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OXFORD UNITED FOOTBALL CLUB – NEW STADIUM DEVELOPMENT

Transport Assessment February 2024

TRANSPORT ASSESSMENT OXFORD UNITED FOOTBALL CLUB – NEW STADIUM DEVELOPMENT

February 2024

Prepared for

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Appendices

Appendix A	TA Scoping Report
Appendix B	OCC EIA Scoping Response
Appendix C	Masterplan
Appendix D	Personal Injury Collision Data
Appendix E	Active Travel Checklist
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Appendix J Committed Development Assumptions

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EXECUTIVE SUMMARY

Overview

Ridge and Partners LLP is appointed by Oxford United Football Club (hereafter 'OUFC') to provide transport advice in support of their proposal to develop a new stadium at 'Land to the east of Stratfield Brake and west of Oxford Parkway Station, known as 'The Triangle' ('the Site'). The capacity of the proposed stadium on match days is 16,000 people and will also include flexible commercial and community facilities for conferences, exhibitions, education and other events. These community facilities to support the stadium include a club shop, public restaurant, café/bar, health and wellbeing facility/clinic, gym, and a 180-bed hotel.

OUFC is a professional football club currently based at Kassam Stadium in the Littlemore area of Oxford, which currently competes in League One of the English Football League. With the current agreement to use the Kassam Stadium coming to an end in 2026 and with no option to renew this, there is an urgent need to develop a new stadium, in order to protect the future existence of one of the oldest football clubs in the UK.

The Club has aspirations for a new stadium to be a community landmark which contributes meaningfully to the economy and society of Oxfordshire. This is a once in a generation opportunity to provide a new home for sport, entertainment, business, education and tourism for the whole of Oxfordshire to be proud of.

The Local Planning Authority (LPA) is Cherwell District Council (hereafter referred to as CDC) and the Local Highways Authority (LHA) is Oxfordshire County Council (hereafter referred to as OCC).

Scoping with Oxfordshire County Council

A Scoping Report has been provided to OCC to set out and agree the methodology and assumptions of the Transport Assessment (TA). It is expected that the assessment will evolve through scenario testing and liaison with stakeholders. The Scoping Report is provided within **Appendix A**.

'Decide and Provide' approach, in line with OCC 'Implementing 'Decide & Provide': Requirements for Transport Assessments' guidance, has been applied and will evolve with input from OCC.

Instead of the 'predict and provide', the 'decide and provide' approach aims to firstly decide on the vision and objectives of a scheme and then provides the means to work towards that, while also accommodating the uncertainty of the future. In general, this approach seeks to reduce the reliance on the car, with the desire to enhance sustainable modes of transport such as walking, wheeling, and public transport use.

OUFC seek to deliver a new stadium where supporters and visitors choose to travel by more sustainable modes of transport where possible. The transport strategy has therefore been developed to enable at least 90% of supporters to travel to stadium by non-car modes, including walking, cycling, wheeling, bus, coach, Park & Ride and rail.

The Site

The Site comprises inaccessible scrub and commercial willow plantation situated at 'Land to the east of Stratfield Brake and west of Oxford Parkway Station, known as 'The Triangle' (hereafter referred to as the 'site').

The Site location is shown on **Figure 1**.



Planning Policy

A review of the relevant planning policy has been undertaken, and it is considered that the development aligns with the relevant national, county wide and local planning policy, including BREEAM Guidance.

Development Proposals

The planning application is for the development of a 16,000-capacity football stadium with additional ancillary uses as outlined in **Table 2**.

Table 2: Site Land Use

USE	USE CLASS	AREA
Club Shop	E	315 sqm
Sports Bar	Sui generis	197 sqm
Restaurant	E	276 sqm
Hotel	C1	180 rooms
Gym	E	698 sqm
Health and Wellbeing/Clinic Facility	E	827 sqm

The Masterplan for the Site is shown in Figure 3. The full masterplan is provided in Appendix C.



In addition to the stadium and ancillary uses, the development will incorporate a total of 184 car parking spaces, split between accessible parking (78), standard parking allocation (104), coach bays (2) and motorcycle spaces. The site will also include capacity to secure 150 bikes. The remaining requirement (max. 495) will be available for use at Oxford Parkway Park and Ride next to the Park and Ride waiting room/building. AThe Travel Plan will monitor cycle parking demand and will investigate locations for further cycle parking, if necessary.

The Stadium is likely to hold 28 first team football matches per annum, including home league games, and pre-season and cup games. In addition to this, Women's league and cup fixtures are proposed to be held at the Stadium of which it is anticipated that there will be 13 home league games and cup fixtures per annum. It is also projected that there will be 2 Stadium hire events per year, for sporting events such as junior international matches, community, or university sport events.

Outside of football matches, it is proposed the stadium will be utilised for a wide range of activities including conferences, meetings, trade shows, corporate events, and dinners. Over the course of a year, it is anticipated that around 580 events will be hosted. These will be of differing scales, with the majority being smaller events with an average attendance of 10 or 30 people. The Stadium has capacity to host events for up to 1,000 attendees and initial projections anticipate that there will be approximately 85 events with an average of 150 people, and 68 large events with an average number of 700 people, including Christmas parties.

Existing Conditions

The site is currently within the Oxford Green Belt and is currently used as a willow plantation. The only planning history on the site relates to its previous use as a motorcycle track, this change of use from agricultural was permitted in 1998 under the reference 97/01897/F.

The walking infrastructure in the area is of an average standard, with a narrow-shared footway on both sides of Oxford Road with street lighting on the full length. The site is accessible to bus stops on Oxford Road as well as those within Kidlington, additionally Oxford Parkway Station and Park and Ride is in proximity of the site, again accessed via Oxford Road.

PRoW route 265/33/60 along the Oxford Canal walk runs from Gosford and Water Eaton leading generally north on the west bank of the Oxford Canal to Shipton- on- Cherwell.

Separate from the proposals, there are a number of infrastructure works planned that are due to be in place prior to the Stadium coming forward, which will improve pedestrian, cycling and wheeling connectivity. These include:

- Extending the shared footway/cycleways on Oxford Road and Bicester Road improving the pedestrian and cycle link between the Site and Oxford Parkway Station and Park and Ride.
- Improvement work to the Loop Farm roundabout to Cassington to introduce shared 4m wide footway/cycle way on one approach and 2m wide footway on the other approach between the two roundabouts.
- Improvement work at the Peartree Interchange to Loop Farm Roundabout which includes installing pedestrian crossings on southbound off slip and A44 Woodstock Road and improving the pedestrian access to the Peartree Park and ride facility.
- Provision of a signal-controlled crossing on Frieze Way and westbound A44 Woodstock approaches at Loop Farm Roundabout along with shared pedestrian and cyclist route to enable better connectivity between the A44 approaches.

OXR4 cycle route runs along Oxford Road adjacent to the Site and OXR3 cycle route runs along the A44 approximately 1km south of the site, accessed from Freize Way. These two routes connect to the wider network of cycle routes across Oxford and are identified within the Walking and Cycling network for the LCWIP.

There are bus stops on Oxford Road (Oxford Parkway Stop E (NB) and Oxford Parkway Stop D (SB) and Bicester Road (NB and SB) within 500 m or a 6 minutes' walk (1.4m/s) of the Site. These stops provide access to a number of regular services connecting the Site to Oxford, Bicester and Kidlington. The Western Arc bus services are also expected to implemented in the near future.

There are five Park and Ride sites within Oxford, the closest of which is Oxford Parkway Park and Ride which lies adjacent to Oxford Parkway Station, providing a total of 758 spaces for the Park and Ride part of the car park and an additional 830 spaces associated with the railway. The next closest park and ride site is Peartree, located next to the Peartree roundabout and A34 and A44 approximately 2.4km from the site. This offers 1,035 spaces. Seacourt Park and Ride (1,389 spaces) is located 7.8km southwest of the proposed stadium off the Botley interchange roundabout. Bus service 700 which operates past the site provide connection to Thornhill Park and Ride (1,335 spaces) to the east of Oxford on the A40. Redbridge Park and Ride to the south of Oxford has 1,412 spaces and Eynsham Park and Ride is under construction to the west of Oxford along the A40 will have 850 spaces.

Oxford Parkway Station is located approximately 300m south-east of the Site, offering two services an hour to/from London Marylebone and Oxford, serving stations such as Bicester Village, Haddenham & Thame Parkway and High Wycombe. These trains on the Oxford-Bicester Line are operated by Chiltern Railways. The station has step free access to all platforms and accessible ticket machines and toilets.

Oxford station is served by Great Western Railway, Chiltern Railway and Cross Country services providing train services to/from stations such as: Radley, Culham, Appleford, Didcot Parkway towards Reading and Tackley, Heyford, Banbury and Learnington Spa towards Coventry and Hanborough, Combe, Finstock, Charlbury towards Worcester.

The Cherwell Local Plan 2011-2031 (Part 1) Partial Review (LPPR), which provides for Cherwell's share of Oxford City's unmet housing needs, identifies six strategic housing sites. In total, these sites will deliver 4,400 new homes to meet Oxford City's needs together with supporting infrastructure.

Other allocations in the area include: Northern Gatway/Oxford North Allocation, SP24 Fridewide farm, SP52 University, SP25 – Hill View Farm, SP26 – Land West of Mill Lane, SP23 – Marston Paddock, STRAT13 – Land North of Bayswater Brook and Land West of Cuckoo Lane.

Traffic Surveys

Traffic data has been collected to understand the current traffic levels on key roads. OCC provided OUFC with a number of 2018 traffic surveys which have been used initially, until there was a window for new data collection, outside of holidays and avoiding road works.

The traffic surveys were carried out by ATR and were undertaken between 25th November 2023 to 6th December 2023, avoiding as much as possible local road works, as agreed with OCC.

Using the 2023 the following analysis has been undertaken:

- **Typical Daily Flow** The surveyed ATC data was analysed to establish whether the MCC data collated on 28th November Tuesday and 25th November Saturday were typical days in terms of daily traffic.
- Peak Period Flows at Approaches to Junctions -
 - The peak total flow over the 24hr period for Tuesday 28th November was compared with data on other weekdays and an average weekday for the five junctions
 - The peak total flow over the 24hr period for Saturday 25th November was compared with data on the other Saturdays and the average Saturday for the five junctions.
 - The data was also compared with the 2018 survey data provided by OCC.
- **Daily Flow Profiles** The ATC flow for approaches to junctions were combined to illustrate the daily flow profile over the network for Tuesday 28th November and Saturday 25th November.

Proposed Transport Strategy

The Transport Strategy has been developed to help achieve OUFC's vision and promote sustainable travel to fundamentally change the travel behaviour of supporters from driving in a private car to travelling by more sustainable means including public transport, walking, and cycling.

The Transport Strategy has been underpinned by a detailed understanding of the origins of the OUFC supporters, including travel surveys at Kassam Stadium carried out in 2022 and an assessment of the travel demands of the home supporters, away supporters, teams, staff, supporting operators and users of the associated facilities.

The use of the stadium will vary depending upon the event, the profile and importance of the football game, and the day of the week.

The walking and cycling strategy include the inclusion of 150 cycle spaces on site and a further 350 spaces at Oxford Parkway. Additionally, the proposals include:

 New and improved pedestrian and cycle routes to/from the Stadium from/to Oxford Parkway, and also connect to the committed pedestrian and cycle improvement schemes at Kidlington Roundabout (OCC's Drawing P1B-ATK-HGN-XX-DR-CH-000100) and on Oxford Road (related to the development site PR7a), providing access to the surrounding planned developments, Oxford and Kidlington. The improvements will include signage and lighting to improve safety for users to access; cycle parking, bus services, rail services and taxis at Oxford Parkway and to connect to wider routes. •

- A crossing (TOUCAN) also proposed on Freize Way to the walk and cycle links to Kidlington.
- A new stepped access to Oxford Parkway from Oxford Road is proposed to provide direct access from the railway station towards the Stadium.

OUFC is working with Oxford Bus Company, Stagecoach, Chiltern Railways and OCC in order offer an integrated public transport ticket in the cost of a season ticket and match day tickets.

This, if possible, will include a return ticket on bus services to the stadium for around the city within the Oxford Smart Zone / South Oxfordshire Zone, including Park and Ride services and dedicated OUFC shuttle buses. In terms of rail services, OUFC is in discussions with Chiltern Railways and East West Rail with regards to existing Chiltern rail services from London Marylebone, Bicester Village, Haddenham & Thame Parkway, and Oxford to Oxford Parkway and emerging services to Milton Keynes and Bedford. These discussions regarding ticketing are supported by OCC who have a longer-term aspiration for an Oxfordshire area public transport ticket.

New bus stops are proposed on Oxford Road so that services 2, 2a, 7, 700 and S5 can serve the stadium on non-event days, as well as match days as illustrated in **Figure 4**.

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Assessment

Decide & Provide (D&P) Transport Assessment Guidance ('Implementing Decide & Provide', Oxfordshire County Council, 2022), states the need for new developments to create a clear vision and abandons the traditional 'Predict & Provide' approach based around the idea of predicting what highway capacity improvements are required to accommodate current or past travel needs. The guidance suggests the following staged approach:

- Stage 1: Identifying accessibility characteristics.
- Stage 2: Scenario testing, including a scenario where proposed connectivity improvements are identified.
- Stage 3: Monitoring and Managing outcomes.

The following scenarios, as prescribed in Oxfordshire Decide & Provide Transport Assessment Guidance, will be considered:

- D&P Scenario 1: Reference Case background traffic growth to 2026
- D&P Scenario 2: Do Minimum Reference Case + Development Traffic Flow assumes that the spare capacity at Oxford Parkway is fully taken by match day supporters. s.
- D&P Scenario 3: With Connectivity Improvements assumes that incentives and management will discourage the use of Oxford Parkway car parking for supporters. Season ticket and match tickets will include free park and bus at other Park and Rides and signage and marshals will show "No Match Day Parking" at Oxford Parkway. The public transport strategy is based upon this scenario.
- D&P Scenario 4: Requirement and phasing of further improvements
- D&P Scenario 5: Extrapolated trends

D&P Scenarios 1, 2 and 3 are discussed in the Transport Assessment. Further D&P Scenarios (e.g. 4 and 5) are expected to be identified with OCC. It is expected that these additional scenarios would test the effect of reduce the car driver mode share to/from the ancillary use with travel planning and the promotion of sustainable travel options, as also VMS.

The following time periods have been identified for assessment:

- Standard Weekday supporting uses are open and small events.
 - o 08:00 09:00 (network peak hour)
 - 17:00- 18:00 (network peak hour)
- Major Event Weekday event up to 700 attendees
 - o 08:00 09:00 (network peak hour)
 - o 17:00-18:00 (network peak hour)
- Match Day

- o 08:00 09:00 (network peak hour)
- 17:00 18:00 (network peak hour)
- o 19:00 20:00 (hour before match Oxford Road Under Traffic Management)
- o 21:30 22:30 (hour after match Oxford Road Under Traffic Management)
- Standard Saturday supporting uses are open.
 - o 11:00 12:00 (network peak hour)
 - 14:00-15:00 (network peak hour)
- Match Day
 - 14:00- 15:00 (network peak hour and hour before match Oxford Road Under Traffic Management)
 - 17:00- 18:00 (hour after match Oxford Road Under Traffic Management)

Trip Generation and Mode Share

The TRICS database has been interrogated to establish trip rates for the ancillary land uses at the Stadium. Similar sites surveyed by the TRICS team have been identified to obtain trip rates that can be applied to the proposed development.

The stadium staff have been forecast based upon a first principles approach from the workforce predictions outlined in the Socio-Economic Assessment.

This assessment assumes the stadium at full capacity, which is not expected for some years and will also depend on the success and performance of the football teams. 14,400 seats will be generally available for home supporters and 1,600 for away supporters.

OUFC has provided season ticket holder and non-season ticket holder anonymised postcodes for those that purchased a ticket in the last two football seasons (2021-2022 and 2022-2023). This OUFC specific data has been used as a basis for the assessment of home supporter travel.

Away supporter travel will vary each match, depending upon the away team, which is playing. Mode share has therefore been applied to the away supporters as outlined within the Campaign for Better Transport – Door to turnstile Improving travel choices for football supporters, 2013 research note. The proportion of away supporters using the various Park and Ride sites have been assumed similar to home supporters.

Table 3 and **Table 4** show the resulting person and vehicle trips for D&P Scenario 2 and 3. Further D&P Scenarios are expected to be identified with OCC. We would expect to reduce the mode share of the ancillary use with travel planning and the promotion of sustainable travel options. We would also expect to test the effect of VMS.

Table 3: Weekday Person and Vehicle Trips to Stadium and Oxford Parkway - D&P Scenario 2 and 3

LAND USE	DAILY		AM (08:00 – 09:00)		PM (17:00 – 18:00)		PM (19:00-20:00)		PM (21:30-22:30)	
	ARRIVALS	DEPARTURES	ARRIVALS	DEPARTURES	ARRIVALS	DEPARTURES	ARRIVALS	DEPARTURES	ARRIVALS	DEPARTURES
PERSON TRIPS										
Standard Weekday	1763	1747	385	95	135	409	-	-	-	-
Weekday Match Day	17033	16998	-	-	-	-	11455	63	15	12946
Event Day	2144	2131	1025	76	138	1048	-	-	-	-
VEHICLE TRIPS										
Standard Weekday	1173	1180	342	58	59	337	-	-	-	-
Weekday Match Day (D&P Scenario 2)	2562	2558	87	68	49	67	1044	45	10	1172
Weekday Match Day (D&P Scenario 3)	1212	1208	87	68	49	67	90	45	10	91

Note 1: This assumes a conference is operating related to the hotel on a standard day.

Note 2: D&P Scenario 2 - This assumes for football matches the stadium car park is for pre-booked accessible spaces, some hospitality, key staff and broadcasting vehicles/staff. Match day supporters use the Oxford Parkway for car parking.

Note 3: D&P Scenario 3 - This assumes for football matches the stadium car park is for pre-booked accessible spaces, some hospitality, key staff and broadcasting vehicles/staff. Match day supporters do not use the Oxford Parkway for car parking, except for staff and hospitality arriving prior to 19:00.

Table 4: Saturday Person and Vehicle Trips to Stadium and Oxford Parkway – D&P Scenario 2 and 3

LAND USE	DAILY		AM (08:00 – 09:00)		AM (11:00-12:00)		PM (14:00-15:00)		PM (17:00 – 18:00)	
	ARRIVALS	DEPARTURES	ARRIVALS	DEPARTURES	ARRIVALS	DEPARTURES	ARRIVALS	DEPARTURES	ARRIVALS	DEPARTURES
PERSON TRIPS										
Standard Saturday	2057	2119	-	-	49	85	46	201	-	-
Saturday Match Day	17064	17119	-	-	-	-	11468	88	104	13179
VEHICLE TRIPS										
Standard Saturday	1290	1339	-	-	71	89	72	99	-	-
Saturday Match Day (D&P Scenario 2)	2679	2682	0	0	38	54	847	51	0	935
Saturday Match Day (D&P Scenario 3)	1251	1254	0	0	38	54	104	51	0	193

Note 1: This assumes a conference is operating related to the hotel on a standard day.

Note 2: D&P Scenario 2 - This assumes for football matches the stadium car park is for pre-booked accessible spaces, some hospitality, key staff and broadcasting vehicles/staff. Match day supporters use the Oxford Parkway for car parking.

Note 3: D&P Scenario 3 - This assumes for football matches the stadium car park is for pre-booked accessible spaces, some hospitality, key staff and broadcasting vehicles/staff. Match day supporters do not use the Oxford Parkway for car parking, except for staff and hospitality arriving prior to 11:00.



Link Impact Assessment

A link assessment has been undertaken to understand the impact on the surrounding highway network.

Pedestrian Modelling

The match day supporter trip generation data has been used in the development of a pedestrian model to understand the likely pedestrian movements post final whistle. This has influenced the proposals for active travel, bus, Park and Ride shuttle bus stops and traffic management. Further, modelling is currently being undertaken and will form part of an addendum report.

Fruin analysis has been undertaken to understand locations where problems with flow could occur, so appropriate management can be tested. Fruin LoS is typically categorised into six bands, with LoS A (blue) showing areas that are least constrained for pedestrians, whilst LoS F (Red) shows areas that are most constrained for pedestrians and is considered to be unsafe, if maintained for long periods of time. **Figure 5** illustrates the Fruin Level of Service (LoS).

Using the model and Fruin outputs the pedestrian modelling undertaken to date shows there are locations which see an LoS E on the approach to Oxford Parkway Park and Ride rising to F in the immediate vicinity of the stop allocated for Thornhill Park and Ride Shuttles. Additionally, the model indicates that if the stadium was at full capacity, enhancements to the bus interchange at Oxford Parkway would be required, this might include:

- Footway widening
- Footway wayfinding improvements including upgraded signage
- Queuing systems and safety barrier enhancements
- Bus stop and bus waiting area improvements
- Pedestrian crossing enhancements



This modelling demonstrates the need for:

- Traffic management for at least 30 minute pre and post-match to accommodate the pedestrians walking to/from the Parkway station and Oxford Parkway Park and Ride Park and Ride.
- Key bus services and coaches marshalled through Oxford Road during periods of lighter pedestrian flows.
- Peartree and Eynsham Park and Ride Shuttles to use the stadium car park.
- Other Park and Ride Shuttles to use two of the bus stands at Oxford Parkway Park and Ride (with third stand to be used by existing local services).
- Segregated routes to Parkway station (for rail users) and local buses, then for Park and Ride Shuttles to improve the efficiency of queuing.
- Queue management at Parkway station.
- Queue management to the bus stands at Oxford Parkway Park and Ride.

Transport Modelling

Transport modelling will be undertaken and will be submitted via an Addendum Report. OCC has advised via pre application discussions that the North Oxford VISSIM Model is required to be used to assess the impact of the stadium during operation, rather than junction modelling that had initially been carried out.

Access to the model was approved on 7th February 2024 by the six parties who have funded the 2031 model. Once access is granted, model development and scenario testing will be agreed with OCC with results submitted via addendum to this document.

Summary

This Transport Assessment has been prepared to support the planning application for the development at 'Land to the east of Stratfield Brake and west of Oxford Parkway Station, known as 'The Triangle'.

OUFC history spans 130 years, this is an opportunity to celebrate that history by creating a world class, sustainable stadium fit for the next generation of OUFC fans, players and the local community to enjoy. Protecting and enhancing the surrounding environment and improving access to nature, opening up green spaces to the public and enhancing the landscape the stadium sits.

Not forgetting the economic benefits that the stadium will deliver, with almost 1,000 jobs created and 20 apprenticeships, whilst generating circa £32 million for the local economy per year.

In summary, the proposed transport strategy will provide a wide range of non-car travel options and supporting measures for employees, supporters and visitors travelling to/from the stadium on non-match days for ancillary uses on The Site, as well on match days. The proposals seek to minimise car use and maximise travel on foot, cycle and public transport in line with national and local policy.

The traffic management (at least 30 minutes before and after the match) will only be implemented on match days with high ticket sales and will:

• Significantly improve safety for pedestrians and other street users.

- Prioritise walking, cycling, bus, rail and coach travel to/from the stadium.
- Meet local, regional and national policy to prioritise more sustainable travel.
- Help to achieve the district and county council's commitment for net-zero.

This Transport Assessment provides detail on the proposals, evidence and transport strategy to support the planning application for a new stadium.

1 INTRODUCTION

1.1 Overview

- 1.1.1 Ridge and Partners LLP is appointed by Oxford United Football Club (hereafter 'OUFC') to provide transport advice in support of their proposal to develop a new stadium at 'Land to the east of Stratfield Brake and west of Oxford Parkway Station, known as 'The Triangle' ('the Site'). The capacity of the stadium on match days is 16,000 people and will also include flexible commercial and community facilities for conferences, exhibitions, education and other events. These community facilities to support the stadium include a club shop, public restaurant, café/bar, health and wellbeing facility/clinic, gym, and a 180-bed hotel.
- 1.1.2 OUFC is a professional football club currently based at Kassam Stadium in the Littlemore area of Oxford, which currently competes in League One of the English Football League. With the current agreement to use the Kassam Stadium coming to an end in 2026 and with no option to renew this, there is an urgent need to develop a new stadium, in order to protect the future existence of one of the oldest football clubs in the UK.
- 1.1.3 The Club has aspirations for a new stadium to be a community landmark which contributes meaningfully to the economy and society of Oxfordshire. This is a once in a generation opportunity to provide a new home for sport, entertainment, business, education and tourism for the whole of Oxfordshire to be proud of.
- 1.1.4 The Local Planning Authority (LPA) is Cherwell District Council (hereafter referred to as CDC) and the Local Highways Authority (LHA) is Oxfordshire County Council (hereafter referred to as OCC).

1.2 Scoping with Oxfordshire County Council

- 1.2.1 A scoping report has been provided to OCC to provide them with the core details of this Transport Assessment (TA). This also allows the opportunity for OCC to comment on our proposals and will feed into forthcoming modifications of the TA presented here. Their response is provided within **Appendix B**.
- 1.2.2 Through the scoping process the methodology taken forward within this TA is the 'Decide and Provide' approach a relatively new approach for transport planning and the adopted approach of transport planning by OCC.
- 1.2.3 Instead of the 'predict and provide', the 'decide and provide' approach aims to firstly decide on the vision and objectives of a scheme and then design a strategy on how to provide this. In general, this approach seeks to reduce the reliance on the car, with the desire to enhance sustainable modes of transport such as walking, wheeling, and public transport use.
- 1.2.4 It is the desire of OUFC for the plans presented within this document to facilitate alternative modes of transport where possible, from the onsite parking allocation to improvements to the local walking and cycling network that can be used on both non-match days and matchdays alike. Enhancing the local community with sustainable links between the site, Kidlington and Oxford, as well as links to key transport hubs such as Oxford Parkway railway station and the park and ride.



1.3 The Site

- 1.3.1 The Site comprises of inaccessible scrub and commercial willow plantation situated at 'Land to the east of Stratfield Brake and west of Oxford Parkway Station, known as 'The Triangle' (hereafter referred to as the 'site').
- 1.3.2 The Site location is shown on **Figure 1.1**.





1.4 Consultation

- 1.4.1 An EIA scoping request opinion was submitted to CDC and comments were received on 29th September (dated 27th September 2023) including comments from OCC, which are included within **Appendix B**.
- 1.4.2 Numerous meetings have been held with OCC, NH and travel operators including:
 - 12th May OCC Transport DC Team
 - 28th June 2023 OCC Public Transport Team & OCC Transport DC Team
 - 5th July 2023 National Highways DC Team (A34 / M40 strategic road network)
 - 7th July 2023 Chiltern Railways Meeting
 - 10th July 2023 Network Rail Meeting (Oxford Parkway).
 - 12th July 2023 Oxford Bus Company (Shuttle Buses and Public Services / P&R)
 - 12th July 2023 Stagecoach Bus Company (Public Services / P&R)
 - 18th July 2023 OCC Transport DC Team
 - 21st July 2023 OCC Transport DC Team, OCC Transport Policy / Regional Strategy Team, OCC Parking Services & OCC Public Transport Team
 - 26th July 2023 OCC Transport DC Team, OCC Traffic Monitoring Team & OCC Policy and Strategy Team
 - 8th August 2023 Oxford Bus Company
 - 5th September 2023 Oxford Bus Company
 - 6th September 2023 OCC Transport DC Team
 - 11th September 2023 Stagecoach Bus Company
 - 20th September 2023 Cherwell DC Pre-App
 - 9th October 2023 Member Briefing / Consultation Event
 - 12th October 2023 Workshop, Safety Group
 - 12th October 2023 Workshop, Transport Group
 - 13th October 2023 Chiltern Railways Meeting
 - 20th October 2023 Councillors Briefing, Kidlington Parish Council
 - 23rd October 2023 Oxford Bus Meeting
 - 25th October East West Rail Meeting

- 2nd November 2023 OCC Transport DC Team
- 9th November 2023 Councillors Briefing, Kidlington Parish Council
- 13th November 2023 OCC Mobility Hubs Team, Place Planning Team, Cherwell and West Ox Team and Chiltern Railways Re Oxford Parkway Mobility Hub
- 14th November 2023 Oxford Bus Company
- 17th November 2023 OCC Travel Plan and Public Transport Discussion
- 27th November 2023 Stagecoach Stakeholder Meeting
- 11th January 2024 Stagecoach Stakeholder Meeting
- 11th January 2024 Oxford Bus Meeting
- 26th January OCC Transport Modelling Meeting
- 6th February 2024 North Oxford VISSIM Modelling Consultant Model Access Meeting
- 6th February 2024 Oxford Bus Meeting
- 20th February 2024 Chiltern Railways Meeting

1.5 Purpose of this Report

- 1.5.1 This Transport Assessment has been prepared based on the requirements of the National Planning Policy Framework 2023 (NPPF) and Local Authority Planning Guidance. It will assess the transport impacts of the proposed redevelopment in terms of trip generation, impact on the local highway network due to trip generation, historical traffic collision analysis, the sustainability of the Site as well as site access and parking provisions.
- 1.5.2 This Transport Assessment should be read alongside the Match Day and Non Match Day Framework Travel Plans also submitted with this application.
- 1.5.3 This Transport Assessment is structured as follows:
 - **Chapter 2: Planning Policy** provides a summary of National and Local planning policy in relation to the site and transport;
 - **Chapter 3: Oxford United Proposed Development** provides an overview of the proposed development including site layout, parking provision and access arrangements;
 - **Chapter 4: Existing Conditions and Site Accessibility** summarises the baseline transport network, sustainability of the site and analysis of traffic collision data;
 - **Chapter 5: Traffic Surveys** sets out the available traffic survey information used and to be used in the development of the transport strategy and further transport modelling;
 - **Chapter 6: Proposed Transport Strategy** sets out the improvements and measures to maximise more sustainable travel options and to minimise the impacts of the development on the local area;

- Chapter 7: Ancillary Uses and Staff Trip Generation and Mode Share summarises the methodology and assessment of the trip generation, mode share of the ancillary uses of the stadium;
- Chapter 8: Supporter Travel Trip Generation and Mode Share summarises the methodology and assessment of the trip generation, mode share of Home and Away supporters;
- **Chapter 9: Highway Impact Assessment** summarises the assessment including pedestrian modelling, impact assessment and junction assessments using traffic modelling software; and
- **Chapter 10: Summary and Conclusions** presents summary and conclusions of the report.

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2 POLICY, STRATEGY AND PLANS

2.1 Overview

2.1.1 This section outlines the relevant planning policy associated with the site.

2.2 National Planning Policy

National Planning Policy Framework (updated September 2023)

- 2.2.1 The National Planning Policy Framework (NPPF) was updated in December 2023. It sets out the Government's planning policies for England. In terms of Transport the following policies apply:
- 2.2.2 Paragraph 108 of the NPPF states that: 'Transport issues should be considered from the earliest stages of plan-making and development proposals, so that:
 - a) 'the potential impacts of development on transport networks can be addressed;
 - b) opportunities from existing or proposed transport infrastructure, and changing transport technology and usage, are realised for example in relation to the scale, location or density of development that can be accommodated;
 - c) opportunities to promote walking, cycling and public transport use are identified and pursued;
 - d) the environmental impacts of traffic and transport infrastructure can be identified, assessed and taken into account – including appropriate opportunities for avoiding and mitigating any adverse effects, and for net environmental gains; and
 - e) patterns of movement, streets, parking and other transport considerations are integral to the design of schemes and contribute to making high quality places.'
- 2.2.3 Paragraph 109 sets out that:

'The planning system should actively manage patterns of growth in support of these objectives. Significant development should be focused on locations which are or can be made sustainable, through limiting the need to travel and offering a genuine choice of transport modes. This can help to reduce congestion and emissions, and improve air quality and public health. However, opportunities to maximise sustainable transport solutions will vary between urban and rural areas, and this should be taken into account in both plan-making and decision-making.'

2.2.4 Paragraph 110 sets out that:

'Planning policies should:

a) support an appropriate mix of uses across an area, and within larger scale sites, to minimise the number and length of journeys needed for employment, shopping, leisure, education and other activities;

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- b) be prepared with the active involvement of local highways authorities, other transport infrastructure providers and operators and neighbouring councils, so that strategies and investments for supporting sustainable transport and development patterns are aligned;
- c) identify and protect, where there is robust evidence, sites and routes which could be critical in developing infrastructure to widen transport choice and realise opportunities for large scale development;
- d) provide for attractive and well-designed walking and cycling networks with supporting facilities such as secure cycle parking (drawing on Local Cycling and Walking Infrastructure Plans);
- e) provide for any large scale transport facilities that need to be located in the area, and the infrastructure and wider development required to support their operation, expansion and contribution to the wider economy. In doing so they should take into account whether such development is likely to be a nationally significant infrastructure project and any relevant national policy statements; and
- f) recognise the importance of maintaining a national network of general aviation airfields, and their need to adapt and change over time – taking into account their economic value in serving business, leisure, training and emergency service needs, and the Government's General Aviation Strategy.'
- 2.2.5 Paragraph 111 of the document moves on to consider parking, as follows:

'If setting local parking standards for residential and non-residential development, policies should take into account:

- a) the accessibility of the development;
- b) the type, mix and use of development;
- c) the availability of and opportunities for public transport;
- d) local car ownership levels; and
- e) the need to ensure an adequate provision of spaces for charging plug-in and other ultralow emission vehicles.'
- 2.2.6 Paragraph 112 continues on parking as follows:

'Maximum parking standards for residential and non-residential development should only be set where there is a clear and compelling justification that they are necessary for managing the local road network, or for optimising the density of development in city and town centres and other locations that are well served by public transport (in accordance with chapter 11 of this Framework). In town centres, local authorities should seek to improve the quality of parking so that it is convenient, safe and secure, alongside measures to promote accessibility for pedestrians and cyclists.'

- 2.2.7 Paragraph 114 of the NPPF considers what is required by the development proposals as follows:
 - a) 'appropriate opportunities to promote sustainable transport modes can be or have been taken up, given the type of development and its location;
 - b) safe and suitable access to the site can be achieved for all users;

- c) the design of streets, parking areas, other transport elements and the content of associated standards reflects current national guidance, including the National Design Guide and the National Model Design Code; and
- d) any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree.'
- e) Paragraph 111 states that: 'development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe.'
- 2.2.8 Paragraph 116 identifies that within this context applications for development should:
 - a) 'Give priority first to pedestrian and cycle movements, both within the scheme and with neighbouring areas; and second, so far as possible, to facilitating access to high quality public transport, with layouts that maximise the catchment area for bus or other public transport services, and appropriate facilities that encourage PT use;
 - b) Address the needs of people with disabilities and reduced mobility in relation to all modes of transport;
 - c) Create places that are safe, secure, and attractive which minimise the scope for conflicts between pedestrians, cyclists, and vehicles, avoid unnecessary street clutter, and respond to local character and design standards;
 - d) Allow for the efficient delivery of goods, and access by service and emergency vehicles; and
 - e) Be designed to enable charging of plug-in and other ultra-low emission vehicles in safe, accessible, and convenient locations.'
- 2.2.9 Finally, Paragraph 117 sets out what is required to support a planning submission:

'All developments that will generate significant amounts of movement should be required to provide a travel plan, and the application should be supported by a transport statement or transport assessment so that the likely impacts of the proposal can be assessed.'

Planning Policy Guidance: Travel Plans, Transport Assessments and Statements

- 2.2.10 The Planning Policy Guidance (PPG) states that "Travel Plans, Transport Assessments and Statements can positively contribute to:
 - encouraging sustainable travel;
 - lessening traffic generation and its detrimental impacts;
 - reducing carbon emissions and climate impacts;
 - creating accessible, connected, inclusive communities;
 - improving health outcomes and quality of life;

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- improving road safety; and
- reducing the need for new development to increase existing road capacity or provide new roads.
- 2.2.11 They support national planning policy which sets out that planning should actively manage patterns of growth in order to make the fullest possible use of public transport, walking and cycling, and focus significant development in locations which are or can be made sustainable."

Department for Transport's Decide and Provide Policy

2.2.12 DfT's 'Strategic road network and the delivery of sustainable development' (December 2022) states that:

Para. 15: 'The Transport Decarbonisation Plan and the Future of Freight Plan also recognise that local planning and highway authorities need help when planning for sustainable transport and developing innovative policies to reduce car dependency. This includes moving away from transport planning based on predicting future demand to provide capacity ('predict and provide') to planning that sets an outcome communities want to achieve and provides the transport solutions to deliver those outcomes (vision-led approaches including 'vision and validate,' 'decide and provide' or 'monitor and manage') [...]

Cycling and Walking Investment Strategy 2017

2.2.13 This document sets out the Government's ambition for cycling and walking in England, which is:

'We want to make cycling and walking the natural choices for shorter journeys, or as part of a longer journey.'

- 2.2.14 By 2040, the ambition is to deliver:
 - Better safety: a safe and reliable way to travel for short journeys
 - Better mobility: more people cycling and walking easy, normal and enjoyable
 - Better streets: places that have cycling and walking at their heart.
- 2.2.15 The objectives for walking and cycling are:
 - aim to double cycling, where cycling activity is measured as the estimated total number of cycle stages made each year, from 0.8 billion stages in 2013 to 1.6 billion stages in 2025
 - aim to increase walking activity, where walking activity is measured as the total number of walking stages per person per year, to 300 stages per person per year in 2025 increase the percentage of children aged 5 to 10 that usually walk to school from 49% in 2014 to 55% in 2025.

Transport Decarbonisation Plan – Decarbonising Transport: a better, greener Britain 2021

- 2.2.16 The Transport Decarbonisation Plan published in July 2021 sets out how to deliver carbon emission reductions from all modes of transport to achieve net zero by 2050. The strategic priorities of the plan are:
 - Accelerating model shift to public and active transport;
 - Decarbonising Road Transport;
 - Decarbonising how we get our goods

2.3 County Planning Policy

Decide & Provide: Requirements for Transport Assessments

- 2.3.1 OCC adopted the 'Implementing 'Decide & Provide': Requirements for Transport Assessments in September 2022. The 'decide and provide' approach to transport planning decides on a preferred vision of the future and then provides the means to work towards that whilst also accommodating uncertainty about the future. This offers the opportunity for more positive transport planning and helps implement the LTCP transport user hierarchy by considering walking, cycling and public transport upfront.
- 2.3.2 The document applies to all development proposals but will be particularly pertinent to larger residential and employment sites that are expected to generate significant travel demand.
- 2.3.3 The new approach to undertaking transport assessments that OCC requires developers to follow is based on guidance that TRICS (2021) has produced, called the 'Guidance Note on the Practical Implementation of The Decide & Provide Approach'. OCC's document builds on the TRICS advice adding further detail where necessary and ensuring that it relates appropriately to the LTCP and Oxfordshire.
- 2.3.4 Essentially, this new approach still entails the need for proposed developments to assess their potential transport impact on the highway network, but instead of basing this solely on previous travel patterns as before, transport assessments will be required to model a range of plausible scenarios. As such transport modelling will still be necessary.

Local Transport and Connectivity Plan (2022)

- 2.3.5 Oxfordshire County Council (OCC) adopted its Local Transport and Connectivity Plan (LTCP) in July 2022, which sets out "a clear vision to deliver a net-zero transport system that enables Oxfordshire to thrive, protects the environment and makes the county a better place to live for all residents".
- 2.3.6 In order to track the delivery of the vision, the LTCP includes a set of headline targets. These include the following targets:
 - By 2030 the targets are to:
 - Replace or remove 1 out of every 4 current car trips in Oxfordshire;

- Increase the number of cycle trips in Oxfordshire from 600,000 to 1 million cycle trips per week;
- Reduce road fatalities or life changing injuries by 50%;
- By 2040 the targets are to:
 - Deliver a net-zero transport network;
 - o Replace or remove an additional 1 out of 3 car trips in Oxfordshire;
- By 2050 the targets are to:
 - Deliver a transport network that contributes to a climate positive future; and
 - Have zero, or as close as possible, road fatalities or life-changing injuries.
- 2.3.7 OCC plan to achieve this by:
 - Reducing the need to travel;
 - Discouraging individual private vehicle journeys; and
 - Making walking, cycling, public and shared transport the natural first choice.
- 2.3.8 OCC is now working to implement the policies in the LTCP and develop the part 2 supporting strategies.

The Active Travel Strategy (2022)

- 2.3.9 The Active Travel Strategy supports Oxfordshire's Local Transport and Connectivity Plan (LTCP) with its vision to create an inclusive and safe net-zero Oxfordshire transport system.
- 2.3.10 The strategy focuses on active travel modes (walking, wheeling and cycling) and sets out specific visions for walking and cycling in Oxfordshire, and a target to increase the number of cycle trips to 1 million by 2031, county-wide, from our current level of 600,000.

In order to achieve this, 5 priorities for council action are identified:

- 'commitment and governance a clear promise at all levels across the council to treat walking and cycling as a policy priority.
- walkable communities a compact urban realm with easy to reach destinations on foot and by cycle.
- inclusive cycle networks that are safe, identifiable, visible, comprehensive and of high quality, including links across towns and villages.
- managing motor traffic through measures such as modal filters, reducing traffic speeds, reducing road capacity and increasing the cost of parking.
- building the cultural norm a local social consensus and practice that supports and promotes walking and cycling and enables residents build their lives around active travel modes for local journeys'.



2.3.11 A list of 79 actions is identified, which "span from council transformation and data-gathering to cycle parking, accessibility barriers and community outreach".

Oxford Local Cycling and Walking Infrastructure Plan

- 2.3.12 The initial version of the Oxford Local Cycling and walking Infrastructure Plan (LCWIP) was published in March 2020 and approved by the Council cabinet. This has since been updated to Version 1.1 with improvements on layout and design and Annexes 1 (Cycle and walking network map) and 2 (List of Oxford LCWIP policies).
- 2.3.13 Oxford Local Cycling and Walking Infrastructure Plan (LCWIP) sets out a series of measures and programmes to achieve a transformational change in the levels of cycling and the attractiveness of walking in Oxford.
- 2.3.14 The cycling section identifies 2 targets to increase both commuter cycling and all cycling trips in Oxford by 50% by 2031. Policy OC1: OCC will plan for 38% of all Oxford-to-Oxford work journeys to be by bicycle by 2031. Policy OC2: OCC will plan for a 50% increase in all cycle journeys within Oxford for all purposes by 2031.
- 2.3.15 Policy OC3: OCC will plan Oxford's cycle and road network in line with OC1 & OC2 targets. This will mean for instance factoring in the increase of cycling in the allocation or road and junction space, when modelling traffic for road improvements, designing widths of cycle paths and calculations of cycle parking numbers at cycling destinations.
- 2.3.16 There are five broad factors which may be important in promoting cycling:
 - a) a town-wide cycle network;
 - b) a cycle friendly public realm;
 - c) traffic restraint;
 - d) a cultural norm of cycling; and;
 - e) Council commitment.
- 2.3.17 The LCWIP sets out eight pillars fundamental to achieving a step change in cycling and walking in Oxford in terms of infrastructure. The five most relevant to cycling are pillars;
 - a) A comprehensive cycle network);
 - b) Low traffic neighbourhoods;
 - c) City centre control point;
 - d) Workplace levy charge, and;
 - e) Traffic speed enforcement.
- 2.3.18 **Policy OC6**: Whilst Oxford City Centre will remain the main focus for cycle routes, OCC will also prioritise cycle routes to workplaces and shopping centres outside the city centre. OCC will seek to ensure that adequate and convenient cycle parking is available at these locations.

- 2.3.19 **Policy OC23**: OCC with work with Oxford City Council and other districts to ensure that there are comprehensive cycle parking conditions and advice in planning guidance to ensure all new developments include sufficient, secure and convenient cycle parking.
- 2.3.20 Oxford is in the top 10 local authorities in terms of the percentage of people walking at least weekly. This is mainly because of its high levels of utility walking (i.e. cycling for travel rather than leisure) with 35% of adults making a walking trip at least 5 times a week.
- 2.3.21 **Policy OW13**: Footway widths will not be narrowed below 2 metres.
- 2.3.22 **Policy OW15**: Crossings: OCC will consider the crossing needs of pedestrians on main roads to minimise delay or diversion and to satisfy existing or potential flows. The crossings will be designed as far as possible on desire lines to avoid diversion and delay.

2.4 Local Planning Policy

The Cherwell Local Plan 2011 – 2031

- 2.4.1 The Cherwell Local Plan sets out the vision and strategy for development throughout Cherwell through to 2031. The document defines and responds to challenges the District faces regarding development, economic growth, and infrastructure needs.
- 2.4.2 **Policy PSD1**: Presumption in Favour of Sustainable Development outlines 'When considering development proposals, the Council will take a proactive approach to reflect the presumption in favour of sustainable development contained in the National Planning Policy Framework. The Council will always work proactively with applicants to jointly find solutions which mean that proposals can be approved wherever possible, and to secure development that improves the economic, social and environmental conditions in the area.'
- 2.4.3 **Policy SLE 4**: Improved Transport Connections outlines: 'The Council will support the implementation of the proposals in the Movement Strategies and the Local Transport Plan to deliver key connections, to support modal shift and to support more sustainable locations for employment and housing growth.'
- 2.4.4 **Policy INF1**: Infrastructure outlines: 'The Council's approach to infrastructure planning in the District will identify the infrastructure required to meet the District's growth, to support the strategic site allocations and to ensure delivery by:
 - Working with partners, including central Government, and other local authorities, to provide physical, community and green infrastructure.
 - Identifying infrastructure needs and costs, phasing of development, funding sources and responsibilities for delivery.
 - Completing a Developer Contributions SPD to set out the Council's approach to the provision of essential infrastructure including affordable housing, education, transport, health, flood defences and open space.
 - Development proposals will be required to demonstrate that infrastructure requirements can be met including the provision of transport, education, health, social and community facilities.'
- 2.4.5 **Policy TR1** Transportation funding outlines: states 'before proposals for development are permitted the council will require to be satisfied that new highways, highway improvement

works, traffic-management measures, additional Public transport facilities or other transport measures that would be required as a consequence of allowing the development to proceed will be provided.'

- 2.4.6 **Policy TR7** Development attracting traffic on minor roads outlines 'development that would regularly attract large commercial vehicles or large numbers of cars onto unsuitable minor roads will not normally be permitted.'
- 2.4.7 **Policy TR8** Commercial facilities for the motorist states 'beyond the built-up limits of settlements the release of new sites for petrol filling stations and other commercial facilities for the motorist will be permitted only where the need for such facilities can be clearly demonstrated.'

Kidlington Local Cycling and Walking Infrastructure Plan (LCWIP 2022)

- 2.4.8 The Kidlington LCWIP (approved by OCC in January 2022) identifies the key routes and destinations where improvements for cycling are needed, including Oxford Road, Banbury Road and Kidlington Village Centre. The proposed improvements include:
 - traffic free routes
 - speed reductions to 20mph
 - protected space for cycling
 - additional road crossings and
 - reviewed and improved junctions
- 2.4.9 Similarly, improvements for walking are identified, by focusing on key walking zones, most notably in Kidlington Village Centre. These include:
 - wider footways
 - improved road crossings and
 - removal of physical barriers.
- 2.4.10 The underlying ambition of the LCWIP is to create a cycling and walking network within Kidlington and Gosford built-up area that is accessible for all and where everyone feels safe and cycling and walking, ultimately making them the preferred mode of travel for journeys within the area. **Figure 2.1** shows the proposed cycle route network.
- 2.4.11 Frieze Way and Oxford Road are identified as primary routes. Cycling measures identified within the LCWIP include:
 - Kidlington Roundabout: Signalisation and provision of parallel on main arms connecting off-road section and any future provision to the south of the roundabout. Design being developed by OCC to be subject to detailed consultation.
 - Bicester Road north: speed reduction to 40mph from roundabout junction and provision of a shared use path.





Oxford Local Plan 2036

- 2.4.12 For the adjacent Oxford City Council, the Oxford Local Plan 2036 was adopted in June 2020 and now forms part of the statutory development plan and will determine planning applications. Relevant policies include:
- 2.4.13 **Policy M1**: states that planning permission will only be granted for development that minimises the need to travel and is laid out and designed in a way that prioritising walking, cycling, and public transport.
- 2.4.14 **Policy M2**: states a Travel Plan, which has clear objectives, targets and a monitoring and review procedure, must be submitted for development that is likely to generate significant amounts of movement in accordance with the requirements in Appendix 7.2.
- 2.4.15 Appendix 7.2 of the Local Plan states Travel Plans must be submitted alongside planning applications if the development is likely to generate significant amounts of travel in or near the City Centre Air Quality Management Area, or over a certain threshold.

- 2.4.16 These travel plans must recognise the potential for modal shift and identify what needs to be done to achieve the stated objectives including what measures that need to be implemented. The effects of Travel Plans must be monitored and must state clearly how monitoring will take place.
- 2.4.17 **Policy M3**: The objectives of the travel plan for non-residential developments must promote and achieve a shift towards sustainable modes of travel. The presumption will be that vehicle parking will be kept to the minimum necessary to ensure the successful functioning of the development.
- 2.4.18 This policy promotes a shift towards sustainable modes of travel and ensure that vehicle parking will be kept to the minimum necessary to ensure the successful operation of the development.
- 2.4.19 **Policy M4**: Planning permission with parking will only be granted if that includes a minimum of 25% provided with electric charging points.
- 2.4.20 **Policy M5**: Planning permission will only be granted for development that complies with or exceeds the minimum bicycle parking provision. Bicycle parking should be, well designed and well-located, convenient, secure, covered (where possible enclosed) and provide level, unobstructed external access to the street. For new non-residential development, the City Council will seek the provision of showers and changing facilities in accordance with the thresholds and minimum standards set out.

OCC Parking Standards for New Development

- 2.4.21 This parking standards adopted in 2023 provides standards on cycle, powered two- wheeler, car, visitor and other types of parking provision.
- 2.4.22 Determining the parking demand for non-residential developments within Oxfordshire has been revised to accord with the council's objective to reduce 25% of car trips by 2030, and 33% by 2040. In essence, the approach being taken for such development proposals is that if on-site parking is restricted / reduced at a destination location this will influence people's travel behaviour and encourage alternative modes of travel to be used rather than that of the private car. The increase in commuters choosing to work from home more often throughout the working week has also influenced OCC in implementing this approach.
- 2.4.23 **Table 2.1** sets out OCC's standards on vehicular and cycle parking requirements by land-use class as set out in the Town and Country Planning (Use Classes) Order 1987 as amended up to 2021.

Table 2.1: Non – Residential Parking Guidance for Oxfordshire

LANDUSE	VEHICLE STANDARD	CYCLE PARKING STANDARD	
Hotels	1 space per bedroom	1 space per 5 car parking space provided	
Commercial area			
Shops retail	1 space per 30m2	1 space per 100m2 for staff and 1 space per 250sqm for customers.	
Commercial area			
Café, restaurant	1 space per 10m2 of public floor area	1 space per 4 staff and 1 space per 25sqm for customers.	
Health services	1 space per 4 staff and 1 space per consulting cubicle.	1 space 50sqm and 1 space per employee	

- 2.4.24 For car parking, this table sets out the expected upper limit of provision that may be acceptable once the steps detailed in section 2.4.5 have been undertaken to establish the appropriate quantum as related to the development-specific criteria.
- 2.4.25 The level of parking for any development site should be based on the following criteria:
 - a) Trip rate associated with the development (including base and forecast mode share (also considered as part of OCC's Decide and Provide approach),
 - b) Oxfordshire County Council car trip and local cycling targets; and
 - c) The user group of employees / visitors of the site (including shift patterns).
 - d) Location and risk of displaced parking
- 2.4.26 Notwithstanding Table 1 of the new standards, the supporting text, at paragraph 6.2 sets out that:

'For phases of a development that will be located within 400m of frequent (15 to 30 minute) public transport services with direct pedestrian and cycle connections, and within 800m walking distance to a range of local amenities and services, a car free approach is required and, in the case of edge of city developments, is expected as part of the design. A reduced level of on-plot car parking will only be accepted to Oxford City standards subject to a robust justification. Such approaches must be supported by an approved site wide master plan, a robust travel plan (including a fixed monitoring period), high quality pedestrian and cycle infrastructure provided early in the life of the development site, including sufficient and convenient residential and visitor cycle parking to influence travel behaviour away from using the private car. The introduction and implementation of a CPZ, funded by the promoter of the site will also be required.'

'4.13 - For developments that wish to promote a car free approach or one with reduced onsite parking provisions, OCC will require such sites to incorporate a Controlled Parking Zone (CPZ) into a site's master plan where a CPZ does not already exist. Such development proposals will be required to provide the necessary infrastructure to bring forward such a scheme and the associated costs i.e. Traffic Regulation Order (TRO). These CPZ requirements will be included as part of any legal agreement associated with an appropriate planning permission and when the CPZ is needed to be operational'.

BREEAM Guidance [BREEAM 2018, TRa01 and TRa02]

- 2.4.27 At least BREEAM Very Good is being targeted for this development. The transport category within these requirements encourages the provision of and improved access to local amenities and to sustainable means of transport. The aim is to reward locations and solutions that support reductions in car journeys and, therefore, congestion and CO2 emissions over the life of the building.
- 2.4.28 TRa01 criteria aims to reward awareness of existing local transport and identify improvements to make it more sustainable. As part of this, the following has been undertaken within this Travel Plan and the Transport Statement supporting the development:
 - a) A site-specific travel assessment including:
 - Predicted travel patterns of future building or site users;
 - Current local environment for pedestrians and cyclists;
 - Reporting the number and type of existing accessible amenities including access to a cash machine, appropriate food outlet, outside space, postal facility and community facilities;
 - Disabled access including disabled parking;
 - Calculation of public transport accessibility level using the PTAL calculations; and;
 - Current facilities available for cyclists.
 - b) A long term management strategy which encourages more sustainable travel including measures to increase or improve more sustainable modes of transport and movement of people or goods.
 - c) Demonstrate that the Travel Plan will be implemented and supported by the building's management in operation.
- 2.4.29 Tra02 encourages and rewards a building that facilitates easy access to local services and so reduced the environmental, social and economic impacts resulting from multiple or extended building user journeys, including transport-related emissions and traffic congestion. The Travel Plan, and associated Transport Assessment will address the criteria for Tra02.
- 2.4.30 Under Tra02 there is a bespoke requirement for installing complaint cycle storage spaces (option 7). The bespoke criteria states that OUFC should be classed as a Type B assessment with regards to cycle storage provisions. This means that there must be at least 1 space or 10 staff/1 space per 10 visitors).
- 2.4.31 Additionally, the bespoke criteria references Knowledge Base note **KBCN0323**, which states that to calculate the number of cycle spaces needed the sliding scale of compliance should be used for the staff and up to 5000 stadium visitors.

RIDGE



2.5 Summary

2.5.1 The planning policy presented within this section has been considered as part of this application and is compliant with all relevant transport policies listed above.

3 **PROPOSALS**

3.1 Overview

3.1.1 This section of the TA provides an overview of the development proposals including the proposed land uses, site access and highway proposals, delivery and servicing and parking provision.

3.2 Site Location

- 3.2.1 The site location for new stadium is at 'Land to the east of Stratfield Brake and west of Oxford Parkway Station, known as 'The Triangle' ('the Site'). The Site is situated 6 km to the north of Oxford between Oxford Parkway railway station and Park and Ride site and Kidlington. The Site location is shown in **Figure 1.1**.
- 3.2.2 The Site is bound by Kidlington Roundabout to the north, Oxford Road to the north-east, Frieze Way A4260 to the west and a block of woodland to the south, with further agricultural land beyond. The Site is also bound by a number of site allocations within the adopted Local Plan, namely Allocated Site PR6b (residential development of 690 dwellings) to the south-east, Allocated Site PR6c (for the potential construction of a golf course should this be required as a result of site PR6b) to the south-east, and Site Allocation PR7a (for 430 dwellings, an extension to Kidlington Cemetery and 11 hectares of land to provide formal sports/green infrastructure for the development and for the wider community) to the north-east. PR7b (for 670 net dwellings) to the northwest of the site on 32 hectares of land.
- 3.2.3 The Site is located at a highly accessible location, adjacent to the strategic highway network as well as Oxford Parkway Railway Station and Park and Ride. It is therefore accessible by a range of transport modes. This is discussed in **Chapter 4**.

3.3 Planning History

- 3.3.1 The only planning history on the site relates to its previous use as a motorcycle track, this change of use from agricultural was permitted in 1998 under the reference 97/01897/F.
- 3.3.2 There are a number of allocated sites of relevance within the immediate area of the development, these are illustrated within **Figure 3.2**.
- 3.3.3 The Cherwell Local Plan 2011-2031 (Part 1) Partial Review (LPPR), which provides for Cherwell's share of Oxford City's unmet housing needs, identifies six strategic housing sites. In total, these sites will deliver 4,400 new homes to meet Oxford City's needs together with supporting infrastructure. The sites are summarised below in **Table 3.1** and shown in **Figure 3.1**.
- 3.3.4 Other allocations in the area include: Northern Gatway/Oxford North Allocation, SP24 Fridewide farm, SP52 University, SP25 Hill View Farm, SP26 Land West of Mill Lane, SP23 Marston Paddock, STRAT13 Land North of Bayswater Brook and Land West of Cuckoo Lane.

SITE	HOUSING ALLOCATION	
PR6a: Land East of Oxford Road	690	
PR6b: Land West of Oxford Road	670	
PR7a: Land South East of Kidlington	430	
PR7b: Land at Stratfield Farm	120	
PR8: Land East of the A44	1950	
PR9: Land West of Yarnton	540	
Total	4400	

Table 3.1: PR Sites – from Cherwell Local Plan 2011-2031 (Part 1) Partial Review

*Note site PR6c: Land at Frieze Farm as shown in Figure 3.2 is reserved for the potential construction of a golf course should this be required as a result of the development of Land West of Oxford Road under Policy PR6b



Figure 3.1: Location of the PR Sites - from Cherwell Local Plan 2011-2031 (Part 1) Partial Review

Source: OCC

PR6a: Land East of Oxford Road

- 3.3.5 The Local Plan requirements for this site include 690 dwellings, primary school, sports facilities, extension to Cutteslowe Park and local centre including retail, business and community uses.
- 3.3.6 Bellway Homes acquired the PR6a site in September 2022 from Christ Church and is bringing the site forward for development (now known as Water Eaton), with Christ Church maintaining a leading role in the site's stewardship. In May 2023, Bellway Homes and Christ Church submitted an outline planning application for Water Eaton to Cherwell District Council.
- 3.3.7 A planning application has been submitted for 800 dwellings Reference 23/01233/OUT and at the time of writing, the application is pending determination.

PR6b: Land West of Oxford Road.

- 3.3.8 A development brief for PR6b was produced by Cherwell District Council in August 2022. The site is allocated for:
 - Residential development 670 net dwellings on 32 hectares of land 50% affordable housing;

- Formal sports area, and;
- Improvements to existing footbridge over the railway on the western boundary of the site.
- 3.3.9 No planning application has been submitted.

PR6c: Land at Frieze Farm.

3.3.10 Land at Frieze Farm (30 hectares) will be reserved for the potential construction of a golf course should this be required as a result of the development of Land to the West of Oxford Road under Policy PR6b.

PR7a: Land South East of Kidlington.

- 3.3.11 A development brief for PR7a was produced by Cherwell District Council in June 2022. The site is allocated for:
 - Residential development 430 net dwellings on 21 hectares of land 50% affordable housing;
 - An extension to Kidlington Cemetery on 0.7 hectares of land within the developable area;
 - 11 hectares of land to provide formal sports facilities for the development and for the wider community and green infrastructure within the Green Belt, and;
 - Play areas and allotments within the developable area.
- 3.3.12 Two planning applications have been submitted on this site. The southern parcel (Reference application 22/00747/OUT) for 370 dwellings and public open space and has a resolution to grant subject to a S106 Agreement. The northern parcel (Reference 22/03883/F) for 96 dwellings has a resolution to grant planning permission subject to S106 Agreement (7/12/23 planning committee)..

PR7b: Land at Stratfield Farm

- 3.3.13 A development brief for PR7b was produced by Cherwell District Council in June 2022. The site is allocated for:
 - Residential development 120 net dwellings on 5hectares of land 50% affordable housing;
 - Play areas and allotments;
 - Nature Conservation Area, and;
 - New public bridleway/green link and provision of a new foot/cycle bridge over the Oxford Canal.
- 3.3.14 An application has been submitted (Reference 22/01611/OUT) for 118 dwellings and has resolution to grant subject to S106 Agreement.

PR8: Land East of the A44

- 3.3.15 PR8 is a new urban neighbourhood with the following key delivery requirements:
 - Residential development 1950 net dwellings on 66 hectares of land 50% affordable housing;
 - Primary and Secondary School;
 - Local centre including retail, business and community uses;
 - Formal sports and play areas, and;
 - Local nature reserve.
- 3.3.16 Currently there are two developers looking at this site:
 - The Oxford University Development (a joint venture between University of Oxford and Legal and General Capital) is creating a £1 billion, 190-hectare mixed-use Innovation District.
 - Hallam Land Management development of 300 dwellings to the south of the Shell garage.
- 3.3.17 The largest proportion of the site (reference 23/02098/OUT) is the subject of an outline application, with all matters reserved, for a multi-phased (severable), comprehensive residential-led mixed use development comprising: 1,800 homes and social infrastructure. Up to 155,000 net additional square metres (gross external area) of flexible employment uses. This application is pending determination.
- 3.3.18 The smaller part of the south (southern) (Reference 23/03307/OUT) has submitted a planning application for 300 dwellings with associated infrastructure and open space (outline) and new access off the A44 (detailed).

PR9: Land West of Yarnton

- 3.3.19 A development brief for PR9 was produced by Cherwell District Council in November 2021. The site is allocated for:
 - Residential development 540 net dwellings on 25 hectares of land 50% affordable housing;
 - School expansion;
 - Formal sports, play areas and allotments;
 - Informal parkland, and;
 - New local nature reserve.
- 3.3.20 The landowner, Merton College, has submitted an outline planning application (Reference 21/03522/OUT) for up to 540 dwellings, up to 9,000 m² and GEA of elderly/extra care residential floorspace with associated land uses. This application has been appealed for non-determination (APP/C3105/W/23/3329587).



3.4 Club History

3.4.1 OUFC has been located at Kassam Stadium since 2001. Kassam Stadium is located in Littlemore approximately 6km south of Oxford City Centre with a capacity to accommodate 12,500 spectators. With the current licence agreement for the Kassam Stadium coming to an end in 2026 and no option to renew this, there is an urgent need to develop a new stadium to protect the future existence of one of the oldest football clubs in the UK.

3.5 OUFC's Vision

- 3.5.1 The Vision is to deliver on the key issues identified by local residents and fans, to ensure that this is both a stadium for elite sports and community use. The aim is for the Proposed Development to provide significant and sustained benefits to Kidlington and Gosford and Water Eaton residents, OUFC's fans and the wider Oxfordshire community.
- 3.5.2 Key principles that have informed the development include:
 - Visitor Experience at the heart Construct a new landmark for Oxford which instils community pride, is accessible, welcoming and puts the visitor experience at the heart, not just for fans of the game, but for all who visit.
 - United with the community be an active and positive part of the community, creating a sporting legacy and generating new employment, education opportunities and having a positive impact on the health and wellbeing of the communities the Club serves.
 - Sustainability at the core ensure that environmental and commercial sustainability is at the core, to protect the long-term future of OUFC and our planet.
 - Improving connectivity and access ensure the site and all facilities are a safe and inclusive place for all, with improved connectivity and access to the site, creating a hive of activity and an atmosphere of community, removing barriers to the site.
 - Promoting innovation utilise technology to improve the way things are done, nurturing a culture of collaboration and new ideas.

3.6 Current Site Operations

3.6.1 The site is currently within the Oxford Green Belt and used as a willow plantation.

3.7 Proposed Development at the Triangle

3.7.1 The planning application is for the development of a 16,000-capacity football stadium with additional ancillary uses as outlined in **Table 3.2**.

USE	USE CLASS	AREA
Club Shop	E	315 sqm
Sports Bar	Sui generis	197 sqm
Restaurant	E	276 sqm
Hotel	C1	180 rooms
Gym	E	698 sqm
Health and Wellbeing/Clinic Facility	E	827 sqm

Table 3.2: Site Land Use

- 3.7.2 The Masterplan for the Site is shown in **Figure 3.**2. The full masterplan is provided in **Appendix C.**
- 3.7.3 In addition to the stadium and ancillary uses, the development will incorporate a total of 184 car parking spaces, split between accessible parking (78), standard parking allocation (104), coach bays (2) and motorcycle spaces. The site will also include capacity to secure 150 bikes. The remaining requirement (max. 495) will be available for use at Oxford Parkway Park and Ride. The Travel Plan will monitor cycle parking demand and will investigate locations for further cycle parking, if necessary.
- 3.7.4 The Stadium is likely to hold 28 first team football matches per annum, including home league games, and pre-season and cup games. In addition to this, Women's league and cup fixtures are proposed to be held at the Stadium of which it is anticipated that there will be 13 home league games and cup fixtures per annum. It is also projected that there will be 2 Stadium hire events per year, for sporting events such as junior international matches, community, or university sport events.
- 3.7.5 Outside of football matches, it is proposed that the stadium will be utilised for a wide range of activities including conferences, meetings, trade shows, corporate events, and dinners. Over the course of a year, it is anticipated that around 580 events will be hosted. These will be of differing scales, with the majority being smaller events with an average attendance of 10 or 30 people. The Stadium has capacity to host events for up to 1,000 attendees and initial projections anticipate that there will be approximately 85 events with an average of 150 people, and 68 large events with an average number of 700 people, including Christmas parties.



4 EXISTING CONDITIONS AND SITE ACCESSIBILITY

4.1 Overview

4.1.1 This chapter presents the existing accessibility by different transport modes (walking, cycling, wheeling, micromobility, public transport and vehicle) to and from the Site.

Active Travel

4.1.2 The existing footway and wider connections are shown in **Figure 4.1**. The walking infrastructure in the area is of an average standard, with a narrow-shared footpath on both sides of Oxford Road with street lighting on the full length. The site is accessible to bus stops on Oxford Road as well as those within Kidlington, additionally Oxford Parkway Station and Park and Ride is in proximity of the site, again accessed via Oxford Road.





Figure 4.1: Existing Active Travel Routes

Source: OCC

4.1.3 **Figure 4.2** illustrates the public rights of ways (PRoW) in the vicinity of the site.



Figure 4.2: PRoWs

Source: OCC

- 4.1.4 PRoW route 265/33/60 along the Oxford Canal walk runs from Gosford and Water Eaton leading generally north on the west bank of the Oxford Canal to Shipton on Cherwell.
- 4.1.5 Separate from the proposals, there are a number of infrastructure works planned that are due to be in place prior to the Stadium coming forward further promoting pedestrian access. These include:
 - Extending the shared footway/cycleways on Oxford Road and Bicester Road improving the pedestrian and cycle link between the Site and Oxford Parkway Station and Park and Ride.
 - Improvement work to the Loop Farm roundabout to Cassington to introduce shared 4m wide footway/cycle way on one approach and 2m wide footway on the other approach between the two roundabouts.
 - Improvement work at the Peartree Interchange to Loop Farm Roundabout which includes installing pedestrian crossings on southbound off slip and A44 Woodstock Road and improving the pedestrian access to the Peartree Park and ride facility.



- 4.1.6 Provision of a signal-controlled crossing on Frieze Way and westbound A44 Woodstock approaches at Loop Farm Roundabout along with shared pedestrian and cyclist route to enable better connectivity between the A44 approaches.
- 4.1.7 **Figure 4.3** shows a 20-minute isochrone from the centre of the Site by walking, cycling and public transport.



- 4.1.8 **Figure 4.4** illustrates Cycle and Walking routes within Oxford.
- 4.1.9 This shows the OXR4 cycle route runs along Oxford Road adjacent to the Site. The OXR3 cycle route runs along the A44 approximately 1km south of the site, accessed from Freize Way.
- 4.1.10 These two routes connect to the wider network of cycle routes across Oxford and are identified within the Walking and Cycling network for the LCWIP. As shown in **Figure 4.3** The whole of Kidlington and parts of Northern Oxford including Summertown can also be accessed within a 20-minute cycle (approximately 5.3 km based on a cycling speed of 16kph). Oxford City Centre is approximately 6km south of the Site and so approximately 25-minute cycle ride.



Figure 4.4: LCWIP Oxford Cycle and Walking Routes

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4.2 Public Transport – Bus

4.2.1 There are bus stops on Oxford Road (Oxford Parkway Stop E (NB) and Oxford Parkway Stop D (SB) and Bicester Road (NB and SB) within 500 m or a 6 minutes' walk (1.4m/s) of the Site. These stops provide access to number of regular services connecting the Site to Oxford, Bicester and Kidlington as detailed in **Figure 4.5** and **Table 4.1**.



Figure 4.5: Existing Public Transport Routes

4.2.2 A summary for these services is shown in **Table 4.1**.

BUS STOP	SERVICE	ROUTE	APPROXIMATE FREQUENCY	BUS OPERATOR
Oxford Road	2/2A/N2	Kidlington - Oxford	15 minute Weekdays and Sat, 30 minute on Sunday and Night	Stagecoach
	S5	Oxford -Bicester	Every 20 minute Weekdays, 30 minute on Sunday and hourly weekday Night	Stagecoach
	S7	Witney – Oxford	Every 30 minute weekdays	
	City 700	Kidlington – Thornhill Park and Ride	30 minute Weekdays	Oxford Bus Company
	7 Gold	Woodstock- Oxford	30 minute weekdays and weekends	Stagecoach
	S4/H4	Oxford - Banbury	Hourly Weekdays	Stagecoach
Bicester Road	24	Bicester – Oxford	Every two hours weekdays and Sat	Grayline Coaches
	S5/NS5	Oxford - Bicester	20 minute Weekdays and Sat, 30 minute on Sunday and hourly weekday Night	Stagecoach

Table 4.1: Bus Services Near the Site

*Timetables correct as of September 2023

4.3 Public Transport - Park and Ride

- 4.3.1 There are five Park and Ride sites within Oxford, the closest of which is Oxford Parkway Park and Ride which lies adjacent to Oxford Parkway Station, providing a total of 758 spaces for the Park and Ride part of the car park and an additional 830 spaces associated with the railway.
- 4.3.2 Park and Bus tickets are available which includes parking for up to 16 hours and bus travel towards Oxford City Centre. The tickets are available for one return journey to and from the Oxford Parkway and cost £4 for parking for a single driver or £5 for a driver and a passenger. Children under the age of 16 travel for free when accompanied by a fare paying adult.
- 4.3.3 The next closest park and ride site is Peartree, located next to the Peartree roundabout and A34 and A44 approximately 2.4km from the site. This offers 1,035 spaces and park and bus tickets are available as per Oxford Parkway, or separate parking only tickets for up to 72 hours.
- 4.3.4 Seacourt Park and Ride (1,389 spaces) is located 7.8km southwest of the proposed stadium off the Botley interchange roundabout. Again, combined park and bus tickets are available.
- 4.3.5 Bus service 700 which operates past the site provide connection to Thornhill Park and Ride (1,335 spaces) to the east of Oxford on the A40.
- 4.3.6 Redbridge Park and Ride to the south of Oxford has 1,412 spaces and Eynsham Park and Ride is under construction to the west of Oxford along the A40 will have 850 spaces.



4.4 Rail Services

- 4.4.1 Oxford Parkway Station is located approximately 300m south-east of the Site, offering two services an hour to/from London Marylebone and Oxford, serving stations such as Bicester Village, Haddenham & Thame Parkway and High Wycombe. These trains on the Oxford-Bicester Line are operated by Chiltern Railways. The station has step free access to all platforms and accessible ticket machines and toilets.
- 4.4.2 Oxford Parkway (Rail) has a car parking facility with 830 spaces (18 of which are accessible) and 150 secured cycle parking spaces on the station forecourt. The station has step free access to all platforms and accessible ticket machines and toilets.
- 4.4.3 Oxford station is served by Great Western Railway, Chiltern Railway and Cross-Country services providing train services to/from stations such as: Radley, Culham, Appleford, Didcot Parkway towards Reading and Tackley, Heyford, Banbury and Leamington Spa towards Coventry and Hanborough, Combe, Finstock, Charlbury towards Worcester.
- 4.4.4 **Table 4.2** provides an overview of the nearest railway stations and their respective services, frequency and operator. The London Marylebone services are the same services that stop at Oxford Parkway.

STATION	ROUTE	APPROXIMATE FREQUENCY	OPERATOR
Oxford Parkway	London Marylebone to Oxford	30 minute	Chiltern Railways
	Oxford to London Marylebone	30 minute	Chiltern Railways
Oxford	London Marylebone to Oxford	30 minute	Chiltern Railways
	Oxford to London Marylebone	30 minute	Chiltern Railways
	Manchester Piccadilly to Bournemouth	30 minute	Cross Country
	Bournemouth to Manchester Piccadilly	30 minute	Cross country
	Oxford to London Paddington via Didcot Parkway	30 minute	GWR
	London Paddington to Oxford	30 minute	GWR

Table 4.2: Rail Services Near the Site

4.4.5 From Oxford connections to Stratford Upon Avon, Birmingham and Stourbridge Junction can be made by changing services at Haddenham and Thame Parkway (Chiltern Railways).

Connections to Taunton and Exeter St Davids and Guildford can be made by changing at Reading (GWR).

4.4.6 **Figure 4.6** shows 20 minute, 30 minute and 1 hour isochrones by public transport.





4.5 Planned Future Public Transport Connections

The Eastern Arc Bus Route

4.5.1 'Connecting Oxford' An 'Eastern Arc Bus Route' is planned to operate along the route shown in **Figure 4.7** and **Figure 4.8**. 'Connecting Oxford' identified a high frequency bus service connecting the arc linking north, east and southern parts of Oxford outside the city centre.

Figure 4.7: Indicative Eastern Arc Bus Routes and Frequencies



Source: OCC

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Figure 4.8: Latest Eastern Arc Bus Route

4.6 Reopening of the Cowley Branch Line

4.6.1 The planned reopening of the Cowley branch line will connect Littlemore and Cowley in south of city to Oxford station. A Full Business Case is currently in development which if approved could see the line reopen to passenger services in December 2026, however, this would rely on securing project funding. Once reopened this line would serve a core supporter base in the south of the City at Littlemore and Cowley with one direct train service to Oxford Parkway. A plan showing the route and stops along the line is shown in **Figure 4.9**.



Figure 4.9: Cowley Branch Line Route Plan

Source: https://mycouncil.oxford.gov.uk/documents/s71515/Cowley%20Branch%20Line%20FBC%20 funding%20Cabinet%20Report.pdf

4.6.2 **Figure 4.10** provides an illustration of the East West Rail route connecting Oxford with Cambridge. East West Rail expected to open in late 2024 or early 2025 and will reopen the railway line from Bicester Village via Winslow (for Buckingham) to Bletchley, Milton Keynes and Bedford. A further extension to Cambridge is in the planning stages with projected reopening by 2030. East West Rail from 2025 opens up connections with the West Cost Mainline at Bletchley and Midland Mainline at Bedford creating a larger catchment for away supporter travel with one change from east west services to mainline services to the north of England. When the Cambridge section comes forward further connectivity would be available with the East Coast mainline as St Neots or Tempsford and East of England services at Cambridge.



Figure 4.10: East West Rail (source: East West Rail Route Update Report, May 2023)

4.7 Public Transport Accessibility Index

- 4.7.1 This is a measure that provides an indicator of the accessibility and density of the public transport network at a point of interest (in the case of BREEAM, a building). The index is influenced by the proximity and diversity of the public transport network and the level or frequency of service at the accessible node.
- 4.7.2 The Accessibility Index is determined by entering the following information in to the BREEAM Tra 01 calculator:
 - The distance (m) from the main building entrance to each compliant public transport node.
 - The public transport types serving the compliant node, e.g., bus or rail.
 - The average number of services stopping per hour at each compliant node during the operating hours of the building for a typical day.
- 4.7.3 A compliant node includes any bus service with a stop within 650m and any railway station within 1,000m of the assessed building's main entrance, measured via a safe pedestrian route. The distance from the nearest bus stops and railway station to the Site is within these distances.
- 4.7.4 The current accessibility index score for the site is 7.54, based on 2 sets of bus stops/compliant nodes (access to same services as above) within the required 650m required for BREEAM and one railway station within 1,000m.



4.8 Local Highway Network

- 4.8.1 The site is currently accessed via a field gate from Oxford Road. The Site is adjacent to A4260 Frieze Way to the west and Oxford Road to the east.
- 4.8.2 Oxford Road is a single carriageway road subject to a 40mph speed limit past the Site. Oxford Road connects to the A40, North Way in the south at the Cutteslowe Roundabout and to Kidlington via the Kidlington Roundabout in the north. There are currently shared footway and cycleways on both sides of the carriageway past the Site.
- 4.8.3 A4260 Frieze Way is a dual carriageway subject to the national speed limit, which reduces to 40mph on the approach to Stratfield Brake and the Kidlington Roundabout. Frieze Way connects to the A44 at Loop Farm roundabout and to the A34 at the Peartree roundabout/interchange via the A44. OCC is currently delivering committed proposals to improve Loop Farm Roundabout, Peartree interchange and Kidlington roundabout (work has not commenced on the latter yet), including:
 - Improvement work to the Loop Farm roundabout to Cassington including a bus lane and shared foot and cycleways.
 - Improvement work at the Peartree Interchange to Loop Farm Roundabout including lane widening, controlled pedestrian crossing facilities and shared pedestrian and cyclist facilities.
 - A signal controlled crossing will be provided on Frieze Way and westbound A44 Woodstock approaches at Loop Farm Roundabout along with shared pedestrian and cyclist facility to have better connectivity between the A44 approaches.
 - Improvement work at Kidlington Roundabout including signalisation of the junction with signalised crossing facilities shared cycleways on Oxford Road and Bicester Road to improve sustainable travel.
- 4.8.4 Improvements at Kidlington Roundabout, including active travel connections may reduce the speed limit on Frieze Way. The speed limit on Oxford Road is expected to reduce to 30mph with the delivery of new active travel facilities.

4.9 Personal Injury Collision Data

- 4.9.1 An initial accident review has been undertaken for the immediate highway network within the vicinity of the proposed development site covering the latest available 5-year period between 2018 and 2022, obtained through OCC. **Figure 4.11** displays the location and severity of traffic injury accidents in relation to the development Site (slight yellow, serious blue and fatal red). The raw data has been included within **Appendix D**.
- 4.9.2 A summary of the accidents by severity (slight, serious, fatal) is provided in **Table 4.3**.
| SEVERITY | 2018 | 2019 | 2020 | 2021 | 2022 | TOTAL |
|----------|------|------|------|------|------|-------|
| Fatal | 0 | 0 | 0 | 0 | 2 | 2 |
| Serious | 2 | 4 | 2 | 0 | 2 | 10 |
| Slight | 9 | 16 | 17 | 12 | 12 | 66 |
| Total | 11 | 20 | 19 | 12 | 16 | 78 |

Table 4.3: Recorded Accidents and Severity

Figure 4.11: Traffic Collision Study Area



- 4.9.3 The accident data from OCC shows that there were two fatal incidents both in 2022, one of these was located on Oxford Road outside Oxford Parkway, involved an HGV and a cyclist, whilst the second on Frieze way involved a motorcycle.
- 4.9.4 There are clusters of accidents at key junctions surrounding the site including Cutteslowe Roundabout, Wolvercote Roundabout, Kidlington Roundabout, Peartree and Loop Farm Roundabout.
- 4.9.5 There are ongoing construction work improving operation at Peartree, with pedestrian crossing improvements being proposed at Kidlington Roundabout, and segregated cycle/ footway being proposed the length of Oxford Road, from Cutteslowe Roundabout to Kidlington Roundabout.

5 TRAFFIC SURVEYS

5.1 Overview

5.1.1 This section provides information regarding the traffic surveys obtained and used for the assessment of the highway impacts from The Site.

5.2 2018 OCC Traffic Surveys

- 5.2.1 OCC provided Ridge and Partners access to their online traffic count data set, these have been analysed to understand changes in traffic since pre-Covid 19. These include:
 - Manual classified turning counts at:
 - A4260 Kidlington Roundabout 07:00 to 18:00 on 10/05/2018
 - A40 Cutteslowe Roundabout 07:00 to 18:00 on 10/05/2018
 - A44 Wolvercote Roundabout 07:00 to 18:00 on 10/05/2018
 - A34 Peartree Intersection 07:00 to 18:00 on 10/05/2018
 - A44 Woodstock Road/Frieze Way (Loop Farm) 07:00 to 18:00 on 10/05/2018
 - A4165 Oxford Parkway Park and Ride -07:00 to 18:00 on 10/05/2018
 - A44 Woodstock Road/Peartree Park and Ride 07:00 to 18:00 on 10/05/2018
 - Automatic Traffic Counts at:
 - A4165, near Oxford Parkway Park and Ride 2 weeks from 08/05/2018
 - A44 Woodstock Road/Frieze Way (Loop Farm) 2 weeks from 08/05/2018
 - A44 Woodstock Road, Wolvercote Roundabout 1 week from 12/03/2018
 - A40, Oxford 2 weeks from 08/03/2018
 - A4165 Banbury Road, Oxford ATC 2 weeks from 08/03/2018

5.2.2 Queue Length Survey at:

- A4260 Kidlington Roundabout 07:00 to 18:00 on 10/05/2018
- A40 Cutteslowe Roundabout 07:00 to 18:00 on 10/05/2018
- A44 Wolvercote Roundabout 07:00 to 18:00 on 10/05/2018
- A34 Peartree Intersection 07:00 to 18:00 on 10/05/2018
- A44 Woodstock Road/Frieze Way (Loop Farm) 07:00 to 18:00 on 10/05/2018



5.3 2023 OUFC Commissioned Traffic Surveys

- 5.3.1 More recent traffic surveys have been undertaken (delayed due to roadworks and summer period) at the locations show in **Figure 5.1** in order to obtain up-to-date traffic data at links in the area that is likely to be most impacted from the proposal. These have been used in the EIA calculations and will be used for updated junction and highway network capacity calculations.
- 5.3.2 The traffic surveys were carried out by ATR and were undertaken between 25th November 2023 to 6th December 2023, avoiding as much as possible local road works, as agreed with OCC. The traffic surveys are summarised in **Table 5.1**.



Figure 5.1: Traffic Survey Locations

R:\Reading\Projects\Transport Planning\5018932 - OUFC\Transport Planning\Working Documents\Reports & Tech Notes\02.TA\5018932-RDG-XX-XX-RP-H-00001-P04_OUFC_TRANSPORT_ASSESSMENT 220224.docx

SURVEY TYPE	LUCATION	PERIUD	DAY	
Manual Classified Count	MCC & Queue Lengths (5- minute intervals) at 7 x	24 Hours	Thursday 9 th November 2023	
(MCC) & Queues	Locations as Per Client Plan	24 Hours 1000-1900 24 Hours 1000-1900 24 Hours 1000-1900 0800-0900 1700-1800 1900-2000 2130-2230 1100-1200 1400-1500 1700-1800 16 Day period to communication Mus Saturday 11th Saturday 25th 0700-1900 1000-1900	Saturday 11 th November 2023	
Additional Queues	Additional Queues (2	24 Hours	Thursday 9 th November 2023	
Additional Queues	Sites 4 + 5	24 Hours Thurs 1000-1900 Sature 24 Hours Thurs 24 Hours Thurs 1000-1900 Sature 0800-0900 Thurs 1000-1900 Sature 0800-0900 Thurs 1000-1900 Sature 0800-0900 Thurs 1100-1200 Sature 1100-1800 Sature 0700-1800 Sature 0700-1900 Thurs 0700-1900 Thurs 1000-1900 Sature	Saturday 11 th November 2023	
		0800-0900		
	Saturation Flows at 4 x Locations: Site 3, 4, 5 & Site 6	1700-1800	Thursday 9 th November	
		1900-2000	2023	
Saturation Flows		2130-2230		
		1100-1200		
		1400-1500	Saturday 11 th November	
		1700-1800	2023	
Link Counts	Classified Volume Link Count x 7			
	12 x ATC's as Per Client Plan: 2 x Counters Required at:	16 Day period to cover the above surveys. Must include:		
	Site 1	Saturday 11t	h September 2023	
ATC	Site 2	Saturday 18th November 2023		
ATC Site 2 Site 9 Saturday 25	th November 2023			
	4 x ATC's Additional Sites A to D	1000-1900 Saturday 11 th Nove 2023 0800-0900 1700-1800 Thursday 9 th Nove 2023 e 6 1100-1200 Saturday 11 th Nove 2023 Link 16 Day period to cover the above surveys Must include: Saturday 11 th Nove 2023 Client ers 16 Day period to cover the above surveys Must include: Saturday 11 th Nove 2023 I Sites 0700-1900 Thursday 9 th Nove 2023 I Sites 0700-1900 Thursday 9 th Nove 2023		
Queue Length Surveys	At MCC leastions	0700-1900	Thursday 9 th November 2023	
(undertaken by drone)	At MICC locations —	1000-1900	Saturday 11 th November 2023	

Table 5.1: Commissioned Traffic Surveys in November 2023

- 5.3.3 During the survey period it was identified that five locations were damaged during the survey period, these are listed below, however new counters were installed for a further week post 6th December 2023.
 - 37427-001B Bicester Road the counter was damaged between Saturday 25th November and Thursday 30th November, and again from Wednesday 6th December 2023.

- **37427-003 A4165 Oxford Road** the counter was damaged from Wednesday 6th December 2023.
- 37427-007B A40 Northern By Pass Road (E) the counter was damaged on site, and we are missing data from Sunday 3rd December 08:45 until Monday 4th December 12:30.
- **37427-011 Five Mile Drive** the counter was damaged, and we are missing data from Saturday 2nd December 11:00 until 13:00 Monday 4th December 2023.
- **37427-013 Banbury Road (S)** the counter was damaged, and we are missing data from Monday 27th November 14:00 until 14:00 Wednesday 29th November, and again between 07:00 Monday 4th December and Sunday 10th December 2023.

5.4 2023 Survey Data analysis

- 5.4.1 The following analysis has been undertaken:
 - **Typical Daily Flow** The surveyed ATC data was analysed to establish whether the MCC data collated on Saturday 25th November and Tuesday 28th November which were typical days in terms of daily traffic.
 - Peak Period Flows at Approaches to Junctions
 - The peak total flow over the 24hr period for Saturday 25th November was compared with data on the other Saturdays and the average Saturday for the five junctions.
 - The peak total flow over the 24hr period for Tuesday 28th November was compared with data on other weekdays and an average weekday for the five junctions.
 - The data was also compared with the 2018 survey data provided by OCC.
 - Daily Flow Profiles The ATC flow for approaches to junctions were combined to illustrate the daily flow profile over the network for Saturday 25th November and Tuesday 28th November.

5.5 Typical Daily Flow

Loop Farm Roundabout

5.5.1 The **Figure 5.2** compares the total ATC flow for Saturday 25th November and Tuesday 28th November November flow (the days MCC survey was conducted) at the junction with average weekday (WD Avg) and average Saturday flow (WEAvg). The Tuesday 28th flow when MCC data was collated was 1.1% lower than a weekday average. The Saturday 25th flow when MCC data was collated was 3.14% higher than the Saturday average (over 3 weeks).



Figure 5.2: Loop Farm ATC Vehicle Totals

Peartree Roundabout

5.5.2 **Figure 5.3** compares the total ATC flow for Saturday 25th November and Tuesday 28th November flow (the days MCC survey was conducted) at the junction with average weekday (WD Avg) and average Saturday flow (WEAvg). The Tuesday 28th flow when MCC data was collated is 1.02% higher than a weekday average. The Saturday 25th flow when MCC data was taken is 2.27% higher than the Saturday average (over 3 weeks).



Figure 5.3: Peartree Roundabout ATC Vehicle Totals

Wolvercote Roundabout

5.5.3 **Figure 5.4** compares the total ATC flow for Saturday 25th November and Tuesday 28th November flow (the days MCC survey was conducted) at the junction with average weekday (WD Avg) and average Saturday flow (WEAvg). The Tuesday 28th flow when MCC data was collated is 0.68% higher than a weekday average. The Saturday flow when MCC data was taken is 0.18% higher than the Saturday average (over 3 weeks).



Figure 5.4: Wolvercote Roundabout ATC Vehicle Totals

Cutteslowe Roundabout

5.5.4 **Figure 5.5** compares the total ATC flow for and Saturday 25th November and Tuesday 28th November flow (the days MCC survey was conducted) at the junction with average weekday (WD Avg) and average Saturday flow (WEAvg). The 28th Tuesday flow when MCC data was collated is 1.01% lower than a weekday average. The Saturday flow when MCC data was taken is 1.33% higher than the Saturday average (over 3 weeks).



Figure 5.5: Cutteslowe Roundabout ATC Vehicle Totals

Kidlington Roundabout

- 5.5.5 The ATC data for the MCC survey date for this roundabout was not available. However, flow on two of the main approach ATC 3 (Frieze Way) and ATC A NB (Oxford Road) was analysed.
- 5.5.6 **Figure 5.6** shows that the flow on ATC A NB (Oxford Road) the Tuesday 28th when the MCC data was collated was 2.18% lower compared to the weekday average and the flow on the Saturday 25th when MCC data was collated was 2.34% lower compared to the Saturday average.



Figure 5.6: Frieze Way ATC Vehicle Total

5.5.7 **Figure 5.6** shows that the flow on ATC3 (Frieze Way) the Tuesday 28th when the MCC data was collated was 4.27% lower compared to the weekday average and the flow on the Saturday 25th when MCC data was collated was 1.82% lower compared to the Saturday average.

5.6 Summary

5.6.1 The data shows that the Tuesday and Saturday flow when MCC data was taken was close to the weekday average and the difference is not significant.

5.7 Peak Period Flows at Approaches to Junctions

- 5.7.1 The following graphs compares the 2023 and 2018 flow at major approaches to the junctions over a two-week period for various peak periods. The flows are for following time periods.
- 5.7.2 Weekdays:
 - 08:00 09:00 (AM) labelled as (WD8)
 - 17:00 18:00 (PM) labelled as (WD17)
 - 19:00 2000 labelled as (WD19) and
 - 21:30 22:30 labelled as (WD21)

5.7.3 Weekend:

- 14:00 15:00 (IP) labelled as (WE14) and
- 17:00 18:00 (PM) labelled as (WE17)

Note: The 2018 junction surveys were collected only for the period between 07:00 to 18:00 on a week day, therefore OCC's permanent ATCs which cover a 24 hr period have been used to factor up the 2018 17:00-18:00 traffic levels to 19:00-20:00 and 21:30 and 22.30.

5.8 Weekday Comparisons

5.8.1 ATC 3 and 4 Frieze Way: **Figure 5.7** compares the ATC flow on Tuesday 28th November at this approach for various time periods with flows on other weekdays over a two-week period.





- 5.8.2 The Tuesday 28th flow compared to weekday average at various time period is as shown below:
 - AM 1.7% higher
 - PM 10.59% higher
 - 1900 4.02% lower
 - 2100 4.46% lower
- 5.8.3 The 2018 peak flows and the factored period flows (see 4.4.11) were significantly higher than the 2023 Tuesday, the day MCC data was taken.
- 5.8.4 ATC D, EB and WB, Northway: **Figure 5.8** compares the ATC flow on Tuesday 28th November at this approach for various time periods with flows on other weekdays over a two-week period.





- 5.8.5 The Tuesday flow when MCC data was taken compared to weekday average at various time period is as shown below:
 - AM 3.25% higher
 - PM 1.87 % lower
 - 1900 3.77% lower
 - 2100 14.18% higher
- 5.8.6 The 2018 peak flows and the factored period flows were significantly higher than the 2023 Tuesday 28th flow except for 2100 flows.
- 5.8.7 ATC A SB and NB, Oxford Road North of Parkway: **Figure 5.9** compares the ATC flow on Tuesday 28th November at this approach for various time periods with flows on other weekdays over a two-week period.



Figure 5.9: ATC A, SB and NB, Oxford Road

- 5.8.8 The Tuesday 28th flow when MCC data was taken compared to weekday average at various time period is as shown below:
 - AM 2.88% higher
 - PM 2.33% lower
 - 1900 6.86% higher
 - 2100 23.41% lower
- 5.8.9 The 2018 peak flows and the factored period flows were higher than the 2023 Tuesday, the day MCC data was taken.
- 5.8.10 ATC B SB and NB, Woodstock Road: **Figure 5.10** compares the ATC flow on Tuesday 28th November at this approach for various time periods with flows on other weekdays over a two-week period.





5.8.11 The Tuesday 28th flow compared to weekday average at various time period is as shown below:

- AM 1.7% higher
- PM 10.59% higher
- 1900 4.02% lower
- 2100 4.46% lower
- 5.8.12 The 2018 peak flows and the factored period flows were significantly higher than Tuesday 28th in 2023, the day MCC data was taken flow.

5.9 Summary of Weekday Comparisons

- 5.9.1 The data shows that the Tuesday 28th traffic flows (when MCC data was undertaken) is similar to the weekday average during the AM, PM and 19:00 time period. Where the difference was larger, the Tuesday 28th (when the MCC data was taken) traffic flow is higher than the average and therefore would lead to a conservative assessment.
- 5.9.2 The percentage difference between the Tuesday 28th and weekday average for the 21:30 time period is high. However, there is no consistent difference with some approaches showing higher and others showing lower values. It should be noted that the traffic flow during 21:30 is significantly lower than other time periods. Although the percentage difference is generally higher in the 21:30 period compared to other periods, the difference in the absolute number of vehicles is similar or lower than the other time periods. The variation can be attributed to daily variation and the Tuesday 28th flows can therefore be assumed to be robust or typical daily flow.

5.10 Saturday Comparisons

5.10.1 Data for Saturday 25th November was also compared to average Saturday flow over two to three weeks. The data shows that the 25th Saturday flow (when MCC data was taken) is generally similar, but there were periods where it was significantly higher or lower than the average Saturday surveyed. It should be noted that this was compared against other Saturdays, so it is difficult to draw a conclusion.

5.11 Comparison of 2023 to 2018 Data

5.11.1 The percentage difference in flow between Tuesday 28th November 2023 and the 2018 data (which is used in the North Oxford VISSIM model and factored up to 19:00 and 21:30 - (see section 6.7) for the five junctions for various time periods is illustrated in **Table 5.2** below. Overall, the 2023 is significantly lower than the 2018 data.

	DATE	CHANGE IN FLOW (% DIFFERENCE IN FLOW)				
JUNCTION		AM	РМ	1900*	2130*	
Kidlington	2018*	2372	3197	2842	1276	
	2023	2134	2819	1687	802	
	% Diff	-10%	-12%	-41%	-37%	
Loop Farm	2018*	3063	3576	1901	871	
	2023	2174	2625	1153	622	
	% Diff	-29%	-27%	-39%	-29%	
Peartree	2018*	4284	4574	3918	1459	
	2023	3032	3645	2116	1256	
	% Diff	-29%	-20%	-46%	-14%	
Wolvercote	2018*	3501	3535	3502	1415	
	2023	2914	3269	2543	1549	
	% Diff	-17%	-8%	-27%	9%	
Cutteslowe	2018*	3419	3785	3104	1769	
	2023	3264	3529	2622	1561	
	% Diff	-5%	-7%	-16%	-12%	

Table 5.2: 2023 and 2018 data and Percentage Difference

*Note: 2018 19:00 and 21:30 were factored from the 17:00 (PM) 2018 survey data using OCC permanent counts.



5.12 Daily Flow Profiles

- 5.12.1 The following ATC flows were combined to illustrate the daily flow profile over the network for Saturday 25th November and Tuesday 28th November.
 - ATC4 NB, Frieze Way
 - ATC3 SB, Frieze Way
 - ATC A SB Oxford Way (north of Parkway)
 - ATC A NB Oxford Way (north of Parkway)
 - ATC B NB A44 Woodstock Road
 - ATC B SB A44 Woodstock Road
 - ATC D WB A40 North Way
 - ATC D EB A40 North Way
- 5.12.2 Figure 5.11 shows the flow profile over the network on a weekday and weekend.



Figure 5.11 Daily Flow Profile

5.13 Summary

5.13.1 The data shows that the weekday AM peak varied between 07:00 to 10:00, but it is generally between 08:00 to 09:00. Similarly, the PM peak is between 16:00 to 19:00, but it is generally between 17:00 to 18:00. The data also shows that the flow remains similar between the peaks.

5.13.2 The data shows that the weekend AM peak is between 09:00 to 10:00. The traffic flow level between 10:00 to 17:00 is generally similar with the inter-peak period being between 11:00 and 12:00.

5.14 Assessment Periods

- 5.14.1 In light of the above analysis, the following scenarios will be assessed:
 - 2026 Standard Weekday supporting uses are open and small events.
 - 08:00 09:00 (network peak hour)
 - 17:00 18:00 (network peak hour)
 - 2026 Major Event Weekday event up to 700 attendees
 - 08:00 09:00 (network peak hour)
 - o 17:00 18:00 (network peak hour)
 - 2026 Weekday Match Day
 - 08:00 09:00 (network peak hour)
 - 17:00 18:00 (network peak hour)
 - o 19:00 20:00 (hour before match Oxford Road Traffic Management)
 - o 21:30 22:30 (hour after match Oxford Road Traffic Management)
 - 2026 Standard Saturday supporting uses are open.
 - o 11:00 12:00 (network peak hour)
 - o 14:00 15:00 (network peak hour)
 - 2026 Saturday Match Day
 - 14:00 15:00 (network peak hour and hour before match Oxford Road Traffic Management)
 - o 17:00 18:00 (hour after match Oxford Road Traffic Management)

RIDGE

6 TRANSPORT STRATEGY

6.1 Overview

- 6.1.1 The Transport Strategy has been developed to help achieve OUFC's vision (set out in section 3.5) and promote sustainable travel to fundamentally change the travel behaviour of supporters from driving in a private car to travelling by more sustainable means including public transport, walking, and cycling.
- 6.1.2 The Transport Strategy has been underpinned by a detailed understanding of the origins of the OUFC supporters, including travel surveys at Kassam Stadium carried out in 2022 and an assessment of the travel demands of the home supporters, away supporters, teams, staff, supporting operators and users of the associated facilities. The methodology and results are outlined in Chapter 5.
- 6.1.3 The use of the stadium will vary depending upon the event, the profile and importance of the football game, and the day of the week.

6.2 Walking and Cycling

- 6.2.1 150 cycle parking spaces with access to a further max. 495 spaces at Oxford Parkway, including electric bike charging will be provided.
- 6.2.2 As shown in Figure 4.3, the Site is within cycling distance from Kidlington and north of Oxford. Cycle routes OXR4 and OXR3 as well as National Cycle Route 51 connect the Site to the above areas as shown in **Figure 4.4**.
- 6.2.3 The proposals include:
 - New and improved pedestrian and cycle routes to/from the Stadium from/to Oxford Parkway, and also connect to the committed pedestrian and cycle improvement schemes at Kidlington Roundabout (OCC's Drawing P1B-ATK-HGN-XX-DR-CH-000100) and on Oxford Road (related to the development site PR7a), providing access to the surrounding planned PR sites, Oxford and Kidlington. The improvements will include signage and lighting to improve safety for users to access; cycle parking, bus services, rail services and taxis at Oxford Parkway and to connect to wider routes.
 - Crossing facilities (TOUCAN) are proposed across Oxford Road. These will include appropriate tactile paving for the visually impaired, signage, lighting to assist visitors to walk or cycle to the stadium and to reach destinations, such as bus stops and Oxford Parkway station.
 - A crossing (TOUCAN) also proposed on Freize Way to the walk and cycle links to Kidlington.
 - A new stepped access to Oxford Parkway from Oxford Road is proposed to provide direct access from the railway station towards the Stadium.
- 6.2.4 The Active Travel England checklist has been completed and informs the proposals. This is included in **Appendix E**.
- 6.2.5 The proposed access arrangement, including crossings and walking and cycling links, are shown in **Figure 6.1, Figure 6.2** and **Figure 6.3** for a standard day, major event day and match

day respectively. **Figure 6.4** illustrates the stadium site access in further detail. Access proposals for each mode is discussed in the following sections.









- 6.2.6 OUFC is working with Oxford Bus Company, Stagecoach, Chiltern Railways and OCC in order offer an integrated public transport ticket in the cost of a season ticket and match day tickets.
- 6.2.7 This, if possible, will include a return ticket on bus services to the stadium for around the city within the Oxford Smart Zone / South Oxfordshire Zone, including Park and Ride services and dedicated OUFC shuttle buses. In terms of rail services, OUFC is in discussions with Chiltern Railways and East West Rail with regards to existing Chiltern rail services from London Marylebone, Bicester Village, Haddenham & Thame Parkway, and Oxford to Oxford Parkway and emerging services to Milton Keynes and Bedford. These discussions regarding ticketing are supported by OCC who have a longer-term aspiration for an Oxfordshire area public transport ticket.
- 6.2.8 New bus stops are proposed on Oxford Road so that services 2, 2a, 7, 700 and S5 can serve the stadium on non-event days, as well as match days. These stops will include level boarding, shelters and real time information. This bus stops are shown on **Figure 6.5**.
- 6.2.9 If additional passenger capacity is required on certain match or event days (based ticket sales), the frequency or operating of these services will be increased with consultation with Stagecoach, Oxford Buses and OCC.





Figure 6.5: Proposed Bus Stops for Local Bus Services

- 6.2.10 Shuttle bus services will operate from the Park and Ride sites on match day (subject to ticket sales) to intercept supporter vehicle trips based on the geographical pull of their journey towards Oxford and supporters within walking and cycle distance of the Park and Ride sites around the City.
- 6.2.11 Service 700 already operates to/from Thornhill Park and Ride. There is opportunity to extend other services to the Redbridge Park and Ride or reroute proposed Park and Ride services to serve the stadium. Discussions are ongoing with the bus operators to agree any extensions, longer operating hours and/or increased frequency of services.

- 6.2.12 OUFC currently operate supporter shuttle services to/from Abingdon and Witney to Kassam Stadium, these will continue to the new site.
- 6.2.13 Conversations are ongoing with OCC with regards to the use of the Oxford Parkway and interchange improvements necessary to support the stadium, the PR sites and East West Rail.
- 6.2.14 Figure 6.6 provides the proposed matchday Park and Ride shuttle bus services.



- 6.2.15 OUFC will work with supporters' associations and clubs to organise away supporter coaches. This will be encouraged by providing priority drop off and pick up locations outside the Stadium on Oxford Road.
- 6.2.16 OUFC will investigate installing a Public Transport Information System in a publicly accessible area to inform supporters of any live travel news or delays that may impact travel from the stadium after a match.

6.3 Pre and Post Match Traffic Management

- 6.3.1 It is expected that traffic management will be required for safety reasons. Traffic will be diverted via Frieze Way (a dual carriageway) for at least 30 minutes to enable the supporters to safety arrive and leave the stadium via Oxford Road to reach the transport interchange at Oxford Parkway.
- 6.3.2 This expected to be as follows:
 - Pre-Match general traffic will be diverted for at least 30 minutes, with key bus services and coaches marshalled through Oxford Road during periods of lighter pedestrian flows. Bus services and general traffic will continue to access/egress Oxford Parkway from the site
 - Post-Match general traffic will be diverted for at least 30 minutes, with key bus services and coaches marshalled through Oxford Road during periods of lighter pedestrian flows. Bus services and general traffic will continue to access/egress Oxford Parkway from the site
- 6.3.3 **Figures 6.7** and **Figure 6.8** illustrate the proposed traffic management and arrangements.



Figure 6.8: Match Day Pedestrian Routes to Park and Ride Shuttle Buses, Local Buses, Coaches, Railway Station and Taxi

KEY

Route to P&R Buses Inc. Eynsham, Redbridge, Thornhill & Seacourt

OXFORD

Route to P&R Buses Peartree Only

Route to Local Buses Inc. Oxford Bus Services 2, 2a, and 700

Route to Private Hire Buses Home Supporters

Route to Private Hire Buses Away Supporters

Route to Oxford Parkway Railway Station Inc. Services to Oxford (SB), London Marylebone via Bicester (NB)

Route to Taxis Booked taxis only (no waiting)

Possible Alternative Route to P&R Buses Peartree and Eynsham Park & Ride Buses

6.4 Crowd Management

- 6.4.1 The use of the stadium will vary depending upon the event, the profile and importance of the football game, and the day of the week. On match days which generate a high level of ticket sales, a traffic management contractor will be appointed to enact the traffic management and would be expected to locate traffic marshals, (as well as the installation of Variable Message Signs, as discussed section 6.5), north of the stadium on Oxford Road on the southern arm of Kidlington Roundabout and south of the stadium at the junction between Oxford Road and Oxford Parkway. They will manage the closure of this section of Oxford Road alongside Oxfordshire County Council Network management and the OUFC control room.
- 6.4.2 Stewards will be stationed at the Stadium, Plaza to the north of the stadium, at the crossings and steps leading to Oxford Parkway Station, and at Oxford Parkway Station.
- 6.4.3 These stewards will guide supporters to/from Oxford Parkway (bus stops / National Rail station entrances for each platform) or to/from the coach on Oxford Road. Further stewards will be on hand at Oxford Parkway to assist with directions and location finding.
- 6.4.4 Detailed pedestrian modelling has been undertaken (and discussed later in this report) to understand pedestrian movements representing a full capacity scenario of 16,000 supporter match day scenario, although it is not expected that this level of attendance would be seen for a number of years, based on the current attendance of around 8,500 home supporters. Full capacity will be dependent on the success of the club through the leagues in coming seasons.

6.5 Traffic Management

- 6.5.1 The use of the stadium will vary depending upon the event, the profile and importance of the football game, and the day of the week. On match days which generate a high level of ticket sales, Oxford Road will be temporally closed, as outlined above.
- 6.5.2 A Variable Message Signage (VMS) strategy will be developed with OCC to determine the optimal locations for the installation of VMS. VMS are digital road signs used to inform car drivers about temporary events and/or real-time traffic conditions. It would be expected that VMS would be installed on radial routes to the stadium, including entries into Oxford Road at Kidlington Roundabout and at the Cuttleslowe Roundabout to direct traffic to use Frieze Way via Peartree and the A40 during the Oxford Road traffic management. The VMS will operate in advance of a football match to provide warning of traffic management and time periods of road closures in the week ahead.
- 6.5.3 The club will publish a list of the planned traffic management each season and this will be available to local residents either by paper copy or electronically on the club's website. OUFC will investigate an electronic alert system via text message to update local residents (who register to receive alerts), if the demand/ticket sales required this level of advance warning.
- 6.5.4 Signage for the Park and Ride sites will be enhanced, if necessary, to intercept fans to the first Park and Ride site they pass on the routes into Oxford. This may include replacement signage with additional information and/or new signage on radial routes into Oxford to direct fans to the first park and ride site on their route to Oxford, rather than direct to the stadium.
- 6.5.5 The ticket will be issued with travel information regarding cycling routes and parking, bus services and their nearest Park and Ride location based on their origin to reduce the impact of private vehicles within the vicinity of the Site.
- 6.5.6 The VMS signage will divert traffic via the A4260, A44 and A40 whilst the traffic management is in operation on a match day.

- 6.5.7 Match Day Controlled Parking Zones (CPZs) will be implemented (subject to local support to achieve a successful Traffic Road Order) up to 2km from the Stadium in Kidlington, North Oxford and Yarnton. These will operate during matches (Saturday and evenings) and will discourage supporters travelling to stadium by car and parking on nearby residential streets on match days. These Match Day CPZs will dovetail with the parking management strategy emerging for the PR Sites around Kidlington and Oxford Parkway. It is expected that the Controlled Park Zones will be actively enforced.
- 6.5.8 This level of management is only expected if ticket sales are high. Major Events and standard days (small events) are not expected to need a high level of management.

6.6 Vehicle and Servicing Access

- 6.6.1 Vehicle access is via a new junction on Freize Way to the north of Stadium and an egress on to Freize Way south of the stadium. The access designs are shown in Figure 6.9 and Drawing 5018932-RDG-XX-XX-DR-H-PL005 and are based upon the existing speed limits of 40 mph north of Stratfield Brake and 70mph to the south. The designs will need to be amended if the speed limits are altered with the adjacent Kidlington Road and active travel improvement scheme. The suggested amendments are shown in Figure 6.10 for the access at 30mph and Figure 6.11 for the egress at 40mph.
- 6.6.2 Car and cycle parking requirements and proposed provision are illustrated in **Table 6.1** below. The development proposals will provide a total of 184 car parking spaces, split between 78 accessible parking spaces and 106 standard parking spaces. Of these 106 spaces, 25 are overflow spaces provided in Grasscrete or similar and expected only to be used on match days.

	CA	١R	CYCLE		
LANDUSE	REQUIREMENT	PROVISION	REQUIREMENT	PROVISION	
Hotel	180	90	36		
Gym	22.9	18	15.14		
Restaurant and Sports Bar	48.1	18	25.24		
Health and Wellbeing	6.5	18	28.62		
Stadium		15	540		
Grasscrete area		25			
Total		184	Max. 645 (reduce for shared demands)	150 at Stadium Remaining at Parkway*	

Table 6.1 Parking Requirements and Provisions

*We are investigated the delivery of a Cycle Hub at Oxford Parkway

Figure 6.9: Stadium Site Vehicle Access Proposals (see Drawing 5018932-RDG-XX-XX-DR-H-PL012 for larger scale)

RIDGE





Figure 6.10: Possible Access Design Alternative for 30mph

Figure 6.11: Possible Egress Design Alternative for 40mph


- 6.6.3 EV charging for 25% of the car parking spaces across the Site, equating to 46 of the 184 spaces. Passive provision (ducting/base infrastructure) will be installed for all spaces to allow further EV capacity to be rolled out in future as required.
- 6.6.4 On match days, supporters will be advised that there is not any car parking available at the Stadium (aside from accessible and operational spaces) when purchasing a ticket. On site parking up to 184 spaces will be reserved for: accessible users, match officials/operational staff/OUFC staff and outside broadcast (25 spaces) on match days.
- 6.6.5 All car parking, including accessible parking, will be accommodated on site through a booking system. This will be managed through ANPR, signage and active enforcement.
- 6.6.6 Non match day taxi drop off is provided in the Plaza to the north of the Stadium, in front of the Hotel.
- 6.6.7 Match day taxi drop off and pick up will be accommodated within the stadium car park and at Oxford Parkway. No taxi parking will be provided on Site.
- 6.6.8 Team coaches will be accommodated on the western side of the stadium adjacent to the player's entrance. Two coach parking spaces will be provided.
- 6.6.9 A servicing area will be provided to the south of stadium for refuse vehicles to collect from the bin store, and to allow articulated HGVs to access to the pitch via the Stadium Tunnel. A turning head will be provided (adjacent to the car park) to allow vehicles to undertake a three-point manoeuvre and to layover during servicing.
- 6.6.10 The hotel, restaurant, sports bar and gym will be serviced via the Plaza area for the north of the stadium. This will not be available during a match when the plaza area is in use. An egress in the form of a vehicle crossover is proposed on to Oxford Road for large HGVs servicing the restaurant, bar and hotel in the north on non-match day periods and emergency vehicles only.
- 6.6.11 The following technical drawings, included within **Appendix F**, include swept path analysis of the development site to demonstrate vehicular requirements:
 - 5018932-RDG-XX-XX-DR-H-PL006 Coach
 - 5018932-RDG-XX-XX-DR-H-PL007 16.5m Articulated Vehicle
 - 5018932-RDG-XX-XX-DR-H-PL008 12.0m Rigid Delivery Vehicle
 - 5018932-RDG-XX-XX-DR-H-PL009 Large (11.2m) Refuse Vehicle
 - 5018932-RDG-XX-XX-DR-H-PL010 Emergency Vehicles (Fire Tender).
 - 5018932-RDG-XX-XX-DR-H-PL011 Taxi drop-off / Delivery vans at turning head



6.7 Other Measures for Staff

6.7.1 A Travel Plan for both Match Day and Non-Match Days have been prepared to help reduce single occupancy car use to and from the stadium. Staff will be provided with travel information and guidance to help make more sustainable travel choices. There will be opportunity for staff to purchase a public transport season ticket or discounted public transport ticket for travel to and from the Stadium. Staff showers, changing and drying facilities will also be provided within the Stadium for those who walk / cycle to work to use, as well as promotion of the Cycle to Work Scheme.

7 ASSESSMENT – OVERVIEW

7.1 Decide & Provide

- 7.1.1 Decide & Provide (D&P) Transport Assessment Guidance ('Implementing Decide & Provide', Oxfordshire County Council, 2022), states the need for new developments to create a clear vision and abandons the traditional 'Predict & Provide' approach based around the idea of predicting what highway capacity improvements are required to accommodate current or past travel needs. The guidance suggests the following staged approach:
 - Stage 1: Identifying accessibility characteristics.
 - Stage 2: Scenario testing, including a scenario where proposed connectivity improvements are identified.
 - Stage 3: Monitoring and Managing outcomes.
- 7.1.2 The following scenarios, as prescribed in Oxfordshire Decide & Provide Transport Assessment Guidance, will be considered:
 - D&P Scenario 1: Reference Case background traffic growth to 2026
 - D&P Scenario 2: Do Minimum Reference Case + Development Traffic Flow assumes that the spare capacity at Oxford Parkway is fully taken by match day supporters.
 - D&P Scenario 3: With Connectivity Improvements assumes that incentives and management will discourage the use of Oxford Parkway car parking for supporters. Season ticket and match tickets will include free park and bus at other Park and Rides and signage and marshals will show "No Match Day Parking" at Oxford Parkway. The public transport strategy is based upon this scenario.
 - D&P Scenario 4: Requirement and phasing of further improvements
 - D&P Scenario 5: Extrapolated trends
- 7.1.3 D&P Scenarios 1, 2 and 3 are discussed in the Transport Assessment. Further D&P Scenarios (e.g. 4 and 5) are expected to be identified with OCC. It is expected that these additional scenarios would test the effect of reduce the car driver mode share to/from the ancillary use with travel planning and the promotion of sustainable travel options, as also VMS. Research has been undertaken to understand the impacts of VMS, a summary of the findings is included within **Appendix G**.
- 7.1.4 The following time periods have been identified for assessment:
 - Standard Weekday supporting uses are open and small events.
 - o 08:00 09:00 (network peak hour)
 - o 17:00-18:00 (network peak hour)
 - Major Event Weekday event up to 1000 attendees
 - o 08:00 09:00 (network peak hour)

- 17:00-18:00 (network peak hour)
- Match Day
 - 08:00 09:00 (network peak hour)
 - o 17:00 18:00 (network peak hour)
 - o 19:00 20:00 (hour before match Oxford Road Under Traffic Management)
 - o 21:30 22:30 (hour after match Oxford Road Under Traffic Management)
- Standard Saturday supporting uses are open.
 - o 11:00 12:00 (network peak hour)
 - o 14:00-15:00 (network peak hour)
- Saturday Match Day
 - 14:00- 15:00 (network peak hour and hour before match Oxford Road Under Traffic Management)
 - 17:00- 18:00 (hour after match Oxford Road Under Traffic Management)
- 7.1.5 The detailed derivation of person and vehicle trips associated with the following is set out in the following sections:
 - Section 8.0 Non-supporter Trips, including major event trips
 - Section 9.0 Supporter Trips
 - Home Supporters
 - o Away Supporters

Person Trip Generation Summary

- 7.1.6 A summary of the resulting person trips are included in **Table 7.1** and **Table 7.2** for the different the different time periods with detailed breakdown of how these have been determined in sections 8.0 and 9.0. This applies to the D&P Scenario 2 and 3.
- 7.1.7 Further D&P Scenarios are expected to be identified with OCC. It is expected that these additional scenarios would test the effect of reduce the car driver mode share to/from the ancillary use with travel planning and the promotion of sustainable travel options, as also VMS.



Table 7.1: Total Weekday Person Trips – D&P Scenario 2 and 3

	DAILY		AM (08:00 – 09:00)		PM (17:00 – 18:00)		PM (19:00-20:00)		PM (21:30-22:30)	
LAND USE	ARRIVALS	DEPARTURES	ARRIVALS	DEPARTURES	ARRIVALS	DEPARTURES	ARRIVALS	DEPARTURES	ARRIVALS	DEPARTURES
Weekday Ancillary Uses	1508	1492	130	95	135	154	-	-	-	-
Weekday Stadium Staff	255	255	255	0	0	255	-	-	-	-
Standard Weekday	1763	1747	385	95	135	409	-	-	-	-
Match Day Weekday Ancillary	1539	1504	-	-	-	-	55	63	15	26
Weekday Stadium Staff	294	294	-	-	-	-	0	0	0	0
Match Day Supporters	15200	15200	-	-	-	-	11400	0	0	12920
Weekday Match Day	17033	16998	-	-	-	-	11455	63	15	12946
Event Weekday Ancillary Uses	1889	1876	770	76	138	793	-	-	-	-
Event Weekday Stadium Staff	255	255	255	0	0	255	-	-	-	-
Event Day	2144	2131	1025	76	138	1048	-	-	-	-

Note: This assumes a conference is operating related to the hotel on a standard day.



Table 7.2: Total Saturday Person Trips – D&P Scenario 2 and 3

	DAILY		AM (08:00 – 09:00)		AM (11:00-12:00)		PM (14:00-15:00)		PM (17:00 – 18:00)	
LAND USE	ARRIVALS	DEPARTURES	ARRIVALS	DEPARTURES	ARRIVALS	DEPARTURES	ARRIVALS	DEPARTURES	ARRIVALS	DEPARTURES
Saturday Ancillary Uses	1907	1969	-	-	49	85	46	79	-	-
Saturday Stadium Staff	150	150	-	-	0	0	0	122	-	-
Standard Saturday	2057	2119	-	-	49	85	46	201	-	-
Saturday Ancillary Uses	1675	1730	-	-	-	-	68	88	104	109
Saturday Stadium Staff	189	189	-	-	-	-	0	0	0	150
Saturday Match Day Supporters	15200	15200	-	_	-	-	11400	0	0	12920
Saturday Match Day	17064	17119	-	-	-	-	11468	88	104	13179

Note: This assumes a conference is operating related to the hotel on a standard day.

7.2 Vehicle Trip Generation (D&P Scenario 2 and 3)

- 7.2.1 A summary of the resulting vehicle trips are included in **Table 7.3** and **Table 7.4** for the different the different time periods with detailed breakdown of how these have been determined in sections 8.0 and 9.0. This applies to the D&P Scenario 2 and 3 with:
 - D&P Scenario 2 assumes that the spare capacity at Oxford Parkway is fully taken by match day supporters.
 - D&P Scenario 3 assumes that incentives and management will discourage the use of Oxford Parkway car parking for supporters. Season ticket and match tickets will include free park and bus at other Park and Rides and signage and marshals will show "No Match Day Parking" at Oxford Parkway.
- 7.2.2 Further D&P Scenarios are expected to be suggested by OCC based on D&P guidance (Decide & Provide: Requirements for Transport Assessments). It is expected that these additional scenarios would test the effect of reducing car driver mode share to/from the ancillary use with the implementation of travel planning and the promotion of sustainable travel options, as also VMS.



Table 7.3: Total Weekday Vehicle Trips to Stadium and Oxford Parkway – D&P Scenario 2 and 3

	DAILY		AM (08:00 – 09:00)		PM (17:00 – 18:00)		PM (19:00-20:00)		PM (21:30-22:30)	
LAND USE	ARRIVALS	DEPARTURES	ARRIVALS	DEPARTURES	ARRIVALS	DEPARTURES	ARRIVALS	DEPARTURES	ARRIVALS	DEPARTURES
Weekday Ancillary Uses	918	925	87	58	59	82	-	-	-	-
Weekday Stadium Staff	255	255	255	0	0-	255	-	-	-	-
Standard Weekday Total	1173	1180	342	58	59	337	-	-	-	-
Match Day Weekday Ancillary	840	836	-	-	-	-	31	45	10	25
Weekday Stadium Staff	294	294	-	-	-	-	0	0	0	0
Match Day Supporters D&P Scenario 2	1428	1428	0	0	0	0	1013	0	0	1148
Match Day Supporters D&P Scenario 3	78	78	0	0	0	0	59	0	0	66
Weekday Match Day D&P Scenario 2 Total	2562	2558	87	68	49	67	1044	45	10	1172
Weekday Match Day D&P Scenario 3 Total	1212	1208	87	68	49	67	90	45	10	91

Note 1: This assumes a conference is operating related to the hotel on a standard day.

Note 2: D&P Scenario 2 - This assumes for football matches the stadium car park is for pre-booked accessible spaces, some hospitality, key staff and broadcasting vehicles/staff. Match day supporters use the Oxford Parkway for car parking.

Note 3: D&P Scenario 3 - This assumes for football matches the stadium car park is for pre-booked accessible spaces, some hospitality, key staff and broadcasting vehicles/staff. Match day supporters do not use the Oxford Parkway for car parking, except for staff and hospitality arriving prior to 19:00.



Table 7.4: Total Saturday Vehicle Trips to Stadium and Oxford Parkway - D&P Scenario 2 and 3

	DAILY		AM (08:00 – 09:00)		AM (11:00-12:00)		PM (14:00-15:00)		PM (17:00 – 18:00)	
LAND USE	ARRIVALS	DEPARTURES	ARRIVALS	DEPARTURES	ARRIVALS	DEPARTURES	ARRIVALS	DEPARTURES	ARRIVALS	DEPARTURES
Saturday Ancillary Uses	1140	1189	-	_	71	89	72	99	-	-
Saturday Stadium Staff	150	150	-	-	0	0	0	0	-	-
Standard Saturday Total	1290	1339	-	-	71	89	72	99	-	-
Saturday Ancillary Uses	984	987	-	_	-	-	61	51	0	0
Saturday Stadium Staff	189	189	-	-	-	-	0	0	0	150
Saturday Match Day Supporters D&P Scenario 2	1428	1428	0	0	0	0	743	0	0	743
Saturday Match Day Supporters D&P Scenario 3	78	78	0	0	0	0	43	0	0	43
Saturday Match Day D&P Scenario 2	2679	2682	0	0	38	54	847	51	0	935
Saturday Match Day D&P Scenario 3	1251	1254	0	0	38	54	104	51	0	193

Note 1: This assumes a conference is operating related to the hotel on a standard day.

Note 2: D&P Scenario 2 - This assumes for football matches the stadium car park is for pre-booked accessible spaces, some hospitality, key staff and broadcasting vehicles/staff. Match day supporters use the Oxford Parkway for car parking.

Note 3: D&P Scenario 3 - This assumes for football matches the stadium car park is for pre-booked accessible spaces, some hospitality, key staff and broadcasting vehicles/staff. Match day supporters do not use the Oxford Parkway for car parking, except for staff and hospitality arriving prior to 11:00.



8 ASSESSMENT – NON SUPPORTER TRIP GENERATION, DISTRIBUTION AND MODE SHARE

8.1 Ancillary Uses

8.1.1 The following section sets out non-supporter trip generation associated with the ancillary uses of the stadium. **Table 8.1** sets out the quantum of the land use proposed as part of this application.

LANDUSE	QUANTUM
Club Shop	315 sqm
Sports Bar	197 sqm
Restaurant	276 sqm
Hotel	180 rooms
Gym	698 sqm
Health and wellbeing centre	827 sqm
Conferencing Facilities	Capacity for 1,000 attendees

Table 8.1: Proposed Land Use (non-match day)

8.2 Trip Rates

8.2.1 The TRICS database has been interrogated to establish trip rates for the supporting land uses at the Stadium. Similar sites surveyed by the TRICS team have been identified to obtain trip rates that can be applied to the proposed development. The site criteria set out in **Table 8.2** have been selected for various land uses:

LAND) USE	SUB LAND USE	REGIONS	UNITS	AGE OF SURVEY	SURVEY PERIOD	NO OF SITES
Hotel, and [, Food Drink	Pub/Restaurant	England excluding London	Floor area 200 to 760 sqm	2015 – 2022	Weekdays	6
Hotel, and [, Food Drink	Pub/Restaurant	England excluding London	Floor area 400 to 694 sqm	2015 – 2022	Weekends	2
Hotel, and [, Food Drink	Hotel with Conferencing	England excluding London	227 to 227 beds	2015 – 2021	Weekdays	1
Hotel, and [, Food Drink	Hotel Standard	England excluding London	100 – 157 beds	2015 – 2021	Weekdays	2
Hotel, and [, Food Drink	Hotel Standard	England excluding London	99 – 99 beds	2015 – 2021	Weekend	1
Leis	sure	Fitness club	England excluding London	1380 – 1600 sqm	2015 – 2022	Weekdays	2
Leis	sure	Fitness club	England excluding London	1400 sqm	2015 – 2022	Weekend	1
Неа	alth	GP Surgeries	England excluding London	416 to 2900 sqm	2015 – 2012	Weekdays	8

Table 8.2: TRICS Selection Criteria

8.2.2 The TRICS reports are provided in **Appendix H** and summarised in **Table 8.3** to **Table 8.5**.

		D		AM (08:0	00 – 09:00)	PM (17:00 – 18:00)		
LAND USE		ARRIVALS	DEPARTURES	ARRIVALS	DEPARTURES	ARRIVALS	DEPARTURES	
Hotel (standard)	/bed	4.471	4.309	0.489	0.401	0.296	0.242	
Hotel (Major event and Match Day)	/bed	2.529	2.381	1.529	1.439	2.529	2.381	
Merch Store			No Primary Trips					
Gym	/100sqm	33.785	34.130	1.644	1.275	0.994	0.771	
Health and wellbeing Space	/100sqm	41.442	42.249	3.708	1.731	2.242	1.047	
Restaurant	/100sqm	4.220	3.943	0.251	0.366	0.152	0.221	
Sports Bar	/100sqm	4.220	3.943	0.251	0.366	0.152	0.221	
Conferencing and Events (Major Event)	/700 attendees	731	731	439	439	731	731	
Conferencing and Events (Match Day)	/700 attendees	31	31	0	0	0	0	

Table 8.3: Weekday People Trips – TRICS Trip Rate per Use

I AND LISE		19:0	D-20:00	21:00)-22:00
LAND USE	UNII	ARRIVALS	DEPARTURES	ARRIVALS	DEPARTURES
Hotel	/bed	0.198	0.054	0.027	0.008
Merch Store			No Primary Trips		
Gym	/100sqm	1.6440	3.3890	0.1680	0.6040
Health and wellbeing Space	/100sqm	0.690	1.103	0.000	0.000
Restaurant	/100sqm	0.1410	0.2290	0.1590	0.1060
Sports Bar	/100sqm	0.1410	0.2290	0.1590	0.1060
Conferencing and Events	/700 attendees	0	0	0	0

Table 8.4: Weekday Match Day People TRICS Trip Rate per Use

Table 8.5: Standard Saturday People TRICS Trip Rate per Use

		C	AILY	19:0	0-20:00	21:00-22:00			
LAND USE	UNIT	ARRIVALS	DEPARTURES	ARRIVALS	DEPARTURES	ARRIVALS	DEPARTURES		
Hotel	/bed	6.194	6.194	0.1301	0.2043	0.2120	0.3330		
Merch Store		No Primary Trips							
Gym	/100sqm	32.285	32.001	1.7140	1.2860	1.0362	0.7775		
Health and wellbeing Space	/100sqm	13.814	14.083	1.4463	1.5477	0.8744	0.9357		
Restaurant	/100sqm	97.258	96.569	4.4790	1.7370	2.7079	1.0501		
Sports Bar	/100sqm	97.258	96.569	4.4790	1.7370	2.7079	1.0501		
Conferencing and Events	/700 attendees	0	0	0	0	0	0		

		DAILY		19:0	0-20:00	21:00-22:00			
LAND USE	UNIT	ARRIVALS	DEPARTURES	ARRIVALS	DEPARTURES	ARRIVALS	DEPARTURES		
Hotel	/bed	5.780	6.194	0.264	0.445	0.162	0.273		
Merch Store		No Primary Trips							
Gym	/100sqm	32.285	32.001	2.500	1.429	1.511	0.864		
Health and wellbeing Space	/100sqm	13.814	14.083	1.135	1.228	0.686	0.742		
Restaurant	/100sqm	97.258	96.569	7.495	15.174	4.531	9.174		
Sports Bar	/100sqm	97.258	96.569	7.495	15.174	4.531	9.174		
Conferencing and Events	/700 attendees	31	31	0	0	0	0		

Table 8.6: Match Day People TRICS Trip Rate per Use

8.3 Multi-Modal Trip Generation

- 8.3.1 A local mode share has been determined using the 2011 Census travel to work data based on WU03EW Location of Usual residence and Place of Work by Method of Travel to Work (MSOA Level). E02005938 Cherwell 018 was used as place of work as this covers the area of The Site.
- 8.3.2 A review of the Census data identified that this MSOA has very low rail use, as Parkway Station was not open until 2016, post Census. A manual adjustment has been undertaken to incorporate the baseline mode split for rail users to the site. An adjusted mode share has been derived utilising Oxford 009 MSOA which displays similar accessibility to Cherwell 018 but with the addition of rail mode share at 4% to reflect access to Oxford Station.
- 8.3.3 It was also identified that the walking mode share also seemed quite high, this was adjusted to 9% based upon Oxford 001 2021 data TS06: Method used to Travel to Work. The change of 8.5 (+3.5%-12%) has been prorated across the remaining modes. This is summarised in Table 8.7.

METHOD OF TRAVEL TO WORK	MODE SHARE %	ADJUSTED MODE SHARE %
Driving a car or van	55	61
Passenger in Car or Van	6	6
Bus, Minibus or Coach	9	9
Work mainly at home	0	0
On foot	21	9
Bicycle	8	9
Motorcycle /Scooter	1	2
Train	0	4
Taxi	0	0
Total	100	100

Table 8.7: Local Adjusted Mode Share

8.4 Trip Generation – People Trips

Ancillary Uses

- 8.4.1 **Table 8.8** to **Table 8.11** outline the expected trip generation from the ancillary uses of the stadium, which include the following assumptions:
 - On a match day 85% of hotel visitors are supporters; and
 - On a match day 85% of restaurant and sports bar visitors are supporters.

	D	AILY	AM (08:0	00 — 09:00)	PM (17:00 – 18:00)					
LAND USE	ARRIVALS	DEPARTURES	ARRIVALS	DEPARTURES	ARRIVALS	DEPARTURES				
Hotel (standard)	805	776	88	72	53	86				
Hotel (Major event)*	455	429	28	53	56	25				
Merch Store		Non-primary trips – linked to other uses								
Gym	236	238	11	9	32	23				
Health and wellbeing Space	155	160	31	14	15	27				
Restaurant	205	209	0	0	23	12				
Sports Bar	107	109	0	0	12	6				
Conferencing and Events (Major Event)	731	731	700	0	0	700				
Standard Total	1508	1492	130	95	135	154				
Event Day Total	1889	1876	770	76	138	793				

Table 8.8: Standard Weekday Ancillary Users – People Trips

Table 8.9: Match Day Weekday Ancillary Users – People Trips

	DAILY		AM (08:00 – 09:00)		PM (17:00 – 18:00)		PM (19:00-20:00)		PM (21:30-22:30)	
LAND USE	ARRIVALS	DEPARTURES	ARRIVALS	DEPARTURES	ARRIVALS	DEPARTURES	ARRIVALS	DEPARTURES	ARRIVALS	DEPARTURES
Hotel	805	776	88	72	53	86	0	0	0	0
Merch Store			Non-primary trips – linked to other uses							
Gym	198	165	11	9	32	23	0	0	0	0
Health and wellbeing Space	222	244	36	38			Match – Nc	appointments		
Restaurant	174	177	0	0	21	21	36	41	10	17
Sports Bar	109	111	0	0	2	1	19	22	5	9
Conferencing and Events	31	31	0	0	0	0	0	0	0	0
Total	1539	1504	135	119	108	131	55	63	15	26

	DAILY		11:0	0-12:00	14:00-15:00			
LAND USE	ARRIVALS	DEPARTURES	ARRIVALS	DEPARTURES	ARRIVALS	DEPARTURES		
Hotel	969	1033	49	85	46	79		
Merch Store	Non-primary trips – linked to other uses							
Gym	225	223	12	9	17	10		
Health and wellbeing Space	155	160	36	38	28	30		
Restaurant	366	363	17	7	28	57		
Sports Bar	192	190	9	3	15	30		
Conferencing and Events	NA	NA	NA	NA	NA	NA		
Total	1907	1969	123	142	134	206		

Table 8.10: Standard Saturday Ancillary Users – People Trips

Table 8.11: Match Day Saturday Ancillary Users – People Trips

	D	AILY	14:00	-15:00	17:00-18:00			
LAND USE	ARRIVALS	DEPARTURES	ARRIVALS	DEPARTURES	ARRIVALS	DEPARTURES		
Hotel	969	1033	46	79	67	36		
Merch Store		Non-j	-primary trips – linked to other uses					
Gym	94	85	Match – No appointments					
Health and wellbeing	107	110	Match – No appointments					
Restaurant	311	309	14	6	24	48		
Sports Bar	163	162	8	3	13	25		
Conferencing and Events)	31	31	0	0	0	0		
Total	1675	1730	68	88	104	109		



Stadium Staff

8.4.2 The stadium staff have been forecast based upon a first principles approach from the workforce predictions outlined in the Socio-Economic Assessment. **Table 7.12** summarises the numbers of stadium staff for each scenario.

Table 8.12: Stadium Staff

LAND USE	FULL TIME EQUIVALENT	estimated Workforce	STANDARD WEEKDAY /MAJOR EVENT DAY	STANDARD SATURDAY	WEEKDAY MATCH DAY	SATURDAY MATCH DAY
Retained Oxford United Staff	133	245	208	122	208	122
Retained matchday Staff	18	33	0	0	33	33
Projected Additional Match Day staff	4	7	0	0	7	7
New Stadium Operation Staff	30	55	46	28	46	55
TOTAL	185	340	254	150	294	217

- 8.4.3 In order to test a worst case, it is assumed that 85% of the general and operational staff work each day and 100% of the match day staff work on match days.
- 8.4.4 It is assumed that general and operational staff arrive 08:00-09:00 and leave 17:00-18:00, as a worst case. Match Day staff will arrive prior to the supporters arriving and after they leave. This is set out in **Table 7.13** to **Table 7.16**.

STAFF TYPE	DA	AILY	08:00	-09:00	17:00- 18:00		
	ARRIVING	DEPARTING	ARRIVING	DEPARTING	ARRIVING	DEPARTING	
Retained Oxford United Staff	208	208	208	0	0	208	
Projected New Stadium Operation Staff	47	47	47	0	0	47	

Table 8.13: Standard Weekday Stadium Staff - People Trips

	DA	DAILY		-20:00	21:30-22:30		
STAFF TYPE	ARRIVING	DEPARTING	ARRIVING	DEPARTING	ARRIVING	DEPARTING	
Retained Oxford United Staff	208	208	0	0	0	0	
Retained Match Day Staff	33	33	0	0	0	0	
Projected Additional Match Day Staff	6	6	0	0	0	0	
Projected New Stadium Operation Staff	47	47	0	0	0	0	

Table 8.14: Match Day Weekday Stadium Staff - People Trips

 Table 8.15: Standard Saturday Stadium Staff – People Trips

STAFF TYPE	DA	AILY	11:00	-12:00	14:00- 15:00		
	ARRIVING	DEPARTING	ARRIVING	DEPARTING	ARRIVING	DEPARTING	
Retained Oxford United Staff	122	122	0	0	0	0	
Projected New Stadium Operation Staff	28	28	0	0	0	0	

STAFF TYPE	DA	ALY	14:00	-15:00	17:00- 18:00		
	ARRIVING	DEPARTING	ARRIVING	DEPARTING	ARRIVING	DEPARTING	
Retained Oxford United Staff	122	122	0	0	0	122	
Retained Match Day Staff	33	33	0	0	0	0	
Projected Additional Match Day Staff	6	6	0	0	0	0	
Projected New Stadium Operation Staff	28	28	0	0	0	28	

Table 8.16: Match Day Saturday Stadium Staff – People Trips

8.5 Trip Generation – Vehicle Trips (D&P Scenario 2)

Ancillary Uses

- 8.5.1 **Table 8.17** to **Table 8.20** outline the expected trip generation from the ancillary uses of the stadium, which include the following assumptions:
 - On a match day 85% of hotel visitors are supporters; and
 - On a match day 85% of restaurant and sports bar visitors are supporters.
- 8.5.2 A worst case 60% car driver has been applied based upon Travel to Work Data for Cherwell 018 rail is based upon 4% (rather than 1%) reflecting Oxford 009 and walking is adjusted to 9% (rather than 21% based upon Oxford 009), the adjustment has been pro-rota across the remaining modes.
- 8.5.3 The forecast vehicle trips for Ancillary Uses for D&P Scenario 2 are outlined in **Table 8.18** to **Table 8.21**.

8.5.4

Table 8.17: Standard Weekday Ancillary Users – Vehicle Trips

	D	AILY	AM (08:0	00 — 09:00)	PM (17:00 – 18:00)					
LAND USE	ARRIVALS	DEPARTURES	ARRIVALS	DEPARTURES	ARRIVALS	DEPARTURES				
Hotel (standard)	510	510	64	49	18	49				
Hotel (Major event)*	otel (Major 264 253 18 32 event)*		32	29	16					
Merch Store		Non-primary trips – linked to other uses								
Gym	94	98	5	2	14	10				
Health and wellbeing Space	166	171	18	7	7	14				
Restaurant	97	95	0	0	12	6				
Sports Bar	51	50	0	0	7	3				
Conferencing and Events (Major Event)	442	442	423	0	0	423				
Standard Total	918	925	87	58	59	82				
Event Total	1114	1110	464	41	69	472				

Table 8.18: Match Day Weekday Ancillary Users - Vehicle Trips

LAND USE	C	DAILY		AM (08:00 – 09:00)		PM (17:00 – 18:00)		00-20:00)	PM (21:30-22:30)	
LAND USE	ARRIVALS	DEPARTURES	ARRIVALS	DEPARTURES	ARRIVALS	DEPARTURES	ARRIVALS	DEPARTURES	ARRIVALS	DEPARTURES
Hotel	510	510	64	49	18	49	16	31	7	7
Merch Store		Non-primary trips – linked to other uses								
Gym	78	63	5	2	14	10	Match – No Parking			
Health and wellbeing Space	110	121	18	17	0	0	Match – No appointments			
Restaurant	83	82	0	0	11	6	10	10	2	11
Sports Bar	42	41	0	0	6	3	5	5	1	6
Conferencing and Events	19	19	0	0	0	0	0	0	0	0
Total	840	836	87	68	49	67	31	45	10	25

	DAILY		11:0	00-12:00	14:00-15:00			
LAND USE	ARRIVALS	DEPARTURES	ARRIVALS	DEPARTURES	ARRIVALS	DEPARTURES		
Hotel	619	663	35	58	29	49		
Merch Store	Non-primary trips – linked to other uses							
Gym	158	157	9	7	12	6		
Health and wellbeing Space	166	171	18	17	12	14		
Restaurant	129	130	7	4	12	20		
Sports Bar	68	68	3	2	6	10		
Conferencing and Events	0	0	0	0	0	0		
Total	1140	1189	71	89	72	99		

Table 8.19: Standard Saturday Ancillary Users – Vehicle Trips

Table 8.20: Match Day Saturday Ancillary Users - Vehicle Trips

	D	AILY	14:00	-15:00	17:00-18:00				
LAND USE	ARRIVALS	DEPARTURES	ARRIVALS	DEPARTURES	ARRIVALS	DEPARTURES			
Hotel	619	663	29	49	45	25			
Merch Store		Non-j	Ion-primary trips – linked to other uses						
Gym	58	62	Match – No Parking						
Health and wellbeing	121	76	Match – No appointments						
Restaurant	111	111	6	4	10	17			
Sports Bar	55	56	3	2	5	9			
Conferencing and Events)	19	19	0	0	0	0			
Total	984	987	38	54	61	51			

Stadium Staff

8.5.5 Stadium staff vehicle trips are outlined in **Table 8.21** to **Table 8.24**.

Table 8.21: Standard Weekday Stadium Staff – Vehicle Trips

	DA	DAILY		08:00-09:00		17:00- 18:00	
STAFF TYPE	ARRIVING	DEPARTING	ARRIVING	DEPARTING	ARRIVING	DEPARTING	
Retained Oxford United Staff	126	126	126	0	0	126	
Projected New Stadium Operation Staff	28	28	28	0	0	28	

Table 8.22: Match Day Weekday Stadium Staff – Vehicle Trips

	DAILY		08:00-09:00		17:00- 18:00	
STAFFTTFE	ARRIVING	DEPARTING	ARRIVING	DEPARTING	ARRIVING	DEPARTING
Retained Oxford United Staff	126	126	0	0	0	0
Retained Match Day Staff	20	20	0	0	0	0
Projected Additional Match Day Staff	4	4	0	0	0	0
Projected New Stadium Operation Staff	28	28	0	0	0	0

	DA	DAILY		11:00-12:00		14:00-15:00	
STAFF TYPE	ARRIVING	DEPARTING	ARRIVING	DEPARTING	ARRIVING	DEPARTING	
Retained Oxford United Staff	74	74	0	0	0	0	
Projected New Stadium Operation Staff	17	17	0	0	0	0	

Table 8.24: Match Day Saturday Stadium Staff - Vehicle Trips

	DAILY		14:00-15:00		17:00-18:00	
STAFF TYPE	ARRIVING	DEPARTING	ARRIVING	DEPARTING	ARRIVING	DEPARTING
Retained Oxford United Staff	74	74	0	0	0	74
Retained Match Day Staff	20	20	0	0	0	0
Projected Additional Match Day Staff	4	4	0	0	0	0
Projected New Stadium Operation Staff	17	17	0	0	0	17

8.6 Major Event Trip Generation

- 8.6.1 The following assumptions have been made regarding development trip generation for travel to/from the Stadium:
 - An event includes 700 attendees, and 468 staff* (total of 1,168 people).
 - Assumed c. 60% (see section 6.2.10) of attendees and staff will be car driver (accounting for those using other modes and car sharing) which equates to a total of 683 vehicles.
 - o 423 vehicles by attendees
 - o 260 vehicles by staff
 - Assumed that all attendees and staff arrive within AM Peak, and depart within PM Peak hours.
 - Breakdown of car parking is as follows:

- o 184 vehicles in OUFC car park
- 430 vehicles in Oxford Parkway Park & Ride
- 69 vehicles in alternative parking location **

*Note the majority of staff on-site during an event day are not associated with event and rather employee's hotel, restaurant, gym, sports bar etc.

**It is assumed that as there is a maximum parking capacity on-site at OUFC (184), and at Oxford Parkway (430), remaining attendees will either park within an alternative parking site around Oxford (inc. Thornhill Park & Ride) or will be travel by public transport instead.

8.7 Trip Distribution

8.7.1 Trip Distribution for work trips has been obtained from the 2011 Census data. Data for all residents aged 16 and over in employment was obtained for place of work as Middle Layer Super Output Area (MSOA) level (E0200590938: Cherwell 018) where the site is travelling from all 2011 MSOAs in Cherwell and surrounding counties. The percentage travelling from each area has been distributed to the potential highway network depending on the access to the Stadium, Oxford Parkway Station and Park and Ride are as shown in **Appendix I**.

8.8 Major Event Travel

- 8.8.1 The following assumptions have been made regarding development trip generation for travel to/from the Stadium:
 - An event includes 700 attendees, and 468 staff* (total of 1,168 people).
 - Assumed c. 60% (see section 6.2.10) of attendees and staff will be car driver (accounting for those using other modes and car sharing) which equates to a total of 683 vehicles.
 - o 423 vehicles by attendees
 - o 260 vehicles by staff
 - Assumed that all attendees and staff arrive within AM Peak and depart within PM Peak hours.
 - Breakdown of car parking is as follows:
 - o 184 vehicles in OUFC car park
 - o 430 vehicles in Oxford Parkway Park & Ride
 - 69 vehicles in alternative parking location **

*Note the majority of staff on-site during an event day are not associated with event and rather employee's hotel, restaurant, gym, sports bar etc.

**It is assumed that as there is a maximum parking capacity on-site at OUFC (184), and at Oxford Parkway (430), remaining attendees will either park within an alternative parking site around Oxford (inc. Thornhill Park & Ride) or will be travel by public transport instead.

9 ASSESSMENT - SUPPORTER TRAVEL TRIP GENERATION, DISTRIBUTION AND MODE SHARE

Trip Generation

9.1.1 If the stadium was to operate at full capacity, which is not expected for some years and will also depend on the success and performance of the football teams, 16,000 supporters can be accommodated and will travel to the stadium. 14,400 seats will be generally available for home supporters and 1,600 for away supporters.

Trip Distribution

- 9.1.2 OUFC has provided Ridge with Season Ticket Holder and non-Season Ticket Holder anonymized postcodes for those that purchased a ticket in the last two football seasons (2021-2022 and 2022-2023).
- 9.1.3 This provides data that enables stadium specific data to be used as part of the base assessment.
- 9.1.4 Using the postcode data provided, the ticket holders (supporters) have been aggregated into common Middle Layer Super Output Areas (MSOA); areas that comprise of between 2,000 and 6,000 households and usually have a resident population of between 5,000 and 15,000 people. This is shown in **Figure 9.1** has been used to understand potential supporter distribution and mode share of home supporters.
- 9.1.5 The data indicated five major areas which supporters travel from:
 - a) Bicester Corridor
 - b) The Thame area
 - c) Abingdon and Didcot
 - d) Witney and
 - e) Southeast Oxford



9.2 Mode Share

- 9.2.1 The anonymised supporter postcodes were analysed within GIS to understand where supporters might travel from and their possible mode choice for their journey to the Stadium.
- 9.2.2 OS Postcodes Data was used to plot the postcode locations of the home supporters within GIS.
- 9.2.3 GIS analysis was then undertaken to calculate the number of supporter postcodes that are within selected distances from transport services and routes, to understand the potential for the supporters to travel by each mode. The associated travel catchments (or GIS buffers/distances) for each mode are summarised within Table 9.1 below.
- 9.2.4 It was assumed that supporters living further than a 2-hour drive from the Stadium would be unlikely to travel on the day of the match. TravelTime API (a GIS plug in allowing isochrones to be generated using live travel time data) has been used to determine a 2-hour drive time from the site. Figure 9.2 shows the area which has been used to calculate the mode share presented in the following section.



Table 9.1: Travel Catchments by Mode

LOCATION/MODE	DISTANCE
Drive From Site	2 hour drive from the site using TravelTime API
UK Railway Stations	2 hour rail travel from the site using TravelTime API
Oxfordshire Railway Stations	1600m catchment
Cowley Branch Line	1600m catchment
Oxford Bus Routes	400m catchment
Park and Ride Site Local Walking Catchment	1600m
Private Coaches	Based on MSOAs Vale of White Hourse 004, 005, 006 and 008, West Oxfordshire 008, 009 and 010, covering the urban conurbations of Witney and Abingdon.
Cycling Isochrone	20 minute cycle from the site using TravelTime API
Site Walking Catchment	2000m
location/Mode	Distance

- 9.2.5 The number of supporters within the catchment of each mode has been counted. Where the supporters are within more than one mode catchment the following hierarchy of choice has been applied, based upon judgement and preferred mode at each trip distance:
- 9.2.6 For postcodes within Oxford Ring Road (Oxford 001 to Oxford 018) see Figure 8.3.
 - i. 2000m walking distance from Stadium
 - ii. 1600m walking catchment of Park and Ride Sites
 - iii. 400m oxford bus routes
 - iv. 1600m from Oxfordshire Railway Stations
 - v. 20 minute cycle from Stadium
 - vi. Any not falling within the above catchments are assumed to travel:
 - a. 50% local buses (i.e. will walk greater than 400m)
 - b. 50% taxi or lift







9.3 Home Supporter Travel

- 9.3.1 In connection to the analysis described above as summarised in **Table 9.3** an understanding of the number of vehicles required associated with the home supporters has also been calculated this data has used the information presented in **Table 9.2**.
- 9.3.2 Two scenarios have been considered:
 - D&P Scenario 2 assumes that the spare capacity at Oxford Parkway is fully taken by match day supporters.
 - D&P Scenario 3 assumes that incentives and management will discourage the use of Oxford Parkway car parking for supporters. Season ticket and match tickets will include free park and bus at other Park and Rides and signage and marshals will show "No Match Day Parking" at Oxford Parkway.

MODE	D&P SCENARIO 2 MODE SHARE %	D&P SCENARIO 2 HOME SUPPORTER PROPORTIONS (PEOPLE)	D&P SCENARIO 3 MODE SHARE %	D&P SCENARIO 3 HOME SUPPORTER PROPORTIONS (PEOPLE)	D&P SCENARIO NUMBER OF VEHICLES
Total Walk	2%	146	2%	234	-
Total Walk plus Park and Ride Shuttle	5%	675	5%	737	7 Park and Ride Shuttle Buses
Total Cycle	2%	207	2%	334	-
Total Drive/Park and Ride (including OUFC Car Parking and Park and Ride)	52%	5008	56%	8062	74 Park and Ride Shuttle Buses
Stadium Car Park	3%	269	3%	432	-
Peartree	13%	1227	14%	1976	18
Eynsham	6%	544	6%	876	8
Thornhill	18%	1718	19%	2766	25 (enhancement of existing service)
Redbridge	11%	1027	11%	1653	15 (enhanced and extended services S5, S4, S7, 2/2a)
Seacourt	5%	492	5%	791	7
Taxi	1%	66	1%	106	-
Total Public Bus	5%	485	5%	781	10 Public Buses (enhancement of existing services)
Total Supporter Coach	4%	347	4%	559	6 Supporter Coaches
Total Rail (inc. Cowley Branch)	21%	1960	22%	3155	8 Trains (existing and proposed services)

Table 9.2: Home Supporter Mode Share and Vehicle Requirement (D&P Scenario 2 and 3)



Total	94%	9163	100%	14400	-

- 9.3.3 The mode share forecasts have been applied to the total capacity for home supporters in the stadium (14,400).
- 9.3.4 This data has been applied in this Transport Assessment, the development of a pedestrian model at the stadium (see **Chapter 9**) and has informed discussions with public transport operators.

Table 9.3: Vehicle Capacities

MODE TYPE	SEATING	STANDING	TOTAL
Double Decker Bus Capacity	69	10	79
Supporters Coach Capacity	100	0	100
4 Car BR Class 168 – Chiltern Railways	279	115	394
2 Car BR Class 166 – GWR	227	94	321

9.3.5 Discussions with Chiltern Railways have indicated that there is a possibility that BR Class 196 diesel trains will operate on the East West Rail (EWR) between Oxford and Cambridge once operation. The forecast trips do not consider the potential for supporters to use this service in the future, as a worst case.

9.4 Away Supporter Travel

- 9.4.1 The maximum capacity of the stadium will provide up to 1,600 seats which are allocated for away supporters when/if the stadium is operating at full capacity.
- 9.4.2 Away supporter travel will vary each match, depending upon the away team, which is playing. Mode share has therefore been applied to the away supporters as outlined within the Campaign for Better Transport – Door to turnstile Improving travel choices for football supporters, 2013 research note.
- 9.4.3 The proportion of away supporters using the various Park and Ride sites have been assumed similar to home supporters. The proportions and numbers of away supporters are provided in **Table 9.4**.
| MODE | MODE SHARE % | AWAY SUPPORTER
PROPORTIONS (PEOPLE) | NUMBER OF VEHICLES |
|-----------------------|--------------|--|---------------------------------|
| Total Walk | 2% | 34 | - |
| Total Cycle | 1% | 11 | - |
| Total Park and Ride | 31% | 499 | - |
| Peartree | - | 122 | 1 Bus |
| Eynsham | - | 54 | 1 Bus |
| Thornhill | - | 171 | 2 Buses
(existing service) |
| Seacourt | - | 49 | 1 Bus |
| Total Public Bus | 4% | 68 | 1 Bus
(existing service) |
| Total Supporter Coach | 15% | 238 | 2 Coaches
(existing service) |
| Total Rail | 47% | 749 | 2 Trains
(existing service) |
| Total | 100% | 1,600 | - |

Table 9.4: Away Supporter Mode Share and Vehicle Requirement (D&P Scenario 3)

9.5 Home and Away Park and Ride Use

- 9.5.1 The forecast Park and Ride use by Home and Away supporters is set out in **Table 9.5 Table 9.6** for D&P Scenario 2 and **Table 9.7**, **Table 9.8** for D&P Scenario 3.
- 9.5.2 The current Park and Ride overall capacity and available capacity for weekdays was provided with the average maximum over the time periods preceding and post-match were extracted, the data was available between April 2022 and June 2023 and Saturdays in June 2023.

PARK AND RIDE SITE	TOTAL CAPACITY	~OBSERVED CAPACITY / ASSUMED CAPACITY	REMAINING SPACES	Home Supporter Demand	AWAY SUPPORTER DEMAND	Remaining Spaces (Weekday)
Oxford Parkway OCC Owned*	430	16	414	414	0	0
Oxford Parkway OCC Leased	366	8	358	358	0	0
Oxford Parkway Network Rail	653	78	575	575	0	0
Peartree	1,035	62	973	455	21	498
Seacourt	794	48	746	182	8	556
Redbridge	1,374	82	1,292	380	17	894
Thornhill	1,335	108	1,227	636	29	561
**Eynsham	850	51	799	202	9	588

Table 9.5: Forecast P&R Use at Full Stadium Capacity – Weekday 17:00 to 23:00 (D&P Scenario 2)

Table 9.6: Forecast P&R Use at Full Stadium Capacity – Saturday 14:00 to 20:00 (D&P Scenario 2)

PARK AND RIDE SITE	TOTAL CAPACITY	~OBSERVED CAPACITY / ASSUMED CAPACITY	REMAINING SPACES	HOME SUPPORTER DEMAND	away Supporter Demand	REMAINING SPACES (WEEKDAY)
Oxford Parkway OCC Owned*	430	6	424	414	0	11
Oxford Parkway OCC Leased	366	3	363	358	0	5
Oxford Parkway Network Rail	653	69	584	575	0	9
Peartree	1,035	58	977	455	21	501
Seacourt	794	45	749	182	8	559
Redbridge	1,374	77	1,297	380	17	899
Thornhill	1,335	22	1,313	636	29	648
**Eynsham	850	48	802	202	9	588

PARK AND RIDE SITE	TOTAL CAPACITY	~OBSERVED CAPACITY / ASSUMED CAPACITY	REMAINING SPACES	Home Supporter Demand	AWAY SUPPORTER DEMAND	REMAINING SPACES (WEEKDAY)
Oxford Parkway OCC Owned*	430	16	414	0	0	414
Oxford Parkway OCC Leased	366	8	358	0	0	358
Oxford Parkway Network Rail	653	78	575	0	0	543
Peartree	1,035	62	973	732	45	196
Seacourt	794	48	746	293	18	435
Redbridge	1,374	82	1,292	612	38	642
Thornhill	1,335	108	1,227	1,024	63	139
**Eynsham	850	51	799	325	20	454

Table 9.7: Forecast P&R Use at Full Stadium Capacity – Weekday 17:00 to 23:00 (D&P Scenario 3)

Table 9.8: Forecast P&R Use at Full Stadium Capacity – Saturday 14:00 to 20:00 (D&P Scenario 3)

PARK AND RIDE SITE	TOTAL CAPACITY	~OBSERVED CAPACITY / ASSUMED CAPACITY	REMAINING SPACES	Home Supporter Demand	away Supporter Demand	REMAINING SPACES (WEEKDAY)
Oxford Parkway OCC Owned*	430	6	424	0	0	424
Oxford Parkway OCC Leased	366	3	363	0	0	363
Oxford Parkway Network Rail	653	69	584	0	0	584
Peartree	1,035	58	977	732	45	200
Seacourt	794	45	749	293	18	438
Redbridge	1,374	77	1,297	612	38	646
Thornhill	1,335	22	1,313	1,024	63	225
**Eynsham	850	48	802	325	20	454

*D&P Scenario 3 - The only considers OCC's owned car park, not the Network Rail car park or the car park leased to OCC for Park and Ride. It should be noted that hotel users and staff are expected to use the car park prior to match day marshals arriving on a match day to manage car parks ("no match day parking at Oxford Parkway")

**Where capacity data is not available, the average capacity of the other sites has been applied.

- 9.5.3 Due to lease and operational constraints on using Oxford Parkway Park and Ride, this car park will not be made available for supporters, instead those travelling from the north, northeast or northwest will be directed to parking within Peartree Park and Ride or Eynsham when open (currently under construction).
- 9.5.4 The analysis indicates that the use of the P&R would have insignificant impact, as the matches are at off peak for Park and Ride use.

9.6 Public Transport Use

9.6.1 The forecast Home and Away supporter trip generations have been used to understand the potential number of supporters who would travel by each mode of transport.

9.7 Rail Patronage

9.7.1 **Table 9.9** shows the proportion of rail passenger patronage estimated for a home game combining both home and away supporters.

MODE	TOTAL SUPPORTERS	APPROXIMATE VEHICLES REQUIRED
Rail	3,881	10
Oxford Parkway SB	2,453	6
Oxford Parkway NB	1,428	4

Table 9.9: Forecast Rail Patronage (D&P Scenario 3)

9.8 Bus and Private Coach Patronage

9.8.1 **Table 9.10** summarises the forecast number of combined home and away supporter travelling by bus and private coaches. The capacity of the vehicle used has been summarised within **Table 9.11**.

MODE	SUPPORTER PROPORTIONS	APPROXIMATE VEHICLES REQUIRED
Witney Coach	251	3
Abingdon Coach	304	3
Away Supporter Coach	238	2
Public Bus	849	11 (enhanced and existing services)
Park and Ride Shuttle	8,561	79
Peartree	2,098	19
Eynsham	931	9
Thornhill	2,937	(enhanced and existing services)
Redbridge	1,755	16 (enhanced and extended services S5, S4, S7, 2/2a)
Seacourt	840	8

Table 9.10: Forecast Bus and Private Coach Patronage (D&P Scenario 3)

9.9 Arrival and Departure Profiles of Supporters

9.9.1 The profile of supporter arrivals at and departures from the stadium within the hour of a match, has been based on research carried out at other football stadiums in the UK. This is presented in **Table 9.11**.

		WEE	KDAY	WEEKEND		
STADIUM	CAPACITY	1H PRE-MATCH ARRIVAL	1H POST-MATCH DEPARTURE	1H PRE-MATCH ARRIVAL	1H POST-MATCH DEPARTURE	
Tottenham Hotspur	62,850	85%	85%	Similar to week arri	days but earlier vals	
Liverpool FC	54,074	20%	_	23%	-	
Luton Town Centre FC	11,500	86%	93%	73%	93%	
Forest Green Rovers	5,147	-	-	67%	76%	
Amex Community Stadium, Brighton	30,750	73%	80 – 100%	80%	80 – 99%	
Aston Villa – Home fans	50,000	27%	86%	15%	78%	
Aston Villa – Away Fans	50,000	75%	100%	0.5	100%	

Table 9.11: Arrival/ Departure Profile of Other Football Stadiums (D&P Scenario 3)

- 9.9.2 It is indicated that the proportion of supporters arriving within the hour of a match at other stadiums, which ranges between 20% (Liverpool FC) and 86% (Luton Centre FC). The data also suggests that a greater proportion of supporters arrive earlier on Saturday matches than weekday matches.
- 9.9.3 In terms of departure profile, the results show that on weekdays, between 80% (Amex Community Stadium) and 100% (Amex Community Stadium, Aston Villa Away Fans) leave the stadium within an hour of the match ending. The data also shows that supporters stay longer after a match on Saturdays.
- 9.9.4 This research, as well as discussions with OUFC, has informed the arrival and departure profiles, which have been applied within this assessment. The stadium will deliver a new restaurant and sports bar. The Plaza will also accommodate mobile catering and bars to attract supporters to arrive earlier and stay later after a match. The target and worst-case arrival and departure profiles which have been applied at OUFC are outlined in **Table 9.12**.

MODE	WEEKDAY HOUR BEFORE MATCH	WEEKDAY HOUR AFTER MATCH	SATURDAY HOUR BEFORE MATCH	SATURDAY HOUR AFTER MATCH
Target	75%	85%	55%	55%
Worst-Case – D&P Scenario 2 and 3	75%	85%	75%	85%

Table 9.12: Arrival and Departure Research

10 MULTI-MODAL ASSIGNMENT

10.1 Overview

- 10.1.1 This section provides detail on the highway assessments that have been undertaken to understand the impact of OUFC on the highway network and to inform the proposed transport strategy as outlined in **Chapter 7**.
- 10.1.2 The assessments that are covered include:
 - Link Impact Assessment Section 10.2.
 - Pedestrian Modelling Section 10.3.
 - Transport Modelling (see below)
- 10.1.3 Transport modelling will be undertaken and will be submitted via an Addendum Report. OCC has advised via pre application discussions that the North Oxford VISSIM Model is required to be used to assess the impact of the stadium during operation, rather than junction modelling that had initially been carried out.
- 10.1.4 Access to the model was approved on 7th February 2024 by the six parties who have funded the 2031 model. Once access is granted, model development and scenario testing will be agreed with OCC with results submitted via addendum to this document.

10.2 Link Impact Assessment

10.2.1 A percentage impact assessment has been undertaken to inform the selection of scenarios for modelling. These are based on time periods outlined in section 5.14, excluding 08:00 – 09:00 on a Match Day, 11:00 – 12:00 and 14:00 - 15:00 on a Standard Saturday, as the impact of the development is insignificant compared to other time periods tested.

Methodology

- 10.2.2 The assessment considers:
 - Development traffic generated;
 - Committed development, and;
 - 2018 surveyed link flows, factored to 2026 (planned opening year).

Assumptions

- 10.2.3 The stadium accommodates 184 parking spaces.
 - On standard days, these spaces will be available to staff and visitors to the supporting uses (hotel, health and wellbeing centre, gym, restaurant, and sports bar).
 - On a major event day, the spaces will be reserved for accessible users and those who have pre-booked.

- On match days this is reduced to 159 spaces to accommodate the broadcasting equipment. These will be reserved for pre-booked accessible users, match officials/operational staff/OUFC staff and hospitality. The arrival profile of 159 trips to this car park is aligned to Table 7.
- 10.2.4 On match days, the local network (as considered in this link impacts assessment) will also accommodate additional Park and Ride buses, private coaches and cars to Peartree Park and Ride (who would then take a bus to the stadium, Parkway or walk).

Traffic Distribution Methodology

10.2.5 The traffic to the stadium car park has been routed by applying 2011 Travel to Work Census Data. Data for all residents aged 16 and over in employment was obtained for place of work as MSOA level (E0200590938: Cherwell 018) where the site is travelling from all 2011 super output area – middle layer in Cherwell and surrounding counties. The percentage travelling from each area was then distributed to the potential highway network depending on the access to the Stadium. This is set out in **Table 10.1**.

ROUTE TO STADIUM	PERCENTAGE OF ARRIVING ON EACH ROUTE (%)
A4260	24.15
Bicester Road	2.68
A44 Woodstock Road	16.10
A34 SB	22.44
A34 NB	14.68
A40 Northern Bypass	7.32
A4144 Woodstock Road	3.66
A40 North Way	5.12
Banbury Road	3.66
Total	100

Table 10.1: Traffic Distribution

- 10.2.6 Traffic to Peartree Park and Ride has been assumed to arrive from A34 NB (62.23%) and A44 SB (37.77%), based upon survey data. All other traffic to the Park and Ride sites has been assumed be intercepted on arrival into Oxford on the main adjacent routes.
- 10.2.7 The Park and Ride shuttle services to Parkway are assumed to arrive and depart along the network from other Park and Ride sites.

Committed Development Assumptions

- 10.2.8 The traffic flows related to the following committed developments have been determined from the relevant Transport Assessments and are included in **Appendix J**:
 - PR6a
 - PR7
 - PR7a
 - PR7b
 - Northern Gateway
 - PR9
- 10.2.9 It is expected that the sites outlined above would be occupied by the end of the Local Plan period (2031), and therefore only a proportion of the development sites would be occupied by 2026 (planned development opening year), i.e. 3 years from 2023. This proportion has been estimated at 37.5% based upon the conservative assumption that the total dwellings permitted at each site will delivered evenly over the plan period each year (a worse case assessment).

Growth Assumptions

10.2.10 Background growth factors have been determined using Trip End Model Presentation Program TEMPro 8.1 (which allows National Trip End Model (NTEM) model forecasts in the growth in trip origin-destinations to be viewed). Adjustments have been made for the committed development outlined above. **Table 10.2** sets out the growth factors applied to the 2018 surveys.

2018 - 2026 GROWTH FACTORS	WEEKDAY AM	WEEKDAY PM	SATURDAY	AVERAGE WEEKDAY	AVERAGE DAY
Cherwell	1.0534	1.0518	1.0546	1.0585	1.0586
Oxford	1.0449	1.0416	1.039	1.0475	1.0467

Table 10.2: TEMPro 8.1 Growth Factors

Link Impact Assessment

- 10.2.11 It should be noted that the turning count surveys used for the junction modelling covered only until 18:00. Link count data has therefore been used to factor the 17:00-18:00 weekday to 19:00-20:00 and 21:30-22:30, and 14:00 15:00 and 17:00 18:00 on a Saturday.
- 10.2.12 These traffic flows have been combined to calculate the traffic flow for with development as shown in Table 10.3 and without development traffic in Table 10.4, the differences are shown in Table 10.5 and reassignment with Oxford Road Under Traffic Management presented in Figure 10.1.

Table 10.3: 2026 Baseline Traffic



LOCATION	ROAD NAME	DIRECTION	17:00 – 18:00 (NETWORK PEAK HOUR)	19:00 — 20:00	21:30 – 22:30	14:00- 15:00	17:00- 18:00
			WEEKDAY	WEEKDAY	WEEKDAY	SATURDAY	SATURDAY
	Access Road	IB	0	0	0	0	0
Site	Secondary Access Road	IB	0	0	0	0	0
	Exit	OB	0	0	0	0	0
Δ	A4260 Oxford	NB	862	619	317	708	793
4	Road (N)	SB	1,041	647	311	883	922
5	Bicester	NB	350	195	117	731	771
	Road (N)	SB	401	226	99	392	322
6	Frieze Way	NB	527	317	132	389	362
	(N)	SB	847	410	226	665	571
7	A4165 Oxford	NB	1,327	798	475	903	901
,	Road (S)	SB	697	488	260	710	574
Q	A4165 Baphuny	NB	798	578	330	691	655
	Road (N)	SB	689	552	290	807	743
Q	Elsfield	EB	1,587	933	541	1,425	1,380
	Way	WB	1,180	1,326	752	1,563	1,416
10	A4165 Baphuny	NB	303	384	255	597	656
10	Road (S)	SB	147	140	76	542	503
11	A40 North	EB	1,189	761	391	970	981
· · · · ·	Way	WB	782	909	575	1,028	1,020
12		NB	1,189	884	572	1,255	1,279

RIDGE

	A44 Woodstock Road (C)	SB	1,161	747	373	1,139	1,077
13	A44 Woodstock – Road (S)	EB	784	512	349	652	661
		WB	656	420	151	684	683
14	A40 Northern _ Bypass Road	EB	763	448	222	807	796
		WB	635	727	471	841	913
15 Site	A44 Woodstock Road (N) Access Road	NB	111	111	111	947	886
		SB	104	104	104	843	874

LOCATION	ROAD NAME	DIRECTION	17:00 – 18:00 (NETWORK PEAK HOUR)	19:00 — 20:00	21:30 – 22:30	14:00- 15:00	17:00- 18:00
			WEEKDAY	WEEKDAY	WEEKDAY	SATURDAY	SATURDAY
	Access Road	IB	48	0	1	4	5
Site	Secondary Access Road	IB	0	0	0	0	0
	Exit	OB	24	4	2	6	82
	A4260 Oxford	NB	877	626	318	712	823
4	Oxford Road (N)	SB	1,070	649	312	885	925
5	Bicester	NB	356	199	117	732	784
	Road (N)	SB	414	228	99	393	323
6	Frieze Way (N)	NB	546	1,124	615	1,304	1,312
		SB	930	906	496	1,393	1,241
_	A4165 Oxford Road (S)	NB	1,352	0	0	0	0
Ϊ		SB	746	0	0	0	0
	A4165	NB	823	587	332	696	658
8	Banbury Road (N)	SB	738	559	292	810	747
	Elsfield	EB	1,601	938	543	1,428	1,386
9	Way	WB	1,189	1,348	755	1,567	1,418
10	A4165	NB	307	405	256	599	657
ĨŬ	Banbury Road (S)	SB	153	142	77	543	505
	A40 North	EB	1,195	1,566	873	1,882	1,893
11	Way	WB	797	1,405	841	1,746	1,604

Table 10.4: Match Day Development Traffic (D&P Scenario 3)

12	A44	NB	1,220	1,381	855	2,184	2,205
	Road (C)	SB	1,185	1,244	656	1,874	1,686
13	A44 Woodstock — Road (S)	EB	788	516	351	654	663
		WB	660	426	153	686	687
14	A40 Northern	EB	769	454	225	811	799
	Bypass Road	WB	642	731	474	845	920
15 Site	A44 Woodstock Road (N) Access Road	NB	125	116	115	952	909
		SB	116	107	108	849	897

LOCATION	ROAD NAME	DIRECTION	17:00 – 18:00 (NETWORK PEAK HOUR)	19:00 — 20:00	21:30 – 22:30	14:00- 15:00	17:00- 18:00
			WEEKDAY	WEEKDAY	WEEKDAY	SATURDAY	SATURDAY
	Access Road	IB	-	-	-	-	-
Site	Secondary Access Road	IB	-	-	-	-	-
	Exit	OB	-	-	-	-	-
Λ	A4260 Oxford	NB	1.7%	1.2%	0.5%	0.5%	3.8%
4	Road (N)	SB	2.8%	0.3%	0.4%	0.3%	0.3%
5	Bicester	NB	1.8%	2.3%	0.5%	0.2%	1.6%
	Road (N)	SB	3.1%	1.1%	0.6%	0.3%	0.4%
6	Frieze Way (N)	NB	3.8%	254%	367%	235%	262%
Ū		SB	9.8%	121%	119%	110%	117%
7	A4165 Oxford - Road (S)	NB	1.9%	-100%	-100%	-100%	-100%
,		SB	7.1%	-100%	-100%	-100%	-100%
8	A4165 Baphury	NB	3.1%	1.7%	0.8%	0.7%	0.4%
	Road (N)	SB	7.1%	1.2%	0.8%	0.4%	0.6%
Q	Elsfield	EB	0.9%	0.5%	0.5%	0.2%	0.4%
J	Way	WB	0.8%	1.7%	0.3%	0.2%	0.2%
10	A4165 Banhuny	NB	1.3%	5.6%	0.4%	0.2%	0.2%
10	Banbury Road (S)	SB	4.0%	1.5%	1.4%	0.2%	0.5%
11	A40 North	EB	0.5%	106%	123%	94.0%	93.0%
11	Way	WB	2.0%	54.6%	46.3%	69.8%	57.2%

Table 10.5: Comparison/Percentage Impact (D&P Scenario 3)

12	A44	NB	2.6%	56.1%	49.5%	74.0%	72.4%
	Road (C)	SB	2.1%	66.5%	75.9%	64.6%	56.5%
13	A44 Woodstock — Road (S)	EB	0.5%	0.8%	0.5%	0.3%	0.3%
		WB	0.6%	1.4%	1.2%	0.3%	0.5%
14	A40 Northern	EB	0.9%	1.3%	1.5%	0.4%	0.4%
	Bypass Road	WB	1.2%	0.6%	0.7%	0.4%	0.7%
15 Site	A44 Woodstock Road (N) Access Road	NB	12.9%	4.2%	3.8%	0.6%	2.6%
		SB	11.3%	2.4%	4.1%	0.7%	2.6%



- 10.2.13 Based upon the link impact the following scenarios have been taken forward for further assessment:
 - Major Event Weekday event up to 1000 attendees
 - o 08:00 09:00 (network peak hour)
 - 17:00 18:00 (network peak hour)
 - Weekday Match Day
 - o 19:00 20:00 (hour before match Oxford Road Under Traffic Management)
 - o 21:30 22:30 (hour after match Oxford Road Under Traffic Management)
 - Saturday Match Day*
 - 14:00- 15:00 (network peak hour and hour before match Oxford Road Under Traffic Management)
 - o 17:00 18:00 (hour after match Oxford Road Under Traffic Management)

*It is expected that the operation of the junctions in this scenario will be generally better than a 'Major Weekday Event' (see Table 10.4) however as traffic patterns may be different on a Saturday, an assessment of the Saturday Match Day 14:00 – 15:00 will follow when the more detailed turning movement survey data is available.

10.3 Pedestrian Modelling

- 10.3.1 Pedestrian modelling has been undertaken, using PTV VISSIM VisWalk 2024, a leading industry pedestrian modelling software. Which has been used to understand the impact of fans during the busiest period of pedestrian flows outside the Stadium and within the Oxford Road area for the hour following the final whistle.
- 10.3.2 The initial scenario that has been assessed is based upon a worst-case scenario with a full stadium and a weekday departure profile, this is due to the levels of departures being higher than a weekend with less people willing to stay on after a match, thus demonstrating the higher proportions leaving within the hour after the final whistle.

Public Transport

10.3.3 Public Bus and Rail frequencies are based on existing timetables, supplemented by additional services as a result of Bus route improvements and proposed new services and the introduction of East West Rail (EWR). Additional Park and Ride shuttle services are based on the assumed requirement based on the Fan Postcode analysis of which the outputs of that work has been used as the basis for this model.

Pedestrian Inputs (Zones)

10.3.4 There are twenty zones or pedestrian inputs within the model which cover each egress from the stadium. **Table 10.7** shows the total pedestrian inputs and proportions for each egress from the stadium that have been included within the model.

Table 10.7: Egress Proportions – VISSIM VisWalk Inputs

ZONE	EGRESS PROPORTION	EGRESS PERCENTAGE
Home 1a	865	7%
Home 1b	865	7%
Home 2a	1298	11%
Home 2b	1298	11%
Home 2c	1298	11%
Home 3a	865	7%
Home 3b	865	7%
Home 4a	865	7%
Home 4b	865	7%
Home 5a	865	7%
Home 5b	865	7%
Home 6	1082	9%
Away 1	800	50%
Away 2	800	50%
Premium GA 1	1250	50%
Premium GA 2	1250	50%
Total	16,000	Home (100%)/Away (100%)/GA (100%)

- 10.3.5 The model inputs are split into 15-minute segments, allowing greater flexibility with the egress of fans, the proportions used are provided in **Table 10.8**, which assumes that 85% of fans will exit the stadium within 45-minutes post the full-time whistle.
- 10.3.6 The model inputs are split into 15-minute segments, allowing greater flexibility with the egress of fans, the proportions used are provided in **Table 10.8**, which assumes that 85% of fans will exit the stadium within 45-minutes post the full-time whistle.

Table 10.8: Supporter Proportion VISSIM VISWALK inputs



PRE-FULL-TIME WHISTLE (21:30-21:45)	FULL-TIME WHISTLE (21:45- 22:00)	22:00-22:15	22:15-22:30
5%	75%	5%	5%

10.3.7 **Figure 10.2** provides an illustration of the pedestrian routes within the model, with the destination zones included. These are shown by desire lines (or straight links) between the origins and destinations within the model.

Figure 10.2: Modelled Pedestrian Desire Lines between External Access and Egress and The Stadium

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- East and West side of Oxford Road Northbound Zones 1 and 2.
- Home Fan Coach Pickup (Oxford Road) Zone 3
- Away Coach Pickup (Oxford Road) Zone 4
- Oxford Parkway Platform SB Zone 5
- Oxford Parkway Platform NB Zone 6
- Oxford Parkway Stop C Zone 7
- OUFC Car Park Peartree Park and Ride Pickup Zone 8
- Oxford Parkway Stop A2 Zone 9
- Oxford Parkway Park and Ride (not used for supporters arriving in hour before, during match in D&P Scenario 3) Zone 10
- East and West side of Oxford Road Southbound Zone 11 and 12
- Oxford United Football Club Car Park Cycle Parking Zone 13
- Oxford Parkway Cycle Parking Zone 14
- Oxford United Football Club Car Park Taxi Drop off/ pickup Zone 15
- Oxford Parkway Stop B1 Zone 16
- Oxford Parkway Stop B2 Zone 17
- Oxford Parkway Stop A1 Zone 18

Pedestrian Routes (Origin to Destination Inputs)

- 10.3.8 Using the Fan Postcode analysis as outlined within **Chapter 8** it has been possible to understand the mode of travel fans are likely to take to and from the stadium on a match day. Using this not only informed the total number of fans existing the stadium, but also the proportions of these fans to key destinations within the model as shown within **Table 10.9**.
- 10.3.9 Through discussion with OUFC the inputs have been calculated on additional assumptions, this includes reducing the number of supporters by 5%, to take into account non-attendance, a 5% reduction based on fans leaving during half time, 5% leaving in the 15-minutes prior to the final whistle, 75% of fans leaving in the 15-minutes post final whistle, and the remaining leaving in the hour post 22:00 hrs.

MODE	ZONE	SUPPORTER PROPORTIONS
Walk to Kidlington	Walk NB	196
Walk to Oxford	Walk SB	44
Cycle to Kidlington	Cycle NB	174
Cycle to Oxford	Cycle SB	138
Home Supporter Coach	Witney Coach	230
Home Supporter Coach	Abingdon Coach	278
Away Supporter Coach	Away Supporter Coach	188
Rail	Oxford Parkway SB	2,160
Rail	Oxford Parkway NB	1,300
Bus from Oxford Parkway	Public Bus SB	312
Bus from Oxford Parkway	Public Bus NB	452
Park and Ride Shuttle Pickup	Park and Ride Shuttle	2,992
OUFC Car Park (cars and taxis)	-	489
Total		14,450

Table 10.9: Supporter Destination Total – VISSIM VisWalk Inputs

10.3.10 The stadium exits (or origins) at the stadium and destinations have been coded within the model. shows the total supporter numbers that have been included within the model from the stadium to the destinations within the model.

Modelling Outputs and Suggested Outcomes

- 10.3.11 Multiple iterations of the pedestrian model have been undertaken to understand the impact of a post-match scenario. Figure 10.3 provides a Fruin Level of Service (LoS) output from the model, which dives an indication of the busier area of the pedestrian network might be.
- 10.3.12 Fruin LoS is typically categorised into six bands, with LoS A (blue) showing areas that are least constrained for pedestrians, whilst LoS F (Red) shows areas that are most constrained for pedestrians and is considered to be unsafe, if maintained for long periods of time.
- 10.3.13 The modelling undertaken to date shows there are locations which see an LoS E on the approach to Oxford Parkway Park and Ride rising to F in the immediate vicinity of the stop allocated for Thornhill Park and Ride Shuttles. Additionally, the model indicates that if the stadium was at full capacity, enhancements to the bus interchange at Oxford Parkway would be required, this might include:

- Footway widening.
- Footway wayfinding improvements including upgraded signage.
- Queuing systems and safety barrier enhancements.
- Bus stop and bus waiting area improvements.
- Pedestrian crossing enhancements.



Color Scheme Areas (Pedestrian Grid Cells) Attribute: Density (Avg,Avg) [ped/m2] ≤ 0.310 ≤ 0.431 ≤ 0.718

> ≤ 1.076 ≤ 2.153 ≤ MAX

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10.3.14 Figure 10.4 to Figure 10.14 provide outputs from the VisWalk model for 5 minute segments.



Figure 10.4: Model Output 21:45

Figure 10.5: Model Output 21:50

