

# The Warren Waterfront Masterplan, Woolwich

in the Royal Borough of Greenwich

planning application no.13/0117/O

## Strategic planning application stage 1 referral (new powers)

Town & Country Planning Act 1990 (as amended); Greater London Authority Acts 1999 and 2007; Town & Country Planning (Mayor of London) Order 2008

## The proposal

A revised outline application for a mixed-use development of 2,032 residential units and 2,442 sq.m. (gross external area) of non-residential floor space for uses within classes A1, A2, A3, A4, B1 and D1; with associated access, landscaping, publicly accessible open space, car and cycle parking; and storage areas for refuse and recycling. (Permission is sought for the 'scale' and 'means of access' with all other matters reserved for future determination).

## The applicant

The applicant is Barton Willmore, acting on behalf of **Berkeley Homes (East Thames) Ltd** and the architects are **Allies & Morrison**.

## Strategic issues

The principle of a residential-led mixed use development is well established by planning permission, a significant proportion of which is already implemented. Therefore, the key issues for consideration are **housing, design**, impact of the revised **scale** and **massing** on adjoining listed buildings, the **Royal Arsenal Conservation Area**, views and the River Thames; **transport** (including a new Crossrail station), **energy** and the provisions for a **sustainable development**.

## Recommendation

That Greenwich Council be advised that while the application is generally acceptable in strategic planning terms it does not fully comply with the London Plan, for the reasons set out in paragraph 92 of this report; but that the potential remedies also set out in that paragraph could address those deficiencies.

## Context

1 On 28 January 2013, the Mayor of London received documents from Greenwich Council notifying him of a planning application of potential strategic importance to develop the above site for the above uses. Under the provisions of The Town & Country Planning (Mayor of London) Order 2008 the Mayor has until 8 March 2013 to provide the Council with a statement setting out

whether he considers that the application complies with the London Plan, and his reasons for taking that view. The Mayor may also provide other comments. This report sets out information for the Mayor's use in deciding what decision to make.

2 The application is referable under Categories 1A, 1B, 1C and 3F of the Schedule to the Order 2008:

1A- *"Development which comprises or includes the provision of more than 150 houses, flats, or houses and flats."*

1B- *"Development (other than development which only comprises the provision of houses, flats, or houses and flats) which comprises or includes the erection of a building or buildings—  
(c) outside Central London and with a total floorspace of more than 15,000 square metres."*

1C- *"Development which comprises or includes the erection of a building of one or more of the following descriptions—(a) the building is more than 25 metres high and is adjacent to the River Thames."*

3F- *"Development for a use, other than residential use, which includes the provision of more than 200 car parking spaces in connection with that use."*

3 Once Greenwich Council has resolved to determine the application, it is required to refer it back to the Mayor for his decision as to whether to direct refusal; take it over for his own determination; or allow the Council to determine it itself.

4 The Mayor of London's statement on this case will be made available on the GLA website [www.london.gov.uk](http://www.london.gov.uk).

## **Site description**

5 This application relates to some 6.3 hectares of land at the western end of the 15.5-hectare The Warren/former Royal Arsenal redevelopment site, but beyond the historic (Grade II Listed) boundary wall of the former Royal Arsenal and predominantly outside the Royal Arsenal Conservation Area.

6 The site is bounded on the north by the River Thames; on the west by Waterfront Leisure Centre, which abuts and is accessed from the dual-carriage A206 Woolwich High Street; and on the south-west by the western edge of the Beresford Street. To the east, the site is bounded at its southern end by two Grade II Listed Royal Laboratory buildings within Laboratory Square; and at its northern end by the Grade II Listed Royal Military Academy and non-listed Heritage Centre buildings, both of which front onto Parade Ground.

7 Beresford Street forms part of the Strategic Road Network (SRN). The nearest section of the Transport for London Road Network (TLRN) is the A205 John Wilson Street, which meets the A206 at a roundabout 500m to the north-west.

8 Whilst vehicles do not enter the Royal Arsenal, the site is well served by buses and is within walking distance of Woolwich Arsenal DLR and National Rail station. A limited river service to Waterloo Pier is also available. As such it has been demonstrated that the site records a very good public transport accessibility level (PTAL) of 5-6a on a scale of 1-6, where 6 is the highest. The accessibility of the site will also be further improved in the future with the completion of the proposed Crossrail station within the wider Royal Arsenal site.



**Figure 1:** Site location plan showing current application site and the wider masterplan area. (Source: Application drawings supplied by Allied & Morrison Architects.)

## Details of the proposal

9 Determination is sought at this stage for the scale and means of access of the revised development, which would comprise:

- 2,032 one, two and three-bedroom residential units.
- 2,442 sq.m. of commercial/community space, representing a reduction from the 2,853 sq.m. (a difference of 411 sq.m.) previously approved within the current application boundary.
- Associated access arrangements, car and cycle parking provision; recycling and refuse storage facilities; public open space; hard and soft landscaping.

10 The accommodation would be provided in a layout of one linear and three cluster blocks, each comprising a series of tall buildings of varying height, as indicated in figure 2 below:

### A Blocks

11 Blocks A1, A2 and A3 would be sited in the north-west corner of the site, to the immediate east of the Waterfront Leisure Centre. It would range from 13 to 21 storeys, with a three-storey link and the tallest element closest to the River Thames. The blocks would provide 764 apartments and 594 sq.m. of non-residential space for commercial/community use.

### B Blocks

12 Blocks B1, 2 and 3 would be sited in the north-east portion of the site, separated from the Royal Military Academy by the recently approved phase 3 Block C1 to its immediate east. The block would range from 12 to 18 storeys, providing 551 apartments and 166 sq.m. of non-residential space.

### D Blocks

13 Blocks D1, 2 and 3 would be sited directly south of block B and to the immediate west of the Royal Laboratory buildings, which lie within the Royal Arsenal boundary wall. The blocks would vary from 7 to 17 storeys, with a four-storey link along its southern edge fronting the Royal Arsenal Gardens. Block D would provide 945 sq.m. of commercial space on the ground floors and 499 residential units.

### K Blocks

14 The linear formed K blocks (K1-5) would be sited to abut the Royal Arsenal Gardens on the north and the A206 Plumstead Road on the south. The five blocks would vary from 5 to 17 storeys. The K blocks would provide 737 sq.m. of commercial space at ground level, with a potential combined heat and power (CHP) system in block K2; and 218 apartments with private amenity space in the form of roof terraces or balconies on the upper floors.

### The Royal Arsenal Gardens

15 The development would be complemented by a replacement of the existing 1.66-hectare Woolwich Park with a more linear and re-landscaped public amenity space i.e. the 1.77-hectare Royal Arsenal Gardens to linking Plumstead Road to the River Thames Walkway; and which would include a new lawn, piazza and terraces.



**Figure 2:** Indicative block layout plan of the application site. (Source: Design & Access Statement by Allied & Morrison Architects.)

16 The content of the scheme can thus be summarised in the following table:

	<b>Number of apartments</b>	<b>Non-residential (sq.m.)</b>
Block A	764	594
Block B	551	166
Block D	499	945
Block K	218	737
<b>Total</b>	<b>2,032</b>	<b>2,442</b>

## Case history

17 The site has a protracted history, with two previously approved masterplans (2006 and 2008) for a residential-led mixed-use development and reserved matters approvals for individual sites within The Warren/Royal Arsenal development area as a whole.

18 The current 'Waterfront' proposals would form part of a revised masterplan for the phased development of 'The Warren/Royal Arsenal' site to provide 3,711 residential units and 26,362sq.m. of non-residential floorspace; for which outline permission for the 2008 masterplan was eventually issued on 15 February 2011.

19 A significant amount of development, on the eastern half of the site and within the original Royal Arsenal boundary wall/Conservation Area, has either been implemented or approved in detail for imminent implementation. The latter includes 1,679 residential units, of which 528 (31.4%) are allocated as affordable, as shown in the table below:

	<b>total no. of units</b>	<b>affordable units</b>
phase 1	453	300
phase 2	290	0
phase 3	252	29
phase 4	592	199
phase 5	92	0
<b>total</b>	<b>1,679</b>	<b>528</b>

20 However, in the light of inevitable changes in circumstances over the lengthy timescale required to deliver such an extensive project, Berkeley Homes initiated pre-application discussions with GLA officers to effect major revisions to the approved masterplan. These revisions have been triggered by a need to fund and fit out the 'box' for the proposed Woolwich Arsenal Crossrail Station within the site; a need for changes in the configuration of dwellings to meet current London Plan policy requirements (including minimum unit sizes); and a need to alter the scale, height and massing of the blocks to maintain delivery of the originally approved quantum of dwellings, affordable housing and open space within the scheme.

21 A pre-application meeting between representatives of Berkeley Homes and GLA officers took place on 23 October 2012. The key issues arising from that meeting were the need for additional information to assess the visual impact of the revised massing on the adjoining conservation area, the setting of listed buildings, definition of the riverside park and on views from the River Thames. TfL required reassurance that the financial contribution towards fitting out the Woolwich Crossrail Station box would be carried forward by legal agreement.

## Strategic planning issues and relevant policies and guidance

22 The relevant issues and corresponding policies are as follows:

- Regeneration *London Plan; the Mayor's Economic Development Strategy*
- Employment *London Plan; Industrial Capacity SPG; draft Land for Industry and Transport SPG*
- Retail/town centre uses *London Plan*
- Historic Environment *London Plan; World Heritage Sites SPG; Circular 07/09*
- Tourism/leisure *London Plan; Good Practice Guide on Planning for Tourism (DCLG)*
- Housing *London Plan; Housing SPG; Housing Strategy; draft Revised Housing Strategy; Providing for Children and Young People's Play and Informal Recreation SPG;*
- Density *London Plan; Housing SPG;*
- Affordable housing *London Plan; Housing SPG; Housing Strategy; draft Revised Housing Strategy*
- Mix of uses *London Plan*
- Urban design *London Plan;*
- Tall buildings/views *London Plan, Revised View Management Framework SPG*
- Access *London Plan; Accessible London: achieving an inclusive environment SPG; Planning and Access for Disabled People: a good practice guide (ODPM)*
- Transport/parking *London Plan; the Mayor's Transport Strategy; draft Land for Industry and Transport SPG*
- Crossrail *London Plan; Mayoral Community Infrastructure Levy; Crossrail SPG*
- Open land *London Plan;*
- Sustainable development *London Plan; Sustainable Design and Construction SPG; Mayor's Climate Change Adaptation Strategy; Mayor's Climate Change Mitigation and Energy Strategy; Mayor's Water Strategy*
- Blue Ribbon Network *London Plan*

23 For the purposes of Section 38(6) of the Planning and Compulsory Purchase Act 2004, the development plan in force for the area comprises the saved policies of the 2006 Unitary Development and the 2011 London Plan.

24 The following are also relevant material considerations:

- The National Planning Policy Framework and Technical Guide to the National Planning Policy Framework.
- The submission version of the Greenwich Core Strategy with Development Management Policies DPD.
- The draft Revised Early Minor Alteration to the London Plan.

## Land use policy and the principle of development

25 The London Plan identifies Woolwich as an 'Opportunity Area' within the Thames Gateway regeneration area, and its town centre as a 'Major Centre' in the strategic network of town centres. Opportunity Areas provide London's principal opportunities to accommodate large scale

development and substantial numbers of new jobs and housing (each typically more than 5,000 jobs and/or 2500 homes), with a mixed and intensive use of land assisted by good public transport accessibility.

26 The principle of a residential-led mixed use development is established by a grant and substantial implementation of an outline planning permission to develop The Warren and the historic former Royal Arsenal site, amounting to some 15.5 hectares of land in Woolwich. A significant proportion of that scheme has either been implemented or granted detailed permission for implementation.

27 The current application seeks to revise the western part of that site, situated along the River Thames (the Waterfront) in the light of relatively recent changes in the development plan, the applicant's obligation to contribute towards a new Woolwich Arsenal Crossrail station and prevailing economic circumstances.

28 With respect to the non-residential, especially the retail content of the scheme, the retail impact assessment supporting approval of the previous masterplan concluded that:

*"The development will not have an adverse impact upon the vitality and viability of Woolwich Town Centre. On the contrary, due to the Application Site's location within the defined town centre, and the introduction of a new population with significant expenditure available to be spent within it, the proposal will contribute positively to the vitality and viability of the centre."*

## **Housing issues**

### Supply targets

29 London Plan policies 3.3 and 3.4 affirm the Mayor's commitment to increase housing supply by seeking to ensure an annual average provision of 32,210 net additional homes across London over the ten-year period between 2011 and 2021.

30 Borough councils are also required to monitor their housing capacity and provision against the average targets set out in table 3.1 of the London Plan. The borough target for Greenwich is 25,950 new homes, with an annual monitoring target of 2,595 homes.

31 The implementation of the Royal Arsenal development would make a significant contribution to the aims of the Woolwich Opportunity Area and the achievement of the borough housing target over the planned period.

### Density

32 If the view were taken that the extensive (1.77 hectare), but publicly accessible Royal Arsenal Gardens is non-ancillary open space and subsequently excluded from the net residential area, housing within the Waterfront masterplan area would be delivered at the relatively high density of 698 units per hectare; which is significantly above the indicative range of 215-405 units/hectare provided in the London Plan density matrix, even for a site in a central location with an excellent public transport accessibility level of 5-6a.

33 On the other hand, if the Royal Arsenal Gardens is classed as ancillary open space and included in the net residential area, as recommended in paragraph 3.31 of the London Plan, the residential accommodation would be calculated at 388 units per hectare. This is closely comparable to the density of 402 units per hectare previously approved (2008) for The Warren/Royal Arsenal masterplan site as a whole.



## Housing quality

34 London Plan Policy 3.5 promotes quality in new housing provision and sets out minimum space standards at Table 3.3. The Mayor has produced a new Housing SPG on the implementation of Policy 3.5 for all housing tenures, drawing on his London Housing Design Guide. Paragraphs 3.37–3.39 provide further guidance on the indicators of quality covered in the SPG.

35 This outline application seeks consent for the scale/massing and means of access for the development, the detailed layout and plans provided in the accompanying design and access statement are therefore, merely indicative. Nonetheless, as indicated in paragraph 20 above, the need to fulfil current requirements of the London Plan and the minimum internal space standards in particular, are contributory factors in the decision to revise the approved masterplan as proposed.

36 The planning and design and access statements provide written assurance that the accommodation would be designed to meet the criteria set out in policy 3.5 and the London Housing Design Guide including the minimum apartment sizes, number of units per core and the orientation of the dwellings. In particular, those documents specify that above ground floor, the cores would be separate rather than linked, with each serving 5 to 9 apartments but more typically 6 to 7 units. In addition, the blocks are sited to exclude any north-facing single-aspect units. The majority of units orientated to provide east-west or dual aspect accommodation; representing a significant improvement over the approved masterplan, which included blocks orientated such that the inclusion of some north-facing single aspects flats was almost inevitable.

37 The accompanying documents also confirm that all the dwellings would be built to comply with the 16 Lifetime Homes criteria, with 10% of them designed or easily adaptable to wheelchair accessible standards.

## Affordable housing

38 Policy SH5 of the Greenwich UDP states that the Council would seek to ensure that at least 35% of the dwellings provided between 1997 and 2016 are affordable to those on low and lower incomes; whilst on individual sites, policy H.14 advises that developments offering 15 or more units, or residential sites of 0.5 hectare or more, would be expected to provide a significant element of affordable dwellings on site, with the exact percentage, distribution and type of affordable housing determined by the particular circumstances and characteristics of the site, subject to the completion of an affordable housing viability assessment. Similarly, Greenwich Council's Submission Core Strategy and Development Management Policies DPD (policy H3) requires that developments of 10 or more homes and residential sites of 0.5 hectares should include at least 35% affordable housing.

39 It is pertinent to note that the legal agreement associated with the outline permission for the 2008 masterplan provides that 25% (928) of the total housing provision (3,711 units) should be affordable; and within that, one third should be allocated for social renting, one third for shared ownership and one third as key worker housing.

40 Berkeley Homes proposes to maintain that level of affordable housing provision across the masterplan area as a whole; however, given that phases 1 to 5 of the masterplan development including 528 affordable units have either been delivered or granted detailed consent for imminent delivery, an additional 400 affordable units is required to fulfil that obligation. Of the latter, it is proposed that the Waterfront masterplan would include 348 affordable dwellings on site. It is also proposed that a reserved matters application would be submitted for the delivery of 52 more affordable units within phase 4 (the over-station development). This is in addition to the 199



affordable units previously approved in respect of phase 4 (see table at the end of paragraph 18 above) and would bring the affordable housing provision to 25% as required in the original legal agreement.

41 These proposals should be brought forward and secured by revised or supplementary legal agreement between Greenwich Council and Berkeley Homes.

### Housing choice

42 London Plan Policy 3.8 and the associated supplementary planning guidance promote housing choice and seek a balanced mix of unit sizes in new developments. In particular, the revised London Housing Strategy sets out that 36% of affordable rented homes allocated funding in 2011-15 should have three or more bedrooms.

43 Given the outline nature of this application, Berkeley Homes has indicated that the precise mix of new units would be the subject of a future “reserved matters” application taking account of discussions with a registered provider and prevailing market conditions. The applicant has, however, provided the following indicative mix of units to demonstrate the form of development likely to be delivered to meet the London Plan policy and its associated objectives:

dwelling type	social rented	intermediate	market
‘Manhattan’ (1b1p)	0	0	15%
1 bed (2 pers.) flat	30%	78%	32%
2 bed (3 pers.) flat	26%	7%	18%
2 bed (4 pers.) flat	4%	15%	25%
3 bed (5 pers.) flat	40%	0	9%
3 bed (6 pers.) flat	0	0	1%
	<b>100%</b>	<b>100%</b>	<b>100%</b>

44 As the table shows, the aspiration at this stage is that some 40% of the social rented housing provision would be three-bedroom units for occupation by families of five.

### **Children’s play space**

45 The lack of a specified breakdown of the unit mix for this scheme prevents use of the methodology provided in the Mayor’s supplementary planning guidance *‘Providing for Children and Young People’s Play and Informal Recreation’* to estimate the number of children likely to reside within the development.

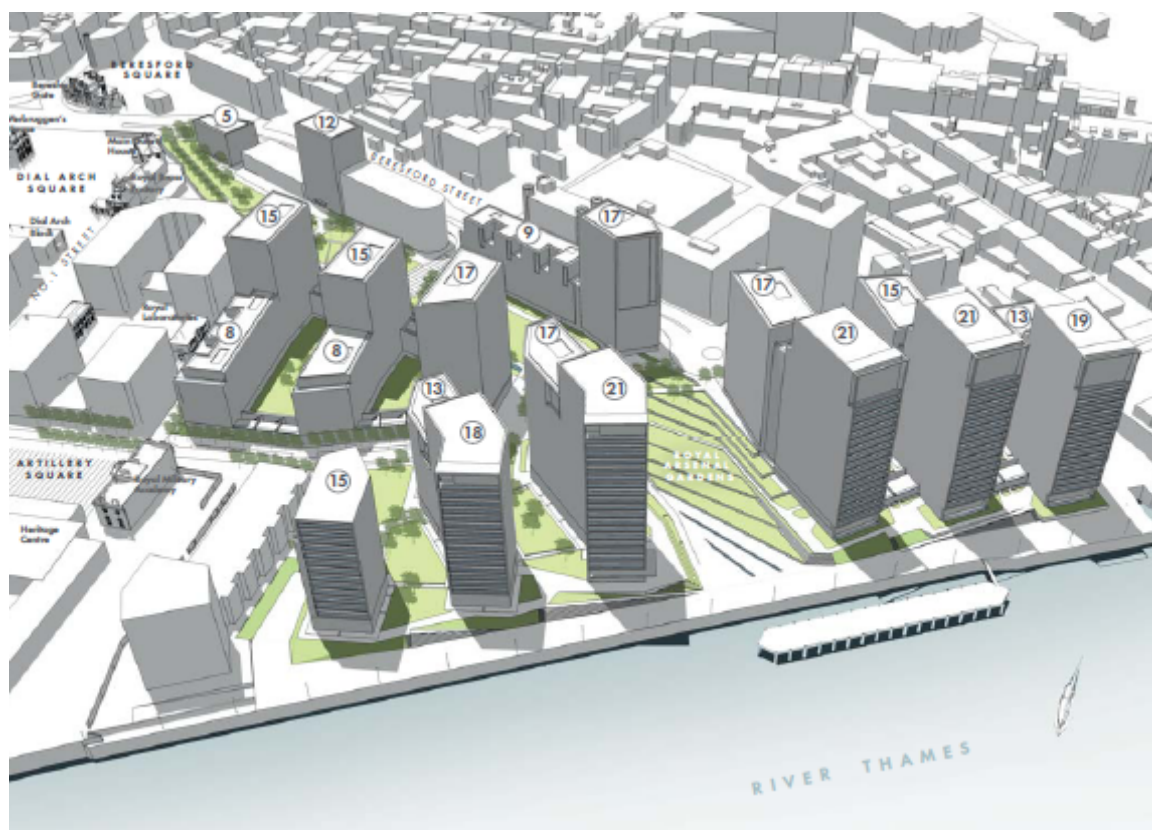
46 However, specific provision is made within the courtyard areas of the blocks for doorstep landscapes for 0 to 4 year-olds, some local and neighbourhood play space for 5 to 11year-olds, and youth space for children above 12; all of which would be integrated into an overall open space strategy that includes the proposed 1.77 hectare Royal Arsenal Gardens. The latter represents an increase in size over the 1.66-hectare space provided in the previously approved (2008) masterplan.

47 It is therefore likely that the play space provision for the development would exceed the benchmark requirement specified in the Mayor’s SPG.

## Urban design

48 The proposal has been commented on at pre-application stage and its design was generally supported. Increasing the size of the Royal Arsenal Gardens to 1.7 ha is particularly welcomed and the increase in bulk and massing of the scheme allows for all consented units to meet the London Plan unit size requirements, which is also supported. GLA officers are satisfied that this will not have a detrimental impact on the conservation area and surrounding listed buildings.

49 Most concerns raised at pre-application stage have been addressed, in particular the provision of lower blocks that provide activity and enclosure on to new streets and create a clear threshold between the public realm and the communal courtyards, which is welcomed. Plot B is the only location where this strategy has not been applied and so care will need to be taken in designing the boundary treatment between the public and private realm, so as not to undermine the privacy of the courtyards or the security and activity of the public spaces.



**Figure 3:** Schematic view from the south illustrating the proposed scale, massing and number of storeys for each new block within the development. (Source: Design & Access Statement by Allied & Morrison Architects.)

50 The design codes and parameter plans are simple and clearly presented, which is welcomed. They secure a number of aspects critical to the quality of the scheme whilst allowing a good level of flexibility to the detailed design of the blocks in the future. However, a small number of elements require further work to ensure

51 There is concern that there is nothing to ensure that Block K will provide a decent quality frontage on to Royal Arsenal Gardens. Code K.3.3 sets out how all servicing and refuse storage should be located along the Royal Arsenal Gardens, which could undermine the quality of the park. The applicant is advised to consider how good quality frontage can be provided to both sides of this block and how the codes can ensure this is implemented.

52 There is also concern that the western edge of Plot A, which flanks the closest route between High Street and the riverfront is identified as a servicing route. This is potentially an important link to the riverfront and if it is dominated predominantly by access to the car park and servicing, the importance and quality of this space could be undermined. The applicant should set out how access to the car park can be provided from here without undermining the quality of the space.

53 Overall the masterplan is of a high quality, clearly conceived and articulated. The development should bring a density and intensity of development that complements the town centre and can sustain a genuine mix of uses on the site.



**Figure 4:** Schematic view from the north illustrating the proposed scale and massing of development.  
(Source: Design & Access Statement by Allied & Morrison Architects.)

## Transport for London's comments

### Site access

54 The site accesses would remain as approved within the 2008 Royal Arsenal Masterplan:

- The Macbean Street/Beresford Street/ Warren Lane junction would provide the main access point for the site.
- A secondary route, primarily for servicing, would be via an existing route serving the completed Royal Arsenal development from the A206 to the east of the site.
- A third access for servicing and to a proposed underground car park would be located at the Bell Water Gate/A206 junction on the site's western edge.

55 These works will be subject to the completion of a S278 agreement with the Council and in the case of signals, approval from TfL under the Highways Act 1980.

### Trip generation and highway impact

56 TfL is aware that the transport capacity implications for the wider Royal Arsenal development were fully considered in the 2008 transport assessment, which included an assessment using TRANSYT models, and which was approved by TfL.

57 TfL welcomes the comparison in the transport assessment of the base year traffic flows used in the 2008 TRANSYT assessment with the traffic data collected in 2012. This demonstrates that the 2012 traffic flows are lower than or similar to the base year flows used in 2008.

58 It is understood that work is currently underway, supported by a new TRANSYT model, on the detailed design of the main Beresford Street access. TfL requests access to this updated TRANSYT model to enable confirmation that the highway impact of the development remains acceptable. TfL would also wish to feed into the design work as soon as possible.

### Car parking

59 894 car parking spaces (754 for the residential units and 140 public parking spaces) are proposed. These will include 163 (18%) blue badge parking spaces. TfL welcomes the significant decrease in parking (by 455 spaces) from that proposed in the 2008 Royal Arsenal Masterplan for the Waterfront site. The level of residential car parking provision now equates to a ratio of 0.37 spaces per unit and is therefore compliant with London Plan policy 6.13 and the standards as detailed in Table 6.2.

60 The London Plan does not have standards for public parking provision, which would generally be discouraged in favour of promoting sustainable transport options. However, there is an existing requirement to provide a minimum of 210 public parking spaces across the wider Royal Arsenal site to support town centre vitality by replacing provision lost in the town. The 140 spaces proposed in the Waterfront site together with 72 existing elsewhere at Royal Arsenal would satisfy this requirement.

61 As with earlier phases of the Royal Arsenal development, a site specific car park management plan will be developed at detailed application stage for each phase of the development. This should include proposals to manage both the residential and public car parking and should be secured by condition.

62 The accompanying transport assessment report states that details of the provision of electric vehicle charging points will be provided within reserved matters applications for each phase of the development and levels of provision will be in line with London Plan standards. This provision and approach should be secured by condition. TfL also requests consideration of provision for motorcycle parking in line with London Plan policy 6.13.

### Walking and cycling

63 TfL recommends that the site is integrated with the TfL Legible London network to improve way-finding between the town centre and the River Thames through the site. TfL would expect the applicant to contribute towards this signage via the s106 agreement.

64 2,251 cycle spaces are proposed for the Waterfront site which is in line with London Plan standards, and should be secured by condition. Cycle parking should be located in secure and covered areas, and TfL requests showers and lockers be provided within the commercial units to promote cycling amongst staff.

65 The transport report also states that the development proposals will result in new cycle journeys being generated, particularly on the National Cycle Network 1 (NCN1), which runs alongside the River Thames. The 2008 proposals allowed for a new shared use facility running through the proposed park, linking with the proposed Crossrail station and the existing cycle route on Number 1 Street. This is maintained within this application and is supported by TfL.

66 Barclays Cycle Superhighway Route 4 (CSH4) is to be introduced from London Bridge to Woolwich by 2015. CSH4 will aim to strengthen and improve cycle linkages with the NCN1 and into the Royal Arsenal at No 1 Street and Warren Lane. Due to the potential interaction of CSH4 with the Waterfront site, TfL requests further discussion with the applicant on how the CSH4 works could be linked to their proposal for the park. The estimated costs of the CSH4 works serving the site is £150,000 and TfL requests a contribution towards this cost, or works in kind, from the applicant in line with London Plan policy 6.9.

#### Land for transport infrastructure

67 The applicant is reminded that there is a safeguarding for a Vessel Traffic Service Upstream Radar Facility within the Royal Arsenal development, albeit the current safeguarded location is outside the application site.

68 The applicant has committed to safeguarding the Crossrail Alignment Route and this is supported by a proposed condition acceptable to TfL.

#### Travel plan

69 The transport assessment states that residential and commercial travel plans will be developed for each phase at the detailed application stage and will be in line with the overall Royal Arsenal 'Interim Travel Plan' approved in 2008. This is supported by TfL and should be secured by an appropriate planning condition.

#### Construction, deliveries and servicing

70 TfL requests the submission of a delivery and servicing plan and construction logistics plan for the site or by phase, which should be secured by condition in line with London Plan policy 6.14. The delivery and servicing plan should be linked to the servicing plan for wider Royal Arsenal development.

71 TfL requests the applicants to investigate the use of the Thames for the movement of construction materials and waste to and from the site, in line with London Plan policy 6.14.

#### Planning obligations

72 Discussions continue with the applicant and the Council over the funding of the fit out of the Crossrail station at Woolwich, which lies within the wider Royal Arsenal development. The applicant has indicated that they would be prepared to make a contribution and TfL is currently in negotiations to secure a funding package by summer 2013 for these works.

73 TfL confirms the area around Woolwich Crossrail station was excluded from the 'Use of planning obligations in the funding of Crossrail' (July 2010 and revised consultation draft November 2012) Supplementary Planning Guidance (SPG). The priority for this area is to secure s106 contributions for the funding of the station fit out.

74 In accordance with London Plan policy 8.3, the Mayor agreed to commence Community Infrastructure Levy (CIL) charging for developments permitted on or after 1 April 2012. The

proposed development is within the Royal Borough of Greenwich, where the Mayoral charge is £35 per square metre Gross Internal Area (GIA). The level of Mayoral CIL payable on the consented development (which is triggered through this updated application) is a factor in the ongoing discussions about the fit out contribution from the applicant.

## **Summary**

75 Overall, TfL has no significant objections to the principle of the proposed development. However, TfL considers that further work is required by the applicant with respect to: modelling and design of the main Beresford Street access; support for the implementation of Cycle Superhighway 4 in Woolwich; a contribution towards Legible London signage; and commitment towards Crossrail-related planning obligations, in order to comply with the transport policies of the London Plan.

## **Energy provisions**

### **Be Lean**

#### Energy efficiency standards

76 A range of passive design features and demand reduction measures are proposed to reduce the carbon dioxide emissions of the proposed development. Both air permeability and heat loss parameters will be improved beyond the minimum backstop values required by building regulations. Other features include mechanical ventilation with energy efficiency lighting. The demand for cooling will be minimised through the use of high performance glazing.

77 The development is estimated to achieve a reduction of 8 tonnes per annum (0.4%) in regulated carbon dioxide emissions compared to a 2010 Building Regulations compliant development, as shown in the table below.

### **Be Clean**

#### District heating

78 The site is current served by the Royal Arsenal Riverside district heating network. The applicant should continue to prioritise connecting to the existing energy centre prior to adoption of any second energy centre on the site.

79 Details of correspondence with Scottish and Southern Energy (the operator) setting out whether the existing energy centre has sufficient capacity to serve the proposed scheme should be provided. In the event that the existing energy centre has sufficient capacity, the GLA expects this approach to be adopted.

80 The applicant proposes to install a site heat network linking all apartments and non-domestic building uses will be connected to the site heat network. A drawing showing the route of the heat network linking all buildings on the site to the existing Royal Arsenal energy centre located on Arsenal Way should be provided. The applicant should provide a drawing showing the layout of the existing energy centre.

#### Combined heat and power

81 The applicant proposes to install an 800kWe (918kWth) gas-fired combined heat and power (CHP) unit as the lead heat source for the site heat network. The CHP is sized to provide the domestic hot water load, as well as a proportion of the space heating. A reduction in regulated

carbon dioxide emissions of 1004 tonnes per annum (49%) will be achieved through this second part of the energy hierarchy (see table below).

82 The applicant should confirm that the CHP size proposed represents additional capacity over and above that on the existing site.

## Be Green

### Renewable energy technologies

83 The applicant has investigated the feasibility of a range of renewable energy technologies but is not proposing to install any renewable energy technology for the development.

## Overall carbon dioxide savings

84 Based on the energy assessment submitted at stage I, the table below shows the residual carbon dioxide emissions after each stage of the energy hierarchy and the carbon dioxide emission reductions at each stage of the energy hierarchy.

Table: CO<sub>2</sub> emission reductions from application of the energy hierarchy

	Total residual regulated CO <sub>2</sub> emissions (tonnes per annum)	Regulated CO <sub>2</sub> emissions reductions	
		(tonnes per annum)	(per cent)
Baseline i.e. 2010 Building Regulations	2,067		
Energy efficiency	2,059	8	0.4
CHP	1055	1004	49
Renewable energy	1055	0	0
		1,012	49

85 A reduction of 1,012 tonnes of CO<sub>2</sub> per year in regulated emissions compared to a 2010 Building Regulations compliant development is expected, equivalent to an overall saving of 49%.

## Other sustainability issues

### Flood risk

86 The Flood Risk Appraisal confirms that the majority of the site is within Zone 1 with some limited areas within zones 2 and 3a. There is no plan which overlays the site boundary with the Environment Agency (EA) flood risk map – this makes assessing the extent of the site within zones 2 & 3a difficult – especially as the site map and EA maps are at different scales.

87 The flood risk appraisal also confirms that the site is protected from flooding to a high standard by the Thames Barrier and associated river walls. It also suggests that the river defences will be set back, creating an additional 2,343 cu.m. of tidal flood storage and enabling defences to be raised to 8.8m above ordnance datum (AOD) to meet flood risk management needs over the next century.



88 There are small areas of residential development within flood zones 2 and 3a. For the residual risk in these areas, finished floor levels would be raised, a safe dry access route has been identified, and a flood emergency plan is recommended.

#### Surface Water Run-off

89 The flood risk appraisal states that the development will include brown roofs and a total of 1.8 hectares of permeable landscaping. The surface water will discharge directly to the River Thames. This approach is considered to be acceptable within the London Plan Sustainable Drainage hierarchy contained within Policy 5.13. The appraisal discusses attenuation, but it is not considered necessary to attenuate surface water flows to the tidal Thames. Given the location and slope of the site, no surface water should be discharged to the combined or local sewers. Consideration may be given to opportunities for rainwater harvesting. These measures should be secured via an appropriate planning condition.

### **Local planning authority's position**

90 Greenwich Council officers support the revised masterplan in principle and intend to report it to the March or April meeting of the Council's Planning Board with a likely recommendation for approval.

### **Legal considerations**

91 Under the arrangements set out in Article 4 of the Town and Country Planning (Mayor of London) Order 2008 the Mayor is required to provide the local planning authority with a statement setting out whether he considers that the application complies with the London Plan, and his reasons for taking that view. Unless notified otherwise by the Mayor, the Council must consult the Mayor again under Article 5 of the Order if it subsequently resolves to make a draft decision on the application, in order that the Mayor may decide whether to allow the draft decision to proceed unchanged, or direct the Council under Article 6 of the Order to refuse the application, or issue a direction under Article 7 of the Order that he is to act as the local planning authority for the purpose of determining the application and any connected application. There is no obligation at this present stage for the Mayor to indicate his intentions regarding a possible direction, and no such decision should be inferred from the Mayor's statement and comments.

### **Financial considerations**

92 There are no financial considerations at this stage.

### **Conclusion**

93 London Plan policies on regeneration, housing, design, impact on the historic environment, transport, energy and sustainability are relevant to this application. In general, the application complies with these policies, for the following reasons:

- **Regeneration:** This scheme makes a significant contribution to ongoing regeneration of Woolwich and the delivery of Crossrail.
- **Affordable Housing:** 25% of affordable housing supplied.
- **Children's play space:** Whilst the quantum is likely to be met, the location and quantum of specifically designated children's play spaces should be indicated on a plan to allow accurate

assessment against the benchmark figure specified in the London Plan and supplementary planning guidance on play space.

- **Design:** is of a high quality .
- **Transport:** TfL has no objection to these proposals but reminds the applicant that further work is required, including: the modelling and design of the main Beresford Street access; support for the implementation of Cycle Superhighway 4 in Woolwich; a contribution towards Legible London signage; and commitment towards Crossrail-related planning obligations.
- **Energy:** The energy provisions are broadly in line with the London Plan energy hierarchy but applicant is required to confirm or provide additional details to ensure that the strategy is sufficiently robust and fully compliant with policy requirements.
- **Flood risk/surface water:** Full consideration should be given to the flood risk and surface water run-off measures identified in this report and the necessary safeguards secured by appropriate planning conditions.

---

for further information, contact Planning Decisions Unit:

**Colin Wilson, Senior Manager - Planning Decisions**

020 7983 4783 email [colin.wilson@london.gov.uk](mailto:colin.wilson@london.gov.uk)

**Justin Carr, Strategic Planning Manager (Development Decisions)**

020 7983 4895 email [justin.carr@london.gov.uk](mailto:justin.carr@london.gov.uk)

**David Blankson-Hemans, Senior Strategic Planner (Case officer)**

020 7983 4268 email [david.blankson-hemans@london.gov.uk](mailto:david.blankson-hemans@london.gov.uk)

---