Surrey Canal:
London's Sporting Village

Transport Assessment Addendum

Project Ref: 17004/020

July 2011

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Document Control Sheet

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Date: **July 2011**

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Revision	Date	Description	Prepared	Reviewed	Approved

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1 Introduction

1.1 Background

1.1.1 Renewal New Bermondsey Two Ltd (hereafter known as 'Renewal') submitted a planning application for the development of Surrey Canal in January 2011 (ref. DC/11/76357/X). A Transport Assessment (TA) was undertaken by Peter Brett Associates LLP (PBA) and was submitted to support the planning application.

1.1.2 Following submission of the application, PBA has undertaken an extensive consultation exercise with Transport for London (TfL) and London Borough of Lewisham (LBL) to reach agreement on the transport related aspects of the application. Further consultees include the London Borough of Southwark (LBS), Millwall Football Club (Millwall FC) and a number of local businesses.

1.1.3 This Transport Assessment Addendum (TAA) report provides further clarification on aspects of the submitted TA and additional information with regards to transport issues in light of the comments received from stakeholders and amendments to the scheme. It also brings together into one document the matters which have been agreed with the various stakeholders subsequent to the application.

1.2 Existing Site Context

1.2.1 The Application Site is located within the Lewisham-Catford-New Cross Opportunity Area in the London Plan (Section 5D South East London). Opportunity Areas are the capital's brownfield land which have "significant capacity to accommodate new housing, commercial and other development linked to existing and potential improvements to public transport". The Site is on the western edge of the Thames Gateway Corridor and is located within easy reach of Canary Wharf. It is situated immediately to the south-east of South Bermondsey railway station and is bounded by railway lines to the north, east and west, and Rolllins Street to the south.

1.3 Proposed Development Context

1.3.1 The Proposed Development is for a mixed use development including retail, business, hotel/ conference, residential, community and leisure and assembly uses. It will result in a sustainable community, a destination in its own right which will form a new part of the existing local fabric and community. It seeks to create an attractive and more accessible environment in which to live, work and visit and will deliver accessibility benefits to the existing community.

1.4 Stakeholder Consultation and Issues Raised by TfL, LBL and LBS

1.4.1 Following submission of the planning application in January 2011, TfL, LBL and LBS have all provided comments on the transport aspects of the Proposed Development. A comprehensive list of comments from TfL and LBL has been compiled into a table of responses and PBA has responded in turn to each. This table has been issued to both TfL and LBL on an on-going basis and further comments were subsequently submitted by both TfL and LBL which are addressed in this report. The table is contained in Appendix A.

1.4.2 The post-application consultation with stakeholders has included a series of meetings to discuss their comments and to aid the development of solutions which could be agreed in principle by all parties.

1.4.3 As part of the consultation process TfL and LBL requested clarification and additional information with respect to the following aspects of the TA:

- Further data in relation to traffic surveys, cycle time surveys and traffic flows that formed the basis of the highway capacity analyses which are discussed in sections 6, 8 and 10 of the TA;
- Clarification in methodology used for the determination of trip rates, mode split and distribution of rail and bus services to supplement section 9 of the TA;
- Revisions of the PTAL calculations to take into account TfL's threshold walking distances and the phasing of development and transport improvements. Development of a bus strategy (including routing, facilities and interchange) with TfL. These replace sections 11.2 and 11.4 of the TA;
- Further details on Renewal's commitment to the delivery of the new Surrey Canal Rail Station to supplement section 11.3 of the TA;
- Further clarification and justification on the levels of proposed car parking to supplement the information outlined in sections 7.4 and 11.6 of the TA, including the provision of coach parking, cycle parking and match day parking for Millwall FC;
- Amendments to the Parameter Plan 10 Access, Circulation and Streets (included in the 'Drawings' section of the TA) to take into account a revised bus strategy and comments from stakeholders;
- Further details on Renewal's commitment to the delivery of pedestrian improvements to supplement section 7.3 and 11.1 of the TA;
- Amendments to the highway capacity analyses in line with comments from TfL and LBL regarding inputs into the model to replace parts of sections 6, 8 and 10 of the TA;
- Further consideration regarding travel to and from the Proposed Development on match days; and
- Production of stand alone Travel Plans including a Framework Travel Plan to supplement section 11.8 of the TA.

1.5 Stakeholder Consultation and Issues Raised by Millwall FC

1.5.1 Millwall FC has responded to the planning application for the Proposed Development as part of the consultation. Millwall FC has made a number of comments with regards to transport in the Proposed Development. The full responses are contained in Appendix B.

1.5.2 Millwall FC raised concerns over safe access and egress of home and away supporters with the Proposed Development and require a scheme that will enable them to operate under the terms of the safety certificate that is currently in place. The key concerns outlined in their consultation are as follows:

- Level and location of coach parking;
- Provision of parking for television and emergency services;
- Capacity of routes at south-west and south-east corner of the stadium;
- Queuing during peak ingress due to turnstile queuing; and

- Queuing outside east stand during emergency evacuation in excess of the safe holding capacity (unless segregation is maintained or evacuation onto the pitch is considered).

1.5.3 Millwall FC also stated that in the future, they require a possible increase in stadium capacity to be safeguarded in line with their representations to LBL's Core Strategy.

1.6 Stakeholder Consultation and Issues Raised by Local Businesses

1.6.1 A number of local businesses in the area have responded to the planning application, these responses are included in Appendix C. The key concerns in terms of transport for these businesses are as follows:

- Loss of Bolina Road access for heavy vehicles to support waste and recycling businesses along Bolina Road east of the railway lines; and
- Possible affected operation of businesses during construction phases.

1.6.2 These issues have been discussed during consultation meetings between Renewal and LBL. Access via Bolina Road for heavy vehicles is discussed in section 7.12 of this report. Details relating to construction are included in the 'Demolition and Construction' chapter of the Environmental Statement (summarised and referenced in section 13 of the TA).

1.7 Land Ownership

1.7.1 Further to the consultation responses above, TfL, LBL and Renewal have been in discussion regarding the potential use of land safeguarded for the East London Line Extension Phase 2 (ELLE).

1.7.2 TfL has agreed to look 'in principle' at provision of land to the east of Excelsior (adjacent to the ELLE) to construct an access road to facilitate a transport interchange associated with the Surrey Canal Road Rail Station.

1.7.3 A fall back bus routing option has been developed along with related physical works within the Planning Application boundary should the land to the east of Excelsior not be available to construct the proposed access road. This fall back option provides for satisfactory interchange and is shown in the inset of the revised Parameter Plan 10.

1.8 Resolution of Issues

1.8.1 The matters highlighted in sections 1.4 to 1.7 of this report have been discussed with TfL, LBL and other stakeholders. These points have been resolved and agreed in principle with TfL, LBL and relevant stakeholders and any changes to the original TA are stated in this report.

1.9 Amendments to the Scheme

1.9.1 The Proposed Development which was assessed within the TA was for up to 250,000 square metres gross external area (GEA) of mixed use development floor space. Following the submission of the planning application in January 2011 and consultation with the local authorities (TfL, LBL and LBS), Millwall FC and local businesses, the development quantum for the Proposed Development and the illustrative scheme used to assess the transport impacts of the Proposed Development has been revised. The amendments include reductions in the levels of development for a number of land uses, which results in lower overall levels of development than when the planning application was made in January 2011.

1.9.2 The changes to the Proposed Development quanta are outlined in Table 1-1 and show a reduction in maximum development quantum from 250,000 square metres GEA to 240,000 square metres GEA.

Table 1-1: TA Proposed Level of Development

Land Use	Development Level in original TA (January 2011)	Revised Development Level (July 2011)	Change from original TA Maximum Development Level
A1/A2 Retail	up to 3,600 square metres (maximum size of 1,000 square metres per unit)	up to 3,000 square metres (maximum size of 1,000 square metres per unit)	Maximum reduced by 600 square metres or 16.6%
A3/A4 Cafes/ Restaurants and Drinking Establishments	up to 3,500 square metres	up to 3,000 square metres	Maximum reduced by 500 square metres or 14.3%
A5 Hot Food Takeaways	up to 300 square metres	up to 300 square metres	Unchanged
B1 Business	10,000 to 15,000 square metres	10,000 to 15,000 square metres	Unchanged
C1 Hotels	up to 15,000 square metres	up to 10,000 square metres	Maximum reduced by 5,000 square metres or 33.3%
C3 Residential	150,000 to 200,000 square metres (up to 2,500 units)	150,000 to 190,000 square metres (up to 2,400 units)	Maximum reduced by 10,000 square metres (up to 100 units) or 5%
D1 Community	400 to 10,000 square metres	400 to 10,000 square metres	Unchanged
D2 Leisure and Entertainment	4,120 to 15,800 square metres	4,260 to 15,800 square metres	Minimum increased by 140 square metres
TOTAL	250,000 square metres	240,000 square metres	Maximum reduced by 10,000 square metres

Source: Revised Development Specification 01/07/2011

1.9.3 The total level of development for the illustrative scheme has reduced by approximately 5% from 237,905.2 square metres (GEA) to 226,100.1 square metres (GEA). Table 1-2 below shows how the individual land uses have changed in the illustrative scheme:

Table 1-2: Revised Proposed level of Development in Illustrative Scheme

Land Use	Illustrative Scheme Development in TA (January 2011)	Illustrative Scheme Development (July 2011)	Change from Illustrative Scheme in TA (January 2011)
A1/A2 Retail	6,462.8 square metres	5,671.6 square metres	Reduced by 791.2 square metres or -12.2%
A3/A4 Cafes/ Restaurants and Drinking Establishments			
A5 Hot Food Takeaways			
B1 Business	10,044.8 square metres	10,025.5 square metres	Reduced by 19.3 square metres or negligible change
C1 Hotels	9,928.7 square metres	7,633 square metres	Reduced by 2,295.7 square metres or -23.1%
C3 Residential	188,538.2 square metres	179,979.6 square metres	Reduced by 8558.6 square metres or -4.5% (reduced by 100 units)
D1 Community	9,230.1 square metres	9,089.8 square metres	Reduced by 140.3 square metres or -1.5%
D2 Leisure and Entertainment	13,700.6 square metres	13,700.6 square metres	No change
TOTAL	237,905.2 square metres	226,100.1 square metres	Reduced by 11,805.1 square metres

Source: revised 17 SEW Schedule

1.9.4 With the reduction in the maximum level of development by 4% and the illustrative scheme development by approximately 5% from the January 2011 TA, fewer trips now will be associated with the development. The trip forecasts used in the assessments have however not been revised downwards. Therefore, the assessment is based upon a robust or worst

case assessment of transportation impact. This will be discussed further in section 3.5 'Trip Generation for Revised Development Levels'.

1.10 Status of the January 2011 Transport Assessment

1.10.1 The purpose of this section is to outline which sections of the TA remain unchanged, which have been supplemented by information within this report, and which sections have been superseded by this report.

1.10.2 This report provides information which either supersedes or provides further clarification on a number of sections within the submitted TA. The two reports should be considered together and not treated as independent reports.

- **Introduction** – No change. See original TA (January 2011)
- **Transport Planning Policy** – No relevant policy changes. See original TA (January 2011)
- **On-Site Baseline Conditions** – Remains largely unchanged, but supplemented with further supplementary information below:
    - Section 3.1 of the TA (January 2011) should state that the following existing businesses are being retained: Guild House (Excelsior 2), Excelsior 5 and the Lion's Centre (the facilities of which are being re-provided within the scheme);
    - Section 3.1 of the TA (January 2011) should also include the following: "Some of the residents of Excelsior and Rollins House have car parking as part of their lease (though the car parking is not physically identifiable). The total car parking spaces for these uses is 6. Renewal will commit to re-providing these car parking spaces. For clarity these spaces are being re-provided and are not proposed parking spaces"; and
    - Additional information, including crowd movement information provided by Millwall FC, to supplement section 3.4 'Millwall FC Access' of the TA (January 2011) is provided in section 12.2 of the TAA (July 2011).
- **Sustainable Accessibility** – Remains largely unchanged, but supplemented with further information and small sections superseded by TAA. See original TA (January 2011) and supplementary/superseded information below:
    - Paragraph 4.1.7 of the TA (January 2011) should read: 'Pedestrian activity in and around the Site increases significantly on days when there is a match at Millwall FC. Observational studies prior to the Millwall FC vs. Middlesbrough game on 24th August 2010 show that 4906 fans arrived at the grounds. The predominant access point for fans to Millwall FC during the Millwall FC vs. Middlesbrough games was via Zampa Road with 40.1% of fans observed travelling to the ground along this route. It is noted however that this route, like the route to the east of the stadium, is restricted to pedestrians only on match days and is controlled by the police and match day stewards, therefore a high proportion of pedestrian activity is not considered to be a significant issue.'; and
    - Table 4-5 of the original TA (January 2011) is replaced by Table 5-1 of the TAA (July 2011).
- **Highway Access** – Remains largely unchanged, but section 5.5 of the original TA (January 2011) is superseded by the TAA (July 2011):

- Bullet point list in paragraph 5.5.1 of the original TA (January 2011) should read as follows: Arklow Road, Cannon Wharf, Convoys Wharf, Creekside Village East and West, Giffin Street, Grinstead Road, Kent and Sun Wharf, Oxestalls Road, Marine Wharf East, Marine Wharf West, Seager, Waste Transfer Facility, Canada Water Sites A to C, Plough Way and Surrey Quays Leisure Centre.

- **2010 Baseline Capacity Analysis** – Original TA (January 2011) appendices supplemented and some TA (January 2011) sections and appendices superseded by TAA (July 2011):
  - Appendix E of TAA (July 2011) provides traffic signal green time surveys to further clarify the methodology for the junction assessments within the TA (January 2011);
  - Appendix G of the TAA (July 2011) provides model outputs to further clarify the results from the junction assessments within the TA (January 2011); and
  - Table 6-1 and 6-2 of the TA (January 2011) are replaced by Appendix H of the TAA (July 2011).

- **Application Site Proposals** – TA (January 2011) proposals superseded by TAA (July 2011).
  - Parameter Plan 10 (revised) included in Drawings section of TAA (July 2011) replaces Parameter Plan 10 and Figures 7-1 to 7-5 of the TA (January 2011);
  - Key changes to proposals outlined in section 7 of the TA (January 2011) are contained in section 1.9 'Amendments to the Scheme', section 6 'Parking', section 7 'Site Layout', section 9 'Surrey Canal Road Highway Improvements' and section 11.3 'Preliminary Management Strategies' of the TAA (July 2011); and
  - Appendix J of the TA (January 2011) replaced with Appendix P of the TAA (July 2011).

- **2025 Forecast Baseline Capacity Analysis** – Original TA (January 2011) appendices supplemented and some TA (January 2011) sections and appendices superseded by TAA (July 2011):
  - Appendix E of TAA (July 2011) provides traffic signal green time surveys to further clarify the methodology for the junction assessments within the TA (January 2011);
  - Appendix G of the TAA (July 2011) provides model outputs to further clarify the results from the junction assessments within the TA (January 2011); and
  - Table 8-2 and 8-3 of the TA (January 2011) are replaced by Appendix H of the TAA (July 2011).

- **Proposed Development Trip Generation** – Original TA (January 2011) supplemented and some parts superseded by sections in the TAA (July 2011):
  - Section 9.2 of the original TA (January 2011) supplemented by sections 3 and sections 4.1 and 4.2 of the TAA (July 2011). The exception is Table 9-5 of the original TA (January 2011), this is unchanged;

- Section 9.4 sub-headings 'Bus Travel Distribution' and 'Rail Travel Distribution' of the original TA (January 2011) superseded by section 4.3 of the TAA (July 2011); and

- Figure 9-1 of the TA (January 2011) superseded by section 4.4 of the TAA (January 2011).

- **2025 Baseline and Proposed Development** – A number of changes, original TA (January 2011) appendices supplemented and some TA (January 2011) sections and appendices superseded by TAA (July 2011):

  - Appendix E of TAA (July 2011) provides traffic signal green time surveys to further clarify the methodology for the junction assessments within the TA (January 2011);

  - Appendix G of the TAA (July 2011) provides model outputs to further clarify the results from the junction assessments within the TA (January 2011); and

  - Table 10-1 and 10-2 of the TA (January 2011) are replaced by Appendix H of the TAA (July 2011).

- **Proposed Transport Strategy** – Original TA (January 2011) largely superseded by sections in the TAA (July 2011):

  - Section 11.1 of the original TA (January 2011) supplemented by information contained in section 8 'Off Site Pedestrian Improvements' of the TAA (July 2011);

  - Section 11.2 of the original TA (January 2011) superseded by section 5 'Public Transport Strategy' of the TAA (July 2011);

  - Section 11.3 of the original TA (January 2011) supplemented by information contained within sections 5.2 'Public Transport Strategy' and 5.7 'Phasing of Public Transport Improvements' of the TAA (July 2011);

  - Section 11.4 of the original TA (January 2011) superseded by section 5.4 'PTAL' of the TAA (July 2011);

  - Section 11.5 of the original TA (January 2011) superseded by section 9 'Surrey Canal Road Highway Improvements' of the TAA (July 2011);

  - Section 11.7 of the original TA (January 2011) superseded by section 5 'Public Transport Strategy' of the TAA (July 2011); and

  - Section 11.8 of the original TA (January 2011) supplemented by section 11 'Travel Plans' of the TAA (July 2011).

- **Traffic Reduction Baseline Flows** – Remains largely unchanged but supplemented by information in TAA (July 2011):

  - Section 12 sub-heading 'Re-routing' of the original TA (January 2011) supplemented by 10.7 of the TAA (July 2011).

- **Construction Traffic** – No change, see original TA (January 2011).

- **Millwall Football Club** – Remains largely unchanged, but sections supplemented/ superseded by TAA (July 2011). In addition further work on crowd movement/ emergency evacuation has been undertaken by Movement Strategies (report included as part of the suite of planning documents) and information has been submitted by Millwall FC on match-day movement (appended to TAA):
    - Section 14 of the original TA (January 2011) supplemented by information contained in section 12 of the TAA (July 2011); and
    - Section 14.2 sub-heading 'Stadium Access and Circulation' of the original TA (January 2011) superseded by sections 7, 12.4, 12.5, 12.6, 12.7 and 12.8 (July 2011).

1.11 Report Structure

1.11.1 This report sets out the additional transport information providing further clarification and replaces superseded sections of the TA for the Proposed Development within the following sections:

- Supplementary Data;
- Trip Rates and Generation;
- Mode Split and Trip Distribution;
- Public Transport Strategy;
- Parking;
- Site Layout;
- Off-site Pedestrian Improvements;
- Surrey Canal Road Highway Improvements and Safety Audit;
- Off-site Highway Assessment;
- Travel Plans;
- Millwall Football Club; and
- Summary and Conclusions.

2 Supplementary Data

2.1 Introduction

2.1.1 This section of the report provides a summary of further supporting data to the TA which has been requested by TfL and LBL during the stakeholder consultation of the TA providing further clarification on the assessment. This data includes traffic survey data, input and output data for the highway capacity analyses, and data used in the determination of trip rates and modal share.

2.2 Data

2.2.1 The following data requested by TfL and LBL are appended to this TAA report. This data provides further clarification to the information provided in the TA:

- Traffic Survey data – requested survey data for: Surrey Canal Road/ Senegal Road; Ilderton Road/ A2 Old Kent Road; Lower Road/A2208 Hawkstone Road; Lower Road/ Redriff Road; and Rotherhithe New Road/ Lower Road is included in Appendix D;
- Cycle time surveys – during the calibration process the signal timings were used to match the signal time in the model, the survey data used is included in Appendix E;
- Traffic flow diagrams – flow diagrams of the AM, PM and weekend peak are included in Appendix F. These show flows at all junctions assessed within the TA;
- Junction assessment outputs – TRANSYT and LINSIG outputs which were omitted from the TA and revised outputs based on TfL and LBL's comments are included in Appendix G;
- Updated junction assessment results tables – revised output tables based on comments from TfL and LBL to replace Table 6-1, 6-2, 8-2, 8-3, 10-1 and 10-2 of the TA, Appendix H. Results for Rotherhithe New Road/Ilderton Road, Ilderton Road/Surrey Canal Road and Ilderton Road/Old Kent Road are included in sections 9.3, 10.5 and 10.6 of this report;
- TRAVL and TRICS Outputs – outputs from TRAVL and TRICS used to determine trip rates for the Proposed Development as discussed in section 9.2 of the TA, Appendix I;
- TRICS Review – Appendix Q of the TA is re-provided in Appendix J of this report as the original version of this information was not clearly readable on the original pdf;
- The distribution from each access point of the Proposed Development to show the number of trips associated with each development plot as requested by TfL is in Appendix K; and

2.2.2 The majority of this data has already been submitted to TfL and LBL during the consultation period.

3 Trip Rates and Generation

3.1 Introduction

3.1.1 Queries regarding the trip rates and the person trip generation for the Proposed Development were raised by TfL and LBL in the stakeholder consultation. TfL and LBL requested more justification for the use of the same trip rates for the D1 health and D1 religious uses and also raised issue over whether the D2 trip rates adopted were appropriate.

3.1.2 During the consultation, PBA responded to these queries and provided further clarification and justification for the use of D1 and D2 trip rates. This section of the report summarises the additional information requested by TfL and LBL to provide further clarification to support the approach within the TA.

3.1.3 This information has been submitted and discussed with TfL and LBL. These trip rates have been agreed with the authorities. The section below summarises what has been agreed and supplements section 9.2 of the original TA.

3.2 D1 Trip Rates

3.2.1 The same trip rate was applied to the D1 health and D1 religious elements although these land uses have different operations. TfL requested more information on why this method was adopted. A further analysis was undertaken to demonstrate that the trip rate adopted in the TA is robust and is summarised in this section.

3.2.2 The applicant wishes to seek flexibility relating to the different ranges of land use put forward in the development proposals. The development levels allows up to 10,000 sq m of D1 use. D1 is expected to be split between a community centre/religious facility, crèche and health facilities. The Land Use Classes Order, (2005) includes Clinics and Places of Worship within the D1 Class.

3.2.3 In order to provide a robust assessment, and not underestimate the volume of trips that the proposals could generate, the highest trip rates by time period of any use within the D1 Class have been identified and applied in the assessment. Table 3-1 below highlights the trip rates in weekday peak hours and Saturdays for D1 Health and D1 Religion to provide a comparison between the two land use types.

Table 3-1: D1 Trip Rate Comparison

	AM			PM			Saturday		
	In	Out	2-Way	In	Out	2-Way	In	Out	2-Way
D1 Religious Facility (trips/100sqm)	0.02	0.02	0.03	0.74	0.30	1.04	19.47	7.44	26.91
D1 Health (trips/100sqm)	4.78	2.76	7.54	2.55	2.50	5.05	4.52	2.60	7.12

**TRAVL trip rates factored by 0.9 (AM), 0.85 (PM) and 0.85 (Weekend) to reflect trip internalization, see TA para. 9.2.3 and the ABA report form information on the trip reduction factors applied.*

3.2.4 The weekday D1 Religion trip rates were extracted from the TRAVL database and are made up of surveys undertaken at four locations across London. The buildings surveyed were:

- Baitul Futuh Mosque, Morden;
- Cranford Mosque, Hounslow;

- Darussalam Masjid Mosque, Southall; and
- Madinah Mosque, Shacklewell.

3.2.5 The TRAVL data to support these trip rates is appended to this report in Appendix I.

3.2.6 As can be seen from Table 3-1, the weekday AM and PM peak hour D1 Religion trip rates are far lower than the D1 Health trip rates. For the reasons stated earlier, it was deemed robust to adopt the D1 Health weekday peak hour trip rates for the entire 10,000sqm of proposed D1 use, given that the development proposals seek a generic D1 permission.

3.2.7 For the weekend assessment, the TRAVL database was again interrogated to identify the trip rates associated with either D1 Religion or D1 Clinic. Appendix O of the TA contains the TRAVL output summary for a number of religious facilities in London. These sites are:

- BAPS Shri Swaminarayan Mandir, Neasden;
- Riverside Community Church, Palmers Green;
- St Monica's Catholic Church, Winchmore Hill; and
- St Thomas More RC, Dulwich.

3.2.8 The D1 trip rates for the weekend assessment are significantly higher compared to the D1 Health trip rates. Trip rates for D1 Religion were therefore adopted for over half of the maximum level proposed for D1, with the remaining using the D1 Health trip rates. This is considered to be a robust estimation of the D1 land use.

3.2.9 This justification was submitted to TfL and LBL (see Appendix A), and was accepted by both, followed by further clarification provided at stakeholder consultation meetings.

3.3 D2 Trip Rates

3.3.1 The TA used certain trip rates from an LBL study. TfL noted that although they accepted the use of the Deptford and New Cross Cumulative Transport Impact Study commissioned by LBL and produced by Alan Baxter Associates (ABA report) for residential and office uses. However, they raised concerns over whether the use of D2 trip rates from this report was appropriate given the nature of the proposals for this development.

3.3.2 Further analysis has been undertaken to demonstrate that the trip rates adopted for the TA are appropriate. Trip rates have been extracted from TRAVL for the weekday AM and PM peaks for three Leisure Centres used in the weekend assessment. The TRAVL outputs are included in Appendix I and the sites assessed are as follows:

- Brentford Fountain – a leisure centre with indoor 5-a-side football courts, badminton courts, a dance studio, gym and swimming pool.
- East Dulwich Leisure Centre – a leisure centre for martial arts, gymnastics, aerobics, which includes a gym and swimming pool.
- Surrey Docks Watersports Centre – a centre for kayaking, sailing and power boating, activities which attract a number of people to the centre for classes/events.

3.3.3 Table 3-2 shows a comparison between the trip rates used in the TA and the TRAVL trip rates.

Table 3-2: Comparison of Adopted D2 Trip Rate with Leisure Centre Trip Rates

	AM			PM		
	In	Out	2-way	In	Out	2-way
TA Trip Rate	0.55	0.50	1.06	1.29	0.75	2.03
TRAVL Review	0.15	0.13	0.27	1.09	1.15	2.24

3.3.4 The D2 gym use in the TA is generally more intense than the range of uses in the TRAVL review, including football pitches and badminton courts. As the nature of the proposals with regards to D2 use is not certain at this outline stage, the trip rates used in the TA are considered to be robust when compared to the range of uses used in the TRAVL review. LBL has agreed that the trip rates used for D2 in the TA are robust.

3.4 Levels of Residential Development

3.4.1 TfL was concerned that the assessment is based on a scenario with a lower level of residential development than the maximum sought in the TA (January 2011). It was requested that the number of trips were calculated for the maximum possible level of residential development to confirm that the worst case was adopted for the TA.

3.4.2 Since the submission of the original TA, the maximum quantum of development has been reduced from 250,000 square metres to 240,000 square metres and the maximum level of residential development has been reduced to 190,000 square metres, see section 1.9 for details. The TA assessed 194,000 square metres of residential development. Consequently the TA assesses a worst case.

3.5 Trip Generation for Revised Development Levels

3.5.1 The development used for the trip generation in the TA is not the same as the illustrative scheme. The TA uses a total of 250,000 square metres (GEA) of development compared to 237,905.2 square metres in the illustrative scheme submitted in January 2011 (see Design and Access Statement which supported the planning application for more details). The total development level and the illustrative scheme have subsequently been reduced to 240,000 square metres (GEA) and 226,100.1 square metres (GEA) respectively, see section 1.9 of this report. Therefore a higher level of development has been used to assess the Proposed Development in the TA to ensure that the worst case impacts in terms of transport have been assessed.

3.5.2 A comparison between the level of development for each land use applied within the trip generation in the TA, the January 2011 illustrative scheme and the revised illustrative scheme is shown in Table 3-4 below.

Table 3-4: Comparison between the Assessed Level of Development and Changes within the Illustrative Scheme

Land Use	Floor Area Assessed in the TA (GEA)	Illustrative Scheme, January 2011 (GEA)	Revised Illustrative Scheme, July 2011 (GEA)
A1/A2 Retail	supporting uses to others within the Site resulting in internal/linked trips	6462.8	5671.6
A3/A4 Cafes/ Restaurants and Drinking Establishments			
A5 Hot Food Takeaways			
B1 Business	15000.0	10044.8	10025.5
C1 Hotels	15000.0	9928.7	7633.0
C3 Residential	194200.0	188538.2	179979.6
D1 Community	10000.0	9230.1	9089.8
D2 Leisure and Assembly	15800.0	13700.6	13700.6
TOTAL	250,000.0	237905.2	226100.1

Source: Illustrative Scheme Rev 17, Consultants Trip Generation Spreadsheet

3.5.3 The comparison shows that the revised illustrative scheme has 5% lower overall floor area than the submitted illustrative scheme. Compared to the level of development assessed in the TA, the revised illustrative scheme has significantly lower levels of development for each land use. For instance, residential floor area is 7.3% lower in the revised illustrative scheme than that assessed and the overall floor area of the revised illustrative scheme is 9.6% less than that assessed in the TA.

3.5.4 A smaller floor area will generate fewer person trips. As the TA has assessed a higher level of development than the revised illustrative scheme which is the realistic level of development, it is a worst case assessment.

4 Mode Split and Trip Distribution

4.1 Introduction

4.1.1 As part of the post application consultation, TfL and LBL requested some further explanation of the methodology for the determination of mode split and the distribution of bus and rail trips to supplement section 9.2 of the TA.

4.1.2 This section of the report summarises the methodology used to determine the mode split for the Proposed Development and the distribution of trips associated with rail and bus travel, including further analysis requested by stakeholders.

4.1.3 These matters have been discussed in detail with LBL and TfL and additional data has been submitted. Areas of agreement are noted under each of the Section headings.

4.2 Mode Split

4.2.1 The modal split was produced as part of the original TA, and a summary of the methodology used to determine the mode split is set out in section 9.2 'Modal Split' of the TA. The following section supplements information in the original TA providing further clarification.

4.2.2 TfL requested further justification for the adopted mode split through reference to local ward data. LBL agreed in principle with the methodology and using TRICS data to establish the mode split but also requested further justification regarding the appropriateness of TRICS sites used. This section clarifies the methodology used to produce the modal split for the Proposed Development and responds to the comments from LBL and TfL.

4.2.3 A technical note has been produced which details the process involved in producing the forecast mode split and has already been submitted to TfL/LBL. This technical note, entitled 'Clarification of Modal Split' is included in Appendix L of this report. This section provides a summary of the methodology which has now been agreed with TfL/LBL.

4.2.4 The mode split was based on the ABA report, which was provided to PBA by LBL to provide the basis for assessment in the TA. The ABA report includes a mode share for the Application Site and was produced based on assessment of Journey to Work data, National travel statistics and DfT regional statistics. It assumed a high proportion of 'education' and 'other' trips. The mode share was adjusted to take into account of the proximity to public transport services and the increasing importance of cycle trips. The modal split in the ABA report is applied across different land uses, the TA is therefore consistent with LBL's approach.

4.2.5 The mode share produced by ABA was reviewed and it was concluded that although trips apportioned to cyclists and vehicles (car driver, car passenger, motorcycle, taxi) were appropriate, the proportions of walk trips were too high and public transport trips too low. Also, the share between bus and rail did not reflect the proposed rail improvements in proximity to the site. Resulting from this review, a revised mode split was developed.

4.2.6 An assessment of vehicular trip generation for the Proposed Development demonstrated that the vehicular mode split was appropriate for the site and as such it was not revised. Due to the lack of generators and attractors surrounding the Proposed Development, walk trips were reduced to 10%. The remaining trips were assigned to public transport (58% in the AM, 54% in the PM).

4.2.7 The relative share of public transport trips between bus and rail was not considered appropriate in the ABA report and a review of TRICS data was used to determine a new split between rail and bus of two to one. The splits were then compared against Census 2001 Travel to Work data for three local wards to ensure these estimates were realistic.

4.2.8 The information in the technical note and summarised in this section supplements information contained within section 9.2 of the TA. The methodology for mode split has been agreed in principle by LBL.

4.3 Bus and Rail Trip Distribution

4.3.1 As part of the stakeholder consultation, a number of comments were made on the methodology used to determine the bus and rail distribution. TfL and LBL requested more information and justification for the methodology used in section 9.4 of the TA entitled 'Trip Distribution'. This section therefore supersedes section 9.4 of the TA and provides details of the methodology used. It responds to further comments regarding the inclusion of Evelyn ward data on bus and rail distribution and the previous inclusion of Underground trips in the rail distribution. A revised rail and bus trip distribution is now proposed which replaces the TA distributions in Table 9-7 and Table 9-8 of the TA. Further analysis into the role of central London in bus and rail trips is also addressed based on a request by TfL and LBL.

4.3.2 The details of this section are included in a technical note which was produced to respond to comments from the stakeholder consultation. It has already been submitted to both LBL and TfL. This is included in Appendix M and the methodology and revised distributions have been agreed with TfL and LBL.

Use of Census Data

4.3.3 Whilst the limitations of using Census data are acknowledged, such as the availability of journey to work data only, the choice of one mode per trip and the absence of any information on linked trips, LBL and TfL have agreed that this is an appropriate methodology to determine bus and rail distribution for the Proposed Development.

TA Bus Distribution

4.3.4 The bus distribution is based on the main bus destinations to get a measure of the broad location of bus trips. Census 2001 data has been used to derive the bus distribution and use of this data has been agreed with TfL and LBL.

4.3.5 To obtain the main destinations from the Census data, destinations/wards with trips below 10 and internal trips were originally excluded. Destination areas were formed by aggregating the remaining wards based on direction of movement from the Application Site. Seven destination areas were identified and distribution of trips over these areas was determined for buses, based on the number of trips within Census 2001.

Revised Bus Distribution

4.3.6 An additional ward, Evelyn, was included in an amended distribution submitted to TfL and LBL in April 2011 at the request of the authorities. This ward was not included in the original TA distribution as the ward has a relatively high proportion of industrial uses and was not considered comparable in terms of public transport accessibility, however TfL and LBL suggested that Evelyn ward should be included. This distribution has been used as a basis to provide a revised version of Table 9-7 of the TA, the details of the revised distribution are discussed below.

4.3.7 A technical note has been produced and submitted to TfL/LBL to detail the methodology used, to determine the distribution for bus trips from the site. The technical note is entitled Clarification of Bus and Rail Trip Distribution' and is included in Appendix M.

4.3.8 Based on comments from TfL and LBL regarding the wide destination of bus trips, further work has also been carried out to consider potential interchange points for bus trips. A number of interchange areas have been located for destinations which are unlikely to be reached directly by bus from Surrey Canal.

4.3.9 A revised bus distribution has been submitted which assigns trips to Greenwich, Woolwich and Bromley areas via Lewisham and New Cross based on the interchange facilities available at Lewisham and New Cross. The revised bus distribution increases the proportion of trips to Lewisham and New Cross significantly. The methodology used to determine this distribution is discussed in the technical note included in Appendix M. The revised distribution is in place of Table 9-7 of the TA and is shown in Table 4-1 below:

Table 4-1: Revised Bus Distribution

Area	Distribution (%)
New Cross, Lewisham, Catford	27.6%
Southwark	4.4%
Brixton, Brockwell Park	3.8%
Bermondsey, Camberwell	20.4%
Central London	43.8%

Source: Consultants Calculations

4.3.10 The revised bus distribution has been agreed with TfL and LBL.

TA Rail Distribution

4.3.11 A similar approach was used to obtain census data relating to journeys using the rail network details of which are included in the technical note entitled 'Clarification of Bus and Rail Trip Distribution' and included in Appendix M.

4.3.12 In response to TfL and LBL's comments, Evelyn data was assessed and an amended distribution was put forward and issued to TfL and LBL. This distribution is included in the technical note and provides the basis for the revised rail distribution discussed below which has been adopted and agreed with the authorities.

Rail and Underground Sensitivity Analysis and Revised Rail Distribution

4.3.13 LBL and TfL have noted that the TA considers rail only responses and this distribution may not be representative of the trips on the ELL which was part of the London Underground during the 2001 Census. An additional exercise has been undertaken to demonstrate the difference between the distribution of trips for rail and rail/underground combined and provides a revised rail distribution. The revised distribution has been produced by averaging the distribution for each ward for both rail and underground trips. This revised distribution is shown in Table 4-2.

Table 4-2: Revised Rail Distribution

Area	Distribution (%)
Croydon	1.8%
Bermondsey, Lambeth	19.9%
Central London	69.1%
Millwall, Poplar	6.5%
Hammersmith, Fulham	1.3%
Catford, Bromley	0.9%
Brixton	0.2%
Battersea	0.2%

Source: Consultants Calculations

4.3.14 Details of this exercise are included in the technical note entitled 'Clarification of Bus and Rail Trip Distribution' and included in Appendix M.

4.3.15 The revised rail distribution has been agreed with TfL and LBL.

Livesey Ward (Southwark) Comparison of Census Data

4.3.16 LBL and TfL also requested comparison between wards in the LBS to demonstrate that New Cross, Brockley, Telegraph Hill and Evelyn wards in LBL are representative of the Proposed Development.

4.3.17 Livesey Ward in Southwark, which is the closest ward to the west of the site, was chosen to provide a comparison of travel to work characteristics. Train and underground trips from Livesey ward have fewer destinations to the wards assessed in Lewisham. The key destinations in the Lewisham wards are the same as the destinations identified for the Livesey ward. There are a higher proportion of trips with a destination in Central London than in Lewisham, and a slightly lower proportion of trips to Bermondsey, Lambeth and Croydon. The number of rail trips overall for Livesey are significantly lower than the Lewisham wards and are therefore not very representative of travel from the Proposed Development.

4.3.18 Details of the comparison with Livesey ward is included in the technical note entitled 'Clarification of Bus and Rail Trip Distribution' and included in Appendix M.

Central London Census Trip Distribution

4.3.19 Due to issues raised by the authorities that the aggregate number of travel to work trips into Central London have been given particularly large weighting, train, underground and bus journeys with a destination ward predominantly in Central London to the north of the River Thames have been further analysed. This exercise has been completed for Brockley, Evelyn, New Cross and Telegraph Hill wards, for all journey counts per ward, (not just those 10 or more). The exercise has been carried out to show that the distribution of Central London trips to the north of the river and to the south.

4.3.20 The analysis shows that although Central London remains the largest destination a bus link, north of the River Thames to central London is not as important as stated in the TA. Detailed results of this analysis are included in the technical note entitled 'Clarification of Bus and Rail Trip Distribution' and included in Appendix M. The results of this additional assessment have been submitted to, and agreed by, both LBL and TfL.

4.4 Highway Distribution

4.4.1 It should be noted that the distribution along Surrey Canal Road (eastbound) in Figure 9-1 of the TA is incorrect and should read 10% rather than 1%.

5 Public Transport Strategy

5.1 Introduction

5.1.1 This section of the report summarises the revised Public Transport Strategy in the light of comments made by TfL and LBL. Two technical notes have been produced on the subjects of this chapter and are contained in Appendix N and O. This section supersedes the public transport strategy outlined in the TA.

5.1.2 The following areas are covered in this section:

- The current strategy for serving the site by bus and rail;
- The baseline and proposed future PTAL scores for the development site, taking into account both the TfL methodology and what the applicant believes is a more pragmatic and realistic alternative;
- Available levels of existing capacity on the bus and rail networks around the site;
- On-site routing of bus services; and
- Phasing of public transport enhancements.

5.1.3 The principles of the revised strategy have been agreed with both LBL and TfL. This section supersedes section 11.2, 11.4 and 11.7 of the original TA and supplements section 11.3 of the TA.

5.2 Public Transport Strategy

5.2.1 The Public Transport Strategy for the site has been revised since the original TA was produced. The initial strategy envisaged extension of service 168 from Old Kent Road coupled with a diversion of service 381, to provide additional high frequency services to Central London, Canada Water and Peckham; however, capacity constraints on route 168 and concerns relating to existing passengers over diverting service 381 resulted in alternative proposals being developed.

5.2.2 Following extensive consultation with TfL and LBL, a new strategy has been developed which provides two new bus routes to the development:

- Extension of service 415 (Tulse Hill to Elephant & Castle) to Surrey Canal Road Rail Station (every 12 minutes daytimes, every 20 minutes evenings and Sundays); and
- Provision of a new service between the development and Lewisham (every 20 minutes daytime, every 30 minutes evenings and Sundays).

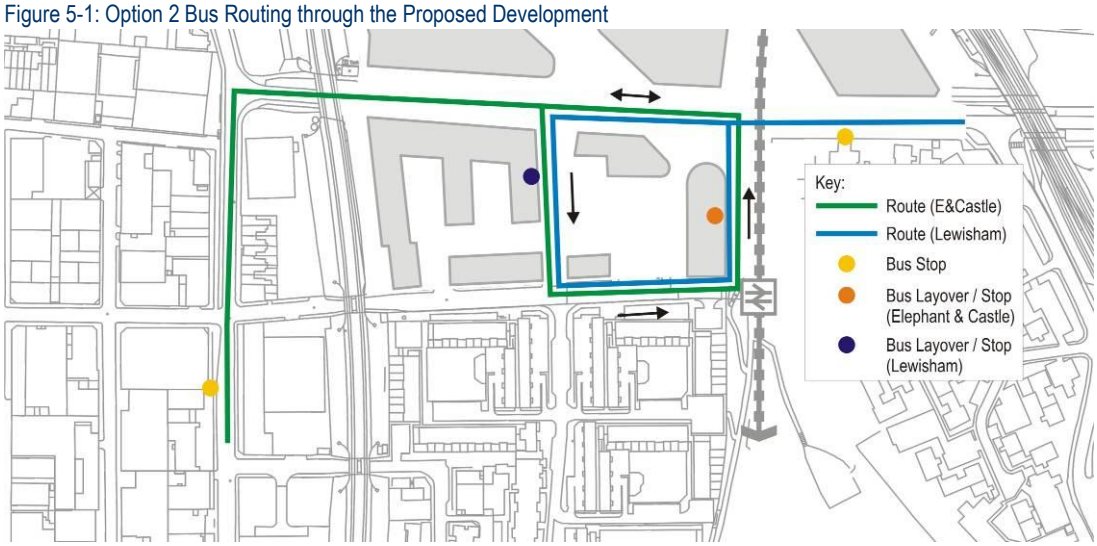
5.2.3 Both of these services form the basis of the strategy TfL will review at the time of implementation. These services will provide considerably enhanced accessibility to the Surrey Canal area, in addition to a number of benefits to the wider community in south-east London of higher frequencies on some sections of route and extra direct links not currently possible by bus. There has been a period of discussion and liaison with TfL on the most appropriate way in which to serve the Surrey Canal development. The destinations and routes listed above have been agreed with TfL and LBL.

Elephant & Castle service

5.2.4 Trip distribution figures indicate a considerable proportion of development traffic travelling to and from the north-west of the site. It is therefore proposed to extend service 415 from its current northern terminus at Elephant & Castle to Surrey Canal Road via New Kent Road, Old Kent Road and Ilderton Road to provide a frequency of five buses per hour from the development to Elephant & Castle, Brixton, Kennington and Tulse Hill, with the ability to interchange onto bus, rail and Underground services at a number of locations.

5.2.5 On the site, the service would operate via Ilderton Road, Surrey Canal Road, Rollins Street/Surrey Canal Road link, Rollins Street, Surrey Canal Road Station link and Surrey Canal Road to return to Ilderton Road (Option 2), see Figure 5.1 and section 5.6 for further details. Layover provision will be made on the Surrey Canal Road Station link.

Figure 5-1: Option 2 Bus Routing through the Proposed Development



5.2.6 TfL is keen to improve the interchange between the new Surrey Canal Road Station and the new bus services. This service would include a boarding/ alighting point Surrey Canal Road Station link directly outside of the Station. The stop would provide access to the Proposed Development, neighbouring areas and interchange at Surrey Canal Road Station.

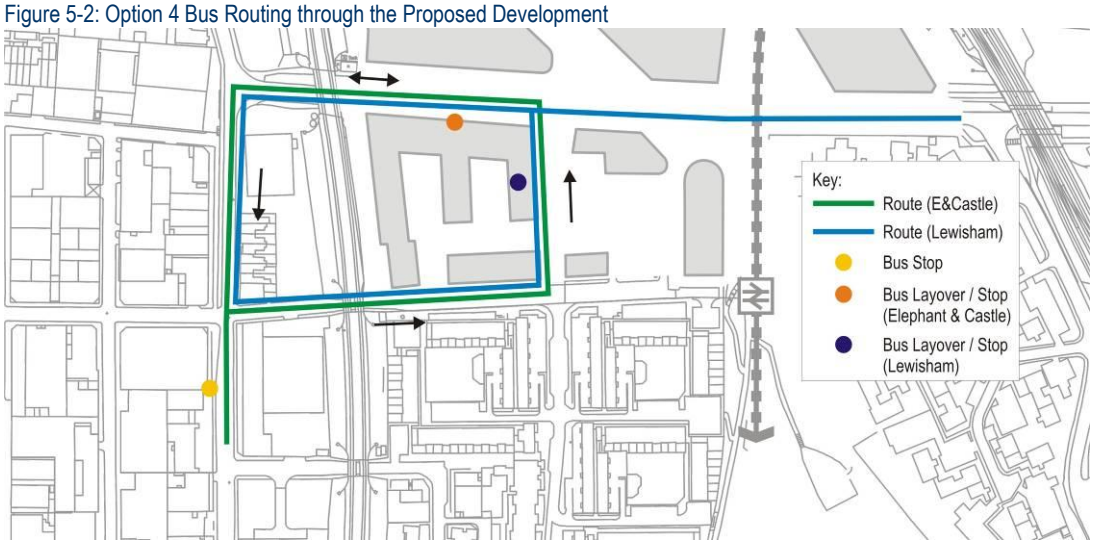
5.2.7 The ability to deliver such a route is dependant on both the land being made available by TfL and a suitable amount of land being available to deliver an appropriate route for buses without compromising the urban design and delivery of the Excelsior Plots to the west, in the overall context of the Proposed Development. Renewal will continue to discuss and pursue this on the basis that TfL will make their land available to deliver TfL and LBL's preferred routing. Discussions are ongoing in relation to this option, however it is the main option as shown in the revised Parameter Plan 10.

5.2.8 Should the land not become available, the bus services will route through the Proposed Development as discussed in section 5.6 (Option 4) and shown in Figure 5-2. Walk distances to the Lewisham service bus stop for this different route will be approximately 180 metres from the entrance to Surrey Canal Road Station on Surrey Canal Road, this is within the preferable walking distance of 300 metres as stated in 'Guidelines for Planning for Public Transport in Developments', Institute of Highways and Transportation, 1999. Although the bus stops are located slightly further away from the Surrey Canal Road Rail Station than

option 2, this option will still provide good accessibility for the Proposed Development due to the central location of stops and will still provide interchange between bus and rail.

5.2.9 Improvements to the Surrey Canal Road/ Ilderton Road junction as set out in section 9.2 will enable buses to pull out of the Elephant and Castle bus stop and layover for this route almost directly into a left filter lane which will therefore limit the delay incurred to buses by the signals at the junction.

Figure 5-2: Option 4 Bus Routing through the Proposed Development



5.2.10 As service 415 is a relatively short route it is not anticipated that the proposed route extension would create significant reliability problems. It is estimated that an additional three vehicles are required for the provision of this service. In addition to the benefits of enhanced accessibility to the development, there will also be enhancements to bus frequencies on the southern part of Ilderton Road and on Old Kent Road, where loadings are currently very high.

5.2.11 This option is shown as the 'Fall Back Option' on the revised Parameter Plan 10.

Lewisham service

5.2.12 The strategy also provides for a new service between the development and key locations to the south-east including New Cross station, Deptford Bridge DLR station and Lewisham town centre and transport interchange, in order to improve access between the development and the wider Borough.

5.2.13 The existing service 225 between Hither Green and Canada Water, which operates along Trundleys Road to the east of the development, will be complemented with an additional service between Surrey Canal and Lewisham operating every 20 minutes during Monday to Saturday daytimes and every 30 minutes in the evenings and on Sundays. The service will operate as per the route of existing service 225 between Lewisham and the junction of Trundleys Road and Surrey Canal Road, from whence buses will operate via Surrey Canal Road and then via Rollins Street/Surrey Canal Road link, Rollins Street and the Surrey Canal (where an alighting stop is located) Road Station link (where the layover and boarding stop are located) to Surrey Canal Road eastbound.

5.2.14 The on site routing of this service is discussed in section 5.6 and shown in Figure 5-1.

5.2.15 This service pattern requires three vehicles to operate a 20 minute frequency. The benefits include an increased frequency (to seven buses per hour) between Trundleys Road and

Lewisham and improved access between the development, New Cross, Lewisham and the southern areas of the Borough which will benefit new residents of Surrey Canal who wish to access these areas, and the existing residents who will be able to travel into Surrey Canal to the football and other sporting, leisure and community facilities on the site.

5.2.16 Should the land not become available from TfL, the bus services will route through the Proposed Development as discussed in section 5.6 (Option 4) and shown in Figure 5-2. Walk distances to the Elephant and Castle bus service for this routing will be located within a preferable walking distance from the entrance to Surrey Canal Road Station (based on 'Guidelines for Planning for Public Transport in Developments', Institute of Highways and Transportation, 1999), enabling interchange between this service and Surrey Canal Rail Station. This option will still provide good accessibility for the Proposed Development due to the central location of stops and although the stops are located slightly further from Surrey Canal Road Station, they will still provide interchange between bus and rail.

5.2.17 The package as proposed ensures that the Surrey Canal site is highly accessible from all directions by bus and train. In total, the site and the local area would be served by 34 buses per hour. A reasonable gross cost assessment for the bus service element of this is £3.96m to £6.6m over three to five years, to fund an additional six vehicles for use on services 415 and the new Lewisham route.

5.2.18 Appropriate facilities for bus drivers taking legal breaks will be provided within convenient and safe walking distance to stands located on the site. Provision will be contained in the S106 Agreement and will include seating areas, toilet facilities, etc.

5.2.19 Bus stops within the Proposed Development will be designed and constructed to applicable TfL standards to ensure safe and reliable operation. The S106 Agreement will include provision for the improvement of bus stops near to the Proposed Development.

Rail services

5.2.20 Renewal has committed to funding the construction of Surrey Canal Road rail station from the start of the development. This will provide four trains per hour in each direction on the ELLE route to Clapham Junction, Peckham Rye, Canada Water, Whitechapel and Dalston Junction. In addition, access will be considerably improved to South Bermondsey station via a new pedestrian and cycle link, making this a more attractive choice for residents and users of the development.

5.2.21 In total there will be a total of 10 trains per hour in each direction in the peak from South Bermondsey and Surrey Canal Road, and a further 12 trains per hour from Surrey Quays.

5.3 Millwall FC Expansion Plans

5.3.1 Whilst not part of the current Renewal planning application, possible future plans by Millwall FC for expansion of their stadium will derive considerable benefit from the public transport strategy proposed for the development.

5.3.2 The provision of the following elements of infrastructure will provide significant benefit to the access to the Stadium on a match day:

- Improved access to South Bermondsey Rail Station;
- The new Surrey Canal Road Rail Station;
- A new bus service to Lewisham;

- A new bus service to Elephant and Castle;
- Improvements to pedestrian routes to the site in the local area;
- Coach parking facilities for away fans;
- Amendments to the Proposed Development to ensure adequate provision for crowd movement within the Site to accommodate an enlarged stadium.

5.3.3 These improvements provide enhancement to the accessibility of the stadium and ensure that crowd movements can be accommodated both now and in the eventuality of an expanded stadium. This is discussed further in section 12.

5.3.4 An increase in the numbers of people travelling to Millwall FC would result in an increase in demand for public transport services to the area, which currently is relatively poor. The proposed enhancements to bus services – particularly from the south and south-east – and the new Surrey Canal Road station will make access to the stadium considerably improved compared to the existing public transport provision.

5.3.5 The responsibility for assessing any future expansion of the stadium capacity in detail will be with Millwall FC at the appropriate time when plans come forward. Renewal's commitment to fund additional bus services and a new railway station will be of significant benefit to the accessibility of the area as a whole, including Millwall FC.

5.4 PTAL

Existing Conditions

5.4.1 A PTAL assessment of the existing site was undertaken in the January 2011 Transport Assessment. Table 4-5 in the TA showed this information, which has since been updated to include the London Bridge to Victoria Rail service and is shown in Table 5-1 below:

Table 5-1: Site Baseline PTAL Calculations: Based on TfL guidance (replacement of Table 4-5 of the TA)

	Access Point	Service	Distance (m)	Frequency (mins)	Accessibility Index
Bus	Millwall FC	P12	330	10.00	2.70
Rail	South Bermondsey	London Victoria – London Bridge	663	30.00	1.25
		Beckenham Junction – London Bridge		30.00	0.62
		Wimbledon – London Bridge		30.00	0.62
		West Croydon – London Bridge		30.00	0.62
Total					5.82
PTAL Level					2

Source: Consultants Calculations

5.4.2 Table 5-1 indicates that the PTAL score for the development is currently 5.82, which equates to level 2 (poor). In order to provide a direct comparison with the post-development future scenario it is necessary to remove one of the rail services from South Bermondsey station which will no longer operate following opening of the ELLE. This reduces the score to 5.19 (still a level 2 – poor).

Post-Development Conditions

5.4.3 The TA assumed one PTAL score for the whole development. Later Technical Notes contained PTAL analyses for six areas (based on the development plots proposed) and a

PTAL analysis has been conducted for each area based on the service levels in the strategy detailed above. The detailed results of these calculations and a map of the area are included as part of the Public Transport Strategy Technical Note in Appendix N.

5.4.4 Two scenarios are considered as follows:

- ***A*:** The TfL PTAL methodology for each area, applying the strict distance thresholds for bus and rail routes. This scenario includes the new Surrey Canal Road station and the bus strategy as above. The scenario also includes the reduced service level at South Bermondsey Station; and

- ***B*:** As above for scenario A but using an amended methodology to include bus route 225 and Surrey Quays station from all areas of the site. This is better felt to reflect how people will use the public transport services.

5.4.5 The assessment indicates that the Bolina Plots of the development are the most accessible under both PTAL scenarios. This is primarily as a result of its proximity to the bus stops on Rotherhithe New Road, which have a high frequency of bus services, as well as being close to South Bermondsey station. The Timber Wharf Plots are the next most accessible, as they are close to high frequency bus routes on Surrey Canal Road and Ilderton Road as well as Surrey Canal Road station.

5.4.6 Under scenario B (pragmatic PTAL application) all areas of the development score in excess of 12.90. Timber Wharf Plots and Stockholm Plots (in total 30% of the residential units combined) score 13.81 and 13.41 respectively. The Bolina Plots (over 40% of the residential element of the development) score 14.82. Under scenario A utilising the PTAL cut off access distances the accessibility index rates range between 10.21 and 12.03.

5.4.7 The key limitations of the PTAL methodology are that it does not take account of the propensity to walk further to access improved transport connections, and that it is primarily driven by frequency rather than other considerations. LBL has confirmed that their position is that they consider that it is preferable to offer a genuine choice of destinations by public transport for future residents, rather than solely concentrating on PTAL ratings. There is an agreed package of new bus services and rail infrastructure improvements that will serve the site. These have been agreed in principle with both LBL and TfL. This comprehensive package of bus and rail service improvements would result in the development being within PTAL band 3 (moderate) in each of the above scenarios (A and B).

5.4.8 Appendix N also shows details of an alternative PTAL assessment conducted in the event that service 168 is extended to the development in lieu of service 415. In this scenario, and assuming pragmatic walk distances to Surrey Quays and Trundleys Road, Timber Wharf Plots and Bolina Plots (together comprising nearly 60% of the residential area of the development) are elevated to PTAL grade 4, with each of the remaining phases having a score of 13.50 or higher.

5.5 Bus and Rail Capacity

5.5.1 This section outlines bus and rail forecasts for the AM peak period (the busiest hour) from the Transport Assessment for the development. It makes assumptions about the routes to be used for these journeys and compares the figures to data supplied by TfL on available bus and rail capacity on key routes in the area.

5.5.2 This section provides a summary of the results – the full text is available in the Public Transport Strategy Technical Note included as Appendix N.

5.5.3 An initial review of available data has indicated that there is a greater level of capacity available on the network in the PM peak hour than in the AM peak, which coincides with

fewer trips to and from the development. As a result, the AM peak figures represent the 'busiest hour' worst case scenario which confirms that acceptable capacity is available at other times of the day. Accordingly, a PM peak analysis has not been undertaken.

5.5.4 The analysis below has been submitted previously to TfL and LBL and has been agreed by them.

Bus Distribution and Capacity

5.5.5 Bus trips from/to the development site will have their origin/destination in a number of key areas including New Cross, Lewisham, Bermondsey and Central London.

5.5.6 Of a total of 307 one-way bus trips leaving the development in the AM peak (this is the highest flow in any one peak hour direction), 134 (44%) are to central London, 85 (28%) to New Cross and Lewisham, and 62 (20%) to Bermondsey and Camberwell, together with smaller flows to other areas such as Southwark and Brixton. An analysis has been undertaken of the likely bus routes journeys will follow, and the amount of spare capacity available on those services.

5.5.7 Journeys have been attributed to the network broadly based on proximity to the development and the frequency of the service. TfL's Busiest Hour Analysis Report data has been used to show the available capacity on the network and this is summarised in Table 5-2 below:

Table 5-2: Additional trips by route and available capacity

Bus route	Additional trips per peak hour	Total existing trips at busiest point	Total spare capacity
1	44	502	268
225	8	No data	No data
381	44	372	420
415	58	0	350
P12	76	No data	No data
New Lewisham service	77	0	120
Total	307	-	-

Source: Consultants Calculations

5.5.8 The table above indicates that there is sufficient spare seating capacity on services 1, 381, 415 and the new Lewisham service (the latter two are effectively new services, so utilisation is currently nil, although a small proportion of journeys on route 415 are expected to be to destinations west of Elephant & Castle) to cater for the busiest hour to and from the development. The conclusion that there is sufficient spare capacity has been agreed by TfL and LBL.

Rail Distribution and Capacity

5.5.9 Figures from the TA identified that rail trips from/to the development site will have their origin/destination in a number of key areas, but are predominantly focused on central London. These, together with the number of trips expected to each destination in the busiest peak hour (i.e. outbound from the site in the AM peak hour) were analysed.

5.5.10 Of a total 614 outbound trips on the rail network, 449 (73%) are to Central London and 125 (20%) to the Bermondsey area. Table 5-3 below indicates the numbers of additional trips on each route (from the fourth column in the table above) and uses Railplan data for 2016 to calculate the spare capacity on trains at their busiest point:

Table 5-3: Rail additional trips and capacity

Rail route	Additional trips per peak hour	Total existing trips	Total spare capacity	OK
South Bermondsey to London Bridge	291	5,800	2,509	✓
Surrey Canal Road to Surrey Quays	322	2,400	78	✓
Surrey Quays to West Croydon	17	No data	No data	
Total	630			

Note: Additional 13 trips due to trips towards Croydon travelling both north and south
Source: Railplan data, Consultants Calculations

5.5.11 The Railplan data includes London Plan background population and employment assumptions (in particular, it assumes 100 peak hour northbound trips from Surrey Canal Road station) so there is a possibility that some trips from the development have been 'double counted' within the analysis.

5.5.12 This worst case data review indicates that a spare capacity is available on the London Overground line to Surrey Quays, but considerably more is available at South Bermondsey towards London Bridge. This may mean that residents of the development could be encouraged to use South Bermondsey station rather than Surrey Canal Road for journeys to Central London, depending on their final destination within Zone 1. In addition, the data is for the 0800-0900 period only, and therefore there is scope for trips to/from the development to be made at alternative times to avoid the possibility of crowding on peak hour journeys. This assessment has been agreed by TfL.

5.6 On-site Bus Facilities and Routing

5.6.1 This section summarises the results of an analysis of optimum bus routing around the development. The full Technical Notes on this subject are available in Appendices N and O, and the bus routing is illustrated in Figures 5-1 and 5-2.

5.6.2 Service 415 will approach the site from Ilderton Road (northbound) and the new Lewisham service will approach westbound along Surrey Canal Road. Six initial routes for bus circulation around the development were considered as follows:

1. Clockwise eastern loop – via Surrey Canal Road, Surrey Canal Road station, Rollins Street and Rollins Street/Surrey Canal Road link northbound;
2. Anti-clockwise eastern loop – the reverse of the above;
3. Clockwise western loop – via Surrey Canal Road, Surrey Canal Road/Rollins Street link southbound, Rollins Street and Ilderton Road;
4. Anti-clockwise western loop – the reverse of the above;
5. Clockwise complete loop – via Surrey Canal Road, Surrey Canal Road station, Rollins Street and Ilderton Road; and
6. Anti-clockwise complete loop – the reverse of the above.

5.6.3 A review of the above options identified that Options 3 and 5 were not suitable as these resulted in only one stop being available for route 415, at the railway station. This means longer access times to many parts of the development and poorer accessibility. Furthermore, option 6 was also discounted as it is subject to the greatest number of issues in terms of negotiation of various junctions and land ownership.

5.6.4 Options 1 and 2 minimise the number of bus movements through the Ilderton Road/Surrey Canal Road junction but, they require the link road outside the station to be delivered in order to accommodate bus movement. These options are dependant on land being made available from TfL to deliver an appropriate route for buses without compromising the delivery and urban design of the Excelsior Plot to the west within the context of the development as a whole. Discussions regarding the availability of this land are on-going. Of these two options TfL's preference is an anti-clockwise routing, Option 2.

5.6.5 Option 4 is the only option which does not require the station loop road. Option 4 does not allow for an interchange immediately adjacent to the station unlike Options 1 and 2, but does provide interchange with the station within a preferable walking distance as set out in the 'Guidelines for Planning for Public Transport in Developments' published in 2000 by the Institute of Highways and Transportation.

5.6.6 TfL's aspirations to improve further the interchange between bus and rail at the new Surrey Canal Road railway station is recognised. The revised Parameter Plan 10 shows the provision of the layout which would accommodate this bus routing option which is preferred by TfL and LBL. The delivery of this routing is dependant upon TfL being able to make available the necessary land. If this were not to be the case, then the bus routing would revert to option 4 which is achievable and deliverable. Discussions are ongoing with TfL in relation to the delivery of this interchange.

5.6.7 If the Option 2 routing is deliverable, subject to the availability of TfL land in the area immediately to the west of Surrey Canal Road station, it:

- Provides interchange opportunities with Surrey Canal Road station, with passengers set down outside the station as preferred by TfL and LBL;
- Maintains two separate layover areas; and
- Allows Lewisham buses to avoid Ilderton Road;

5.6.8 Figure 5-1 shows the routing of Option 2 through the Proposed Development.

5.6.9 If the Surrey Canal Road Station link is not able to be delivered then the revised Parameter Plan 10 includes provision for implementing Option 4 instead which:

- Does not require buses to travel in front of the station;
- Provides interchange with Surrey Canal Road Station comfortably within a desirable walking distance (approximately 180 metres for the Elephant and Castle Service and approximately 165 metres for the Lewisham Service);
- Maintains two separate layover areas on the Rollins Street link and on Surrey Canal Road; and
- Reverses the direction of flow on the link between Rollins Street and Surrey Canal Road.

5.6.10 Figure 5-2 shows the routing of Option 4 through the Proposed Development.

5.6.11 The routing layout for Option 2 is identified on the main part of revised Parameter Plan 10. The road layout associated with Option 4 routing is illustrated in the 'Fall Back Option' insert on revised Parameter Plan 10.

5.6.12 Appropriate facilities for bus drivers taking legal breaks will be provided within convenient and safe walking distance to stands located on the site. Provision will be contained in the S106 and will include seating areas, toilet facilities, etc.

5.6.13 Bus stops within the Proposed Development will be designed and constructed to applicable TfL standards to ensure safe and reliable operation. The S106 Agreement will include provision for the improvement of bus stops near to the Proposed Development.

5.7 Phasing of Public Transport Improvements

5.7.1 Renewal has committed to funding the construction of Surrey Canal Road railway station at the outset of the development at Surrey Canal. This will result in significant enhancements to the accessibility of the development and the area in general.

5.7.2 Following extensive consultation on the public transport strategy with both TfL and LBL, agreement has been reached on the new bus routes to be extended and established, PTAL calculation methodology and results, trip generation and distribution, the ability of bus and rail services to cope with the additional development traffic and bus routing. Phasing of the new bus service with appropriate trigger levels will be determined through the S106 Agreement in negotiation with LBL and TfL. At this stage, discussions have highlighted connections between the delivery of sports uses and the multi-faith centre and the provision of the Lewisham service. Surrey Canal Road Station and the improved link to South Bermondsey Station will be delivered in the early development stages, therefore travel to Central London will be provided for. On that basis, the Elephant and Castle service could be provided in later stages of the development.

6 Parking

6.1 Introduction

6.1.1 Further clarification in respect to parking has been requested by TfL and LBL during the consultation process. An amended illustrative scheme has been proposed, details of which are included in Section 1.9 of this report. This has reduced the areas on some plots within the development and consequently the level of parking associated with the illustrative scheme has changed.

6.1.2 TfL and LBL have agreed the parking justification proposed for residential uses. Millwall FC and LBL have confirmed that 150 parking spaces should be made available for MFC on match-days and 80 on non-match days to cater for their conference business and 40 on non-match non-conference days. Details on Millwall FC's parking provision are included in section 12.5 of this report.

6.1.3 The authorities have requested more clarification and further work to supplement some of the uses in the parking justification which was included in Appendix J of the TA, especially with regards to D1 and D2 parking.

6.1.4 Further clarification also has been requested for coach parking facilities for Millwall FC and cycle parking facilities.

6.1.5 This section outlines the changes to the parking schedule for the illustrative scheme and clarifies the car, coach and cycle parking with reference to the section 7.4 of the TA. The below is a summary of the parking provision based upon the illustrative scheme. The Development Specification provides further details on the parking and includes numbers of parking spaces based upon the maximum levels of residential development in the planning application.

6.2 Proposed Car Parking

6.2.1 The proposed parking schedule for the illustrative scheme of Proposed Development is included in Appendix P and replaces the parking schedule included in Appendix J of the TA. Key changes to the parking schedule are as follows:

- Drop in the number of residential parking spaces by 33 spaces in line with a change of the development quantum for the illustrative scheme;
- Reduction in the number of Hotel spaces by 30, changing the total number of spaces to 50;
- Millwall FC spaces – Millwall FC and LBL officers have agreed that it is appropriate for Millwall FC to have access to 80 spaces on non-match days when a conference takes place, 40 spaces on non-match days with no conference and 150 spaces on match days. There will therefore be an additional 70 spaces for Millwall FC available in the Stadium Avenue Plot.

6.2.2 Parking per plot is illustrated in Drawing SEW 02/007/01 which is attached to the end of this report.

6.2.3 Parking within the Proposed Development and the neighbouring areas will be monitored as part of the Travel Plan, see section 11, and if overspill parking issues arise a CPZ will be promoted as part of the S106 Agreement.

6.3 C1 Parking Justification

6.3.1 The LBL maximum parking standards for C1 hotels and hostels are 1 space for 2 to 5 guest rooms (maximum) subject to the level of public transport accessibility. It also states that hotels with function rooms for non-residents or premises open to the public are permitted an additional 1 space per 10 square metres (GFA) of space open to the public.

6.3.2 LBL has stated that based on the accessibility of the Proposed Development, there should be 1 space per 4 bedrooms.

6.3.3 It is proposed that the hotel will have up to 150 rooms with potential ancillary conference facilities. Based on the standards outlined above there should be 38 parking spaces associated with the hotel bedrooms and 12 additional spaces associated with the potential conference facilities. A total of 50 parking spaces is therefore proposed for the hotel and potential ancillary conference facilities in the Stadium Avenue Plot.

6.3.4 A analysis of sites within TRAVL has been undertaken to show that the level of parking proposed is appropriate for a hotel and potential conference facility of this size. The hotels identified in TRAVL have a PTAL in the range of 2 to 4 which are comparable to the Proposed Development (PTAL 3). The sites included in the analysis are as follows:

- Travelodge Docklands, South Bromley (PTAL 2, 232 rooms, 67 parking spaces);
- Express Holiday Inn, Stratford, including meeting rooms (PTAL 3, 114 rooms, 20 spaces);
- Ibis Hotel, Greenwich (PTAL 3, 82 rooms, 27 parking spaces);
- Battersea Travelodge, Wandsworth (PTAL 4, 80 rooms, 40 spaces);
- Carlton Mitre Hotel, Hampton Court including conference facilities (PTAL 4, 34 rooms, 14 spaces); and
- St Giles Hotel, Feltham, including conference facilities (PTAL 4, 303 rooms, 150 parking spaces).

6.3.5 The average parking ratio for hotels without conference facilities is 1 space per 3.4 bedrooms, and the average ratio for hotels with conference facilities is 1 space per 2.2 bedrooms. This analysis shows that with conference facilities included more spaces are required per room than without these facilities. Therefore, the hotel within the Proposed Development is comparable to the TRAVL sites as the overall parking ratio (including conferencing facilities) is 1 space per 3 bedrooms. The TRAVL outputs are shown in Appendix Q.

6.4 D1 and D2 Parking Proposals

6.4.1 LBL stated in their parking standards that Class D land uses will be treated on their merits. In post-application comments, both TfL and LBL requested further clarification on the justification for parking levels for D1 and D2 uses.

6.4.2 The D1 and D2 land uses for the Proposed Development are broad and could include a number of uses. The illustrative scheme proposes the following: a crèche; a polyclinic; and a multi faith centre for D1 and a range of sporting provision for D2.

6.4.3 The following illustrative parking is proposed for the D1 and D2 land uses:

Table 6-1: D1 and D2 Proposed Parking Levels

Land Use	Proposed Number of Parking Spaces (illustrative)	Changes from Original TA
D1 Multi-faith Centre	57	Unchanged
D1 Crèche	5	Unchanged
D1 Polyclinic	43	Unchanged
D2 Sports Uses	78	Unchanged
Millwall FC (Stadium)	23	Reduction of 27 spaces retained as existing
Millwall FC	70	Addition of 70 spaces
Car Club (for all land uses)	22	Unchanged

Source: Consultants Calculations

D1 Parking

6.4.4 The parking associated with the proposed D1 uses has remained unchanged from the TA. This provision has been discussed and agreed with LBL.

6.4.5 The parking provided for D1 uses is considered to be appropriate for the operational requirements of the facilities and a restricted level of parking for users.

6.4.6 Travel to the Multi-faith Centre will include public transport and private travel arrangements but will primarily be through the supply of coach transport for users of the facility. It is therefore considered that the parking proposed will be appropriate for operational requirements providing a limited level of on-site parking.

D2 Parking

6.4.7 The illustrative off-street parking associated with D2 uses, excluding the car club which is available for all land uses, is 148 spaces. This is within the 150 spaces agreed by LBL officers during the post application consultation period.

6.4.8 Of the 148 spaces, 78 are associated with sports uses. PPG13 sets out maximum parking standards for D2 uses as 1 space per 22 square metres. The proposed provision for D2 sports uses is 1 space per 176 metres, 13% of the maximum figure, which considering the

future accessibility of the site (its improvement through new bus services and the new Surrey Canal Rail Station) is appropriate.

6.4.9 A TRAVL analysis has been undertaken to show how the D2 sports uses parking compares to similar sites. The following sites have been identified as having similar characteristics to the proposed D2 uses and have been used in section 3.3 to provide an example of D2 trip generation:

Table 6-2: TRAVL Analysis for D2 Parking

TRAVL Site	PTAL	Parking Ratio
Brentford Fountain – a leisure centre with indoor 5-a-side football courts, badminton courts, a dance studio, gym and swimming pool	4	1 space per 187 spaces
East Dulwich Leisure Centre – a leisure centre for martial arts, gymnastics, aerobics, which includes a gym and swimming pool	5	1 space per 409 spaces (note visitors tend to park in nearby off-site parking areas)
Surrey Docks Watersports Centre – a centre for kayaking, sailing and power boating, activities which attract a number of people to the centre for classes/events	5	1 space per 54 square metres
Average Parking Ratio		1 space per 168 square metres

Source: TRAVL and Consultants Calculations

6.4.10 It is acknowledged that there is a variation of provision at the sites and noted that there is overflow parking in relation to East Dulwich Leisure Centre site. The Brentford Fountain site is considered to be the most comparable site and this has a similar parking provision. The average parking ratio for these sites is 1 space per 168 square metres compared to the proposed parking ratio of 1 space per 176 square metres. Therefore based on this review it is considered that the parking ratio adopted is appropriate for the proposed D2 uses. The TRAVL outputs are contained in Appendix I.

6.4.11 The number of spaces available for Millwall FC has increased by 43 spaces through a reduction of on-street spaces by 27 (the area to the rear of the east stand is retained as existing) and an increase in off-street spaces by 70. This change is in response to comments by LBL and Millwall FC during the post-application consultation, which requested that Millwall FC have provision for 150 spaces on match days, 80 on non-match conference days and a lower provision for non-match non-conference days.

6.4.12 The parking on non-match days will be permanent Millwall FC parking located on-street adjacent to the Stadium and in off-street space4s accessed from Stadium Avenue. On non-match non-conference days the parking will be managed to ensure that levels are not exceeded. On match days, the remainder will be from shared use spaces. These spaces are discussed in detail in section 6.5 below. Millwall FC parking has been agreed with LBL officers.

6.4.13 The car club will be available to all uses across the Proposed Development.

6.5 Dual Use of Parking Spaces

6.5.1 Through the post application discussions with Millwall FC, Renewal has been asked to provide a greater number of parking spaces for Millwall FC on match days. A total of 150 spaces has been agreed by both Millwall FC and LBL officers. LBL has requested that the dual use of spaces across the Proposed Development between Millwall FC and other land uses is considered.

6.5.2 The dual use of car parking spaces between Millwall FC and other land uses across the Proposed Development has been assessed in terms of the timing of peak parking demand, land ownership, and from a commercial and operational point of view. As the football

matches normally take place during the midweek evenings and at weekends, operationally this is much easier to be managed in association with the health use, hotel and business centre uses in the Stadium Avenue and Bolina East plots. These land uses have a greater synergy in terms of the time of their use and match day provision with the football demand.

6.5.3 The illustrative parking provision will be as follows on the Stadium Avenue and Bolina East plots to accommodate the requirements of both the Proposed Development as well as Millwall FC match day requirements:

- B1 business centre provided with 10 spaces of which 5 will be made available on match days for Millwall FC use;
- C1 hotel / possible ancillary conference centre has reduced from 80 to 50 spaces of which 30 will be made available on match days for Millwall FC use;
- D1 polyclinic remaining at 43 spaces of which 22 will be made available on match days for Millwall FC use; and
- Millwall FC has 70 spaces which all are available on non match days (57 available for Millwall FC conferences and 17 for days without a conference).

6.5.4 The illustrative dual use parking spaces for plots Bolina East and Stadium Avenue are shown on Drawing SEW 02/007/01.

6.5.5 This strategy delivers 40 parking spaces for Millwall FC on a non match day without conferencing, 80 on a non match day with conferencing and 150 spaces on a Millwall FC match day sharing health/hotel/business centre spaces.

6.6 Coach Parking

6.6.1 Coach parking facilities were identified on the Parameter Plan submitted as part of the TA, these were located to the north of the stadium and on link between Surrey Canal Road and Stockholm Road.

6.6.2 Through further discussions with Millwall FC an increase in the provision for coaches associated with football fans was agreed. It was agreed that 10 coach parking spaces should be provided with three additional coach drop-off spaces. These spaces are illustrated in the revised Parameter Plan 10 and are located to the rear of the north stand. Provision for this coach parking has been made through amendments to the Bolina East plot. This level of coach parking has been agreed with Millwall FC and LBL officers.

6.6.3 In addition to this, coach drop-off is to be provided on Stadium Avenue in proximity to the new hotel and sports uses, outside Plot Stockholm 1 and to the rear of Plot Orion for the Multi faith Centre. See the revised Parameter Plan 10 for the location of the coach parking.

6.6.4 Off-site coach parking will be discussed in section 12.4 of this report.

6.7 Cycle Parking Clarification

6.7.1 Cycle parking will be determined with reference to the current London Plan when future detailed planning applications are considered throughout the development. At this time, the proposed cycle parking has been based upon the Consultation Draft Replacement London Plan, published in October 2009.

6.7.2 Cycle parking will be provided for residents at a minimum ratio of 1 cycle space for each 1-2 bed residential unit and 2 spaces for each 3-4 bed residential unit. Further cycle parking at a

minimum of 282 spaces will be provided for visitors and staff within the areas of publicly accessible open space.

6.7.3 The relevant Draft London Plan cycle standards are outlined in Table 6-2.

Table 6-2: Draft 2009 London Plan Cycle Standards

Land Use	Standards
C3 (Dwellings)	1 per 1 or 2 bed unit, 2 per 3 or more bed unit
A1 Food in centre Non food in centre	1/125 1/300
A2 (Financial Services)	1/125
A3 (Cafes & restaurants)	1 per 20 staff + 1 per 20 customers
B1 (Business)	1/250
C1 (Hotels)	1 per 10 staff
D1 Health facilities/clinics	1 per 5 staff + 1 per 10 visitors
D2 Leisure facilities	1 per 10 staff + 1 per 20 peak period visitors

Source: Draft London Plan, 2009

6.7.4 To obtain the cycle parking for C3 and B1 private, the standards in the draft London Plan have been applied to the illustrative scheme development level for each plot, then rounded up to the nearest whole space and summed. The residential cycle parking per plot is illustrated in Drawing SEW 02/007/01. An appropriate level of on-street parking for visitors is proposed for B1 and this has been calculated using a ratio of 1 space per 500 square metres, half the level of B1 private parking.

6.7.5 The standards for C1 use do not require cycle parking provision for visitors, however a small level of visitor parking has been proposed in light of the conference/ancillary uses. The D1 standard for visitor spaces is 1 per 10 visitors and it has been estimated that there will be approximately 320 visitors per hour. The standard for D2 uses is 1 space per 20 peak period visitors and it has been estimated that there would be approximately 720 visitors during a peak period. Both of these levels of visitors are greater than the peak period trip generation for these uses as assessed in the TA. It is also considered that this visitor parking provision is sufficient for the evening and weekend peaks at the Proposed Development.

6.7.6 Cycle parking for A1 to A5 land uses has been estimated using a ratio of 1 space per 60 square metres applied to the illustrative scheme. This is in excess of the draft London Plan ratios in Table 6-2.

6.7.7 The standards for C1, D1 and D2 relate in part to the level of employees. At this outline application stage an estimate of employee numbers for each of these land uses has been undertaken as summarised in the table below.

Table 6-3: Estimated Staff and Visitor Numbers for the Proposed Development

Surrey Canal Land-Use	Estimated Level of Staff
C1	90
D1	25
D2	220

Source: Consultants Calculations

6.7.8 The estimated level of cycle parking for the Site is set out in Table 6-4.

Table 6-4: Estimated Cycle Parking for the Proposed Development

Surrey Canal Land-Use	Surrey Canal Cycle Parking Spaces (Estimated)	
	Public Spaces	Private Spaces
C3	Visitors accommodated in private spaces	2726*
A1 – A5	107	0
B1	22	43
C1	6	9
D1	32	5
D2	36	22
*Changed from original TA *Source: Consultants Calculations*		

6.7.9 The cycle parking outlined in Table 6-4 are preliminary levels based on the illustrative scheme. Actual cycle parking levels will be confirmed when detailed applications come forward and will be based on the London Plan standards set out in Table 6-2.

6.7.10 The site Wide Framework Travel Plan and associated Phase Specific Travel Plans will provide a mechanism to monitor the provision and use of cycle parking across the Site and in relation to each particular land use. Although the cycle parking will be based upon the London Plan standards, the use and need for the cycle parking will be monitored and managed so as to ensure that a pragmatic and sensible approach is taken in relation to the provision.

6.7.11 The Site Wide Framework Travel Plan and future Travel Plans will therefore inform the precise nature of the provision for each of the land uses in question as the Site is developed.

7 Site Layout

7.1 Introduction

7.1.1 This section of the report provides a summary of the amendments which have been made to the general highway arrangement post-submission of the planning application. Changes have been made in relation to the on-site layout as a result of the following:

- Further development and agreement reached in relation to the bus strategy to serve the site and the associated routing of buses through the development;
- Consultation responses received from TfL, LBL and LBS on the on site layout;
- Millwall Football Club requirements for crowd access, police, Sky TV access / accommodation and coach access being better understood and accommodated within the scheme.

7.1.2 Following a series of meetings with all of the interested parties concerned, a number of changes have been made to the Parameter Plans to reflect the items above and address the various issues raised. These changes are described in greater detail below and are agreed by TfL and LBL.

7.1.3 The revised Parameter Plan 10 is included at the end of this report and replaces the Parameter Plan 10 submitted as part of the TA in January 2011. It is considered that LBL's comments on highway design issues have been addressed through this revised Parameter Plan.

7.2 Bus Routing

7.2.1 The principle bus strategy for the site has been agreed with TfL and LBL and includes two new services to be provided / extended to serve the site. This differs to the bus services envisaged to serve the site in January at the time of the planning application.

7.2.2 The first of these services is an extension to a service which terminates at the Elephant & Castle. Within the site this service would utilise a loop using Ilderton Road to the west, Surrey Canal Road, the link between Rollins Street and Surrey Canal Road, Rollins Street and the Surrey Canal Road Station link. The buses would stop for boarding, alighting and layover on the Surrey Canal Road Station link then route westbound on Surrey Canal Road. The service would then return to Ilderton Road for the outbound journey.

7.2.3 The second service to be provided is to / from Lewisham. This would utilise the same loop as the Elephant and Castle service travelling along Surrey Canal Road westbound into the site, stop for alighting only on Surrey Canal Road (to the east of the station entrance), route south on the link to Rollins Street where it would layover, east on Rollins Street and north on the new link between Rollins Street and Surrey Canal Road where it would stop for boarding before leaving eastbound on Surrey Canal Road, see Figure 6-1 for the bus routing.

7.2.4 As a result of the agreement on the strategy to provide the two bus services to the site and their routes, it has been necessary to amend the road layout. The key changes are as follows:

- Surrey Canal Road/ Rollins Street link to become southbound only;
- Surrey Canal Road Station link to include bus layover and stops (discussed in section 7.3);

- Revised location of bus layover on Surrey Canal Road/ Rollins Street (discussed in section 7.3); and

- Removal of bus layover on Surrey Canal Road and revised location of bus stop to the east of Surrey Canal Road Station (discussed in section 7.3).

7.2.5 The provision of the bus routing described above is dependent on the availability of TfL land along the Surrey Canal Road Station link adjacent to the ELLE. There have been a number of discussions over the routing of the bus services in the site. The preferred option for TfL and LBL has been proposed as it will improve the interchange between bus and rail and the new Surrey Canal Road Station.

7.2.6 The routing described above is considered to provide an optimum way of serving the Proposed Development, neighbouring areas and those interchanging at Surrey Canal Road Station.

7.2.7 The delivery of this routing would be dependant upon TfL being able to make the land required to achieve it. Discussions are ongoing with TfL in relation to the delivery of this interchange and bus routing. Should TfL not make the land available, provision is included on revised Parameter Plan 10 for the delivery of a layout to support a different bus routing.

7.2.8 In the scenario where the land is not available, a revised arrangement would require the route from Lewisham entering the site from Surrey Canal Road westbound routing southbound along Ilderton Road, eastbound along Rollins Street, northbound along the new link between Rollins Street and Surrey Canal Road. The service would stop on this new link and would terminate and layover there. The service would then exit this link and route eastwards again on Surrey Canal Road.

7.2.9 The bus route from Elephant and Castle would travel into the site from Ilderton Road travelling along Rollins Street until the new link between Rollins Street and Surrey Canal Road link where it would route north. It would then route westbound on Surrey Canal Road where it would layover before continuing onto Ilderton Road. See Figure 6-2 for the bus routing. The routes for the scenario where the land is not available provide a deliverable and compliant way of serving the Proposed Development.

7.2.10 The 'Fall Back Option' inset of the revised Parameter Plan 10 shows the provision of the layout which would accommodate this Option 4 bus routing.

7.3 Bus Layover/ Stops

7.3.1 It was agreed with TfL that there should be bus layover bays provided for each of the two new bus routes to serve the site. It has been agreed that these layover bays will need to be provided in two separate locations and to be 24 metres in length. LBL stated that no layover was to be provided on Rollins Street due to the adverse impacts on residential amenity.

7.3.2 The revised Parameter Plan 10 therefore shows bus layover bays on the new Surrey Canal Road/ Rollins Street link (on the eastern side), and on the new link adjacent to Surrey Canal Road Station. The bus layover bays will also to provide bus stops. An alighting only stop will also be provided for the Lewisham service along Surrey Canal Road to the east of the station entrance.

7.3.3 In the scenario where the land is not available for buses to operate along the link adjacent to Surrey Canal Road Station, the bus layover would be provided on the link between Rollins Street and Surrey Canal Road and along Surrey Canal Road.

7.4 Public Transport Interchange

7.4.1 TfL has provided information on the location and extent of the ELLE works. Based on this information, the minimum parameters for the link adjacent to the ELLE have been agreed with TfL and are as follows:

- 0.3 metre margin from the TfL ELLE boundary;
- 4.1 metres of the northbound traffic route; and
- 5 metre footway of which 3 metres of part of the route could be a bus stop/layover.

7.4.2 This arrangement is illustrated in Drawing 17004/001/52A which is attached to the end of this report and is based on a scenario where the TfL footpath adjacent to the ELLE is not included. There is further potential to incorporate this footpath into the arrangement for this link.

7.4.3 The revised Parameter Plan 10 gives flexibility in terms of building layout which will permit some sections to be wider than the minimum widths set out above.

7.4.4 Should the TfL land adjacent to the ELLE not be available, the revised Parameter Plan 10 includes provision for another layout to accommodate a different bus routing option which is shown in the 'Fall Back Option' inset.

7.5 Taxi Rank Provision

7.5.1 Provision for two taxi ranks has been provided. These are located on the link adjacent to Surrey Canal Rail Station and on Stadium Avenue. Each of these will accommodate a minimum of two taxis.

7.5.2 Should the link adjacent to Surrey Canal Road Station not operate as a bus route due to TfL land availability, two taxi ranks would be provided on Stadium Avenue and on the link between Rollins Street and Surrey Canal Road. Again, each of these would accommodate a minimum of two taxis, see 'Fall Back Option' inset on the revised Parameter Plan 10.

7.6 Pedestrian Crossing/ Form of Crossing on Surrey Canal Road

7.6.1 Both LBL and TfL have requested that the new pedestrian crossing on Surrey Canal Road be moved eastwards towards the new railway station as shown on the revised Parameter Plan 10. In addition the authorities stated that it was their preference for this new crossing to be provided in combination with the pedestrian crossing in relation to the ELLE. The signals for these crossings will therefore act as one linked arrangement.

7.7 Coach Parking

7.7.1 Coach parking provision was shown in the original (January 2011) Parameter Plan 10 both to the north of the stadium and on the link between Surrey Canal Road and Stockholm Road.

7.7.2 Through further discussions with Millwall Football Club an increase in the provision for football coaches to 10 spaces in addition to 3 drop-off spaces was agreed. As shown in the revised Parameter Plan 10, the coach parking spaces, including drop off spaces are located to the rear of the north stand In addition, further coach drop-off spaces are to be provided on Stadium Avenue in proximity to the new hotel and to the rear of Plot Orion for the Multi Faith Centre.

7.8 Changes to Stadium Avenue

7.8.1 The route through Stadium Avenue was previously identified as a service route / emergency route across a pedestrianised area. As a result of scheme changes, there have been a number of additional functions added to this area. In addition, an area has been 'safeguarded' by being left free of buildings to allow for the future expansion on the land to the rear of the west stand of the stadium.

7.8.2 A further use that has been accommodated to the rear of the Stadium Avenue plot is for occasions when Sky Television will broadcast football matches. Millwall FC has confirmed the number and types of broadcasting vehicles that have to be accommodated to meet Premier League rules, and an appropriate area has been identified for this to the rear of the Stadium Way plot. The entrance for these vehicles will be from Stockholm Road and their exit will be back onto Stadium Avenue / Zampa Road.

7.8.3 As the hotel is located off Stadium Way, a coach drop off point has been added to the route along with taxi rank provision and some disabled spaces.

7.9 Changes to Bolina Gardens

7.9.1 Amendments to the layout in Bolina Gardens have been made to show the limits of deviation for the proposed new pedestrian route running north towards South Bermondsey railway station. Further amendments primarily relate to the rationalisation of on-street parking and Bolina Plot servicing bays to reduce the conflict between this pedestrian route and the provision of servicing/ parking and to ease pedestrian crossings.

7.10 Changes to Senegal Way

7.10.1 The Senegal Way Plots 1 and 2 have been amended, reduced in size and adjusted in terms of layout as a result of discussions with Millwall FC regarding the need to maintain the emergency evacuation route for Millwall FC in this location.

7.10.2 In addition to this change to the buildings, the road layout has also been amended to reflect the uncertainty as to the ability to access the Plots from the 'Millwall FC access road' to the east of Plots Senegal 1 and 2 and outside of the planning application boundary, which is owned by TfL. As a result of this, the revised Parameter Plan 10 is shown with two access options. Access is taken from a two-way carriageway which links to Stockholm Road from the west across to Stockholm Road in the revised Parameter Plan 10. In the inset, access is retained to the east off the 'Millwall FC access road', as within the original planning application, but with the northern connecting road to the north of the Senegal Way plots relocated southwards. The area to the north of this will be retained for pedestrian access to the stadium and a police operational area on match days. Such an access arrangement is subject to reaching agreement with TfL over forming the plot accesses to the Millwall FC access road which is in their ownership.

7.10.3 An alternative layout should access be granted by TfL over the access road is set out in the revised Parameter Plan 10 inset. This layout retains the access point to Senegal Way along the Millwall FC access road as in the original TA, but the positioning has been adjusted to reflect changes Senegal Way Plots.

7.11 Changes to Stockholm Road

7.11.1 The amendment to the scheme in relation to the Stadium Avenue plot has provided a greater width to the section of Stockholm Road. This has resulted in this road being made two way further into the site as well as enabling wider footways to be provided along the length of

Stockholm Road within the site. For any vehicles that mistakenly enter the site on Stockholm Road but need to turn around, the junction with Stadium Way allows for these occasional movements to be accommodated.

7.12 Access to Orion Plot

7.12.1 The Surrey Canal Road bellmouth of the access to plot Orion has been re-aligned slightly with improved visibility to provide a better alignment to turn west on Surrey Canal Road and reduce any interaction with the Mercury Way junction opposite.

7.13 Bolina Road Access

7.13.1 The Thameslink Works project seeks to achieve grade separation of the railway lines serving the Thameslink Brighton route to deliver a faster service. As part of these works, the vehicular link between the Surrey Canal Site and Silwood Street via Bolina Road will be extinguished. Bolina Road will then be reduced to a pedestrian/ cycle route only at this point, see the Masterplan Delivery Strategy submitted as part of the planning application for more details.

7.13.2 A number of comments have been made by local businesses regarding the loss of Bolina Road as access for heavy vehicles to support waste and recycling businesses along Bolina Road east of the railway line. LBL have also raised concerns over the sterilisation land to the north of the Proposed Development.

7.13.3 The closure of Bolina Road to vehicles is as a result of the Thameslink Works being undertaken by Network Rail under Traffic and Works Act Order (TWAO) Ref:TWA/97/APP/10 & TWA/99/APP/09 was approved on the 22nd November 2006 by the Department for Transport and not the Proposed Development.

7.13.4 In a meeting between Renewal and Network Rail, it was confirmed that the works under the TWAO set out the provision of alternative access routes to the area and that those sites would cease to exist as a result of the Thameslink Works. A record of this meeting is contained within Appendix Q. It is understood that the site will be returned to Network Rail Property in 2017.

7.13.5 Given LBL's concerns over the sterilisation of these sites, the confirmation that this is not as a result of the Proposed Development and that the TWAO makes provision of alternative routes, Renewal consider that these matters have been addressed.

8 Off-site Pedestrian Improvements

8.1 Introduction

8.1.1 In the post-application consultation the importance of improved connections with the surrounding area was highlighted. The provision of on-site and off-site walking connectivity is discussed in section 7.3 'Accessibility and Circulation' and section 11.1 'Walk and Cycle Strategy' of the TA. During the consultation, TfL and LBL requested more clarification on the measures to be implemented.

8.1.2 This section summarises the off-site pedestrian improvements which will be implemented in line with the Proposed Development and supplements information in the original TA. Further detail on the off-site pedestrian improvements is included in the Masterplan Delivery Strategy submitted with the Planning Application.

8.2 Off-site Pedestrian Improvements

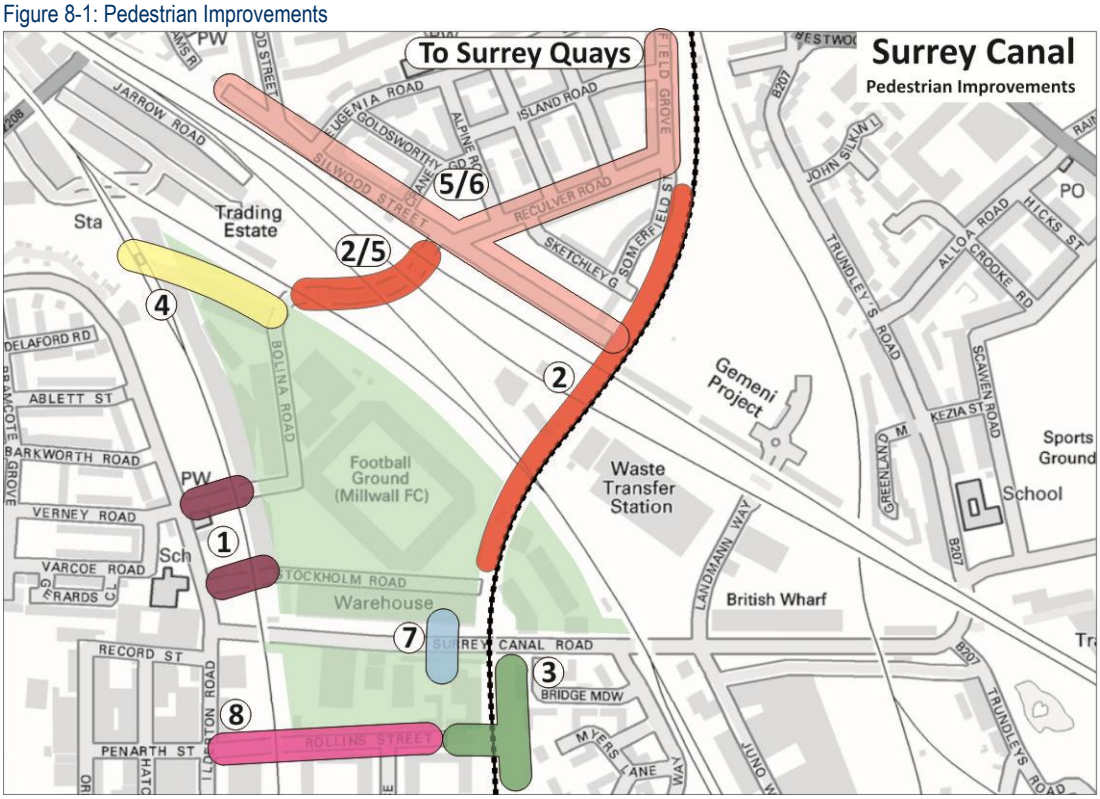
8.2.1 Nine off-site pedestrian improvements have been identified which were discussed in sections 7.3 and 11.1 of the TA. Table 8-1 provides further clarification on the details associated with each off-site measure. As these are off-site measures and involve a number of external parties, the table also states who the improvements will be developed in partnership with.

Table 8-1: Pedestrian Improvements

	Pedestrian Improvement	Details	In partnership with local authority / TfL / Network Rail / Sustrans
1	Zampa Road/ Stockholm Road Footway	Increase footway width and improve lighting on sections of Zampa Road and Stockholm Road between Ilderton Road and the red line boundary. Improvements to the railway arches along these sections as discussed in pedestrian improvement 2 below.	LBS
2	Railway Arches and Underpasses	Lighting and cleaning of railway arches within the red line and along Zampa Road, Stockholm Road, Bolina Road, Rollins Street and to the route of the ELLE, taking into account works by Rail for London on the footpath alongside the ELLE.	LBL / TfL / Network Rail
3	Improved Pedestrian and Cycle Links to Bridgehouse Meadows	Improve the pedestrian access route from Surrey Canal Road to Bridge House Meadows.	LBL / TfL
4	Pedestrian and Cycle Link to South Bermondsey Station	Direct pedestrian and cycle link to South Bermondsey Station from the Proposed Development. An Interim link is being investigated by JMP and would be complete between January 2014 to April 2015 to coincide with Thameslink works.	LBS / LBL / Network Rail / Sustrans
5	Lighting along pedestrian route to Surrey Quays Station	Provide street lighting from Bolina Road, along Silwood Road to Surrey Quays station. This is an extension to the planned TfL/LBL lighting project by a few hundred metres.	LBL
6	Improvements to Silwood Street	Street lighting and widening of pavements along Silwood Street.	LBL
7	Pedestrian crossing on Surrey Canal Road	Provide a wide signalised crossing on Surrey Canal Road linked to pedestrian connections on-site.	LBL
8	Rollins Street	S106 contribution to traffic calming along Rollins Street to create an improved pedestrian environment.	LBL
9	Legible London (Throughout Site and Local Area)	S106 contribution towards Legible London signage for the Proposed Development to aid way finding for pedestrians through the railway arches and around the Proposed Development.	LBL / LBS / TfL

8.2.2 Figure 8-1 shows the location of each pedestrian improvement in relation to the Proposed Development.

Figure 8-1: Pedestrian Improvements



8.2.3 Discussions are ongoing between Renewal, TfL, LBL, and Network Rail regarding land ownership relating to pedestrian improvements. It is agreed with LBL that the off-site pedestrian measures will be secured through a S106 Agreement.

9 Surrey Canal Road Highway Improvements

9.1 Introduction

9.1.1 This section details the comments by TfL, LBL and LBS on the proposed highway scheme for Surrey Canal Road during a series of meetings on the general arrangement of the Proposed Development. It also summarises any subsequent minor amendments to the scheme. This scheme supersedes the proposals in the original TA.

9.1.2 TfL, LBL and LBS made a number of comments regarding the functioning of the signalised junction proposed on Surrey Canal Road and requested a number of further improvements. Issues were raised over the capacity assessments for the junction of Surrey Canal Road with Ilderton Road which were over capacity for periods during the peak hours. This section summarises the approach adopted to improve the operation of this junction.

9.1.3 As part of the bus strategy, and in consultation with TfL and LBL, changes have been made to the two junctions between Surrey Canal Road and Rollins Street to accommodate bus routing Option 2 (bus routing options discussed in section 5). Traffic signals have been removed from the western most junction and the direction of movement for the western Surrey Canal Road/ Rollins Street link has been reversed. Option 2 bus routing and the associated layout of Surrey Canal Road is dependent on land being made available from TfL Should land not be available from TfL to accommodate bus routing option 2, option 4 will be implemented and provision for this is made on the revised Parameter Plan 10.

9.2 Capacity Results

9.2.1 TfL and LBL have commented on the highway capacity results for Ilderton Road/ Surrey Canal Road and requested that mitigation measures were investigated to alleviate the impact of the Proposed Development traffic on the junction. This section details the investigation into mitigation for these measures.

Ilderton Road/ Surrey Canal Road

9.2.2 This junction has been discussed at length with Officers of TfL, LBS and LBL during stakeholder meetings. It is accepted that the junction has capacity limitations and the scope to improve it is restricted by the land available, services, levels, railway, etc. Unconstrained improvements have not however been considered as these would detract from the substantial investment in public transport measures.

9.2.3 It was agreed with LBL, LBS and TfL that an appropriate improvement to the junction could be to widen the Surrey Canal Road approach to provide a two lane approach. Details of this layout are included in the technical note entitled ‘Surrey Canal – Further Assessments of Local Junctions’, see Appendix R.

9.2.4 The junction has been assessed in two operational scenarios: firstly with the pedestrian crossing operating in every cycle; and secondly the pedestrian crossing operating in every other cycle, as requested by TfL. The junction has also been assessed with two traffic scenarios: without any allowance for the travel plan, bus services and the new railway station; and with the ‘mitigation’ flows where the flows are reduced to reflect the substantial investment in accessibility improvements (details of this were as set out in section 12 of the TA).

9.2.5 The modelling results show that, post development, the junction will operate better with the flared approach on Surrey Canal Road. Allowance for the reduced traffic flows associated

with the accessibility improvements the site will bring to the wider area (including bus service and the new Surrey Canal Road rail station) than in the forecast base scenario. In the AM peak, the revised layout option shows that the junction will operate under 90% of its capacity with the pedestrian crossing called every other cycle. In the PM peak, the junction will perform better than the existing layout with the Forecast 2026 flows for both operational scenarios, therefore a nil detriment improvement is provided. On the Saturday scenario, the results are slightly higher than the corresponding future situation without development for both scenarios, but within a tolerable threshold and within capacity. In addition to the improved flare, a filter arrow is proposed to improve the left turn out of Surrey Canal Road which will further benefit bus movements.

9.2.6 Please refer to the technical note included in Appendix R for more details on the assessment of this junction.

9.3 Highway Proposals

9.3.1 This section provides a summary of the amendments which have been made to the layout of Surrey Canal Road post-submission of the planning application. Changes have been made in response to consultation with TfL and LBL on the following topics:

- Site layout – the general arrangement of the site;
- Bus strategy – including bus routing and layover; and
- Capacity assessments – discussed in section 9.2 of this report.

9.3.2 The changes have been agreed with TfL and LBL and are shown in the revised Parameter Plan 10, which is included at the end of this report and replaces the Parameter Plan 10 included in the TA.

9.3.3 The following main changes have been made:

- Ilderton Road/ Surrey Canal Road junction – introduction of two lane approach from Surrey Canal. A cycle advance stop line has been introduced on the Surrey Canal Road arm;
- Surrey Canal Road/ Rollins Street links – the western most link (Surrey Canal Road/ Rollins Street) has reversed to southbound only, and the eastern most link (link adjacent to Surrey Canal Road Station) has reversed to northbound only.
- Surrey Canal Road junctions – the traffic signal controlled junction proposed along Surrey Canal Road in the TA has been removed leaving a priority junction near to the ELLE and a diverging junction only on the corner of Stockholm 1 and Timber Wharf 1;
- Signalised pedestrian crossing – the crossing has been moved eastwards adjacent to the south-west corner of plot Stockholm 2 and the entrance to plots Excelsior 1 and Excelsior 3;
- Bus stop and bus layover – a bus stop and bus layover has been introduced on the Surrey Canal Road Station link adjacent to the Surrey Canal Rail Station and on the link between Rollins Street and Surrey Canal Road (on the east side);
- Removal of the Surrey Canal Road bus layover / bus stop to the west; and
- Bus stop (alighting only) to the east of Surrey Canal Road Station entrance.

9.3.4 Should the layout above not come forward due to land availability, 'Fall Back Option' inset of the revised Parameter Plan 10 shows the layout to accommodate the routing of Option 4, which does not use the Surrey Canal Road Station link. The following changes have been made:

- Signalised crossing – removal of signalised crossings on western most link between Rollins Street and Surrey Canal Road;
- Ilderton Road/ Surrey Canal Road junction – introduction of two lane approach from Surrey Canal providing direct access for buses to the left turn lane. A cycle advance stop line has been introduced on the Surrey Canal Road arm;
- Signalised pedestrian crossing – the crossing has been moved eastwards adjacent to the south-west corner of plot Stockholm 2 and the entrance to plots Excelsior 1 and Excelsior 3.; and
- Bus stop and layover – a bus stop and bus layover introduced on Surrey Canal Road adjacent to Stockholm 1 and on the west side of the Surrey Canal Road/ Rollins Street link.

9.4 Safety Audit and Designer's Response

9.4.1 A Stage 1 Safety Audit for Surrey Canal Road as shown in revised Parameter Plan 10 is currently being undertaken for Surrey Canal Road, and a Stage 1 Road Safety Audit has been completed for the design included in the 'Fall Back Option' of the revised Parameter Plan 10. Both these reports will be submitted, along with the associated Designer's Response, in due course. .

10 Off-site Highway Assessments

10.1 Introduction

10.1.1 Consultation responses were provided by LBL, TfL and LBS on junction capacity assessments for the 2010 baseline, 2025 forecast baseline and 2025 forecast baseline plus development. The responses include a number of detailed requests on clarification of the models and comments on the junctions which are operating at over 90% capacity with the Proposed Development.

10.1.2 This section provides clarification of some changes to the detailed junction modelling included in section 6 '2010 Baseline Capacity Analysis', section 8 '2025 Forecast Baseline Capacity Analysis', and section 10 '2025 Baseline and Proposed Development' of the TA following TfL's detailed comments. It also provides an assessment of a further junction to the west of the site, between St James Road and the Old Kent Road, which has been requested.

10.1.3 A technical note has been produced which contains the detailed results for the operation on the junctions both with and without the development. This technical note, entitled 'Surrey Canal – Further Assessments of Local Junctions' is included in Appendix R. Further details of the modelling and the modelling files themselves are included in Appendix S. In response to further comments from TfL, the section of the technical note entitled 'Old Kent Road/ St James Road' has been supplemented with information contained within this section.

10.1.4 Where the capacity of the junctions is highlighted as an issue, PBA has also investigated some pragmatic and potentially deliverable amendments to the junction layout. Details are included in the appended technical note and, with the exception of Old Kent Road/St James Road and Ilderton Road/ Old Kent Road where at the request of TfL a 'best' and 'worst' case approach has been assessed relating to the inclusion of committed development traffic, have been accepted by TfL.

10.1.5 The assessment following junctions have remained unchanged from the TA, see sections 6, 8 and 10 of the TA. It is understood that these assessments are agreed by TfL / LBL.

- Ilderton Road/ Zampa Road
- Ilderton Road/ Stockholm Road
- Ilderton Road/ Rollins Street
- Surrey Canal Road/ Senegal Road

10.1.6 The Lower Road junctions have been reassessed based on comments from TfL. Updated summary tables have been produced and are included in Appendix H which supersede Tables 6-1, 6-2, 8-2, 8-3, 10-1 and 10-2 of the TA. These tables do not include junctions which have mitigation measures proposed. Again, it is understood that TfL and LBL have agreed the assessment of the Lower Road Gyratory and confirmed that no improvements or financial contributions are required.

10.2 Calibration and Validation of Junction Models

10.2.1 TfL has requested further information with regards to the process undertaken for validation of the junction capacity assessments. Staging for Rotherhithe New Road/ Ilderton Road has

been updated according to the latest timing sheet obtained by TfL (issue 17) and therefore there is no discrepancy between the model and TfL's timing records.

10.2.2 The cycle times have also been checked against TfL's UTC records for all junctions assessed and the cycle times for Old Kent Road/ Ilderton Road, which did not match TfL cycle times, have been updated.

10.3 Junctions along Lower Road

10.3.1 TfL and LBL noted a number of inconsistencies in the results provided for the weekend assessment only of the following junctions along Lower Road:

- A2208 Hawkstone Road/ Lower Road;
- Redriff Road/ Lower Road; and
- Plough Way/ Lower Road.

10.3.2 Subsequently the results included in Tables 6-2, 8-3 and 10-2 of the TA have been resupplied in Appendix H. The changes within these tables do not affect the overall conclusions for the junction capacities.

10.4 Old Kent Road/ St James Road

10.4.1 TfL and LBS have requested a detailed assessment of the Old Kent Road / St James Road junction which was outside of the junctions assessed in the Transport Assessment. This assessment has been undertaken using traffic flows provided by TfL and based on the Timing Sheet and Signals Layout Diagram provided by TfL.

10.4.2 The development impact on this junction has been evaluated by applying the development flows on the Rotherhithe New Road west arm of the junction between Ilderton Road and Rotherhithe New Road which represents a worst case. These have been added to the flows to / from the A2 west (as this traffic would route using other roads to the A2 east).

10.4.3 The results of the assessment are included in the technical note included in Appendix R. In light of the forecast operation of the junction, an alternative layout option was developed and is included in the attached technical note. This amended design has not been endorsed by TfL.

10.4.4 TfL has accepted there is limited potential within the existing junction for enhancements and also stated that the junction assessment above uses a future base forecast which includes a substantial amount of traffic growth that may not necessarily occur (the worst case assessment). It was therefore agreed that this junction be tested using baseline plus development flows only, the 'best case'. Full outputs are also contained in Appendix R.

10.4.5 TfL has suggested that should the best case be acceptable, a sum of money could be secured in the S106 contributions and held by TfL to be utilised for investigating improvements in the junction should the Proposed Development start to negatively affect the junction.

10.4.6 A comparison between the junction capacity results for the 'best case' and 'worst case' traffic associated with the Proposed Development are shown in table 10-1 below:

Table 10-1: Best Case Old Kent Road/ St James Road Junction Capacity Assessment

	Worst Case **- Forecast 2026 + Development**							***Best Case*** **- Base 2010 + Development**					
	AM		**PM**		**Sat**			**AM**		**PM**		**Sat**	
	DegSat	**Q**	**DegSat**	**Q**	**DegSat**	**Q**		**DegSat**	**Q**	**DegSat**	**Q**	**DegSat**	**Q**
Old Kent Road (W)	81%	9	111%	54	94%	24		80%	9	93%	21	83%	19
St James Road	103%	35	113%	95	99%	32		87%	9	92%	25	84%	13
Old Kent Road (E) Right Turn	102%	38	111%	44	100%	25		86%	20	92%	17	83%	15
Old Kent Road (E) Ahead	48%	9	39%	7	34%	6		43%	7	34%	6	30%	5

Source: Consultants Calculations

10.4.7 The best case scenario shows an improvement in the performance of the whole junction with it being within capacity in all time periods. The difference in the AM and PM peaks is most marked, with the degree of saturation dropping by up to 21%.

10.4.8 As discussed in 3.5, the level of development assessed within the TA and in the subsequent junction capacity analyses is significantly higher than the illustrative scheme proposed. Since submission of the TA, the illustrative scheme has been amended and the development reduced still further. Considering these changes, and the junction capacity results for the best case, the junction is considered to operate satisfactorily.

10.5 Ilderton Road/ Rotherhithe New Road

10.5.1 TfL noted that Ilderton Road/ Rotherhithe New Road junction was over capacity for the weekday scenarios despite the fact that pedestrian crossings were not used. These comments have been taken into account and the junction has been re-tested based on the pedestrian crossings enabled with an all-red pedestrian stage being called every other cycle. The intergreen times have been taken from the timing street provided by TfL. Details of this assessment are provided in the technical note included in Appendix R.

10.5.2 The results suggest that the junction will operate above capacity with the committed future year flows and more so when the development flows are added to the existing layout and staging. An alternative staging has been assessed (but with no physical changes to the junction) in which all pedestrian crossings are retained but without an all-red stage (i.e. they run with traffic), improving the junction performance in all peak periods, with degrees of saturation under 100% and below the 'Forecast 2026' scenarios with the existing staging, providing a nil detriment solution. This assessment has been accepted and agreed by TfL / LBL

10.6 Ilderton Road/ Old Kent Road

10.6.1 TfL has provided cycle times for the junction of Old Kent Road / Ilderton Road and the junction has subsequently been re-assessed in the modelling to match these times. The results are presented in the technical note which is included in Appendix R. The Old Kent Road / Ilderton Road junction operates under capacity with the existing layout in the AM and PM peaks. During the Saturday peak the degree of saturation raises between 90%-100% with development.

10.6.2 The development impact on the junction of Ilderton Road / Old Kent Road has been assessed by applying the development flows together with committed development flows which represents a worst case.

10.6.3 The results of the assessment are included in the technical note included in Appendix R and show that the junction would be within capacity on a weekday and approaching capacity on a Saturday with the Forecast 2026 flows. In light of this, an alternative layout option was developed and provided to TfL. TfL has considered this alternative layout but it has not been endorsed by TfL.

10.6.4 TfL has noted that there is limited potential within the existing junction for enhancements and also state that the junction assessment above uses a future base which includes a substantial amount of traffic growth that may not necessarily occur (the worst case assessment). It was therefore agreed that this junction be tested using baseline plus development flows only, the 'best case'.

10.6.5 TfL has suggested that should the best case be acceptable, a sum of money could be secured in the S106 contributions and held by TfL to be utilised for investigating improvements in the junction should the Proposed Development start to negatively affect the junction.

10.6.6 A comparison between the junction capacity results for the 'best case' and 'worst case' traffic associated with the Proposed Development are shown in Table 10-2 below:

Table 10-2: Best Case Old Kent Road / Ilderton Road Junction Capacity Assessment

	Worst Case **- Forecast 2026 + Development**							***Best Case*** **- Base 2010 + Development**					
	AM		**PM**		**Sat**			**AM**		**PM**		**Sat**	
	DegSat	**Q**	**DegSat**	**Q**	**DegSat**	**Q**		**DegSat**	**Q**	**DegSat**	**Q**	**DegSat**	**Q**
Old Kent Road (W)	77	8	86	14	95	20		77	8	84	13	94	19
Ilderton Road	67	5	86	11	96	17		64	5	83	10	92	14
Old Kent Road (E) Right Turn	77	13	84	11	98	25		77	13	83	11	92	20
Old Kent Road (E) Ahead	58	5	46	4	45	4		58	5	46	4	45	4

Source: Consultants Calculations

10.6.7 The best case scenario shows an improvement in the performance of the whole junction with it being within capacity in all time periods.

10.6.8 As discussed in 3.5, the level of development assessed within the TA and in the subsequent junction capacity analyses is significantly higher than the illustrative scheme proposed. Since submission of the TA, the illustrative scheme has been amended and reduced still further. Considering this, and the junction capacity results for the best case, the junction is considered to operate satisfactorily.

10.7 Potential for Re-routing

10.7.1 TfL has requested some examples of the potential re-routing of traffic to use alternatives to Surrey Canal Road. This section supplements section 12 of the TA on 'Re-routing'. It is likely that an element of traffic currently uses the local road network within the Site as a cut through, and these trips may use alternative routes once the Proposed Development is built. Using an example of trips from Lambeth to Greenwich, the following alternative routes could be taken, influencing the current pattern of trips:

- Lambeth – A215, Burgess Park, Bird Bush Way, A2, Cold Blow Lane, B207, A200 – Greenwich
- Lambeth – A215, B214, A2, A2208, A200 – Greenwich
- Lambeth – A201, A100, A2206, A200 – Greenwich
- Lambeth – A202, A2 – Greenwich

10.7.2 The low levels of flow, the levels of reassignment envisaged and the range of available routes mean that the impact of these trips on alternative routes would not be material.

11 Travel Plans

11.1 Introduction

11.1.1 Comments from TfL and LBL during the post-application discussions stated that there should be a stand alone Framework Travel Plan (FTP) submitted in conjunction with the TA. It is a requirement that the Travel Plans (TPs) are assessed under ATTrBuTE and include mode share targets, commitments to monitoring and funding and an action plan for implementation.

11.1.2 The TA incorporated a section dealing with the FTP and outline TPs for residential uses, commercial uses and the multi-faith centre. This has now been superseded by a more comprehensive Site Wide FTP and associated development 'Phase Specific' TP. The structure of the travel planning strategy is illustrated below.

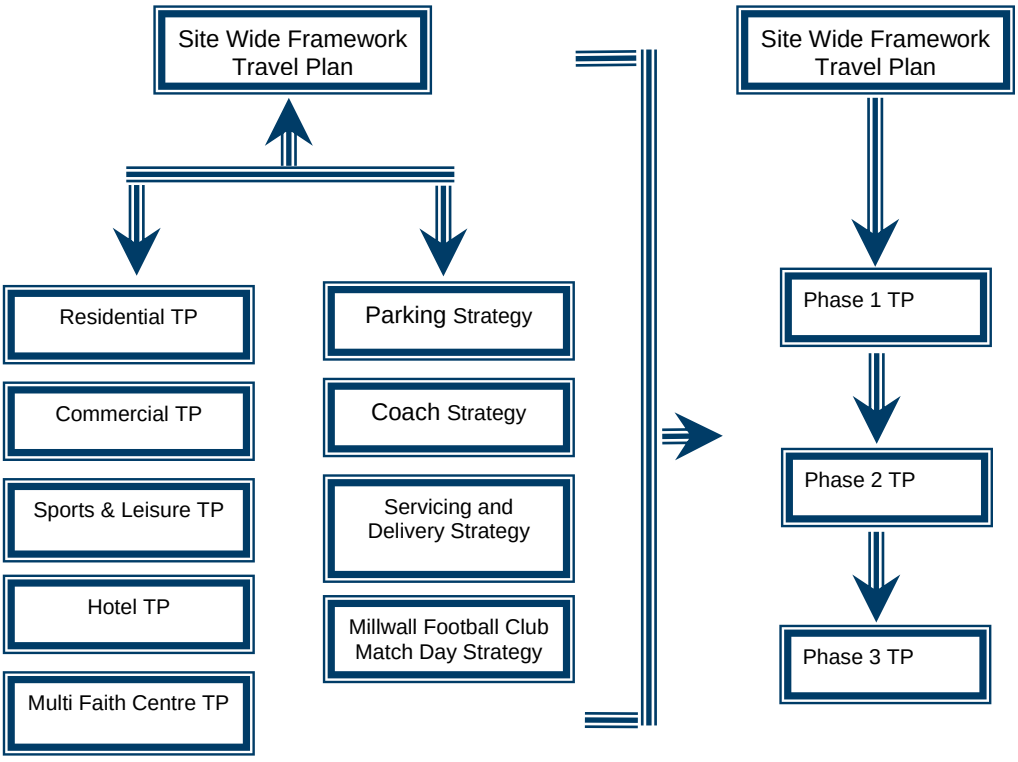
11.2 Methodology

11.2.1 An FTP has been developed as a guide to the site wide approach to minimise single occupancy private vehicle use by residents, staff and visitors accessing the Surrey Canal development site. As development commences, the FTP will be updated to reflect travel issues at the time of implementation.

11.2.2 The significant scale of the Site has lead to a phased design approach of the masterplan. To ensure that Travel Plans (TPs) are developed as each phase of the development is completed and occupied, Phase Specific, TPs will be developed in partnership with the occupiers.

11.2.3 At this stage, a series of 'land-use' specific TPs have been produced to support the FTP. The objectives and targets of the FTP will be delivered through a series of supporting 'Phase Specific' TPs and site wide management strategies. These are based upon the separate land use TP and management strategies that set out in Figure 11-1.

Figure 11-1: Site Wide Travel Plan Tools and Implementation Process



11.2.4 Separate site wide strategies associated with Parking, Coach, Delivery; and Millwall Football Club Match day have been prepared and are contained in Appendices G-J of the FTP.

11.3 Preliminary Management Strategies

11.3.1 A number of preliminary management plans and strategies have been produced for the Proposed Development to accompany the TPs. These plans include: a Parking Management Plan, Coach Access and Parking Strategy, Delivery and Servicing Strategy, Millwall FC Match Day Strategy. These plans are appended to the FTP and are summarised below.

Parking Management Plan

11.3.2 The Parking Management Plan contained within the supporting appendix to the FTP sets out the management process which will be adopted to ensure compliance with the parking standards set out in the TAA for the Proposed Development. It also states any parking controls which will be implemented in relation to on-street parking. The key aspects of the Plan are set out below.

11.3.3 Off-street parking proposals are set out in section 6.2 and Appendix P. The management and enforcement of off-street development car parking will be undertaken by Renewal through an appointed parking management company to ensure that parking spaces are be provided and maintained at a high standard.

11.3.4 Limited 20 minute waiting is proposed in shared on-street 'limited waiting/ load bays, waiting will be limited to the daytime periods outside of peak hours. In addition, there is on-street

parking for Millwall FC (existing spaces) located to the rear of the Millwall FC east stand. On-street parking/ limited waiting on non adopted roads within the Site will be controlled by Renewal/ Millwall FC, and on adopted roads and in accordance with local authority policy by the local highway authority. This will need to be agreed with the local highway authority.

11.3.5 The Plan states that in relation to overspill parking, planning conditions or obligations should contain provisions for continued monitoring of the on-street parking conditions. If required, there should also be provisions to fund the consultation for the introduction of CPZ, and if necessary contribute towards the funding of a CPZ through S106 Agreement.

11.3.6 Cycle parking will be determined with reference to the current London Plan and is discussed in section 6.7 of the TAA. The site wide FTP and associated Phase Specific TPs will provide a mechanism to monitor the provision of cycle parking across the Site and in relation to each particular land use.

Coach Access and Parking Strategy

11.3.7 A Coach Access and Parking Strategy is contained within the supporting appendix. This Strategy outlines the access for coaches to the Proposed Development and the provision and management of parking on both match days and non-match days. This section summarises key aspects of the Strategy.

11.3.8 Coach access to the Site will be permissible via three access points: Ilderton Road junction with Zampa Road (existing); Surrey Canal junction with Stockholm one-way link road (new); and Surrey Canal junction with Plot Orion (new).

11.3.9 Coach parking within the site has been discussed in section 6.6 of the TAA and has been informed by discussions with Millwall FC and LBL. Match day management of coach parking to the rear of the northern football stand will be the responsibility of Millwall FC together with coordinated support from the Metropolitan Police (this is the existing arrangement).

11.3.10 On non match days or when there is no large scale stadium event these coach parking spaces and coach drop-off/ pick-up facilities will be available for use by the D2 sports uses, D1 community and C1 uses throughout the development. There are a number of drop-off/ pick-up bays across the Proposed Development, these are located at the front entrance of Plot Stockholm 1, along the eastern side of Plot Orion and along Stadium Avenue. A turning area for coaches has been provided at the northern end of Plot Orion service road. The drop off/ pick bays are shared with delivery/servicing and will be managed through time restrictions.

11.3.11 Management of these non-match day spaces will be the responsibility of Renewal via an appointed site wide Parking Management Company. This company will control the demand and supply of spaces to prevent excessive demand resulting in parking congestion and unauthorised on-street parking. Non match day coach parking and demand will also be monitored to ensure changes in the coach parking strategy can be developed as necessary.

11.3.12 As part of the role of the site wide Parking Management Company, information about off-site parking will be made available to organisers of sporting events at the Site if demand for exceeds supply. Although at this stage it is not possible to confirm the range of long term off-site coach parking available for use for events, two potential locations have been proposed: the nearby O2 arena, which has a parking capacity of 67 spaces and ‘What Stores’ located at Canada Water Retail Park which has a capacity of 20 spaces.

Delivery and Servicing Strategy

11.3.13 The Delivery and Servicing Strategy is contained within the Site Wide FTP and has been produced to outline information on delivery and servicing routing, stopping bays and how these will be controlled/ managed. This section summarises the components of the strategy.

11.3.14 All vehicular routes throughout the Site are designed to accommodate servicing and delivery vehicles. Access is permitted to the majority of routes at any time of day for residential based servicing and deliveries. Access for non residential delivery and servicing vehicles for all routes with the exception of Surrey Canal Road and Rollins Street, is restricted during the weekday to mornings (07:00 to 11:00) and a limited period in the evening (18:00 to 23:00). The strategy includes a breakdown of servicing and delivery access times.

11.3.15 Delivery and servicing vehicles will only be able to access Stadium Avenue in the morning only (07:00 to 11:00) to minimise the vehicular impact through the public space

11.3.16 Each development plot is provided with a servicing/ delivery bay or a shared servicing/ delivery and coach drop-off/ pick-up bay.

11.3.17 In principle, on-street servicing and delivery bays on non adopted roads within the Site will be controlled by Renewal, and on adopted roads by the local highway authority. Proposals for the control and management of on-street parking will be agreed with the local highway authority.

11.3.18 Demand for bays will be monitored by Renewal with information supplied to the Site Wide Travel Plan Coordinator for review by the Surrey Canal Travel Plan Steering Group (TPG). This will allow the potential for the Servicing and Delivery Strategy to be adapted, in consultation with the local authority, in the future as necessary.

Millwall FC Match Day Strategy

11.3.19 A Millwall FC Match Day Strategy has been developed using data supplied by the club which includes information on how the masterplan has been developed in line with Millwall FC, improvements to sustainable access to the Stadium and proposed access and circulation. A Travel Plan Framework has also been prepared to assist Millwall FC with the production of their own TP in the future.

11.3.20 This Strategy has been summarised in section 12.8 and is appended to the Travel Plan Framework (see section 11.3 and Appendix T).

12 Millwall Football Club

12.1 Introduction

12.1.1 Millwall FC responded to the planning application for the Proposed Development as part of the consultation. Millwall FC made a number of comments with regards to transport in the Proposed Development.

12.1.2 Millwall FC raised concerns over safe access and egress of home and away supporters with the Proposed Development and requires a scheme that will enable them to operate under the terms of the safety certificate that is in place. The key concerns with the original (January 2011) Parameter Plan 10 outlined in their consultation and reported through 'Movement Strategies: Assessment of Match Day Crowd Movement' report, which is submitted with the planning application, are as follows:

- "Congestion on Ilderton Road during ingress;
- Insufficient turnstile provision may cause queuing during peak ingress;
- Congestion and delays during egress at the south-west corner of the Stadium and, to a lesser extent, at the south east corner";
- Queuing outside the east stand during emergency evacuation in excess of the safe holding capacity of the available area unless segregation between home and away fans is not maintained or evacuation onto the pitch is considered; and
- Insufficient space made available for television and emergency services parking, without compromising the available footway width for crowd flows.

12.1.3 Millwall FC also raised concerns on the level and location of coach parking and car parking provisions.

12.1.4 The Lewisham Core Strategy (now adopted) requires that any proposed scheme ' layout will also ensure that Millwall Stadium can continue to function as a mass spectator destination on a long term basis that allows for potential expansion.

12.1.5 Strategic Site Allocation 3 states:

> "*a new 'destination' development that capitalises on the opportunities presented by Millwall Stadium and allows for the future of the long term future of the football club including future requirements for stadium improvement and expansion."*

12.1.6 On this basis the design of the development and assessment of crowd movement has taken on board the long term future and possible expansion of the stadium.

12.1.7 This section outlines how Millwall FC's comments are addressed in the Proposed Development. This seeks to largely supplement information contained within the original TA, however, the parking levels supersede information within the TA. All comments have been worked through in consultation with Millwall FC.

12.2 Match Day Movement

12.2.1 Millwall FC has provided a range of additional data for consideration in Proposed Development masterplan and transport strategy. This data is discussed in more detail below.

Movement Strategies: Assessment of Match Day Crowd Movement

12.2.2 Renewal has been in discussions with Millwall FC with regards to movement within the Application Site. Movement Strategies have undertaken a detailed assessment of crowd movement and emergency evacuation in close liaison with Millwall FC's consultant and using data obtained from the match versus Leeds United as well as other data supplied by Millwall FC. This assessment is included in the report 'Assessment of Match Day Crowd Movement', July 2011.

12.2.3 The work details match day crowd flow assessments for: the existing site, the scheme submitted in the TA (January 2011) and the revised scheme outlined in 1.9 of the TAA. These are assessed in terms of peak ingress, egress and emergency operations for a scenario with the Millwall FC expansion and without the Millwall FC expansion.

12.2.4 For the revised Parameter Plan 10 without expansion of Millwall FC the assessment has shown the following:

- "During ingress, the Revised Scheme alleviates possible congestion at the south-east corner, because it provides for greater space for queuing for turnstiles as well as perimeter circulation. As locations for outside broadcast and emergency vehicle parking have also been identified, the risk that that parking would further impede flows beyond those analysed is removed.

- During egress, the benefits of the Original Scheme are retained, plus the widening of the exit link at the south-east corner of the Stadium to the north/south footpath that links to Surrey Quays allows for more free flowing conditions.

- For evacuation, the south-east corner is further alleviated by the wider exit route, but the existing pinchpoint on the route behind the East Stand at the southern end of that Stand remains."

12.2.5 For the scenario with the expansion of the Stadium, the results of the assessment are as follows:

- "During ingress, there is no material worsening of crowd flows to and around the Stadium; increased queuing for turnstiles (assuming no additional turnstiles) is the only implication of Stadium expansion for ingress.

- During egress, there is additional congestion based on the increased Stadium capacity, but the Revised Scheme is an improvement upon the Original Scheme particularly in Stadium Avenue.

- For evacuation, there is no material difference to the operation of crowd flows relative to the Revised Scheme with the existing Stadium."

12.2.6 The results of this assessment, together with a number of plot amendments have demonstrated the Proposed Development will accommodate both the existing stadium as well as allow for an agreed level of future expansion in terms of ingress and egress to the stadium. The full detailed report is submitted with further documents supporting the planning application.

Origin and Mode Share of Millwall FC Supporters

12.2.7 Millwall FC has issued further information on the origin of match day supporters and the mode share of movements, this information is contained in Appendix U.

12.2.8 Origin and destination data has been provided for season ticket holders and for Millwall Supporters Club (MSC) members. Both sets of data illustrate that there is a cluster of season ticket holders and spectators originating from the local area, namely Rotherhithe, Peckham, South Bermondsey, Peckham and Deptford. A number of season ticket holders and members also originate from the wider area, although these are predominantly located to the south of the River, in the Boroughs of Bexley, Greenwich, Southwark and Lewisham.

12.2.9 Mode share data for the match against Leeds United on 9th April 2011 shows that in the neighbouring Boroughs, the predominant mode of travel for Southwark was walking and for Lewisham and Greenwich, the predominant mode of travel was public transport. The predominant mode for Boroughs to the north of the River was public transport, and to the south of the river public transport was also the largest mode share for Merton and Lambeth.

12.3 Plans for Expansion

12.3.1 Millwall FC has potential plans of future development for a proposed expansion of the stadium which have been secured in the recently adopted Lewisham Core Strategy Document.

12.3.2 The plans may expand the south and west stands with associated in-fills. This work is being taken forward by KSS and has been assessed in the Movement Strategies' work.

12.3.3 The revised Parameter Plan 10 for Proposed Development allows for further expansion to the west and south stand.

12.4 Coach Parking Strategy

12.4.1 Coach parking provision is discussed in section 6.6 of this report. The revised coach parking provision is included in the revised Parameter Plan 10. The number of spaces has been increased to 10 and the spaces are conveniently located to the rear of the north stand for away supporters. There are an additional three spaces which are for coach drop off. Provision for this parking has been made with amendments to the Bolina East plot. The revised Parameter Plan 10 shows the layout of the new coach parking spaces, and demonstrates how coaches will park and exit the parking area. This on site coach parking provision has been agreed by Millwall FC and LBL officers.

12.4.2 As agreed with Millwall FC, there is a requirement for an off-site layover for at least 16 coaches on match days. This off-site parking could be from the nearby O2 arena, which has a parking capacity of 67 spaces. A daily tariff of £35 has been confirmed with the O2 arena (correct as of April 2011), which is payable upon arrival. It was confirmed that pre-booking of coach parking is not necessary on non-event days. A further 20 coach parking spaces are also available at a daily tariff of £10 per day at 'What Stores' (correct as of April 2011), located approximately 2.5km from the Proposed Development at Canada Water Retail Park.

12.5 Car Parking

12.5.1 LBL officers have agreed that Millwall FC should be provided with 150 parking spaces on a match day and 80 parking spaces on a non-match conference day and 40 spaces on non-match non-conference day. It has also been agreed that is appropriate for Millwall FC to

share some of their match day parking with parking for other land uses within the development to reduce the overall level of parking provision.

12.5.2 The dual use of car parking spaces timing of the between Millwall FC and the Proposed Development has been assessed in terms of the car parking demand, land ownership, commercial and operational points of view. As matches take place during the midweek and at weekends operationally this is much easier to be managed in association with the health, hotel and business centre uses in the Stadium Avenue and Bolina East plots. These land uses have a greater synergy in terms of the time of their use and match day provision.

12.5.3 The parking provision is as follows on the Stadium Avenue and Bolina East Plots to accommodate the requirements of both the Proposed Development as well as Millwall FC match day and non match day requirements. This delivers 40 parking spaces for Millwall FC on a non match day, 80 on a non match day with conferencing and 150 spaces on a Millwall FC match day sharing health/hotel/business centre spaces:

- B1 business centre provided with 10 spaces of which 5 will be made available on match days for Millwall FC use;
- C1 hotel / conference centre has reduced from 80 to 50 spaces with 30 of these spaces used by Millwall FC on a match day
- D1 polyclinic remaining at 43 spaces but with 22 made available on match days for Millwall FC use
- Millwall FC has 70 spaces which all are available on non match days and 57 available for Millwall FC conferences and 17 for days without a conference

12.5.4 The illustrative dual use of car parking spaces is illustrated in Drawing SEW 02/007/01 included in the 'Drawings' section at the end of this report.

12.6 Sky Television, Police and Emergency Parking

12.6.1 On occasions when Sky Television will broadcast Millwall FC football matches, Millwall FC has requested a location for broadcasting vehicles to park. Millwall FC has confirmed the number and types of broadcasting vehicles that have to be accommodated to meet Premier League rules, and an appropriate area has been identified for this to the rear of the Stadium Avenue plot.

12.6.2 The entrance for these vehicles will be from Stockholm Road and their exit will be back onto Stadium Avenue / Zampa Road. Drawing 17004/001/056A shows tracking for the largest broadcasting vehicles, and Parameter Plan 08 (revised) shows the location of parking area.

12.6.3 There is a range of match day surface parking for police/ emergency and broadcast vehicles, as shown in Parameter Plan 08 (revised). There are a number of areas located around outside of the Stadium for police/ emergency and broadcast vehicles. Three areas are located on the north east boundary of the site, close to the north stand and two are located to the north west of Plot Senegal Way 1 and 2, these are accessed directly from Senegal Way. Three further spaces are located adjacent to Plot Stadium Avenue, with the area to the north being accessed from Zampa Road/Stadium Avenue and the area to the north being accessed from Stockholm Road.

12.7 Segregation of Fans

12.7.1 As part of the match day crowd movement Millwall FC requested that the segregation of away fans and home fans is maintained in the Proposed Development. The Proposed Development has retained the existing segregation line to the north east of the stadium, and new segregation lines have been provided to the north east and to the south west of Plot Bolina, see revised Parameter Plan 10. This will enable away fans to travel along the away fans route from South Bermondsey to the away fans enclosure.

12.7.2 Although the away fans route is to remain for away fans only during match days, it has been suggested that it could be suitable to be opened on non-match days and provides a further access to and from the Proposed Development.

12.8 Millwall FC Match Day Strategy

12.8.1 A Match Day Access Strategy has been developed and includes a Travel Planning Strategy for Millwall FC. This strategy will build on Millwall FC's existing management and will help to ensure that access to and from the Stadium is smooth throughout the construction and operation of the Proposed Development. Key aspects of the Strategy are outlined below.

12.8.2 Through discussions with Millwall FC, LBL and associated interested parties including the emergency services, the match day planning strategy that is in place at present will evolve to incorporate improvements to sustainable travel to the Stadium that the Proposed Development is delivering. Improvements to sustainable access and egress will come about as follows:

- A new pedestrian and cycle connection linking the Stadium with South Bermondsey Station and Rotherhithe New Road;
- Convenient pedestrian connections to the proposed new Surrey Canal Road Station;
- Enhanced pedestrian connections via Bridge House Meadows;
- Improved bus services to Elephant and Castle and Lewisham; and
- New Surrey Canal Road Station.

12.8.3 Further, the improved access proposed on the approaches to the Stadium will give supporters a more diverse range of routes for ingress and egress. Management of streets and publically accessible spaces in the Proposed Development will be undertaken by a site operations team. A key role of this team will be during match days and therefore will help to maintain the access routes for supporters to and from the Stadium.

12.8.4 The masterplan has been developed in consultation with Millwall FC's future plans and provides flexibility to accommodate further expansion to the stadium. Whilst the highways, paths and links shown on the revised Parameter Plan 10 can be provided to their stated specifications within the limits of deviation, a number of principles will apply such as the alignment of Stadium Avenue will generally be straight, Stockholm Road/ Senegal Way/ Stadium Avenue will meet at a four arm junction and Stockholm Road/ Surrey Canal Road/ link to Rollins Street will form a crossroads with a centre line off-set no greater than 10 metres.

12.8.5 A Travel Plan Framework for Millwall FC is included in the Match Day Strategy and has been prepared to assist Millwall FC with the production of their own TP in the future. It includes

suggested aims and objectives for future TP. The TP should be developed based on a number of defined activity levels, ranging from non-match day travel to low attendance match day travel, to full attendance match day travel. Each activity level will require a different set of targets, measures and implementation strategies. It is consistent with the aims, objectives and measures outlined in the Site Wide FTP. It also includes a strategy for management, monitoring and review including the role of the TP Coordinator.

13 Summary and Conclusions

13.1.1 This Transport Assessment Addendum provides further information and clarification on matters following the submission of the Transport Assessment in January 2011. The report also provides further assessment where this has been requested by the authorities and summarises the areas that have been agreed.

13.1.2 A number of points relating to the trip generation of the site have been raised and some further clarification and assessment undertaken including additional assessment in relation to the D1 and D2 trip rates applied. The revised scheme has a reduction in the level of development proposed in the Bolina East, Stadium Avenue and Senegal Way plots. This results in a reduced level of trips generated by the site compared to the previous illustrative scheme. The TA assessed a worst case of the previous January 2011 scheme. Therefore the robust nature of the assessment is further increased.

13.1.3 Clarification has been provided in relation to the mode split applied in the TA. In addition, further assessment of the bus and rail distribution has been carried out with a number of additional assessments based on the 2001 census data. This work has been agreed by TfL and LBL and used to inform and assess the public transport strategy.

13.1.4 Since the planning application was made there has been further development of the public transport strategy to serve the site. Renewal has confirmed that in the new Surrey Canal Road Rail Station they will bridge the funding gap to ensure its delivery at the outset of the development, improving accessibility to the local area in the early stages of development. Agreement has been reached with TfL in relation to the preferred strategy to serve the Proposed Development by bus. Based on the proposed bus distribution for the Proposed Development, two routes will be provided linking to Lewisham and Elephant & Castle. Revised PTAL calculations have been undertaken and demonstrate the significant increase in accessibility of the Site resulting from improvements to the bus and rail services. An assessment of the bus and rail capacity as a result of the Proposed Development has been undertaken using data supplied by TfL. It has been agreed that bus and rail services have sufficient capacity to meet peak demand. On site routing of bus services, bus layover stops and driver facilities have been detailed, including the provision for an interchange between bus services and Surrey Canal Road Rail Station.

13.1.5 Clarification on the provision of car parking, coach parking and cycle parking provision has been provided.

13.1.6 The report details changes made to the site layout as a result of the revised scheme. This includes changes relating to the bus routing on site, the provision of bus layover/ stops and interchange, taxi provision, the location of the new pedestrian crossing on Surrey Canal Road and coach parking. The scheme changes within the Stadium Avenue, Bolina Gardens and Senegal Way plots are described along with changes to Stockholm Road and the access to Plot Orion. The retention of vehicular access to the north of Bolina Road is also detailed.

13.1.7 Further detail of the nature of the off site pedestrian improvements and their delivery is provided. This has been agreed by LBL and TfL.

13.1.8 The amended design of the Surrey Canal Road corridor is described with revised capacity assessments of the junction with Ilderton Road provided. The treatment of this corridor has been agreed by TfL, LBS and LBL.

13.1.9 Clarification and further assessment is provided of the off site junctions. This includes details of the calibration and validation of the assessment models, an assessment of the junction of

Old Kent Road / St James Road which was outside the scope of those junctions assessed in the TA report, further assessment of Ilderton Road / Rotherhithe New Road and Ilderton Road / Old Kent Road.

13.1.10 The TAA also provides further details of the Framework Travel Plan for the site. This provides details on the management of the site, the aims and targets of the Travel Plan and the implementation of the transport strategy.

13.1.11 Finally a section on Millwall FC provides an update in relation to the three transport related matters that were included in Millwall FC's objection letter to the Proposed Development and have subsequently been discussed as part of the post-submission consultation. Provision of coach parking has been incorporated into the site layout to the rear of the north stand, including drop off spaces. Further off site coach parking has been identified. This has been agreed by both Millwall FC and LBL officers. A strategy to provide for match day car parking is included, which utilises parking within the B1 business centre, polyclinic and hotel. This strategy has been developed to meet Millwall FC's requirements and has been agreed with LBL officers. Finally crowd analysis and evacuation from the stadium has been considered to ensure that both the existing stadium and their plans for expansion of capacity are catered for with the Proposed Development and a summary of the results are included.

13.1.12 The content above has addressed all of the issues that have been raised by TfL and LBL. The proposals will provide a substantial investment in passenger transport, including the new Surrey Canal Road Station, which will significantly improve the accessibility for the Proposed Development and surrounding areas.

13.1.13 The Transport Assessment Addendum therefore provides a summary of the points of further clarification, provides further assessments and addresses the transport matters raised by LBL, TfL and Millwall FC following a period of intensive and productive liaison with each of the parties.