
Appendix C-1: Transport Statement

**Twickenham Station
Twickenham
London**

**Transport Statement
February 2011**

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London**

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Final

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**Twickenham Station, Twickenham
London
Transport Statement**

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1. INTRODUCTION AND BACKGROUND

- 1.1 This Transport Statement and supporting Travel Plans have been prepared on behalf of Solum Regeneration, a joint venture between Network Rail and Kier property, to support an application for the comprehensive redevelopment of Twickenham Station to provide a new station concourse facility, an improved transport interchange, 734sqm of commercial floorspace and residential accommodation (115 units) together with associated car parking and soft and hard landscaping including a new riverside walkway. The proposals also include for the relocation of the south bound bus stop on London Road, and the introduction of 3 car club spaces which will form part of an existing car club network.
- 1.2 The location of the site is shown in Figure 1 below.

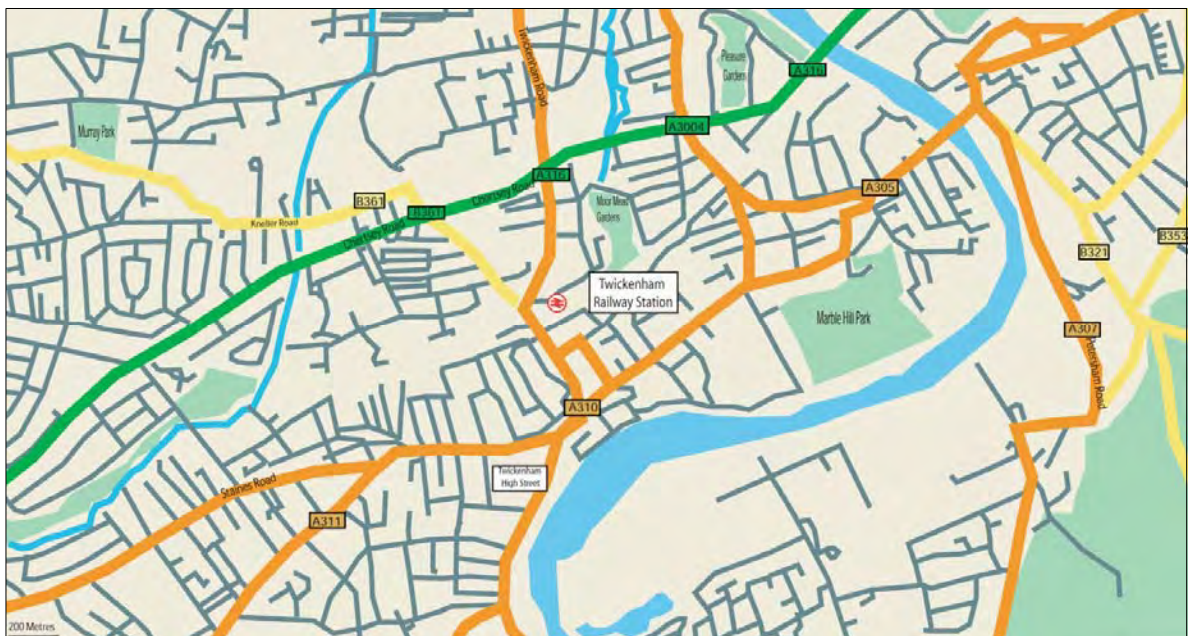


Figure 1: Location of the Development Site

- 1.3 This Transport Statement has been prepared in accordance with the Transport for London Guidelines on the preparation of Transport Assessments, 'Transport Assessment Best Practice, Guidance Document, April 2010'.
- 1.4 The proposals relate to an application for a podium to be constructed over the railway lines, which was submitted to the London Borough of Richmond upon Thames in July 2010. The proposals are for the main station to be constructed on the podium.

- 1.5 A previous application was submitted by Solum Regeneration to the London Borough of Richmond upon Thames (10/3465/FUL), for a similar scheme at the station, with a higher number of residential units. Pre-application discussions were held with the London Borough of Richmond upon Thames and with Transport for London, in respect of the previous application. These are discussed in the following paragraphs.
- 1.6 Pre-application discussions have been held with the Highways Officers at the London Borough of Richmond upon Thames and Transport for London, to define the issues to be addressed in the Transport Statement and supporting Travel Plans, for which have been reflected in the scheme development.

Summary of discussions held with the London Borough of Richmond upon Thames.

- 1.7 A pre-application discussion with the Highways Officer at the LBR was held to discuss any issues that were to be addressed in this Transport Statement. In respect of this, an email was received from the Highways Officer, dated 20th July 2010, and stated;
- 1. Information on proposed holding areas for match days as discussed at our meeting will be required for the planning application. Also any info on what will happen on match days during construction would be very helpful.*
 - 2. The underpass from the station to the Royal Mail site will be required to be available when the Royal Mail site lodges an application for re-development of the site.*
 - 3. No in principle objection to the relocation of the bus stop on the eastern side of London Road outside the station subject to TfL/bus operator comments. This stop may need to be forward of the new ped crossing as is normally the case not positioned leading up to the crossing.*
 - 4. Opportunity to 'redesign' London Road between Arragon and Whitton Roads to remove the central 'reservation' and improve the public realm and the experience of the pedestrian in front of the station. Will be looking for this through the application.*

Summary of discussions held with Transport for London.

- 1.8 In respect of Transport for London, a formal pre-application advice meeting was held on the 14th September 2010. Their comments in respect of the scheme are contained, in the form of a letter dated 29th September 2010, in Appendix A, and is summarised in Table 1, with references to their comments within the report.

TfL Comment	Comment	Reference in Report
Site Access and Design		
The design and layout of the public space and access approaches to the station should take account of TfL's <i>'Interchange Best Practice Guidance'</i>	The proposed interchange at the station is set out in Section 6 of this report.	Paragraphs 6.14-6.35
TfL acknowledged that the applicants have made passive provision (underpass) within the developments design which will not obstruct the later construction of a walking route, and requests further information on how this link can be incorporated into match day queue management.	Section 9 of this report sets out that existing and proposed event day procedures, and how it is effectively managed, for which the use of the underpass would not be necessary.	Please see Section 9.
As discussed with the Council at the meeting, TfL requests extension of the red line boundary to incorporate the route and may expect the development to bring forward any necessary improvement	This will be incorporated in the Architects Plan, which will be submitted with the planning application.	NA
Car Parking and Traffic Impact		
Given that this proposal includes considerable investment in accessibility improvements at the station, TfL recommends that the applicants increase the proportion of disabled car parking (station) to at least 10%, in line with TfL best practice and used at step free London Underground Stations	There are now 3 disabled parking spaces for the TOC spaces.	Paragraph 7.3
In line with aspirations of the draft replacement London Plan policy 6.13 <i>Parking</i> , TfL requires 20% of car park spaces to have provision for electric vehicle charging. Given that there are no specific standards for station car parks, TfL suggest that at least 3 spaces have active provision, with another 4 spaces enabled for passive provision.	The proposals include for 20% of the TOC spaces to have Electric Vehicle Charging Points, with 3 active and 4 passive, in line with Policy 6.13 of the Draft Replacement London Plan.	Paragraph 7.6
TfL requests that the disabled spaces, electric vehicle spaces, and the 1 car club space proposed, be clearly marked on the site layout plans.	These have been added to the architects plans	NA
TfL would wish for the developer to demonstrate that any residual car parking, outside of the controlled parking hours, will be monitored and kept to an absolute minimum via the Travel Plan and subsequent Car Parking Monitoring. TfL understands that the applicant will be undertaking night time parking beat surveys in accordance with	Parking Surveys were undertaken on Thursday 30th September and Friday 1 st October 2010.	Please see Appendix H and paragraphs 7.10-7.17 of this report

the Lambeth methodology to assess on street capacity within the surrounding area and will include the results within the Transport Statement.		
Buses		
TfL agrees that there will be no impact on buses as a result of this development.	Noted	NA
Taxis		
In discussions with the council it has been identified that at night it would be more desirable if a taxi space was to be situated in front of the main station entrance in a visible overlooked location. The proposed location, shared surface design, and controlled timings of this taxi space should be set out clearly within the Transport Statement. In addition, TfL requests the main taxi rank be covered by CCTV and be well-lit in order to increase security.	One taxi/ servicing bay is proposed on the station concourse, which will be a shared surface bay. The taxi bay is restricted to 8pm to 2am with the servicing bay restricted outside of peak station hours (7.30am-9.00am and 4pm-6pm).	Paragraph 6.27
Walking		
TfL and the Council expect the applicant to provide written confirmation from South West Trains that the measures being put forward in relation to queue management are appropriate and will improve the existing situation. TfL recommend that this is appended to the Transport Statement	Meetings have been held with South West Trains, for which they stated that they were content with the proposals for event days at the station. A letter stating this will be provided after the application has been submitted.	NA
In order to promote walking, the development should include a wayfinding strategy consistent with the Legible London strategy. TfL will expect the existing Legible London pilot marker located outside of the station entrance to be relocated to the front of the proposed station entrance at the developer's cost.	A wayfinding strategy, in line with Legible London will be provided, which includes relocating the pilot marker at the station at present.	Please see paragraph 6.15
Cycling		
The residential cycle parking levels are not consistent with the draft replacement London Plan policy 6.9 <i>Cycling</i> , which requires provision of 2 spaces per 3 or 4 bed unit. TfL will therefore expect additional cycle parking spaces to be provided in line with this policy.	The cycle parking provision for residents will be in line with the standards of the Draft Replacement London Plan Policy 6.9.	Paragraph 11.13
As part of the application submission a full description of cycling facilities should be provided within the transport statement including; access, location within the development, design and how the site links to the wider cycle network in the area. The	This is set out in Sections 3 and 5.	Please see paragraphs 3.17/3.18 and paragraphs 5.8/5.9

provision of showering and locker facilities within the retail units and stations staff areas are also encouraged in order to promote increased level of cycle use amongst employees.		
Travel Plan		
TfL welcomes the submission of a station travel plan and accompanying residential travel plan. TfL's Smarter Travel unit have assessed these plans and both have passed the ATTrBuTE assessment. However there are additional elements which need to be included to ensure the plans are acceptable to TfL. The detailed comments have been attached for your information and action.	Comments from the Smarter Travel Unit are set out subsequently.	NA
The applications should refer to TfL's workplace and residential travel planning guidance documents.	These guidance documents have been used in drafting the Travel Plans.	Please see Appendix M-paragraph 1.4
TfL expects the final travel plans to be secured, monitored, reviewed and enforced through the Section 106 agreement.	The Travel Plans will be secured through a S106 agreement.	Please see Appendix M Section 6
Travel Plans – Comments from Smarter Travel Unit		
Objectives are on the right tack but completely generic. They must be site specific	Site specific objectives have been added to the Travel Plan.	Appendix M – paragraphs 5.9-5.10
It states that targets will be set after the initial survey, but there should be indicative targets included here	Indicative interim targets have been set for the first 6 months of occupation until the initial survey has been undertaken.	Appendix M – Paragraphs 5.13-5.19
Although targets have not been set for year five, the travel plan makes clear when these targets will be set and with agreement from the borough	Noted.	NA
It is not clear who the TPC will be	The TPC will be named prior to the first occupation, for which the name of the TPC will be given to the LPA prior to occupation. The TPC will form part of the S106.	Appendix M – Paragraph 5.3
Although an iTrace pro-forma has been included there has been no mention of using iTrace to monitor the travel plan	Paragraph 5.19 of the Residential Travel Plan states that the survey data will conform with the iTrace and TRAVL Databases, and that the data will be submitted in the required format.	Please see Appendix M– Paragraph 5.21
Servicing and Construction		
TfL supports the restrictions on timings of vehicle movements to avoid conflict with peak time users of the station. TfL	This is included in Delivery and Servicing Plan.	Please see paragraph 7.20

recommends this restriction is extended to include all day on event days		
According to the TfL guidance ' <i>Managing Freight Effectively: Delivery and Servicing Plans</i> ' several aspects are required of a DSP are absent including; swept path analysis, specified off street loading bays for servicing and delivery vehicles, and how restricted hours will be managed in practice.	This is included in Delivery and Servicing Plan.	Please see Appendix G – paragraphs 3.3
Within developing the Construction Logistics Plan provided, TfL would expect phased drawings indicating construction routes and vehicles, and the traffic management's layout with signs for the works. In addition, the number, type and size of construction vehicles required for the works and detailed access designs with vehicle swept paths should be provided.	This will be included in the Construction Method Statement, which will be a pre-commencement condition. The Construction Logistics Plan will set out the details to be contained with the Construction Method Statement.	Please see Appendix K
In line with the TfL guidance ' <i>Building a better future for Freight: Construction Logistics Plans</i> ' TfL requests that the applicant utilise selected operators that are committed to best practice and are members of TfL's Freight Operator Recognition Scheme (FORS)	This is included in the Construction Logistics Plan.	Please see Appendix K
During construction, the applicant has stated that a number of night time closures of the bus lane will be necessary. TfL requests that in order to minimise disruption, discussions with London Buses should be held at the earliest opportunity.	This will form part of the Construction Method Statement.	NA
Mitigation/Section 106 Contributions		
TfL also advises that once the assessment has been progressed further advice can be given as to any potential mitigation measures that will be required in addition to those suggested above. This may include requirement to fund/provide the pedestrian link under London Road Bridge.	Noted.	NA

Table 1: Response to TfL Comments from Pre-Application Meeting

- 1.9 In accordance with the Transport for London Guidelines and to respond to issues raised during pre-application discussions, this report considers;
- In section 2: the development proposals in the context of relevant local, regional and national transport policies;

- In section 3: we consider the existing interchange facilities at the Station;
- In Section 4, we consider the existing usage of Twickenham Station;
- In section 5: we consider the overall accessibility of the site in order to assess the sustainability of the development proposals;
- In Section 6, we consider the development and interchange proposals;
- In Section 7, we set out the proposed car parking and servicing plans for the development;
- In Section 8, we consider the likely change in vehicle and pedestrian movements as a result of the development proposals;
- In Section 9, we analyse the existing and proposed station on event days at Twickenham Stadium;
- In Section 10, we set out the construction proposals for the development and how construction will be managed;
- In section 11: we set out the mitigation strategy for the development;
- In Section 12, we consider the residual impacts of the proposals;
- In Section 13, we look at the impacts on development proposals coming forward within the vicinity of the site; and
- In Section 14, we set out the conclusions to this report.

Executive Summary

- 1.10 This Transport Statement and supporting Travel Plans have been prepared on behalf of Solum Regeneration, a joint venture between Network Rail and Kier property, to support an application for the comprehensive redevelopment of Twickenham Station to provide a new station concourse facility, an improved transport interchange, 734sqm of commercial floorspace and residential accommodation (115 units) together with associated car parking and soft and hard landscaping including a new riverside walkway. The proposals also include for the relocation of the south bound bus stop on London Road, and the introduction of 3 car club spaces which will form part of an existing car club network.

1.11 In the following paragraphs, we have summarised the proposals under the following headings;

- Site Access and Design;
- Car Parking and Traffic Impact;
- Buses;
- Taxis;
- Walking;
- Cycling;
- Travel Plans;
- Servicing and Construction;
- Event Day Analysis;
- Mitigation/ Section 106 Contributions; and
- Summary.

Site Access and Design

1.12 The proposals include for an improved interchange at the station which will provide a considerable betterment to the sustainable modes of access (foot, cycle and bus). The interchange has been designed in accordance with TfL's 'Interchange Best Practice Guidance'. The interchange includes for a taxi rank and a "kiss & ride" area, public open space at the station, a considerable increase in cycle parking and a larger area outside the station for better queue management on event days.

Car Parking and Traffic Impact

1.13 The residential proposals include for a car free scheme, excepting for 3 disabled parking spaces which will be allocated and 3 car club bays. This is in line with the excellent location of the site, with a PTAL of 5 and accords with the London Plan policy 3C.23 '*Parking Strategy*'. The scheme will be car capped, which means residents will not be allowed to apply for parking permits to park in the surrounding streets, which will be secured through a Section 106 Agreement.

-
- 1.14 The proposals include for 35 commuter parking spaces on site, which includes for 3 disabled parking spaces for commuters. The remaining 9 spaces will be provided on the Station Yard site, unless a reduction can be agreed with the Train Operating Company (TOC). The on-site car park will also see the introduction of Electric Vehicle Charging Points, in line with the Draft Replacement London Plan policy 6.13. The residential element of the scheme will be car free, excepting for 3 disabled spaces and 3 car club spaces. The concept of a car free scheme at this site has been agreed with TfL (Appendix A) and the London Borough of Richmond.
- 1.15 As stated previously, the residential element of the scheme will be car free, and the station users parking will be in line with the existing provision, unless a reduction can be agreed with the TOC, therefore there will be no impact on traffic. In line with TfL's views on other car free schemes, it is considered that no detailed highway modelling will be necessary.
- 1.16 The fact that the area has controlled parking between Monday to Saturday, 8.30am to 6.30pm, and that residents will not be able to obtain a parking permit, as confirmed in the Section 106 Agreement, is consistent with car free schemes throughout London.
- 1.17 Discussions have been held with Transport for London and the London Borough of Richmond in pre-application discussions, regarding parking in the area. Following this, a detailed parking survey was undertaken in Twickenham on Thursday 30th September and Friday 1st October 2010, following the Lambeth Parking Survey Methodology, to assess the available parking capacity in the surrounding roads, within 200m of the site. A full Car Parking Survey Technical Note is contained in Appendix H, with the results summarised in this report.
- 1.18 Overall, there was 61% capacity used on the roads surveyed, on the Thursday Survey, 55% with permits, 6% without permits. For the Friday Survey there was also 62% capacity used on the roads surveyed, 57% with permits, and 5% of cars without permits.
- 1.19 As noted by TfL in their pre-application advice letter, they would like for the any parking in the surrounding streets to be kept to a minimum via the Travel Plan and subsequent car park monitoring.
- 1.20 A detailed car parking management plan will form a pre-commencement condition of any planning permission. A draft plan is contained in Appendix F, and is summarised in this report.

Buses

- 1.21 Section 8 of this report sets out the predicted modal share for the proposed development. This is based on TRAVL Data and Census Data for the area. This shows that there will be approximately 19 am peak (7am to 9am) and 20 pm peak (4pm to 6pm) bus trips. TfL stated in their pre-application advice letter (Appendix A);

“Given the scale of the development and the frequency of local bus services it is TfL’s view that this development will have a limited impact on bus service capacity. Therefore TfL deems the current service levels as appropriate and confirms there is no justification for significant route adjustments or increased services to this site as a result of this development.”

- 1.22 Therefore, there will be limited impact on the London Bus Network.

Taxis

- 1.23 The proposals include for a 3 space taxi rank within the station, in the underground car park. The taxi rank location will have direct access to the station via a lift and stairs, and will be well lit and covered by CCTV. The taxi rank proposals are in line with the current provision of the taxi rank at the station.

- 1.24 Discussions with TfL and the London Borough of Richmond have identified that it would be desirable to have an additional taxi space on the station forecourt to be used for evening times only. Therefore, a shared surface taxi bay, to be shared as a servicing bay for one block of residential units, will be provided on the station forecourt. The taxi/servicing bay will be restricted to times that it can be used. For the taxis, it will be restricted for late night use. This will be clearly defined.

Walking

- 1.25 A Pedestrian Environment Review has been undertaken in accordance with the TfL PERS audit, which looks at the area around the station for the existing and proposed station.

- 1.26 The results of the review are contained in Appendix D, and shows;

For the existing station

- (i) Kiss & Ride, Taxi rank and parking facilities are not easily accessible;
- (ii) Queuing capacity for an event day at the stadium is low; and
- (iii) The Pedestrian Crossing is in a good accessible location adjacent to wide footpaths.

For the proposed station

- (i) Re-positioning of the Kiss & Ride and Taxi Rank facilities around a central island, enabling vehicles to drop off and exit easily, with full accessibility by mobility impaired users;
- (ii) Greater pedestrian space outside of the station to allow a better queue management at the station on event days;
- (iii) New public open space at the station; and
- (iv) New route along the River Crane from the station to Moor Mead Gardens.

1.27 Notwithstanding the considerable improvements set out above, we have also looked at the projected residential trips to and from the development, which projects that there will be 77 am peak period and 81 pm peak period trips on foot. In considering the existing trips on foot at the station, it is not considered that there will be any impact on the pedestrian areas at the station as a result of this development.

Cycling

1.28 The site is well located in relation to the existing cycle network, with on road and off road routes within the vicinity. The proposals include for an increase in cycle parking from 80 to 250 spaces at the station which will be provided in a mezzanine area above the car park. The proposals also include for a path along the river crane, from the station linking to Moor Mead Gardens.

1.29 Section 8 of this report looks at the predicted residential trips to and from the development, and projects that there will be 8 am peak period and 8 pm peak period cycle trips from the proposed residential development. Therefore, it is not considered that there will be any impact on the cycle network.

1.30 The cycle parking proposals provide an increase over TfL's '*Cycle Parking Standards*' and the cycling proposals accord with the London Plan policy 3C.22 '*Improving Conditions for Cycling*'. The residential units will be provided with 208 cycle parking spaces in secured areas by the relevant core entrances, which is an increase over the standards set out in Table 6.2 of the draft replacement London Plan.

Travel Plans

1.31 The proposals include for a Residential Travel Plan, contained in Appendix M and a Station Travel Plan, contained in Appendix L. Both of the Travel Plans will be secured through a Section 106 Agreement.

- 1.32 Both Travel Plans have been prepared using TfL's Best Practice Guidance and using the ATTrBuTE Tool. The Travel Plans set out the objectives and aims, and the measures proposed to achieve the aims and the objectives. The Travel Plans also set out the proposed Action Plan in terms of implementation, targets to measure the success of the Travel Plans and how they will be monitored and reviewed.
- 1.33 Travel Coordinators will be appointed to implement and manage each of the Travel Plans for the development. The Travel Coordinators will liaise to ensure that the Travel Plans will work together, which will include joint steering groups and marketing events.

Servicing and Construction

- 1.34 The proposals include for a Delivery and Servicing Plan, which is summarised in Section 7 of this report, and is contained in Appendix G. This has been prepared in accordance with TfL's Guidance '*Managing Freight Effectively: Delivery and Servicing Plans*'. The Delivery and Servicing Plan sets out how the site will be serviced and how servicing will be managed.
- 1.35 In addition, the proposals include for a Construction and Logistics Plan, which is contained in Appendix K. The CLP has been prepared in accordance with TfL's Guidance '*Building a Better Future for Freight: Construction Logistics Plans*'. The CLP sets out how the site will be effectively constructed and managed to minimise disruption to the road network, local residents and users of the station.

Event Day Analysis

- 1.36 We have analysed the existing station management on Match Days, in order to ensure that the proposals have a non-detrimental effect on how the station is managed, and to construct proposals for how the new development would be managed on a Match Day. This involved attendance at the station when an event was taking place at the stadium on two occasions, and discussions with South West Trains.
- 1.37 We have looked at both egress and ingress routes. For egress, the majority (5.5 carriages) passengers from Platform 5 use the footbridge to the east of the station, with a minority (the first 2.5 carriages) using the station forecourt to exit the station. For Platforms 2/3, the majority of passengers use the gate from platform 2 to the car park, which then flows into the passengers from platform 5, with a minority of passengers using the station forecourt to exit the station. This is managed by event staff directing passengers to the appropriate exits.
- 1.38 The proposals involve the same principal, with 2 queues from the different platforms. Platform 5 passengers would still use the footbridge to the east of the station, which would then lead to the station car park via a path along the northern side of the tracks.

- 1.39 Passengers from Platforms 2/3 will be directed, as at present, through a gate to the car park, to then flow into passengers from platform 5. These proposals allow for the existing management procedures continue. The proposals involve an overall increase of 95% of area, over the existing.
- 1.40 In terms of ingress routes, the existing station queues eastbound passengers into the car park, into a queue snake, which leads to the gate on platforms 2/3. Passengers are then managed to queue onto the platforms, until the train arrives, which allows maximising of train loads. The proposed eastbound route will follow a similar procedure, passengers will queue via a queue snake in the station car park to a gate that will lead to the platforms, and the existing management of passengers will continue as the existing procedures. The proposals give an additional 2sqm over the existing area.
- 1.41 Westbound passengers, at present, queue via the station forecourt on London Road, where they are directed by station management staff to queue on the stairwell onto platform 5. They then queue passengers along platform 4, to the end of the platform buildings, and then onto platform 5. The proposals again follow the same procedure, with passengers queuing on the station forecourt. The area of the proposed forecourt gives an increase over the existing area, which allows for 2 queues on the station forecourt, to be managed by event staff. Once in the station building, the same procedures would continue, as with the existing management. A full set of the Event day plans are contained in Appendix J.
- 1.42 Therefore, it can be seen that the proposed station will provide an increase in area for the queuing of passengers on a match day, and allows for the existing management at the station to be continued effectively. Discussions have been held with South West Trains, for which they have stated that they are content with the proposals.
- 1.43 Discussions were also held with the emergency services, to discuss a) the emergency access to the station on a match day and b) how residents would access their properties on match days.
- 1.44 For point a) areas will be kept clear from passengers, which will allow event management to move passengers away to allow emergency access, should the need arise. In relation to point b), the footbridge from Beauchamp Road will be utilised for residents to have access to their properties. There will be a gate for which residents will have a key, to gain access to their properties. The event day proposals are set out in detail in Section 9 of this report.

Summary

- 1.45 It can be seen that the proposals involve a number of improvements for station users for a variation of modes of travel. The proposed development will be a car free development due to excellent accessibility of the site; therefore, there will be no impact on traffic.

2. THE SITE IN RELATION TO NATIONAL, REGIONAL AND LOCAL TRANSPORT POLICIES

Background

2.1 In this section of the Transport Statement we provide a summary of the development proposals against the relevant Transport policy criteria. A detailed analysis of the site in relation to Policy criteria is contained in the Planning Statement prepared by Maddox and Associates.

2.2 The particular National and Local Policy Criteria of relevance when considering the proposed development are;

- PPS3
- PPG13
- The London Plan (Consolidated with Alterations since 2004)
- The Draft Replacement London Plan
- London Borough of Richmond upon Thames Unitary Development Plan
- London Borough of Richmond Core Strategy

PPS3

2.3 PPS3 states that one of the specific outcomes that the planning system should achieve is for, ***“Housing developments in suitable locations, which offer a good range of community facilities and with good access to jobs, key services and infrastructure.”***

2.4 We consider that the development proposals are compliant with the criteria set out in PPS3.

PPG 13

2.5 Government Planning Policy Guidance in relation to transport is contained in PPG13. The key aims of PPG 13 are to ;

- 1 Locate development in locations that offer a realistic choice of access by non car modes
- 2 Encourage alternative means of travel which have less environmental impact
- 3 Reduce reliance in the private car
- 4 Reduce the growth in the number of motorised journeys

2.6 In respect of site accessibility PPG13 states at paragraph 16 that;

“Local Planning Authorities should ‘seek greater intensity of housing development at places with good public transport accessibility such as city, town district and local centres or around major nodes along good quality public transport corridors”.

2.7 Similarly ***“Cycling also has potential to substitute for short car trips, particularly those under 5km” (Paragraph 78, PPG 13)***. To achieve it, paragraph 79 of this document states that it is important that there is:

- ***“the design, location and access arrangements of development to ensure that it promotes cycling”;***
- ***“the provision of convenient, safe and secure cycle parking and changing facilities in developments and the provision of cycle storage facilities at transport interchanges;”***
- ***the provision of cycling routes and cycle priority measures in major new developments***

2.8 The site is in an excellent location for trips to be made on foot and by cycle due to its proximity to local amenities.

The London Plan (Consolidated with Alterations since 2004)

2.9 The main aim of The London Plan is;

“The Economic Development Strategy sets out the framework for sustainable economic development founded on investment in London’s places and infrastructure, its people and enterprise, and in marketing and promoting the best of what the capital has to offer.”

2.10 Section 3C of the London Plan relates to the improvement to public transport in London. In particular, Policy 3C1 states;

“Policy 3C.1 Integrating transport and development

- ***The Mayor will work with TfL, the government, boroughs and other partners to ensure the integration of transport and development by:***
- ***encouraging patterns and forms of development that reduce the need to travel, especially by car***

- **seeking to improve public transport, walking and cycling capacity and accessibility where it is needed, for areas of greatest demand and areas designated for development and regeneration, including the Thames Gateway, Central Activities Zone, Opportunity Areas, Areas for Intensification and town centres and other parts of suburban London in which improved access is needed**
- **in general, supporting high trip generating development only at locations with both high levels of public transport accessibility and capacity, sufficient to meet the transport requirements of the development. Parking provision should reflect levels of public transport accessibility (see Annex 4 on Parking Standards)**
- **encouraging integration of the major transport infrastructure plans with improvements to the public realm, particularly in key areas around major rail and Underground stations and interchanges, using land assembly powers where necessary.”**

2.11 The proposals are in line with Policy 3C1.

2.12 In terms of development in London, Policy 3C.2 (Matching Developments to Transport Capacity) of the London Plan states;

“The Mayor will and boroughs should consider proposals for development in terms of existing transport capacity, both at a corridor and local level. Where existing transport capacity is not sufficient to allow for travel generated by proposed developments, and no firm plans exist for a sufficient increase in capacity to cater for this, boroughs should ensure that development proposals are appropriately phased until it is known these requirements can be met.”

2.13 In relation to car free developments, Paragraph 3.196 states;

“The Mayor supports the use of car clubs and car free or virtually car free development where appropriate, taking account of the need for disabled parking.”

2.14 We consider that the site concurs with The London Plan.

The Draft Replacement London Plan

2.15 A draft replacement London Plan is currently in consultation, with the policies being given some weight in respect of planning applications in London. Therefore, we also consider the policies set out in the draft replacement London Plan.

2.16 Section 6 of the Plan sets out the transport policies. Policy 6.3 relates to Assessing Transport Capacity and states;

- ***“Development proposals should ensure that impacts on transport capacity and the transport network, at both a corridor and local level, are fully assessed.***
- ***Where existing transport capacity is insufficient to allow for the travel generated by proposed developments, and no firm plans exist for an increase in capacity to cater for this, boroughs should ensure that development proposals are phased until it is known these requirements can be met, otherwise they may be refused. The cumulative impacts of development on transport requirements must be taken into account.***
- ***Transport assessments will be required in accordance with TfL’s Transport Assessment Best Practice Guidance for major planning applications. Workplace and/or Residential⁸ Travel Plans should be provided for planning applications exceeding the thresholds in, and produced in accordance with, the relevant TfL guidance. Construction Logistics Plans and Delivery & Servicing Plans should be secured in line with the London Freight Plan⁹ and should be coordinated with Travel Plans.”***

2.17 Policy 6.9 of the Plan sets out the Cycling policy for London, which states that;

“Developments should:

- ***provide secure, integrated and accessible cycle parking facilities in line with the minimum standards set out in Table 6.2***
- ***provide on-site changing facilities and showers for cyclists***
- ***facilitate the Cycle Super Highways shown on Map 6.2***
- ***facility the central London cycle hire scheme”***

2.18 In respect of Walking, Policy 6.10 states;

“Ensure pedestrian environments in and around new developments emphasize the quality of the pedestrian and street space.”

2.19 In respect of car parking, Policy 6.13 states;

“The maximum standards set out in Table 6A should be applied to planning applications.

In addition, developments must:

- ***ensure that 1 in 5 spaces (both active and passive) provide an electrical charging point to encourage the uptake of electric vehicles***
- ***provide parking for disabled people in line with Table 6.1***
- ***meet the minimum cycle parking standards set out in Table 6.2***
- ***provide for the needs of businesses for delivery and servicing.”***

2.20 It is considered that the proposals for Twickenham Station are in line with the policies and aspirations of the draft replacement London Plan.

London Borough of Richmond upon Thames Policy

2.21 The London Borough of Richmond Policies consist of the Core Strategy, which was adopted in April 2009, and the UDP, which has been extended beyond March 2008. Therefore we look at both the policies in the UDP and the Core Strategy for The London Borough of Richmond upon Thames.

UDP

2.22 Paragraph 1.2 of the UDP states;

“The Plan sets out the Council's proposals for the development and other use of land including measures for the improvement of the physical environment, the conservation of natural beauty and amenity of land, and the management of traffic over the next ten years or so.”

2.23 Chapter 7 of the UDP is related to Transport Policies, for which we have analysed in respect of the proposals for Twickenham.

2.24 Policy TRN2 sets out the policy for Transport and New Developments, which states;

“The Council will only permit new development, or changes of use where it can be demonstrated that the transport infrastructure can accommodate it, or be adapted to do so, without creating congestion and hazards on the road network. Transport Assessments will be required to support development proposals where there are significant transport issues to be addressed. New development should:

- (i) Provide adequately for the needs of disabled people, pedestrian and cyclists;***
- (ii) Provide links to the pedestrian and cycle network and add to and enhance it, wherever appropriate;***

- (iii) Make provision for short, direct links to public transport and add to/enhance the public transport network wherever possible;**
- (iv) Be acceptable in terms of traffic generation and traffic impact on the road network (taking into account the cumulative effects with other existing and committed developments in the area), and in terms of availability of public transport and its ability to meet increased demands;**
- (v) Adequately provide for vehicular access and servicing, having regard to the needs of safety and to ensure that limited improvements in vehicular access are only allowed where they do not increase overall highway congestion;**
- (vi) Where possible minimise the environmental impact and amount of land used by transport facilities, including roads, parking and turning heads. Street signs and furniture should be well designed and rationalised wherever possible;**
- (vii) Be acceptable in terms of impact on air quality and noise levels caused by traffic generated;**
- (viii) Seek in appropriate cases the concept of planning advantages appropriate to the site and commensurate to the scale of development in accordance with the Council's transportation policies."**

2.25 In relation to car and cycle parking, policy TRN4 of the UDP states;

"Maximum car parking standards are set for all types of development. In Controlled Parking Zones and within 400 metres of a railway station, more restrictive standards than elsewhere in the Borough will apply as these are generally indicators of higher accessibility levels to public transport. The Council is committed to adopting a Public Transport Accessibility Level (PTAL) Model in future to determine parking standards. Appropriate provision for people with disabilities and cycle parking will be required."

2.26 As stated previously, due to the excellent location of the site to travel by means other than the private car, the residential element of the scheme will be car-free, with exceptions for disabled parking, therefore, the development proposals are in line with Policy TRN4.

2.27 In relation to pedestrian routes, policy TRN8 of the UDP states;

“New development must be designed to give priority to pedestrian access and to the provision of links to existing pedestrian routes. Pedestrian routes should be accessible for disabled people. Identifiable safe pedestrian routes will be provided, improved and promoted to key destinations such as town centres, schools, leisure facilities, public transport, and routes primarily for recreation. Routes should be direct, convenient, safe and secure, with appropriate levels of lighting. Closed circuit television will be introduced if necessary to help ensure personal security.”

2.28 The proposals include for improvements to the pedestrian area at the station.

2.29 Policy TRN11 relates to cycling and states;

“The Council will seek to provide practical facilities for the safe and convenient movement of cyclists, including the development of a local cycle route to complement the London Cycle Network shown on Map 8. New development must be designed to give high priority to cycle facilities and to link to the cycle route network and include secure parking in accordance with standards. It will also seek to provide and support the provision of secure parking areas for cycles in shopping and leisure centres, public transport interchanges and other public buildings”

2.30 In terms of Public Transport, Policy TRN 12 states;

“The Council will support and promote proposals to make the public transport service more efficient, safe, convenient, comfortable, reliable, frequent and more accessible, particularly for those people with disability or mobility problems. In particular the Council will oppose any proposal to close any of the railway stations in the Borough or any changes which reduce the level of service of public transport. Existing transport infrastructure should normally be retained. New development which affects transport infrastructure should provide the opportunity to improve rather than detract from public transport.”

2.31 Similarly, policy TRN13 states;

“The Council will support and promote proposals for improved public transport bus and rail facilities in outer south and west London”

2.32 Also in relation to public transport, policy TRN 14 states;

“The Council will seek to improve the interchange facilities at all rail stations and bus interchanges in the Borough, having particular regard to information systems, cycle parking, bus and pedestrian links, safety / security, access for people with mobility difficulties and environmental improvements.”

2.33 The proposals for the railway station upgrade at Twickenham, concurs with policies TRN12-14.

2.34 In relation to on street parking, policy TRN 21 states;

“The Council will pursue the control of on-street parking where this is necessary to ensure the safe and efficient movement of motor vehicles, public transport, pedestrians, and cyclists, to maintain essential access to premises fronting the roadway, to provide loading bays to improve the local environment or to maintain the vitality of shopping centres. Where parking congestion is so severe that an equitable balance between conflicting demands cannot be achieved, the Council will promote the introduction of Controlled Parking Zones.”

2.35 As stated previously, the proposed residential units will be car free, excepting provision for disabled drivers. A ‘car-capping’ scheme will be introduced to disallow residents from applying for parking permits for the local residential roads.

2.36 In relation to station car parking, policy TRN23 states;

“The Council will support and promote the provision of some additional off-street parking spaces at railway stations in the Borough where there is local need, where there is sufficient highway capacity and where it forms part of the implementation and development of a public transport interchange, involving improvements to bus, cycle and pedestrian facilities.”

2.37 It can be seen that the proposals for Twickenham Station concur with the policies set out the boroughs UDP.

Core Strategy

2.38 We have also looked at the Core Strategy for the borough, which was adopted in April 2009.

2.39 Section 8 of the Core Strategy sets out the Spatial Policies. In relation to transport, policy CP5 of the Core Strategy relates to sustainable travel and states;

“5.A The need for travel will be reduced by the provision of employment, shops and services at the most appropriate level locally, within the network of town centres identified in CP 8. To implement this policy the Council will :

- ***Protect and enhance local facilities and employment to reduce the need to travel.***
- ***Require developments which would generate significant amounts of travel to be located on sites well served by public transport.***

- ***In promoting safe, sustainable and accessible transport modes such as walking, cycling and public transport, in association with its partners the Council will seek to:***

5.B Land for transport

- ***Safeguard land for existing and proposed transport functions***
- ***Reflect the above priorities in the allocation of road spaces as part of the Parallel Initiatives Programme***

5.C Cycling and Walking

- ***Give priority to pedestrians, including those with disabilities, particularly in Richmond town centre and the district and local shopping centres.***
- ***Provide and promote a well designed bicycle and walking network across the Borough (the Strategic Walks network, Richmond Borough Cycle Network and London Cycle Network Plus), and improve conditions for cyclists and pedestrians elsewhere.***
- ***Prioritise the needs of pedestrians and cyclists in the design of new developments including links to existing networks and requiring the provision of adequate cycle parking.***
- ***Investigate the possibility of a footbridge across the Thames between Ham and Twickenham for pedestrians and cyclists.***

5.D Public Transport

- ***Improve provision for buses particularly in Richmond and Twickenham town centres, and seek to improve bus services within River Crane Corridor through the implementation of development proposals.***
- ***Achieve integration and convenient interchange facilities at all the borough's stations***
- ***Seek improvements to orbital public transport including rail access to Heathrow.***
- ***Improve walking, cycling and public transport in areas less well served by public transport, including some of the areas of relative deprivation.***

5.E Congestion and Pollution

- ***Undertake traffic management measures to reduce the impact of traffic particularly in Richmond town centre, the district and local centres, residential areas and streets unsuitable for through traffic.***

5.F Car parking and travel

- ***Require new car free housing in Richmond and Twickenham town centres and in other areas where there is good public transport and elsewhere have regard to maximum parking standards.***
- ***Require car share facilities and car clubs in appropriate new developments and encourage the use of low emission motor vehicles in order to reduce congestion and pollution.***
- ***Discourage commuter parking particularly by giving priority to residents' needs.***
- ***Limit any further expansion of parking in town and local centres and manage parking controls to help maintain the vitality and viability of the centres, including the evening economy.***

5.G Sustainable travel

- ***Encourage major employers and schools to develop Green Travel Plans and require these where appropriate with planning applications.***
- ***Require all major developments to submit a Transport Assessment based on TfL's Best Practice Guidance.***
- ***Encourage efficient, safe and sustainable freight transport.***
- ***Encourage river transport through the retention and support for new transport infrastructure.***

5.H The Council will support measures to minimise the impacts of Heathrow, particularly on traffic and noise on the Borough and will oppose changes that increase local impacts. Specifically it will seek the support of BAA, the Government and relevant statutory authorities for the following measures:

- a) maintenance of the 480,000 limit on total air transport movements;***
- b) maintenance of the current system of segregated mode;***
- c) maintenance of the current noise preferential routes;***

- d) *the discontinuation of night flights;*
- e) *restrictions of the use of private cars and improvements to public transport including a southern rail link”*

2.40 It is considered that the proposals are in line with the policies of the Core Strategy for the London Borough of Richmond.

Conclusions to this Section

2.41 This section has demonstrated that the development proposals concur with Local, Regional and National Policies. In particular due to the suitability of the site for a car free development.

3. THE EXISTING STATION AND INTERCHANGE

3.1 This section of the report examines the existing interchange facilities at Twickenham Station, to allow a subsequent analysis of the development proposals in terms of how they benefit interchange by different modes. In particular we consider;

- (i) The Station Access
- (ii) The Existing Interchange
- (iii) The Station Car Park
- (iv) The Access to Bus Services
- (v) Cycling
- (vi) Taxis

Background

3.2 Twickenham Station is managed by South West Trains, and serves National Rail services. From Twickenham, destinations such as London Waterloo, Windsor and Eaton Riverside, Reading, Shepperton, Aldershot, Hounslow and Brentford can be reached directly, with convenient interchanges to other destinations. There are approximately 20 trains departing per hour from Twickenham Station. Twickenham is the nearest station to the Twickenham Stadium.

3.3 The rail network from Twickenham Station is shown in Figure 2.

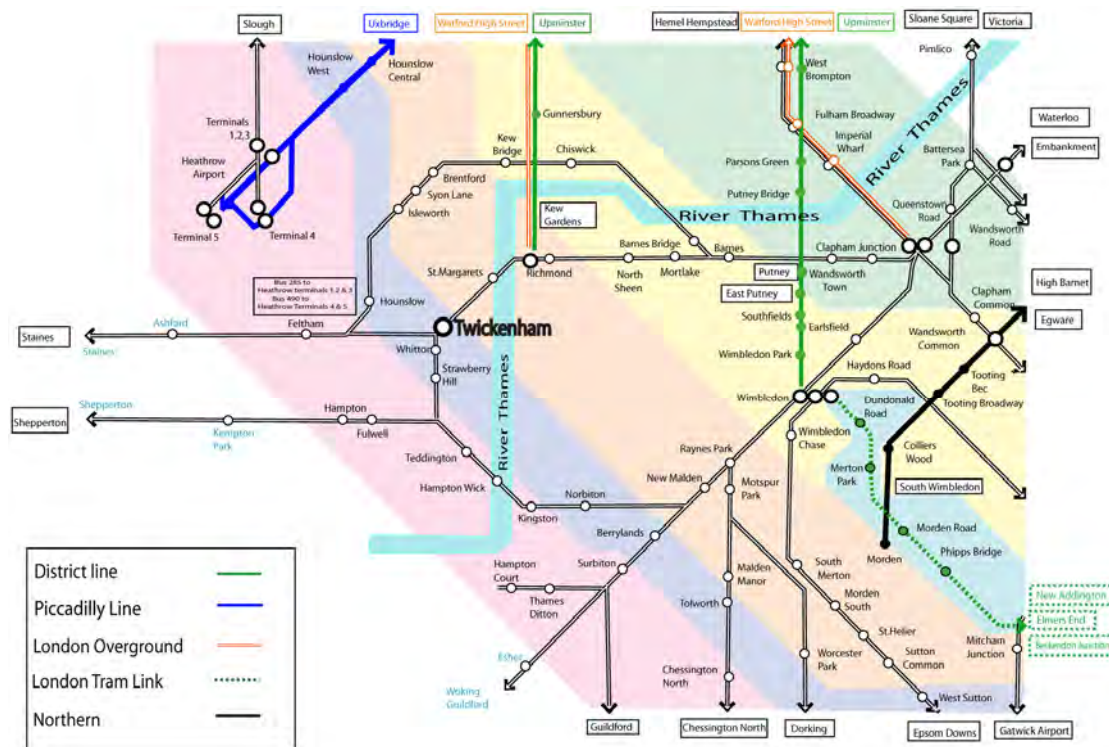


Figure 2: Rail Routes from Twickenham Station

3.4 It can be seen that there are high frequency connections to a high number of destinations, with convenient interchanges to other destinations.

(i) The Station Access

3.5 The main station access is from London Road, through the station building. The platforms have limited access via footbridges from the car park and also from London Road. The access points are shown in Figure 3.

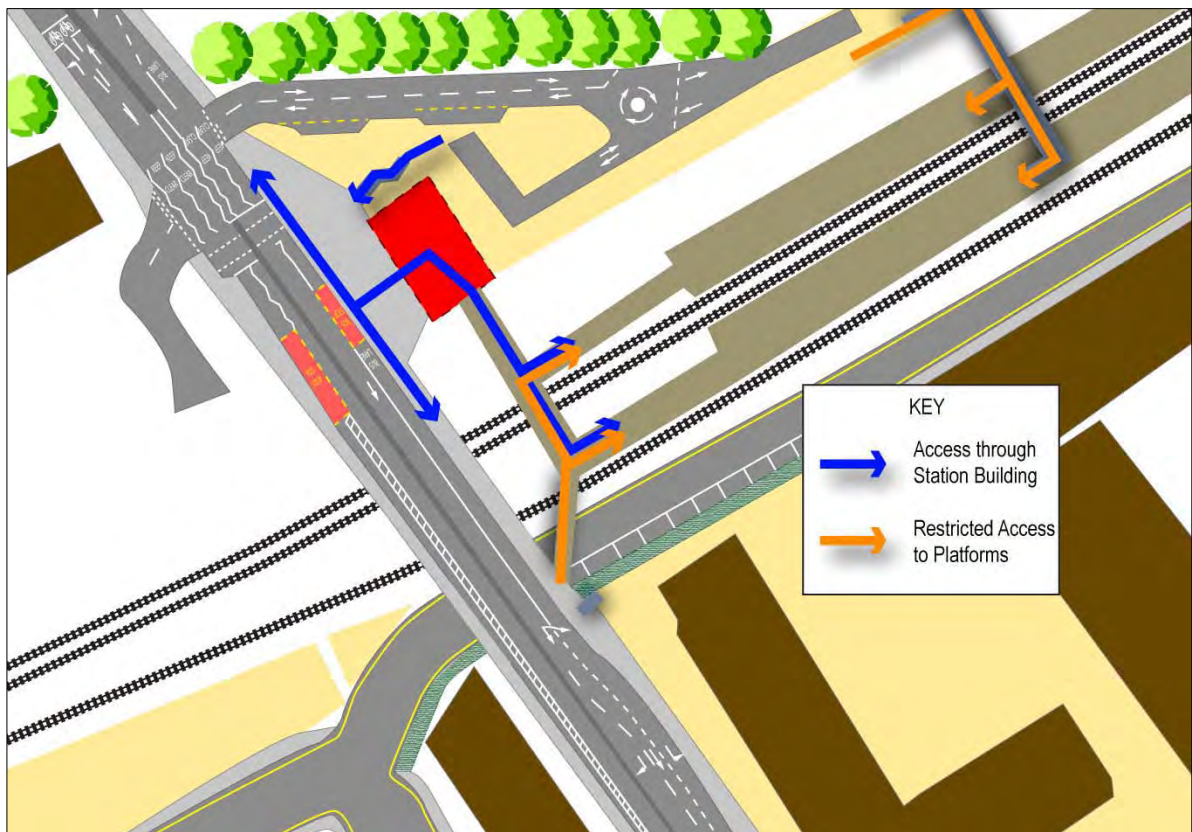


Figure 3: Station Access Points

- 3.6 We have considered the existing walk routes that people take to access the station and how the development proposals would affect the quality of the routes and the route choices.
- 3.7 The main access to the station is on London Road. There is an open area outside of the station for pedestrians. There is a footbridge that leads from Mary's Terrace to the entrance on London Road, and similarly, stairs leading from the car park to the entrance.
- 3.8 There is a separate access which has restricted access times, also on London Road, which leads directly to the platforms. The footbridge at the rear of the car park does not give everyday access to the platforms, and is only used on event days at Twickenham Stadium. Photographs of the access points to the station are shown in Figure 4.

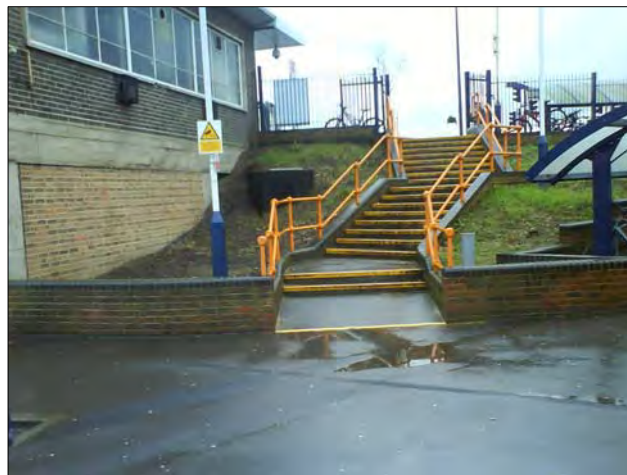


Figure 4: Photographs of Existing Access Points

3.9 It can be seen that the station is not accessible for mobility impaired users. The proposals include for an improved pedestrian area for the station, which is discussed in Section 6 of this report.

(ii) The Existing Interchange

3.10 The station interchange area is located on the access road from London Road to the Station Car Park. There is a taxi rank, with space for 3 taxis and a drop-off/pick-up area, also with space for approximately 3 spaces. These are both located in lay-by's on the roadside.

3.11 From the station car park, there are stairs that lead to the station entrance. Access for disabled users is via the station car park road off London Road, which, at points has narrow footway.

3.12 The photographs contained in Figure 5 show details of the existing interchange at the station.



Figure 5: Photographs of Existing Interchange

3.13 It can be seen that station interchange is not accessible for mobility impaired users at present, with limited drop-off/pick-up space for passengers.

(iii) Station Car Park

3.14 There are 44 commuter parking spaces at Twickenham Station, including 2 disabled parking spaces. The station car park is open Monday-Sunday 24 hours, and the following charges apply;

- £7.00 peak,
- After 1600 Mon-Sun £2.00 off peak,
- £7.00 daily,
- £25.00 weekly,
- £85.00 monthly,
- £255.00 three-monthly,
- £850.00 annually

3.15 It can be seen that the Station Car Parking is Managed with charges applicable at all times

(iv) Bus Services

3.16 There is a bus stop located outside of the station building on London Road. This bus stop serves 2 bus routes to Hammersmith, Hampton Court, Tolworth and Hounslow. More detail of the bus services are set out in Section 5 of this report.

(v) Cycling

3.17 The Station incorporates 80 secure cycle spaces, located on both sides of the station entrance on London Road and in the Station Car Park. Photographs of the cycle parking areas are shown in Figure 6.



Figure 6: Photograph Showing Existing Cycle Storage

3.18 It can be seen, that there is a high number of cycle parking spaces at the station at present, not all of which is covered, but it is situated in a number of separate locations rather than in one place, which makes it more difficult for users to find a space quickly when cycling to the station.

(vi) Taxi Rank

- 3.19 The Station has a taxi rank situated on a lay-by on the car park access road, which has capacity for approximately 3 taxis.

Conclusions to this Section

- 3.20 This section shows that the station has excellent rail links to London and Reading and numerous other destinations. The station also has good connections to local bus stops. The interchange area at present is not easily accessible for mobility impaired users, for which is part of the redevelopment, as discussed in this Transport Statement.

4. ANALYSIS OF STATION MOVEMENTS AND CATCHMENT AREAS

4.1 In this section of the report, we examine the existing movements to and from Twickenham Station, in order to understand the benefits from the development proposals.

4.2 The data sources used in this Section, include;

- (i) Rail Passenger Counts Provided by Network Rail
- (ii) Car Park Usage Counts Provided by Network Rail
- (iii) Results of pedestrian counts
- (iv) Data from the National Rail Travel Survey, provided by DfT

4.3 Appendix B contains details of the surveys and a detailed analysis of the survey records. This Section provides a summary of the Survey Records, in particular considering for Twickenham Station;

- (i) Existing Station Flows and Modal Share for Twickenham Station.
- (ii) Existing Station Catchment.
- (iii) Existing Station Car Parking Usage

(i) Existing Station Flows and Modal Share

4.4 In developing the station interchange proposals, we have initially considered the existing mode of access for passengers and tested how well the existing proposals accommodate those different modes.

4.5 The Department for Transport collects data in respect of mode of travel of passengers to stations. The mode of Travel for Passengers to Twickenham station taken from the National Rail Travel Survey 2008 is shown in Table 2.

Main Mode (Hierarchical)	Access		Egress	
	Frequency	Percent	Frequency	Percent
Walked	4432	76.2%	4339	75%
Bus/coach	803	13.8%	825	14%
Car (parked at or near the station)	176	3.0%	159	3%
Car (dropped off by someone)	203	3.5%	200	3%
Bicycle	132	2.3%	128	2%
Taxi/minicab	42	0.7%	42	1%
Underground/Light Rail/Metros/Trams	26	0.4%	61	1%
Total	5814	100.0%	5754	100%

Table 2: Twickenham Station Main Mode of Access

4.6 It can be seen from Table 1 that the major mode of travel for passengers accessing Twickenham Station is on foot, representing over 75% of movements. Bus Travel accounts for close to 14% of movements.

4.7 It can be see therefore that 90% of movements to and from the station are by these two modes (bus and walk).

(i) Catchment Area

4.8 The National Rail Travel Survey, allows for a cross tabulation of the origin of journeys to the station by access mode.

4.9 This data has been used to assess how the Interchange proposals relate to the catchment area of the station and the scope to encourage more trips by the sustainable modes (walk, cycle, bus).

4.10 Using GIS software the origin of trips by mode has been mapped and has been considered in the following paragraphs for;

- a. Journeys to the Station on foot;
- b. Journeys to the Station by bus;
- c. Journeys to the Station by cycle;
- d. Journeys to the Station by car (dropped off by someone);
- e. Journeys to the Station by car (parked at or near the station); and
- f. Journeys to the Station by taxi.

a. People travelling on foot

4.11 Figure 7 indicates the catchment area of the station by foot.

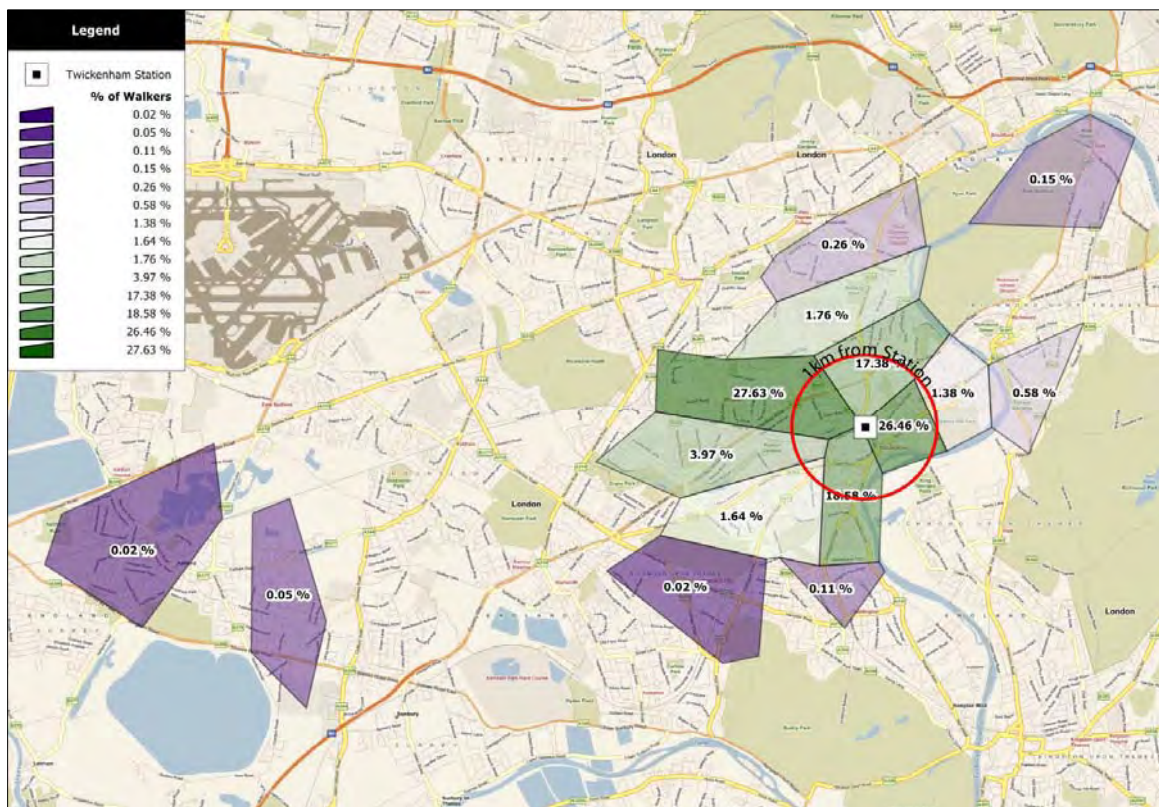


Figure 7: Areas of people travelling on Foot

4.12 As discussed over 75% of trips to the Station are on foot and the catchment plans indicate that the catchment area is fairly equidistant between the north and south of the railway, which is consistent with the Master Plan proposals discussed subsequently to centralise the access to the Station.

b. Journeys to the Station by bus

4.13 There are 2 bus routes that stop outside of Twickenham Station, the 267 and the 281. The 267 bus route serves Fulwell to Hampton Court. The 281 service serves Hounslow to Tolworth.

4.14 A number of other bus services stop on King Street a short walk from the Station.

4.15 We have shown in Figure 8 and 9 overleaf, firstly the catchment area for the station by bus and how this relates to the existing bus network.

- 4.16 There are other bus services that serve Twickenham, which do not serve the station. The major bus catchment for the station it can be seen is the area South West of the station, which is served by the buses running towards Hounslow, Staines, Heathrow and Hampton.
- 4.17 These are frequent through services currently stopping either on London Road or King Street and it is clear that the Interchange proposals in terms of (a) centralising the position of the station and (b) ensuring ease of access to the through services on London Road are consistent with the analysis of the bus catchment area.

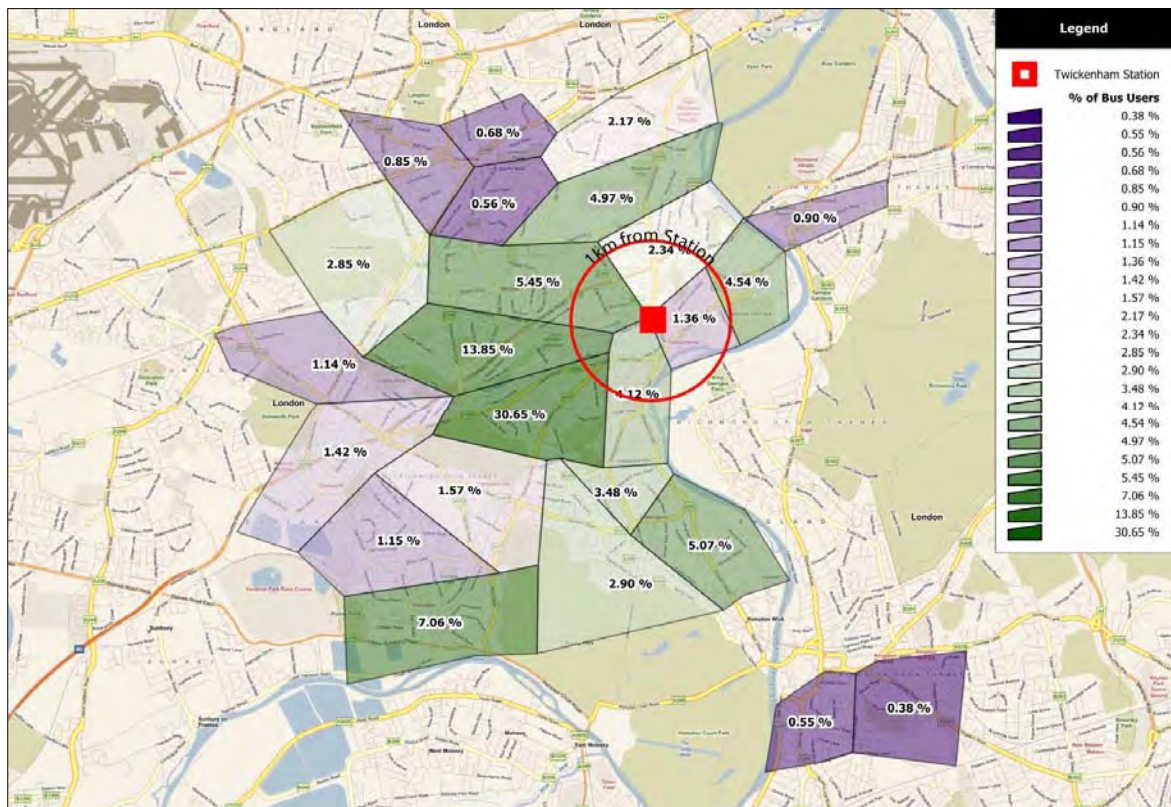


Figure 8: Areas of people travelling by Bus

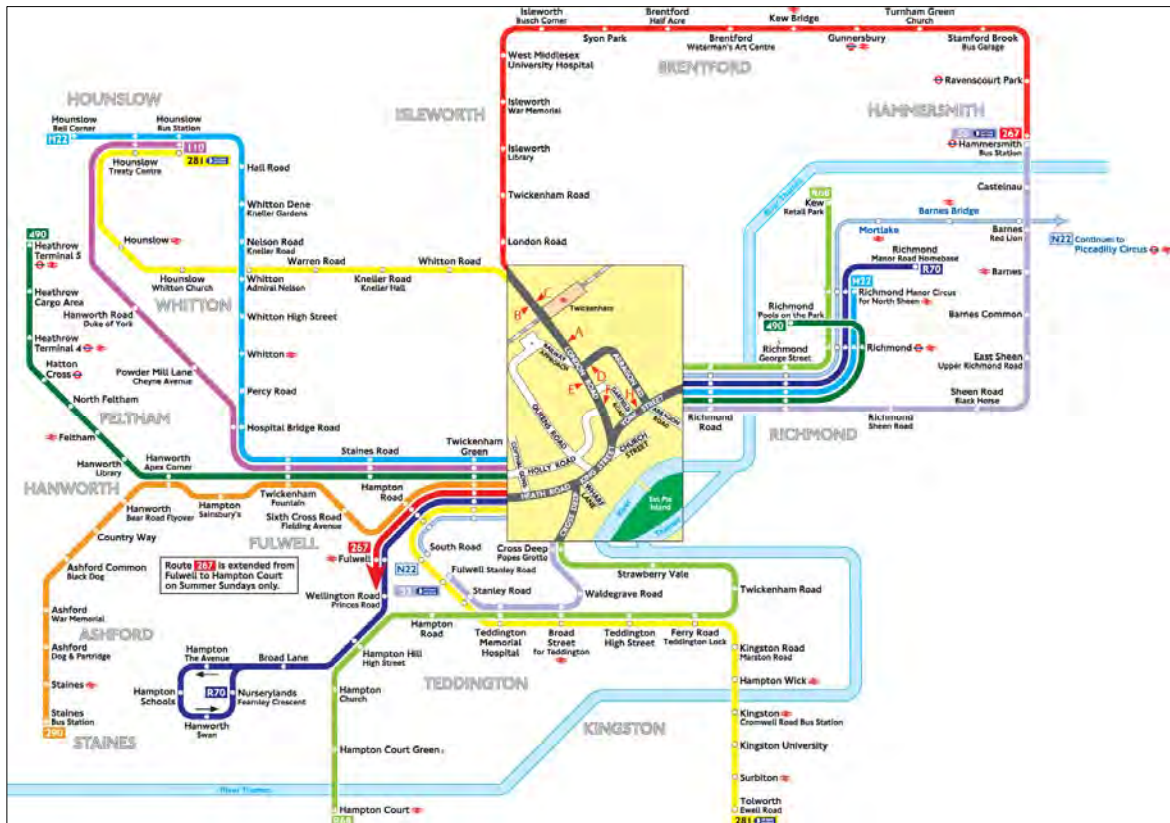


Figure 9: Twickenham Bus Map

c. Journeys to the Station by cycle

4.18 Figure 10, shows the catchment area of the Station by cycle, which shows the major catchment area to be north of the station.

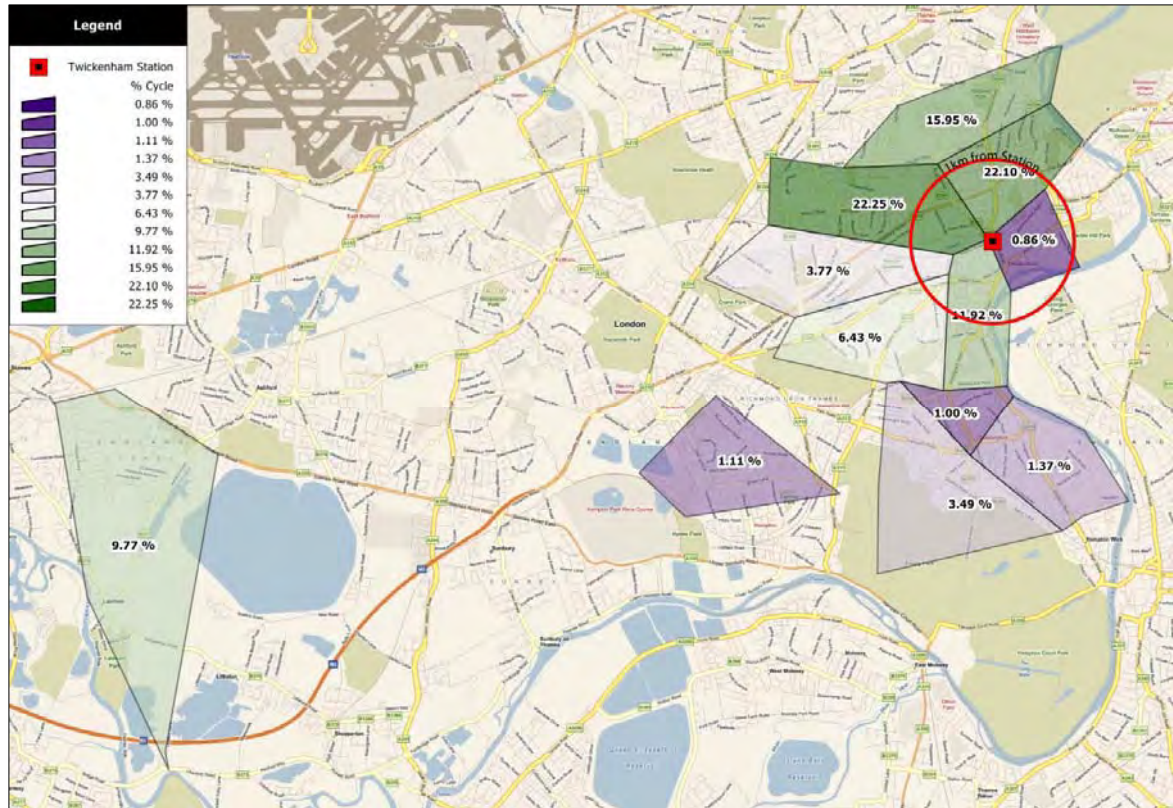


Figure 10: Areas of people travelling by Cycle

d. Journeys to the Station by car (dropped off by someone)

4.19 Figure 11 shows the catchment area for Kiss and Ride passengers, which indicates the majority of trips to be from the local area.

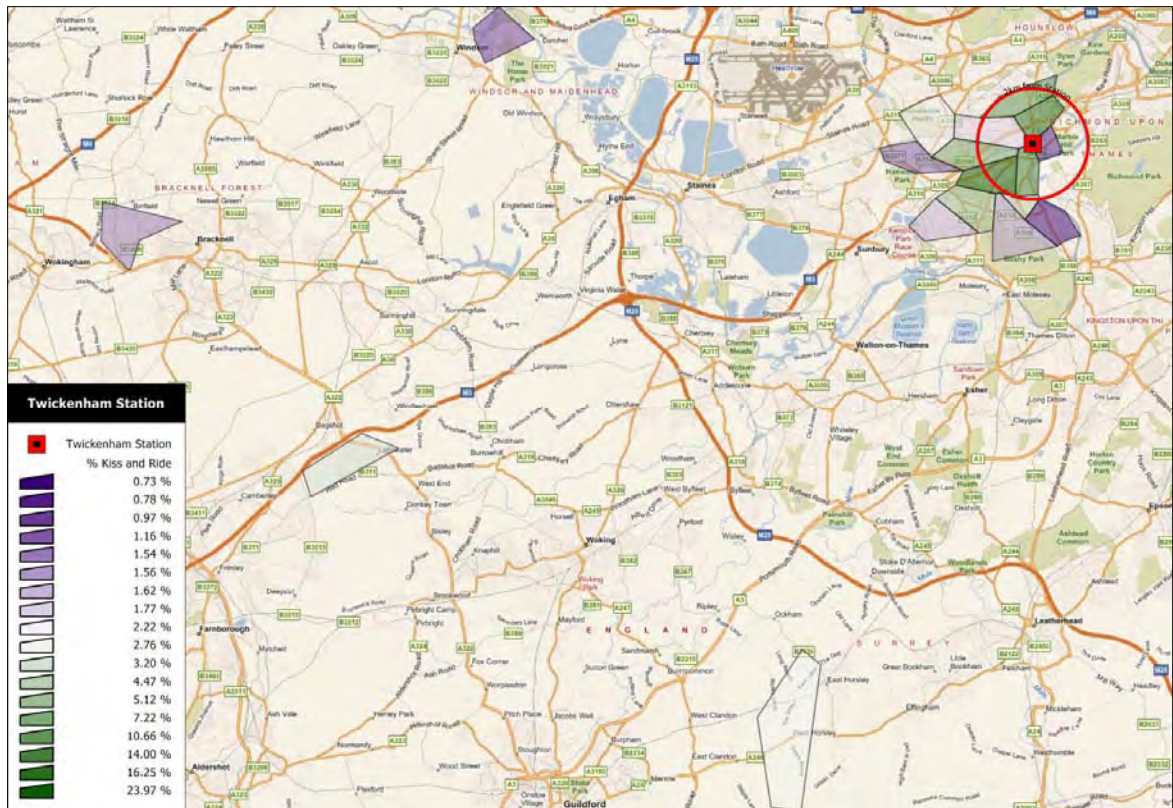


Figure 11: Areas of people travelling by Car (dropped off by someone)

e. Journeys to the Station by car (parked at or near the station)

4.20 Figure 12, shows the catchment area for people parking at the station.

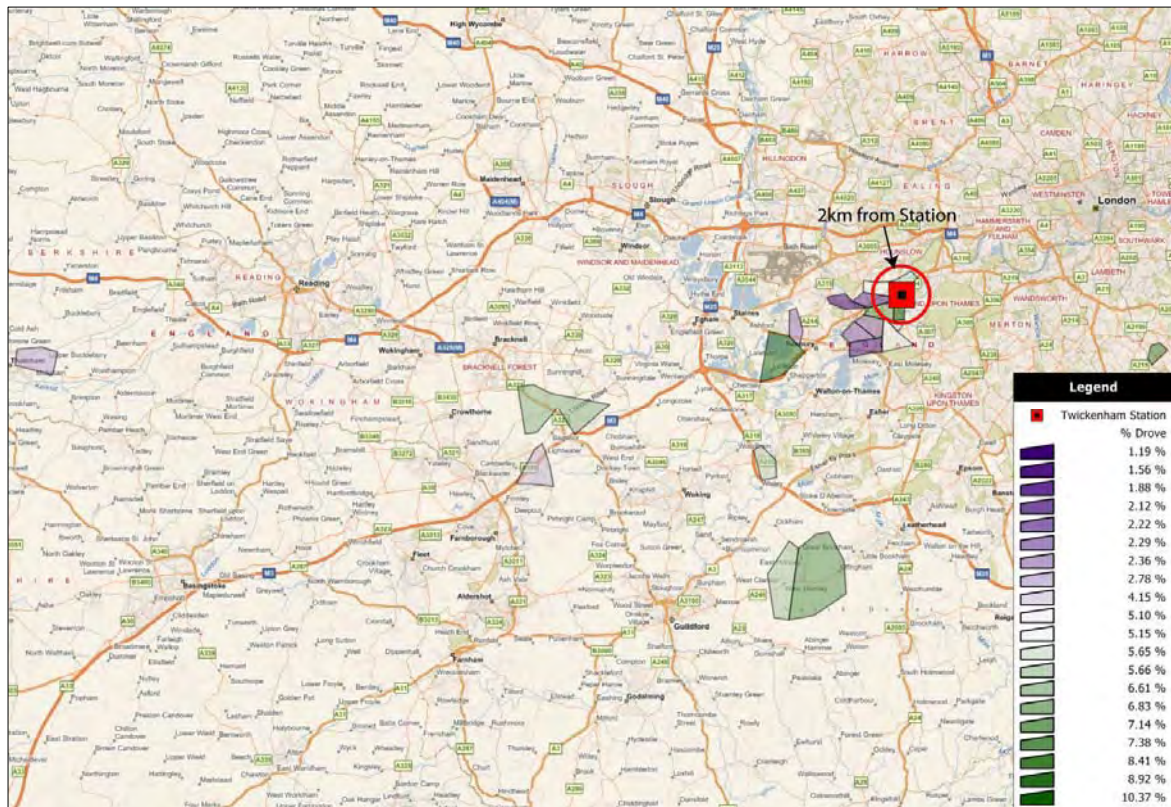


Figure 12: Areas of people travelling by Car (Parked at or near the station)

f. Journeys to the Station by taxi.

4.21 Figure 13, shows the catchment area for trips by taxi. Taxis represent a very low proportion of trips to and from the station (0.7%) and the catchment plan indicates the majority of trips to be from the local area.

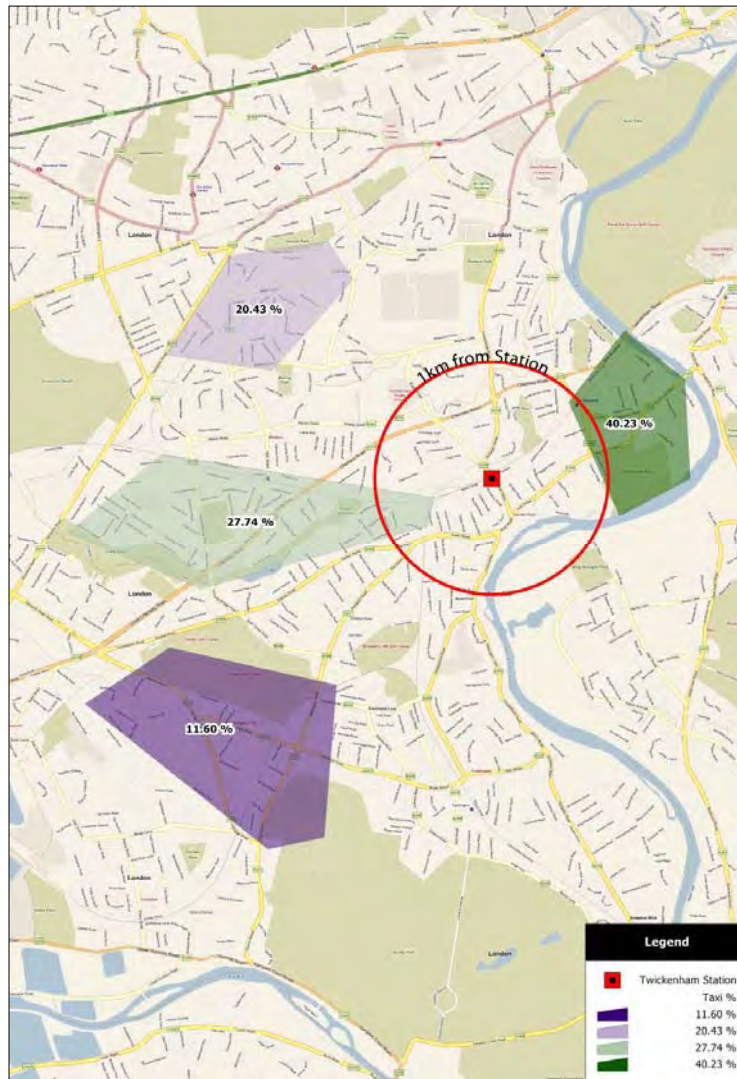


Figure 13: Areas of people travelling by Taxi

(ii) Existing Station Car Park Usage at Twickenham Station Car Park

4.22 We have also analysed the existing usage of the Twickenham Station Car Park. This shows that the car park reaches capacity. An accumulation Table is contained in Appendix B.

Conclusion to this Section

4.23 It can be seen that trips on foot and by bus represent the major mode of access to the station (90%) and this has been used to inform the Master Planning of the Interchange proposals discussed subsequently.

5. ACCESSIBILITY TO THE STATION

5.1 The site is in an excellent location in relation to the ability to make trips by means other than the private car. Therefore, in this section of the report we consider;

- (i) The Public Transport Accessibility Level (PTAL)
- (ii) Existing Bus Routes and Stops
- (iii) Existing Pedestrian Routes
- (iv) The Site in Relation to Existing Cycle Routes
- (v) The Accessibility of the Site in Relation to Local Amenities
- (vi) The Relationship of the Site in Respect of Local Car Clubs
- (vii) The Local Highways Network
- (viii) Local Car Parking and Controls
- (ix) The Site in Relation to Taxis Ranks
- (x) Safety Considerations
- (xi) The Site in Relation to Trams Services
- (xii) The Site in Relation to Riverboat Services

(i) The Public Transport Accessibility Level (PTAL)

5.2 The site is in a highly accessible location in relation to access by public transport. Using the TfL Planning Information Database, we have looked at the Public Transport Accessibility Level (PTAL) for the site location, which shows that it has a PTAL of 5, out of 1 (lowest) to 6b (highest). The Summary Report generated from the TfL database is contained in Appendix C.

(ii) Existing Bus Routes and Stops

5.3 The site is well located in relation to bus routes, with bus stops located outside of the station routing the 267 from Hammersmith to Hampton Court and 281 from Tolworth to Hounslow. There are also other bus routes served by bus stops located within the vicinity of the site. Figures 14 and 15 show the location of the site in relation to bus stops and the bus routes near to Twickenham Station, with Table 3 setting out the routes and frequencies.



Figure 14: Location of Bus Stops

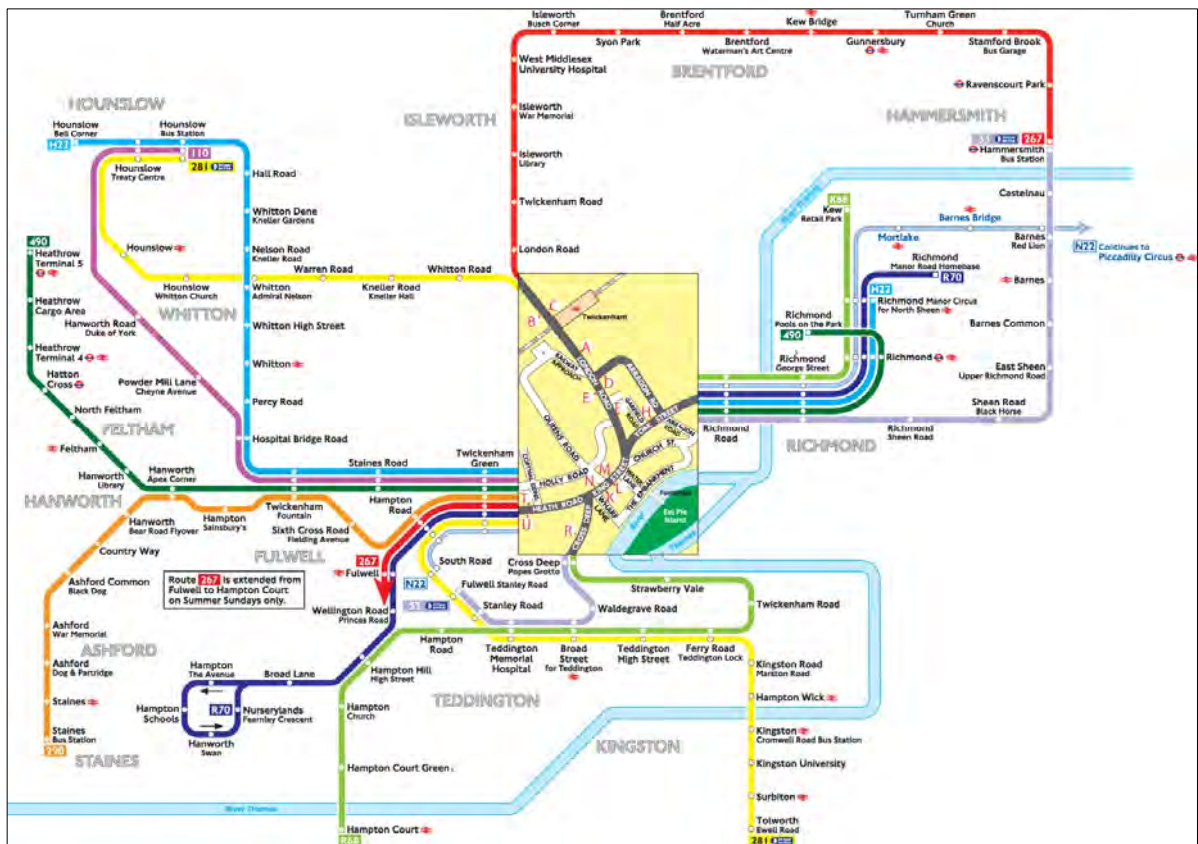


Figure 15: Bus Route Map (Sourced from TfL's Web Site)

Bus	Route	Frequency
281 (24 Hour)	Tolworth Broadway - Hounslow Bus Station, <i>via Teddington and Kingston and Twickenham</i>	Mon-Fri: Every 4-6 Minutes Saturday: Every 6-10 Minutes Sunday: Every 10-15 Minutes
33 (24 Hour)	Fulwell Stanley Road -Hammersmith Bus Station, <i>via Richmond, East Sheen and Twickenham.</i>	Mon-Fri: Every 5-7 Minutes Saturday: Every 10-20 Minutes Sunday: Every 15-20 Minutes
110	Hounslow Bus Station - Twickenham High Street, <i>via Richmond and East Sheen.</i>	Mon-Fri: Every 20-30 Minutes Saturday: Every 20 Minutes Sunday: Every 30-35 Minutes
290	Staines Bus Station - Twickenham High Street, <i>via Ashford Common.</i>	Mon-Fri: Every 15 Minutes Saturday: Every 20 Minutes Sunday: Every 30-40 Minutes
490	Heathrow Terminal 5 - Twickenham High Street, <i>via Feltham and Hanworth.</i>	Mon-Fri: Every 12 Minutes Saturday: Every 12 Minutes Sunday: Every 15-20 Minutes
H22	Hounslow Bell Corner - Twickenham High Street, <i>via Whitton Dean and Kneller Road.</i>	Mon-Fri: Every 12 Minutes Saturday: Every 11 Minutes Sunday: Every 20-25 Minutes
R68	Hampton Court – Twickenham High Street, <i>via Teddington Memorial Hospital and Twickenham Road.</i>	Mon-Fri: Every 10 Minutes Saturday: Every 10-20 Minutes Sunday: Every 10-20 Minutes
R70	Hampton (The Avenue) - Twickenham High Street, <i>via Wellington Road.</i>	Mon-Fri: Every 10 Minutes Saturday: Every 10-20 Minutes Sunday: Every 10-20 Minutes

Table 3: Bus Routes and Frequencies (Sourced from TfL’s Web Site)

5.4 It can be seen that there is a wide network of frequent bus services stopping within the vicinity of the Station.

(iii) Existing Pedestrian Routes

5.5 A Pedestrian Environment Review (PER) assessment has been undertaken, which looks at the quality of the existing pedestrian environment. This is contained in Appendix D, and is summarised in the following paragraphs.

5.6 In particular the review notes:

- Kiss & Ride and Taxi rank and parking is not easily accessible;
- Queuing capacity in the front of the main entrance is low;
- The pedestrian crossing is well located adjacent to wide footpaths on either side of London Road.

5.7 The development proposals will improve the existing environment for pedestrians, which include improvements to the above. This is set out in Section 6.

(iv) The Site in Relation to Local Cycle Routes

5.8 The site is well located in relation to the Local and the London cycle network, as shown in Figure 16.



Figure 16: Cycle Connections

5.9 It can be seen that the site connects directly to the dedicated cycle network.

(v) The accessibility of the site in relation to Local Amenities

5.10 The site is well located in respect of local amenities. We have considered in the paragraphs below, the relationship of the site to different amenities which would be used by residents, namely;

1. Education
2. Healthcare
3. Shopping
4. Sports and Leisure

1. Education

5.11 There are a number of nursery, primary and secondary schools in the vicinity of the site. Figure 17 shows the location of the education facilities, with Table 4 setting out the locations and distances.

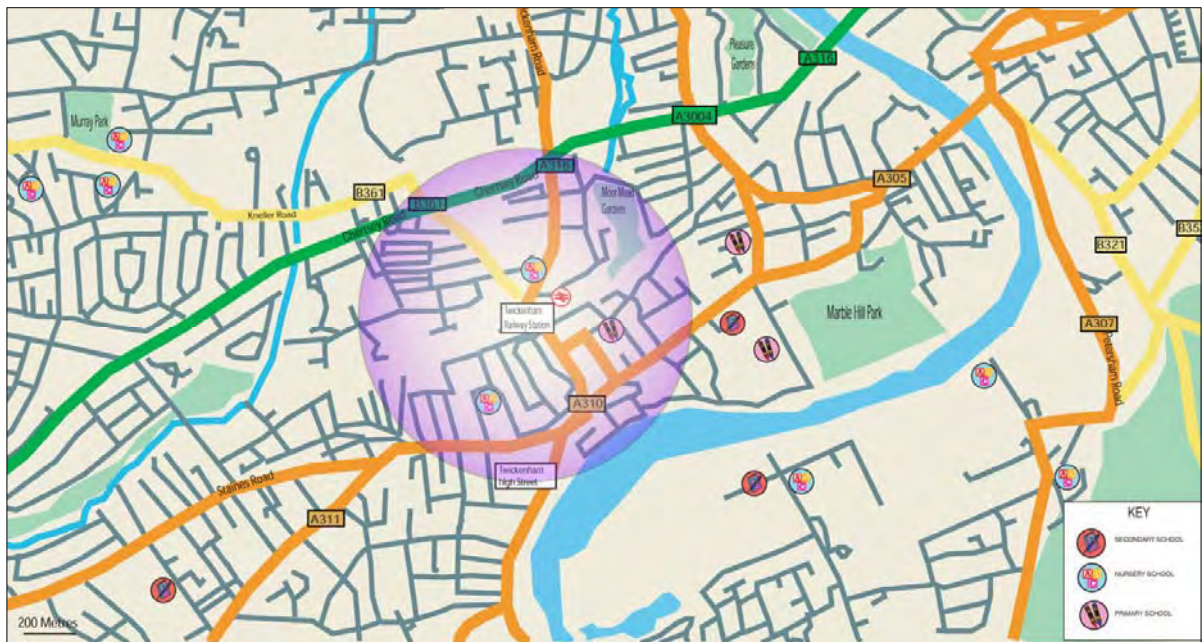


Figure 17: Location of Local Education Facilities

Facility	Name	Approximate Distance (metres)
Nursery	Teddies Nursery School, March Road	160m
Primary School	St Mary's C of E School (Infant), Amyand Park Road	450m
Secondary School (mixed)	Orleans Park School, Richmond Road	950m

Table 4: Details of Local Education Facilities

2. *Healthcare*

5.12 There are a number of healthcare facilities, such as doctors and dentist surgeries and opticians, all within close proximity to the site. Figure 18 shows the site in relation to the healthcare facilities.

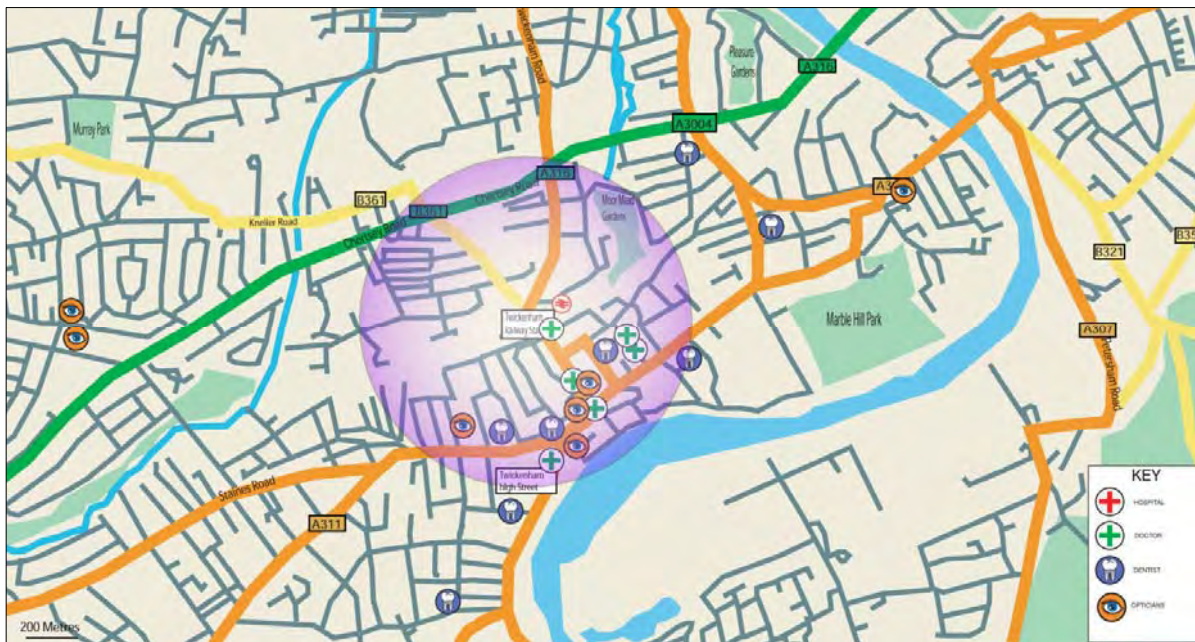


Figure 18: Location of the Site in relation to the Health Care Facilities

5.13 Table 5 provides details of the local healthcare facilities.

Facility	Name	Approximate Distance (miles)
Opticians	Specsavers Opticians, London Road	480m
Dentist	D. Donohue, King Street	650m
Doctors	Cross Deep Surgery, Cross Deep.	650m

Table 5: Details of Local Healthcare Facilities

3. *Shopping*

5.14 We have looked at the locations of local shopping areas, including supermarkets and general stores, for which we have shown in Figure 19.

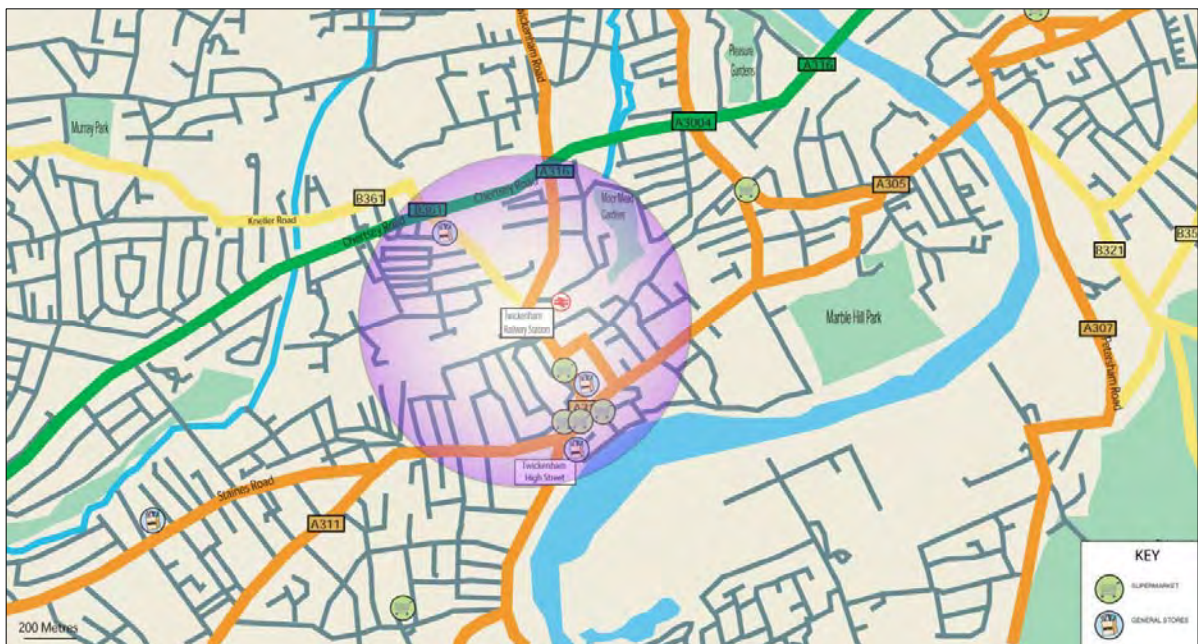


Figure 19: Location of Shopping Areas in Relation to the Station

5.15 Figure 19 show that there are a number of shopping areas near to the site, including a newsagent and a Waitrose Supermarket on London Road. Also Twickenham High Street, which has a range of amenities, is located approximately 500m away.

4. Sports and Leisure

5.16 In terms of leisure facilities, we have shown, in Figure 20, the locations of various types of leisure facilities near to the site, in particular local sports centres, Libraries, restaurants and places of worship.

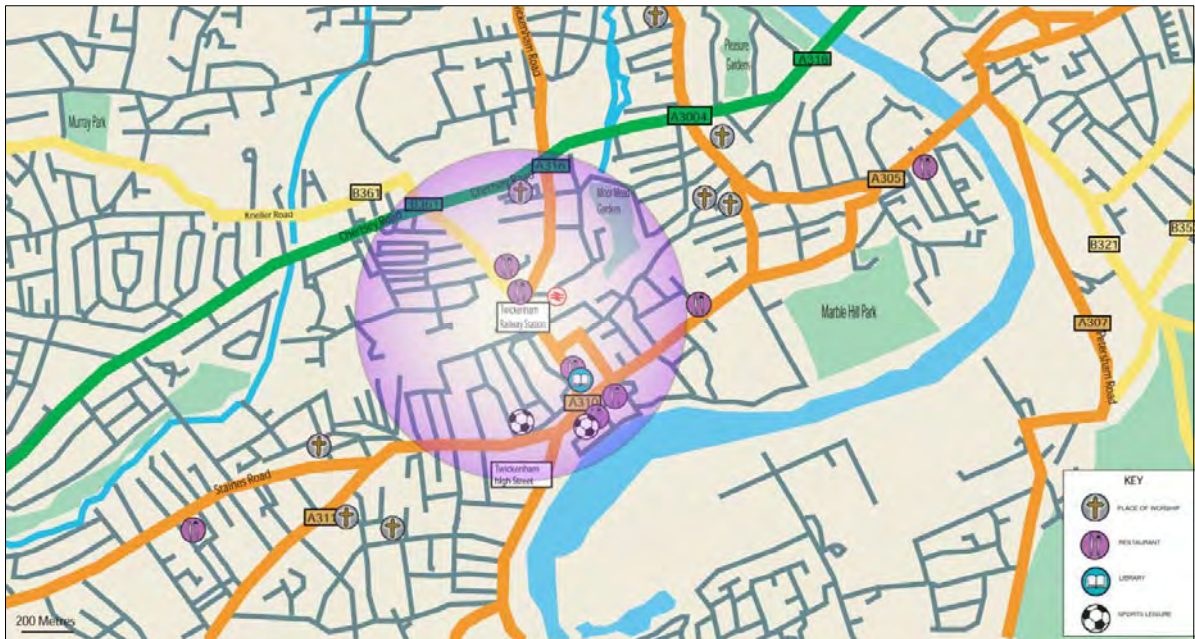


Figure 20: Location of Leisure Facilities in Relation to the Site

5.17 It can be seen that there are a number of leisure facilities within close proximity to the site, with a Gym located approximately 500m away on King Street along with a Library and a number of places of worship and restaurants.

(vi) The Relation of the site in respect of Local Car Clubs

5.18 There are a number of existing Car Clubs within close proximity to the site; with the nearest Car Club Space being located on Grosvenor Road. The location of the existing Car Clubs in relation to the site is shown in Figure 21 and it demonstrates the ability to introduce three car club spaces within the site, which will form part of an established car club network.

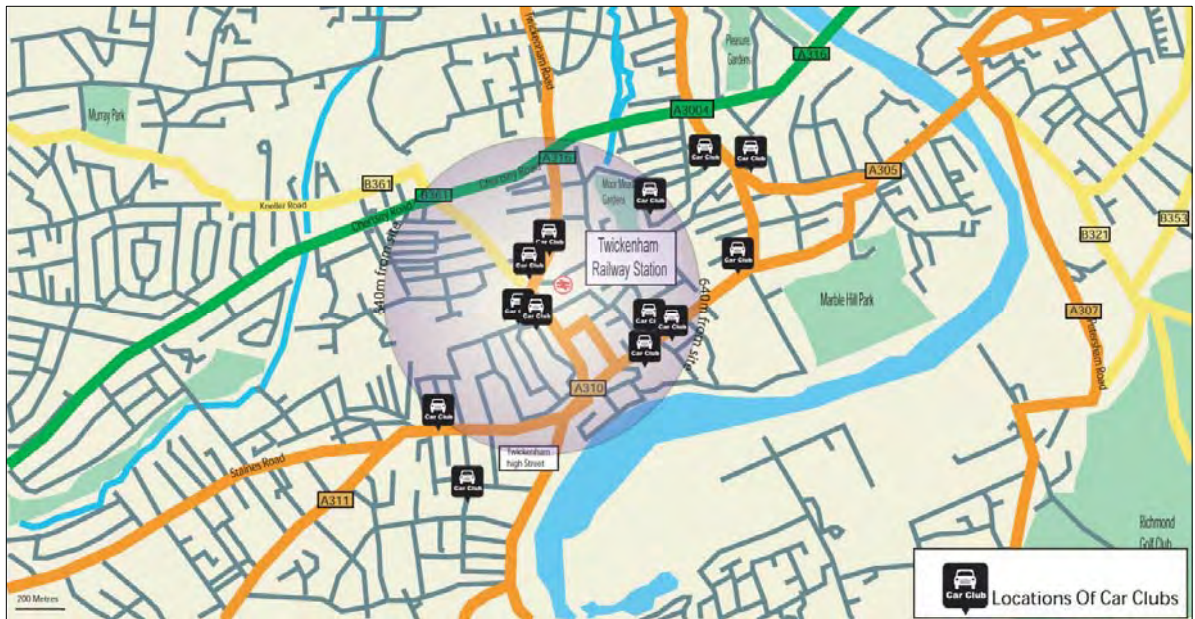


Figure 21: Location of Local Car Clubs in Relation to the Site

(vii) The Local Highways Network

- 5.19 As stated previously, the station is located on London Road, in Twickenham. London Road is the A310. To the north, the A310 leads to the A316 and to the south, the A305. The A316 west turns into the M3 at junction 1, which leads to Southampton. The A316 east leads to the A4. The A4 connects to Avonmouth, near Bristol. The A305 to the east leads to the A205, which subsequently leads to the A3. The A3 runs between London and Portsmouth. The A305 west leads to the A316 and subsequently the M3.
- 5.20 The station in relation to the Highways Network is shown in Figure 22.

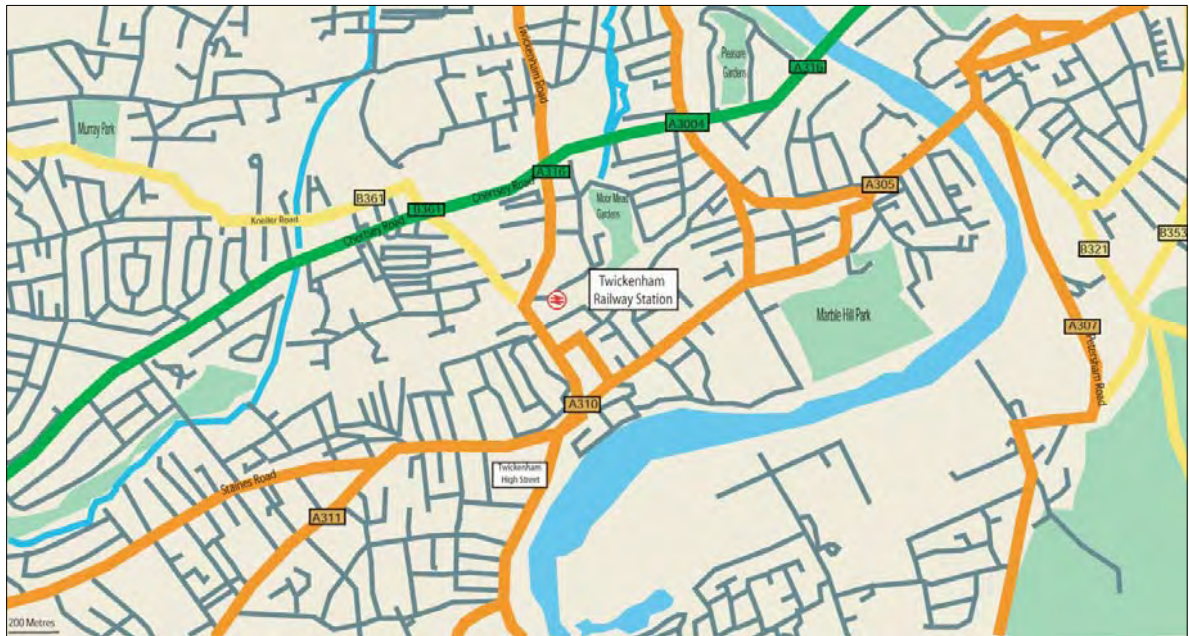


Figure 22: The Site in Relation to the Local Highways Network

(vii) Parking in the area

Parking Restrictions

5.21 Twickenham Station lies within controlled parking zones ‘C’ and ‘D’ which are both a Monday to Saturday 8.30am – 6.30pm restriction. The Roads and the applied parking restrictions are set out in Figure 23 and Table 6.

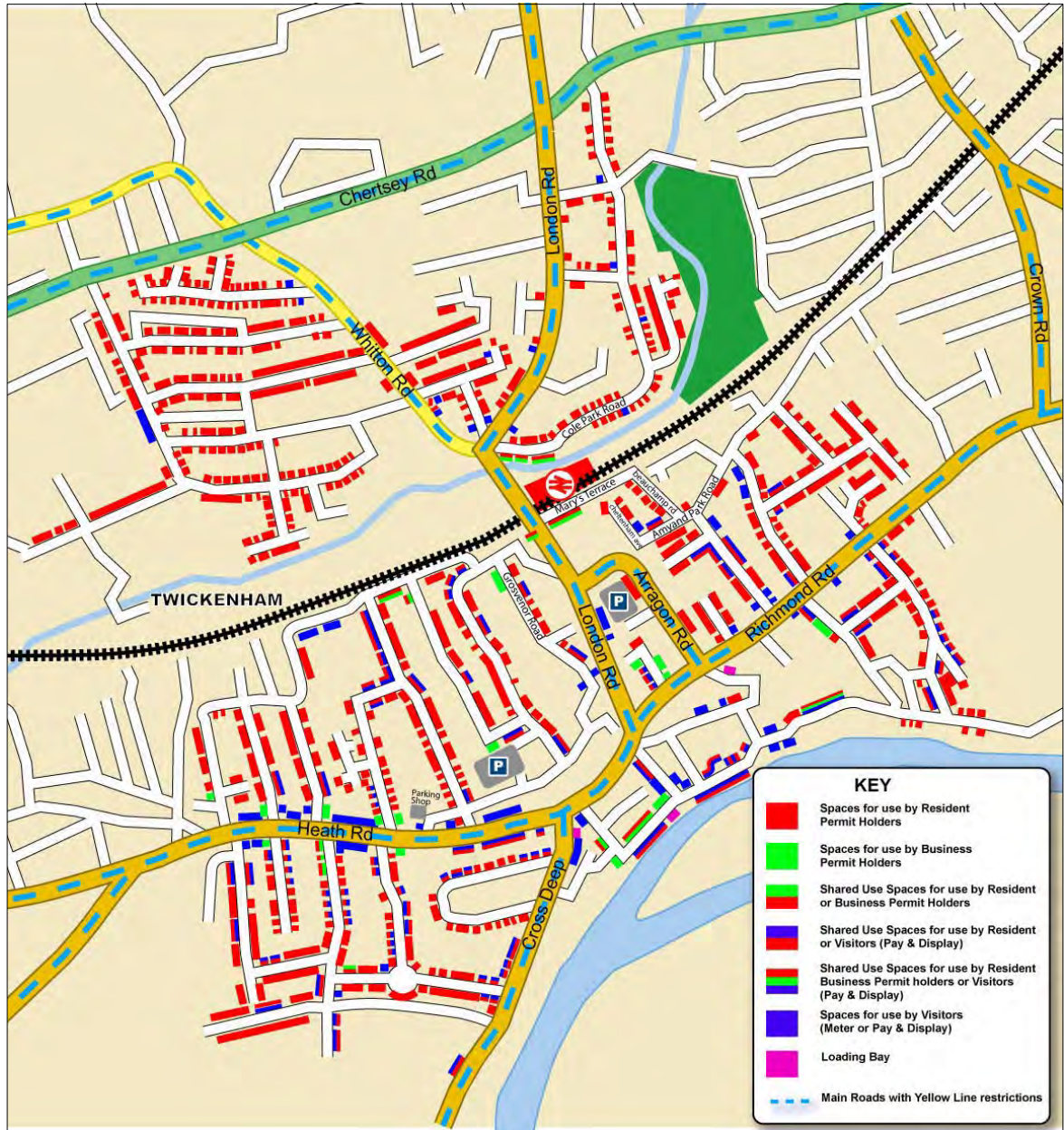


Figure 23: Controlled Parking Zone

Road Name	Parking Restriction
Mary's Terrace	Monday to Saturday 8.30am-6.30pm – Resident and Business Permit Holders Only
Beauchamp Road	Monday to Saturday 8.30am-6.30pm – Resident Permit Holders Only
Amyand Park Road	Monday to Saturday 8.30am-6.30pm – Resident Permit Holders Only with Pay and Display Bays
Cheltenham Avenue	Monday to Saturday 8.30am-6.30pm – Resident Permit Holders Only with Pay and Display Bays
Grosvenor Road	Monday to Saturday 8.30am-6.30pm – Resident Permit Holders Only with Pay and Display Bays and Business Permit Holder Only Bays
Arragon Road	Monday to Saturday 8.30am-6.30pm – Resident Permit Holders Only
Cole Park Road	Monday to Saturday 8.30am-6.30pm – Resident Permit Holders Only with Pay and Display bays

Table 6: Parking Restrictions in the Surrounding Roads

- 5.22 It can be seen that all of the surrounding residential roads is covered by a parking restriction.
- 5.23 In terms of the major road network in the vicinity of the site, that includes for controls on parking at all times.

Local Car Parks

- 5.24 We have also looked at the local car parks in the area. Figure 24 shows the location of the local car parks with Table 7 setting out the details of the tariffs at the different car parks.

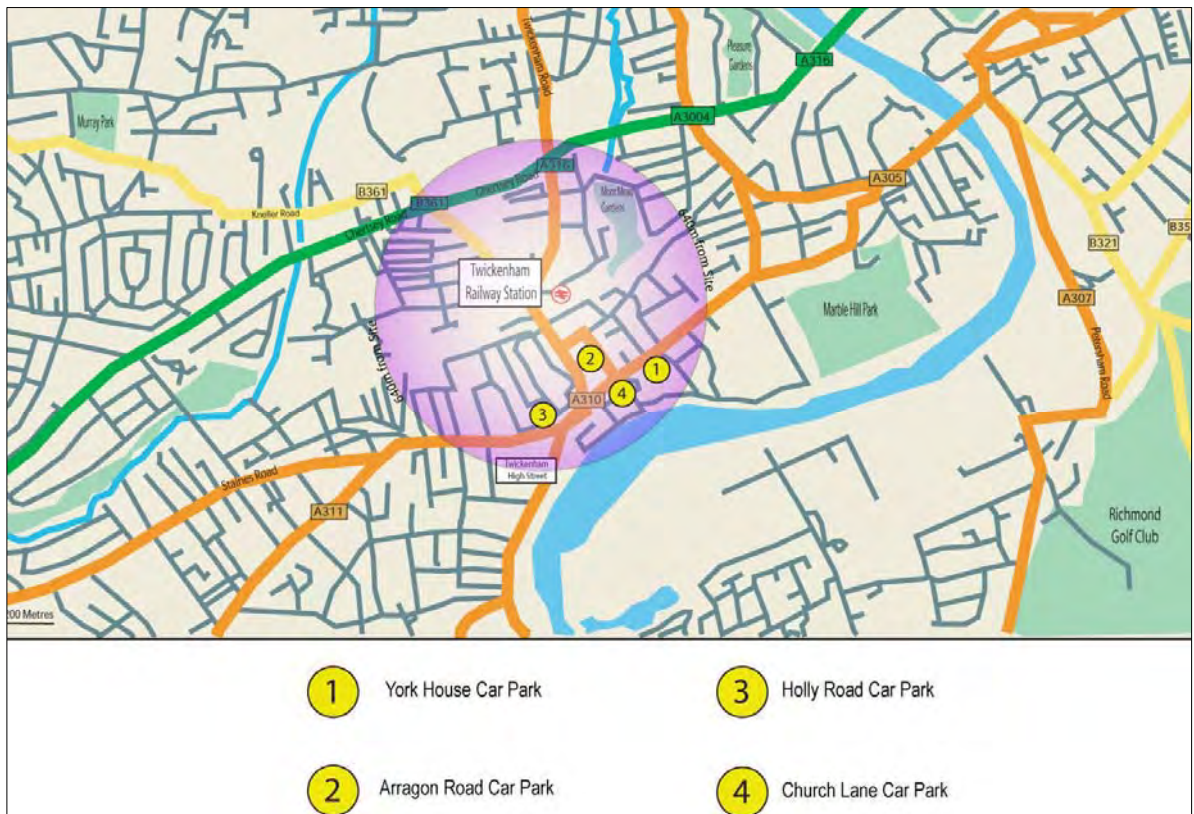


Figure 24: Local Car Park Locations

Reference to Fig 25	Name of Car Park	Car Park Location/ Details	Car Park Opening Hours	Car Park Charges
1	Arragon Road Car Park	Arragon Road 437 Spaces	Monday-Saturday 07.00-24.00 Sunday 09.30-18.00	50p / 1 hour £1 / 2 hours £2.20 / 3 hours £3 / 4 hours £4 / 5 hours £5 / 6 hours £7 / day Free / Evenings Free / Sundays £10 / event
2	Holly Road Car Park	Holly Road 171 Spaces Maximum Stay: 4 hours	Monday-Saturday 08.00-18.30 (No Charge outside of these hours)	50p / 30 mins £1 / 1 hour £2 / 2 hours £3 / 3 hours £4 / 4 hours Free / Bank Holiday
3	Church Lane Car Park	Church Lane 30 Spaces Maximum Stay : 2 hours	Monday to Sunday 08.00-18.30 (No Charge outside of these hours)	£1 / 1 hour £2 / 2 hours
4	York House Car Park	York House 29 Spaces Maximum Stay: 2 hours	Monday-Saturday 09.00-17.00 (No Charge outside of these hours)	50p / 30 mins £1 / 1 hour £2 / 2 hours

Table 7: Local Car Park Details

(viii) The Site in relation Taxis Ranks

5.25 There is a taxi rank on the access road to the Car Park from London Road, which is located on a lay-by on the southern side of the road. The lay-by can accommodate approximately 3 taxis.

(ix) Safety Analysis

5.26 Accident data has been obtained from the London Borough of Richmond upon Thames, for the purpose of this Transport Statement, for part of London Road, from the junctions with Arragon Road and Whitton Road, for the last 5 years.

5.27 There have been 18 accidents in the last 5 years, with a total of 22 casualties. Of the casualties, 19 were classed as slight, with 2 serious and 1 fatal casualty. The details of this accident state that the casualty was crossing the road, not using a dedicated crossing. The locations of the accidents are shown in Figure 25.



Figure 25: Accident Data Map

5.28 The map shows that the majority of the accidents occurred at or near the junctions of London Road with Whitton Road and London Road with Arragon Road. There were 2 accidents at the crossing point near to the station, both of which had 2 casualties.

5.29 The proposals do not increase the number of vehicles on London Road, as the scheme will be car free; therefore there are no safety issues.

(x) The site in relation to Trams – Existing Routes and Facilities

5.30 There are no Tram Routes in the vicinity of the site.

(xi) The site in relation to Riverboat Services – Existing Routes and Facilities

5.31 There are Leisure River Services from Twickenham and Richmond Piers, which run in the summertime. The River Services from Richmond serve Hampton Court, Westminster and Kew and have approximately 4 services per day.

5.32 From Twickenham Pier, there are services to Richmond, Kingston and Hampton Court, with approximately 6 services per day. Twickenham Pier is approximately 1.5km from the station.

Conclusions from this Section

5.33 It can be seen that the site is an excellent location for a car free development in terms of the opportunities to make trips by public transport, the location of the site in relation to local amenities and the constraints in respect of car parking in the vicinity of the site.

6. THE DEVELOPMENT PROPOSALS

6.1 This section of the report sets out the proposals for the station, in particular;

- (i) The Development Proposals
- (ii) The Station Concourse Proposals
- (iii) The Station Interchanges Proposals
- (iv) The Pedestrian Environment (PER Analysis)

6.2 These are discussed in more detail in the following paragraphs.

(i) The Development Proposals

6.3 The proposals include for the regeneration of Twickenham Station, incorporating a mixed scheme development, which will consist of;

- 115 Residential Units;
- A new station interchange and building;
- 6 retail units;
- Relocation of the south bound bus stop on London Road; and
- A new footpath link along the River Crane, from the Station.

6.4 An architect's plan is shown in Figure 26.



Figure 26: Architects Plan of the Proposals at Bridge Level

- 6.5 Full details of the layout of the scheme are contained in the Design and Access Statement.
- 6.6 The residential proposals are car free expect for the provision of disabled parking bays and car club spaces. It is proposed to provide 208 cycle parking spaces, which is over the minimum provision set out in cycle parking standards.

(ii) The Station Concourse Proposals

- 6.7 The Station has been sized in accordance with established design criteria for a design year of 2035. This has been used to assess the requirements for;
- Concourse Capacity
 - The requirements in terms of the provision of UTS Gates
 - The Passageway Requirements
 - The Requirements in terms of Staircases and Platform Widths

-
- 6.8 A passenger survey for Twickenham Station was undertaken. Passenger counts were collected during the peak periods 07:00 – 10:00 and 16:00-19:00 hours.
- 6.9 The survey showed that the peak hours for passenger flows at the station were 8am-9am, with the survey showing 2514 passengers entering and exiting the site in the AM, and for the PM, the peak hours were between 6pm and 7pm, which shows 1814 passengers entering and exiting the station.
- 6.10 Growth Factors were applied for the purpose of a 2035 forecast.
- 6.11 Consequently, in conclusion the Station has been sized to provide for a considerable increase in capacity.

(iii) The Station Interchange Proposals

- 6.12 We have analysed the modes of access to the station against the existing and the proposed interchange. The proposed interchange is illustrated in Figure 27, (also contained in Appendix E - SOLUM.TWICKENHAM-HIGHWAYS.1) with the existing interchange shown in Figure 28. The design and layout of the station interchange are in line with TfL's 'Interchange Best Practice Guidance'.

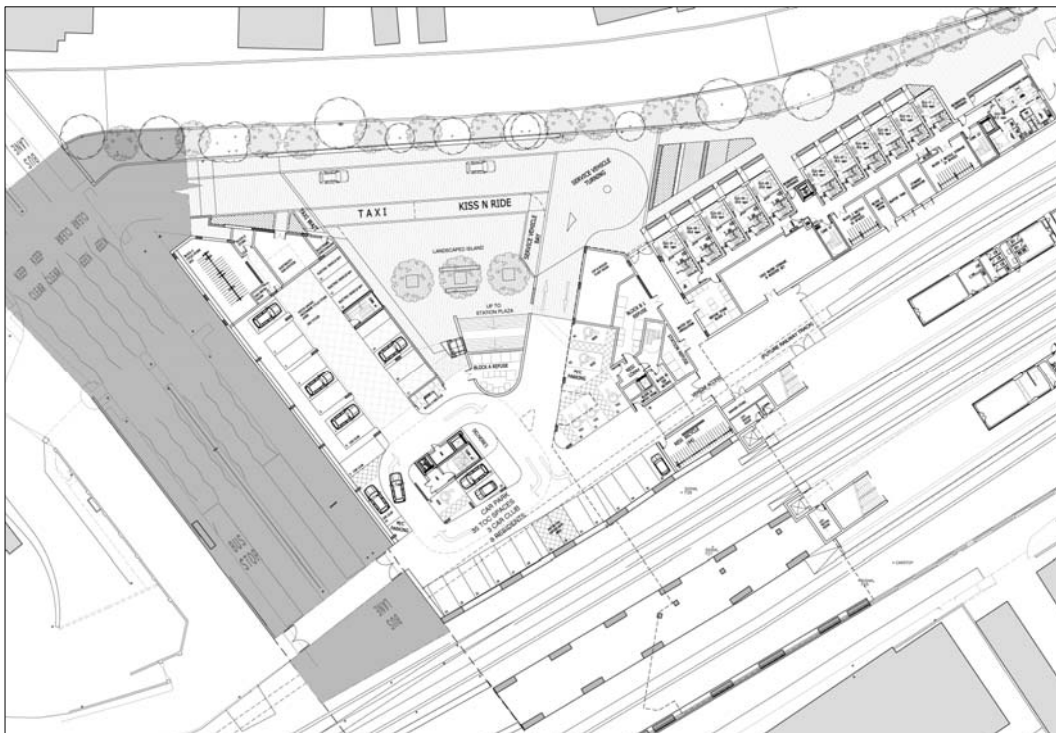


Figure 27: Proposed Station Interchange



Figure 28: Existing Station Interchange

6.13 We have examined the Interchange Proposals in respect of the Mode of Access Data taken from the National Rail Travel Survey.

a. Passengers on foot – over 75% of trips

6.14 The proposals include for a large pedestrian plaza outside of the station, connecting through to the footways on London Road. It can be seen from the analysis of the walk catchment area that the Interchange proposals provide for a benefit in terms of accessibility on foot compared with the current interchange.

6.15 This will be cemented through;

- The inclusion of a comprehensive signage strategy to provide for a clear signage to areas of interest nearby. This will be consistent with the Legible London Strategy, and includes incorporating the existing Legible London pilot marker outside the station entrance within the proposals.
- The inclusion of marketing measures as part of the Station Travel Plan, to include maps, posters and leaflets situated within the station identifying safe walk routes to and from the station.

b. Bus – 13.8% of trips

- 6.16 After people accessing the station on foot, bus was the second highest mode of travel at 13.8%.
- 6.17 The 267 and 281 bus routes stops outside of the station and the major bus/rail interchange is located on King Street to the south of the station. The analysis of the catchment area by bus for the station indicates that both the King Street stops and the London Road stops would be used by bus passengers accessing the station.
- 6.18 The Interchange proposals for the station include for relocating the bus stops for the 267 and 281 so they are immediately outside of the station.
- 6.19 The new position of the station entrance provides for an improved access time for passengers accessing the stops on King Street.

c. Cyclists – 2.3% of trips

- 6.20 There are currently 80 cycle spaces and the proposal is to provide approximately 250 spaces for the station, with the provision concentrated in one place.
- 6.21 The cycle storage will be located in a mezzanine area above the car parking area and is shown in Figure 29. Currently the majority of cyclists travel from north of the station, but the proposals are clearly also accessible from the area south and west of the station, for which clearly potential for growth in access by cycle exists further to consideration of the National Rail Travel Survey.