**	**17,850**	**726,750**

Development Area	Indicative scenario figures	
New Malden	2,825 homes	121,750 sqm commercial
Berrylands	3.250 homes	135,250 sqm commercial
Tolworth	6,275 homes	253,000 sqm commercial
Chessington North and South	1,775 homes	22,250 sqm commercial
Total Emerging Area of Opportunity	**14,125 homes**	**532,250 sqm commercial**

Note:
— Figures do not include identified current and forthcoming development within scenarios
— Homes rounded to nearest 25
— Commercial space rounded to nearest 250m2

Further notes

Sensitive locations, edges and adjacencies
There are areas where significant development constraints are most pronounced, including; heritage assets, historic built environment and riverside setting. Protected views and local heritage designations have not been a determining factor in this study.

Flood Zones
Flood Zones have been shown highlighting key areas where impact on development options is considered to be considerable, requiring further exemption tests or attenuation/ prevention measures.

Flood Zone 2

Medium probability
Land assessed as having between a 1% (1 in 100) and 0.1% (1 in 1000) annual probability of river flooding in any year.

Flood Zone 3

Flood Zone 3a: High probability
Land assessed as having a 1% (1 in 100) or greater annual probability of flooding in any year. Exception test required for residential.

Flood Zone 3b: Functional flood plain
Land assessed as having a 5% (1 in 20) or greater annual probability of flooding in any year, and/or areas susceptible to flooding within which 'water has to flow or be stored in times of flood'.
Residential development is not appropriate.

Surface water flooding
Surface water flooding has not been considered as a development constraint within this study.

Sui Generis and other sites
A number of other sites are identified. These include healthcare and leisure.

Community uses
Community uses remain as before, but with residential aspects to be added above.

Protection of existing employment uses
There are a number of employment sites with proposed land use change to predominantly residential or residential mixed-use. The development scenarios expect some affordances to retain and protect these uses, or relocate to appropriate strategic locations. Where areas of Locally Significant Industrial Sites (LSIS) have been included no net loss of employment is assumed.

Green Belt
No areas within the Green Belt have been included as opportunity sites.

Metropolitan Open Land (MOL)
Sites within Metropolitan Open Land have been excluded apart from two exceptions. These exceptions are East of Tolworth Station and part of the Hogsmill Sewage Treatment Works site. These sites have been included due to their close proximity to the stations and opportunity to deliver improved access to open space in tandem with development.

Limitations of scenario testing
These scenarios are based on 2D tests in order to provide early indicative capacity information for new homes and commercial space. The base information is OS mapping and GIS information provided by GLA and RB Kingston. 3D massing and testing of key views would be expected to further refine urban form and distribution of development.

The scenario densities and example building heights presented in this report are indicative. They are examples of how development could be spatially arranged. They are not agreed densities or figures for the development of the sites. The purpose of this document is to provide a range of densities to enable officers to test and assess how growth could be accommodated in the borough and what mitigation measures would be necessary. It is recognised that development may be carried out in a number of different ways and alternative proposals could be considered appropriate.

2.0
NEW MALDEN

NEW MALDEN

Aerial view

Traps Ln
Clarence Ave
Cambridge Ave
Lime Grove
Alric Ave
Coombe Rd
Station
Dukes Ave
Grafton Rd
Kings Ave
High St
Blagdon Rd
Kingston Rd
Burlington Rd
Sandal Rd
A 3 Malden Way

N   0   200m

SITES

The map opposite illustrates sites that been identified by RB Kingston and GLA officers.

New Malden sites	
NM-A	Coombes Girls School
NM-B	Christ Church New Malden Church of England Primary School
NM-C	4 storey office building
NM-D	71-73 Coombe Road
NM-E	Existing retail and commercial 2-3 storey
NM-F	Apex tower 3 storey MSCP
NM-G	Plaza, tower, and MSCP
NM-H	Surface carparking
NM-I	Cocks Crescent SPD
NM-J	The Holy Cross Roman Catholic Girls School
NM-K	New Malden House
NM-L	Coombe Boys School
NM-M	Corpus Christi Roman Catholic Primary School
NM-N	Burlington Junior School
NM-O	Fountain pub site
NM-P	Surface carpark and retail
NM-Q	Backyards of dwellings on Alric Ave

KEY

Identified opportunity sites

Identified opportunity site included in other section

District Centre

Borough boundary

N   0   200m
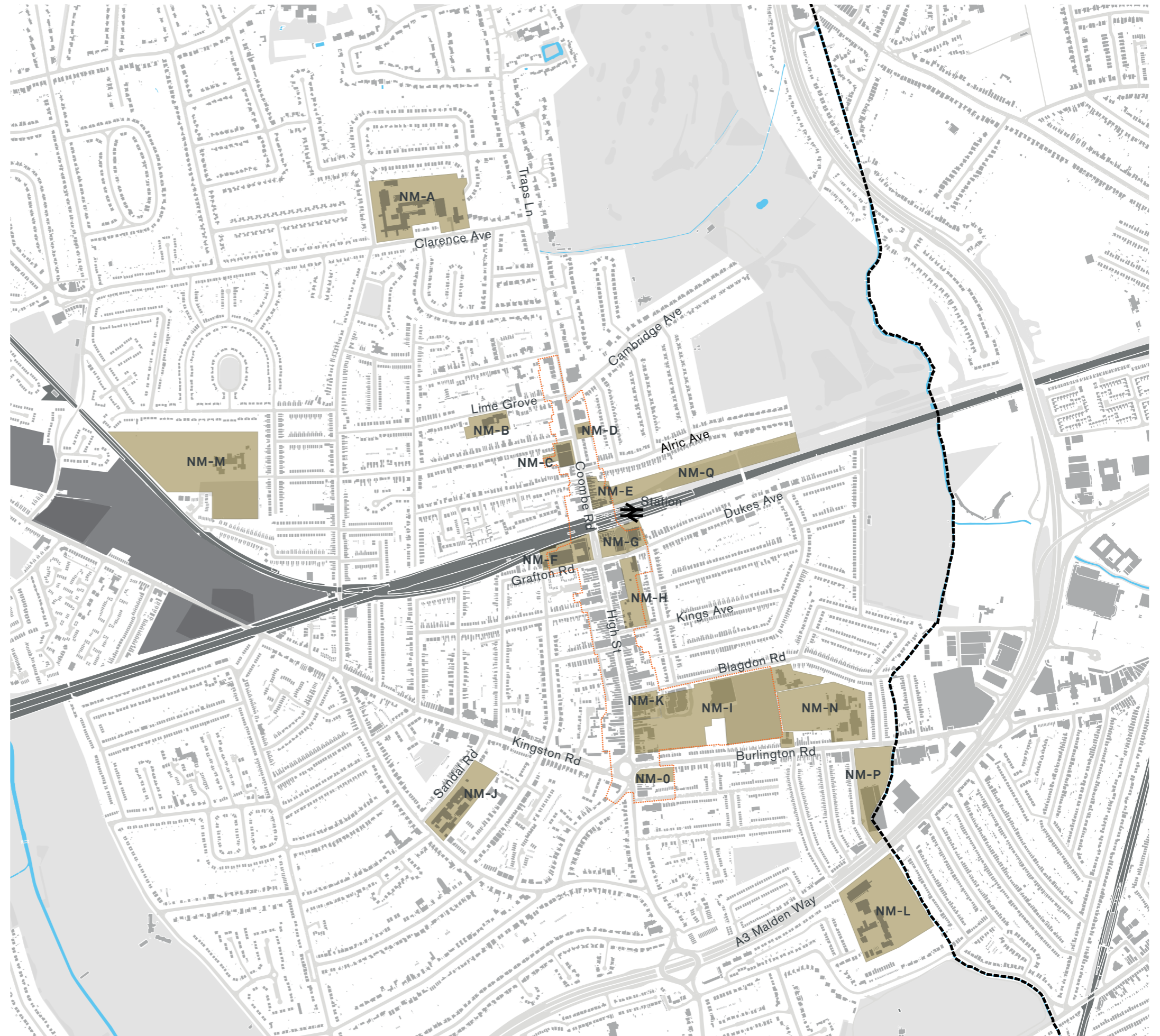
71-73 Coombe Road

Commercial building on Coombe Road

View South along Coombe Road with ground floor retail and restaurants

Apex Tower with carpark on Grafton Road
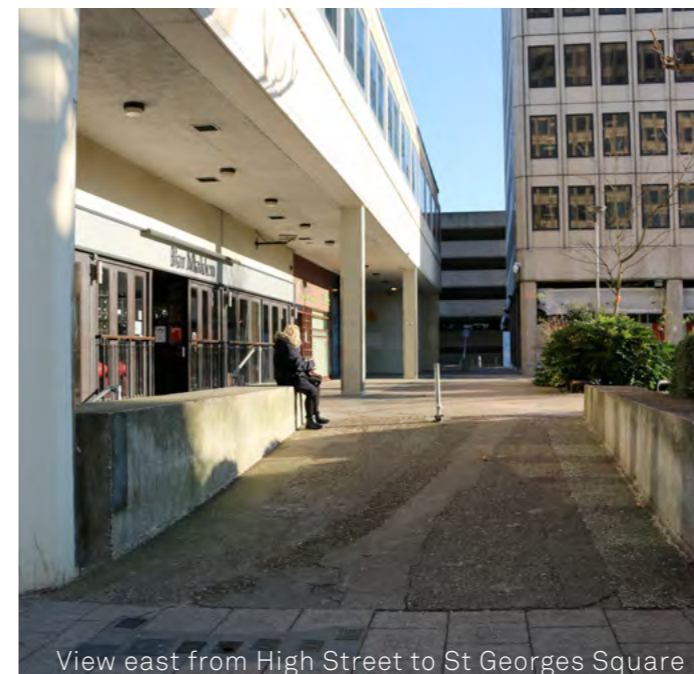
St Georges Square

View east from High Street to St Georges Square

The carpark behind the CI Tower

Station drop off and bus stop behind the CI Tower

EXISTING
SITE IMAGES

View South along High Street with Apex Tower and CI Tower

View North along High Street with Apex Tower on the left

Vacant site on Cocks Crescent

The Malden Centre

Ground floor retail along High Street

Blagdon Road carpark with supermarket on ground floor

New Malden House

Indicative scenario

The area around New Malden station is significantly characterised by the Apex and CI Towers (at 15 and 14 stories respectively). The area has the potential for further high density commercial-led mixed-use development. There is an opportunity to accommodate new land uses as well as improve the public realm, station access and the arrival experience around the station through future development. There is also a possibility to consolidate land and develop new low to medium density residential mixed use behind the high street and adjacent to the station. The site alongside the railway offers the opportunity to consolidate the backyards of the residential land on Alric Avenue for residential-led mixed use close to the station. The Cocks Crescent SPD site presents a major opportunity for a residential mixed-use development providing new workspace, retail, community facilities and leisure. There are a number of other large school sites that could provide an opportunity for future housing, however, they are primarily located amidst low density housing which will restrict the height of new developments.

Key consideration and constraints

— The addition of housing to school sites needs to consider the future provision and spatial requirements of the schools.
— The multi-story car parks behind the Apex and CI towers could be redeveloped, however, future parking requirements would have to be considered.
— The NM-P site on Burlington Road offers development opportunity but is located on the borough boundary between Kingston and Merton.

Site	Land use	Low		Medium		High		Planning application	
		Homes	Commercial (sqm)	Homes	Commercial (sqm)	Homes	Commercial (sqm)	Homes	Commercial (sqm)
NEW MALDEN									
NM-A	Education-led mixed-use	109	0	163	0	218	0		
NM-B	Education-led mixed-use	16	0	24	0	32	0		
NM-C	Commercial-led mixed-use	27	4,484	37	7,137	46	11,438		
NM-D	Residential-led mixed-use	27	360	38	1,020	38	1,500	22	52
NM-E	Commercial-led mixed-use	32	4,900	43	7,800	54	12,500		
NM-F	Commercial-led mixed-use	68	10,192	91	16,224	113	26,000		
NM-G	Commercial-led mixed-use	71	12,005	95	19,110	119	30,625		
NM-H	Residential-led mixed-use	120	1,605	169	4,548	169	6,688		
NM-I	Residential-led mixed-use	699	9,319	979	26,404	979	38,830		
NM-J	Education-led mixed-use	46	0	69	0	92	0		
NM-K	Residential-led mixed-use	75	996	105	2,822	105	4,150	93	
NM-L	Education-led mixed-use	134	0	201	0	268	0		
NM-M	Education-led mixed-use	182	0	274	0	365	0		
NM-N	Education-led mixed-use	84	0	125	0	167	0		
NM-O	Commercial-led mixed-use	29	4,410	38	7,020	48	11,250		
NM-P	Residential-led mixed-use	304	4,050	425	11,475	425	16,875		
NM-Q	Residential-led mixed-use	250	3,333	350	9,444	350	13,888		

		Low		Medium		High	
		2,275	**55,750**	**3,225**	**113,000**	**3,575**	**173,750**
		to nearest 25	to nearest 250m2	to nearest 25	to nearest 250m2	to nearest 25	to nearest 250m2

Indicative scenario	**2,825 homes** to nearest 25	**121,750 sqm commercial** to nearest 250m2

Notes

NM-D   71-73 Coombe Road: 16/14298/FUL Full application approved pending S106 - 22 residential units and 52m2 office
NM-I   Cocks Crescent: SPD
NM-K   New Malden House: 15/14657/FUL Full application approved pending S106 - Change of use from office to 93 residential units

CONSTRAINTS

KEY

- **Listed Buildings**
- **Conservation Area**
- **Identified opportunity sites**
- **Site with planning approval (subject to conditions)**
- **SPD**
- **Strategic Industrial Location**
- **Locally Significant Industrial Site**
- **Flood Zone 2**
- **Flood Zone 3**
- **Metropolitan Open Land (MOL)**
- **Identified opportunity site included in other section**
- **District Centre**
- **Borough boundary**

N 0 200m

PTAL RATING

The map opposite illustrates the current PTAL ratings for each of the opportunity sites in New Malden. The PTAL around the station is medium, while there are a number of sites to the south near the Fountain Roundabout that have a high PTAL due to good bus connectivity. These PTAL ratings will be significantly improved by Crossrail 2 services.

KEY

High (4-6)

Medium (2-3)

Low (0-1)

Identified opportunity site included in other section

District Centre

Borough boundary

* Data sourced from WebCAT provided by Transport for London

N   0   200m

INDICATIVE SCENARIO: DENSITY & LAND USE

The indicative scenario shows one of many possible mixes of density that should be considered through onwards work.

KEY

Predominantly residential

- Low-medium density: 2-5 storeys
- Medium density: 5-10 storeys
- High density: 16-20 storeys

Residential-led mixed-use

- Low-medium density: 6 storeys
- Medium-high density: 7-10 storeys

Commercial-led mixed-use

- Low-medium density: 2-5 storeys
- Medium density: 5-8 storeys
- High density: 9-16 storeys

Educational-led mixed-use

- Low density: <5 storeys
- Medium density: 5-8 storeys
- High density: 9-12 storeys

Other sites including Sui Generis

- Low density: <5 storeys
- Medium density: 5-8 storeys
- High density: 9-12 storeys

- Identified opportunity site included in other section
- District Centre
- Borough boundary

* Open space will need to be provided as part of residential developments

N 0   200m

3.0
BERRYLANDS

Kingston Road

Surbiton Hill Park

Chiltern Drive

Berrylands

Pine Gardens

King Charles Road

N   0   200m
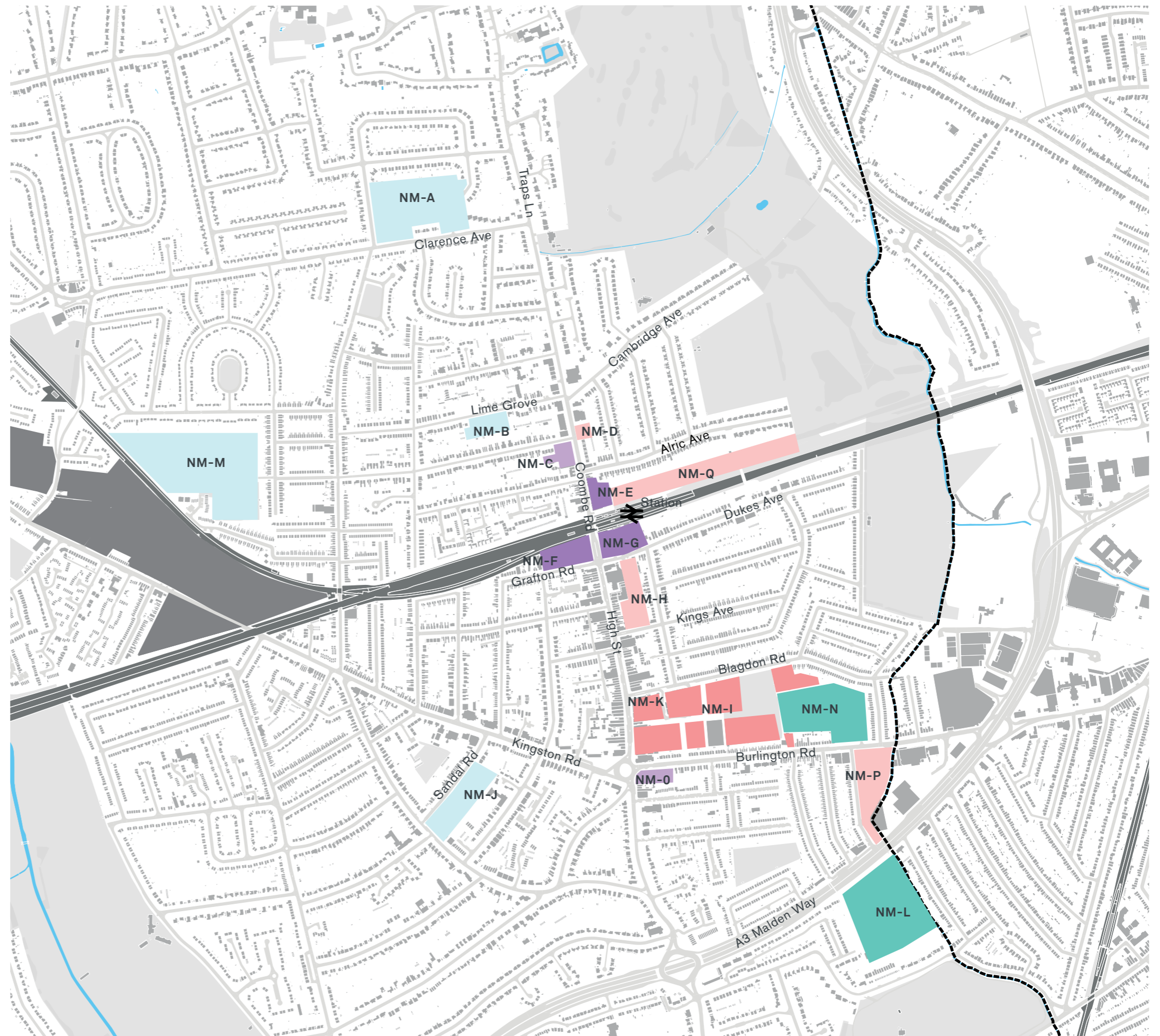
OPPORTUNITY SITES

The map opposite illustrates sites that been identified by RB Kingston and GLA officers. The Hogsmill Sewage Works has been included in the Kingston opportunity area study.

Berrylands sites

BL-A	Site behind Berrylands station
BL-B	Auto-service
BL-C	Matalan & Homebase
BL-D	Furniture Village
BL-E	Industrial land
BL-F	Christ Church CofE Primary School
BL-G	Grand Avenue Primary and Nursery School
BL-H	Kings Oak Primary School
BL-I	Dairy Crest Site

KEY

Identified opportunity sites

Identified opportunity site included in other section

District Centre

N

0   200m

SITES CONSIDERED IN PREVIOUS STUDY

BL-H

BL-C

BL-E

Kingston Road

BL-D

BL-I

BL-A

BL-B

Chiltern Drive

Surbiton Hill Park

Berrylands

BL-F   Pine Gardens

King Charles' Road

BL-G

EXISTING
SITE IMAGES

Berrylands Station entrance from Chiltern Dr on the south

Chiltern Drive leading north to the station

The Berrylands hotel on the corner of Chiltern Drive and Surbiton Hill Park road

Area behind the residential and commercial

View from the station platform north towards the Hogsmill Sewage Treatment Works

EXISTING
SITE IMAGES

Furniture Village on Kingston Road

Student housing under construction on Kingston Road

Christ Church CofE Primary School

Former Rosselands Health Centre on Kingston Road

Wellington Crescent Locally Significant Industrial Site

Indicative scenario

Due to the residential character and lack of available land, there is limited opportunity for development around Berrylands station. The main opportunity for development is the Hogsmill Sewage Works, which has been included in the Kingston opportunity area study and therefore excluded from this section of the study. Two small sites have been identified close to Berrylands Station on the south of the railway line, however, as there is no commercial centre these sites would be suitable for low to medium residential. The most significant site is BL-E on Kingston Road with potential for residential-led mixed use. However, the site is currently Locally Significant Industrial Site (LSIS). There is an opportunity for development on the site, with the assumption that there would be no net loss of jobs, owing to a consolidation process of the existing employment space. South of Kingston Road BL-D also provides an opportunity as a significant mixed-use commercial site.

Key consideration and constraints

— The adjacencies between existing residential areas and opportunity sites will need to be considered, in particular BL-E and BL-C on Kingston Road.
— No net loss of jobs is assumed for the redevelopment of LSIS.
— The connection between sites along Kingston Road and Berrylands Station needs to be improved.

Site	Land use	Low		Medium		High		Planning application	
		Homes	Commercial (sqm)	Homes	Commercial (sqm)	Homes	Commercial (sqm)	Homes	Commercial (sqm)
BERRYLANDS									
BL-A	Predominantly residential	72	0	90	0	143	0		
BL-B	Predominantly residential	30	0	38	0	60	0		
BL-C	Predominantly residential	242	0	303	0	484	0		
BL-D	Commercial-led mixed-use	113	26,374	151	41,984	189	67,281		
BL-E	Residential-led mixed-use	1,678	22,368	2,349	63,376	2,349	93,200		
BL-F	Education-led mixed-use	51	0	77	0	102	0		
BL-G	Education-led mixed-use	79	0	119	0	158	0		
BL-H	Education-led mixed-use	68	0	102	0	136	0		
BL-I	Predominantly residential	124	0	156	0	249	0	49	
		2,450	**48,750**	**3,375**	**105,250**	**3,875**	**160,500**		
		to nearest 25	to nearest 250m2	to nearest 25	to nearest 250m2	to nearest 25	to nearest 250m2		

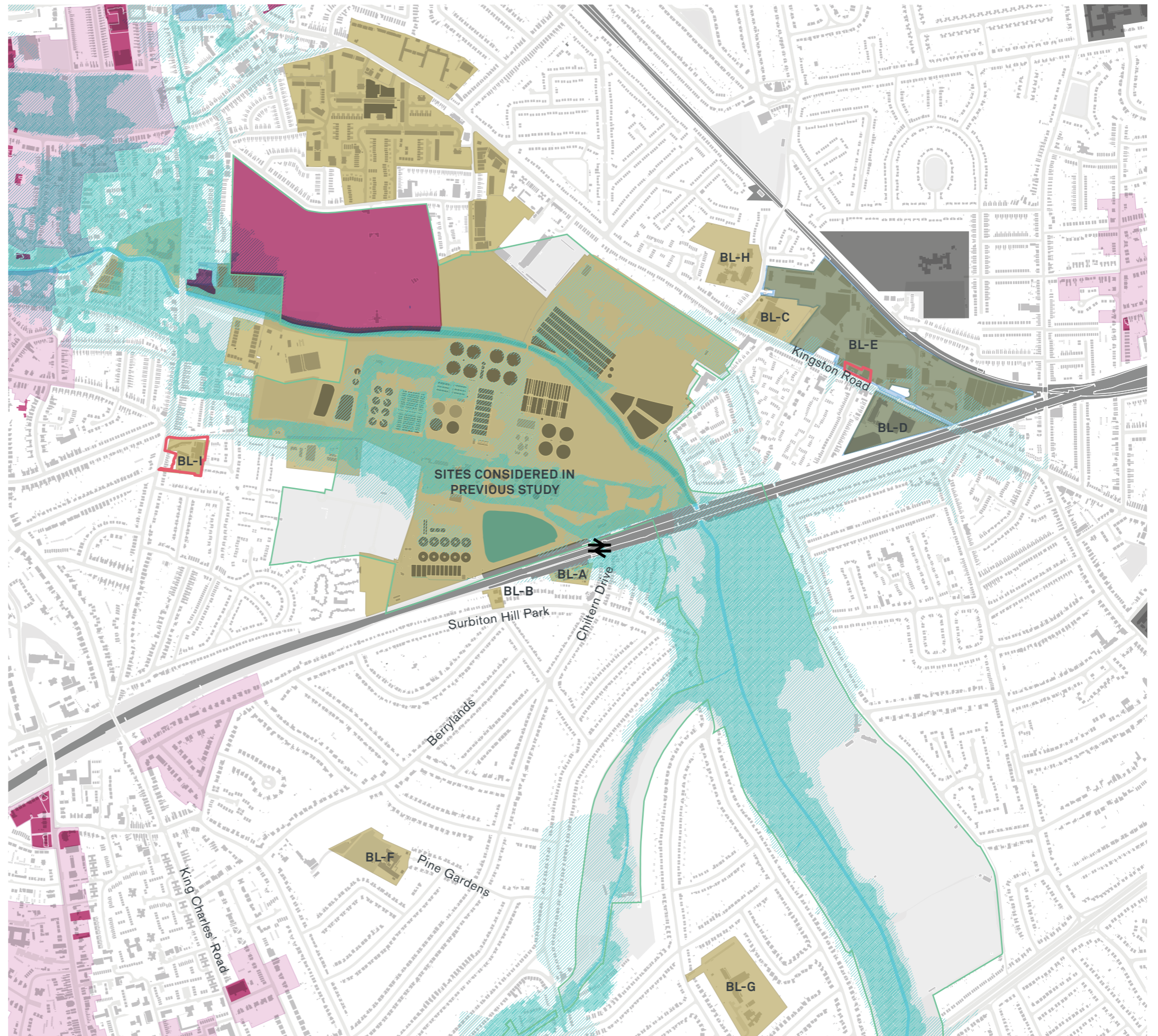| Indicative scenario	**3,250 homes** to nearest 25	**135,250 sqm commercial** to nearest 250m2

Notes

BL-I   Dairy Crest site: 15/16840/FUL Full application approved pending S106 - 49 residential units

CONSTRAINTS

KEY

- ◼ Listed Buildings
- ◼ Conservation Area
- ◼ Identified opportunity sites
- ▢ Site with planning approval
- ▢ Site under-construction
- ◼ Strategic Industrial Location
- ◼ Locally Significant Industrial Site
- ▨ Flood Zone 2
- ▨ Flood Zone 3
- ◼ Metropolitan Open Land (MOL)
- ◼ Identified opportunity site included in other section

N   0   200m

BL-H
BL-C
BL-E
BL-D
BL-I
Kingston Road
SITES CONSIDERED IN PREVIOUS STUDY
BL-A
BL-B
Chiltern Drive
Surbiton Hill Park
Berrylands
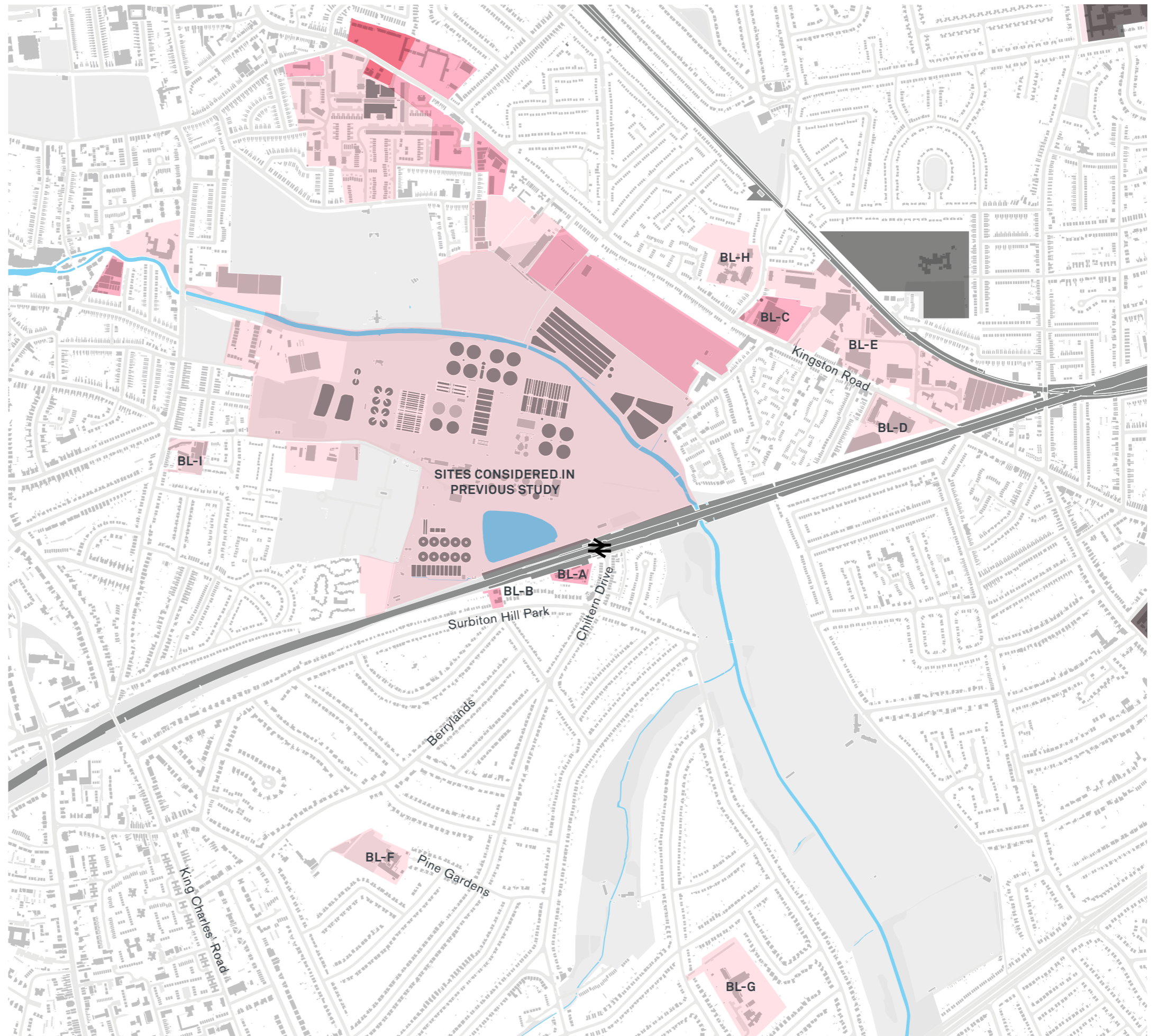King Charles' Road
BL-F   Pine Gardens
BL-G

PTAL RATING

The map opposite illustrates the current PTAL ratings
for each of the opportunity sites in Berrylands. The
majority of the sites have a low to medium PTAL
rating. These PTAL ratings will be significantly
improved by Crossrail 2 services.

KEY

High (4-6)

Medium (2-3)

Low (0-1)

Identified opportunity site included in
other section

District Centre

Borough boundary

* Data sourced from WebCAT provided by Transport
for London

N   0   200m

BL-H

BL-C

BL-E

Kingston Road

BL-D

BL-I

SITES CONSIDERED IN
PREVIOUS STUDY

BL-A

Chiltern Drive

BL-B

Surbiton Hill Park

Berrylands

King Charles Road

BL-F   Pine Gardens

BL-G

INDICATIVE SCENARIO: DENSITY & LAND USE

The indicative scenario shows one of many possible mixes of density that should be considered through onwards work.

KEY

Predominantly residential

Low-medium density: 2-5 storeys

Medium density: 5-10 storeys

High density: 16-20 storeys

Residential-led mixed-use

Low-medium density: 6 storeys

Medium-high density: 7-10 storeys

Commercial-led mixed-use

Low-medium density: 2-5 storeys
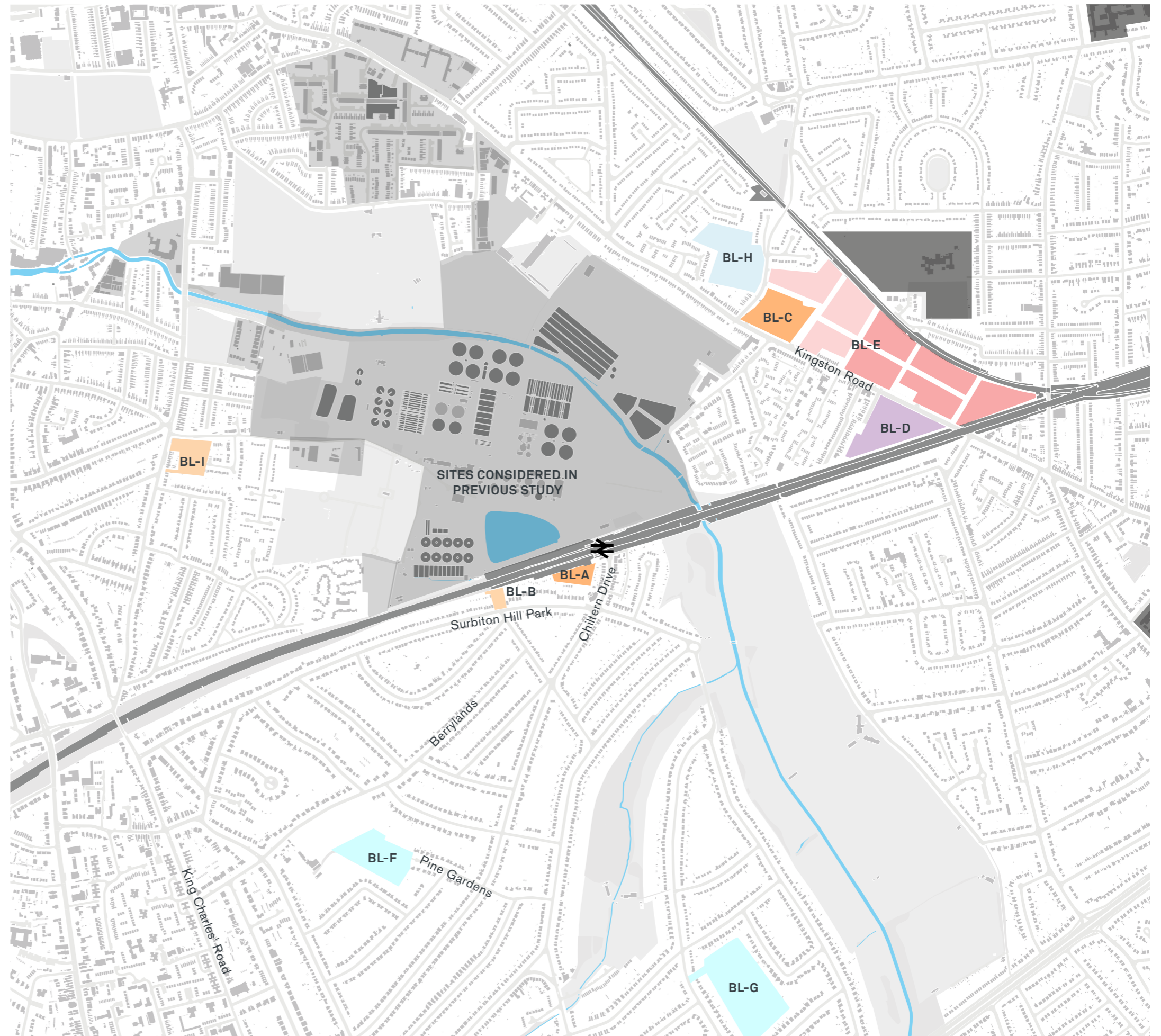
Medium density: 5-8 storeys

High density: 9-16 storeys

Educational-led mixed-use

Low density: <5 storeys

Medium density: 5-8 storeys

High density: 9-12 storeys

Other sites including Sui Generis

Low density: <5 storeys

Medium density: 5-8 storeys

High density: 9-12 storeys

Identified opportunity site included in other section

District centre inset area

* Open space will need to be provided as part of residential developments

N   0   200m

SITES CONSIDERED IN PREVIOUS STUDY

BL-H
BL-C
BL-E
Kingston Road
BL-D
BL-I
BL-A
BL-B
Chiltern Drive
Surbiton Hill Park
Berrylands
King Charles' Road
BL-F
Pine Gardens
BL-G