University of Oxford

Transport Strategy 2013 - 2018

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Executive summary

Introduction

The University represents a significant part of the daily economic activity of Oxford city, with the Oxford Economic Growth Strategy identifying higher education as being responsible for 19.6% of all employment in the city. Any growth or changes in the operation of the University estate can therefore be expected to have wider impacts on Oxford as a whole.

The University itself occupies a relatively unique position in terms of its integration with the rest of Oxford; University buildings, colleges and centres of research are scattered throughout the city. This University presence is particularly concentrated in two main areas:

- the centre of Oxford, with the majority of the colleges, the main University administrative buildings and the Science Area located close by
- East Oxford, with a cluster of clinical and medical research development located around the hospital sites within Headington.

As a major international centre of learning, research and development, the University is expected to continue to grow, associated with an expansion of its physical estate.

The management of this planned growth is detailed within the Oxford University Estate Strategy, which sets out both the immediate development and growth plans of the University and the associated longer-term aspirations.

As the centre of Oxford becomes more constrained in terms of available capacity for development, areas of less central development have taken place, particularly at the science parks which are located at Begbroke to the north and Harwell to the south.

As a result the University has commissioned this Transport Strategy to support the growth and development plans within the University's Estate Strategy, whilst also considering the existing transport needs of the University.

The University is committed to sustainable travel, to encouraging the use of efficient public and communal transport, bicycles and walking, and to reducing carbon dioxide emissions from work-related travel and University-owned vehicles. The University discourages unnecessary travel and the use of private motor transport both for travel to the University and travel for other work purposes during the day, with the aim of reducing traffic and parking in Oxford.

Oxford University Estate Strategy

The University's Estate Strategy 2013–18 outlines the future development and growth aspirations of the University and identifies the areas expected to be the focus for this development. The following areas in particular are expected to see growth during the strategy period:

- Radcliffe Observatory Quarter (ROQ)
- Old Road Campus (incorporating the former Park Hospital site)
- Science Area and Keble Road Triangle
- Begbroke Science Park
- Iffley Road Sports Centre
- Egrove Park

The overall level of growth to be planned for is significant, expected to total approximately 251,000m^2 over the next 20-year period (equivalent to 43% growth of the overall estate). This Transport Strategy forms one of the documents planning for and supporting the delivery of the overall Estate Strategy.

The Transport Strategy focuses on the University's functional estate. It is informed by the travel patterns of all staff (including college staff), students and visitors travelling to, from and between University buildings and sites. The work undertaken to prepare this strategy included a wide-ranging consultation exercise to obtain qualitative views with regard to transport issues, a review of current travel patterns and data to provide quantitative information and an assessment of future growth and development. A summary of each is provided below.

Consultation

The development of the strategy included a wide range of consultation activities, including the following:

- a range of direct interviews covering the four academic divisions, Academic Services and University Collections, University Administration and Services and the Conference of Colleges
- two workshop sessions with representation from across the Collegiate University (with 26 attendees)
- consultation meetings with external partners/stakeholders including Oxfordshire County Council and Oxford City Council.

Current and future travel demands

A review of staff travel information taken from the 2012 University Travel Survey identified a number of main current transport issues relevant to the strategy.

Staff working for the University and colleges travel into work from a relatively wide catchment area, with approximately 50% of staff living outside the ring road. Responses received during the consultation exercise also suggested that the increasing costs of housing in Oxford could be

expected to reinforce this trend, resulting in an increasing proportion of staff living outside the city and commuting further to and from work.

In addition to peak-hour journeys to work, the daily operation of the University estate results in significant demands for daily movements between sites, with travel between the Science Area and Headington, between the hospital and research sites in Headington (John Radcliffe and Old Road Campus) and between different sites within the city centre being particular areas of identified daily travel demand.

Whilst the University has been successful in promoting sustainable travel and achieves modal shares for sustainable transport which are higher than the Oxford average, there remains some scope to improve the transport on offer for staff and students in order to further increase the mode share for sustainable travel. There is also scope to improve the operation, efficiency and user experiences related to travel to, from and within the University estate, which will help enable the future development of the University.

The growth of the estate detailed with the University's Estate Strategy takes into account the increasingly limited development capacity of the Oxford urban area by promoting a denser redevelopment of existing city centre sites (such as the ROQ) and providing new development at sites outside the city centre (such as the Begbroke Science Park). As a result of this the following changes in travel demand are expected:

- increased demand for movement between the city centre, the John Radcliffe Hospital and the Old Road Campus
- increases in travel between the centre and Begbroke Science Park
- an increase in local movements between the more central University sites
- an increase in demand for non-car travel as the redevelopment of central sites results in decreased availability of central area car parking.

Strategy objectives

Following the review of the baseline and expected forecast demands for travel, a series of transport strategy objectives was identified. These were based on a combination of the University's strategic objectives and those of the County and City Councils:

- reduce the numbers of car journeys on the network
- promote appropriate sustainable transport alternatives
- improve users' journey experience
- improve local air quality
- reduce the University's carbon footprint.

Key recommendations

These strategic objectives were used to develop and prioritise a number of transport schemes to help deliver the University's Estate Strategy whilst also supporting the current activities of the University. The key transport projects identified for delivery through the strategy are summarised below:

- Begbroke park and ride: the delivery of a new, University-specific park and ride service building on the current links between Begbroke Science Park and the centre of Oxford. This scheme would help reduce the number of University staff travelling through the ring road into Oxford and help offset any future reductions in central area car parking, whilst also increasing the regularity of links between the Begbroke science park and the city centre.
- University loop service: the potential to use buses operating the peak-hour park and ride link to provide an off-peak loop service connecting the University Science Area with Headington (John Radcliffe and the Old Road Campus).
- Enhancement of the X32 bus route: an additional bus on the route linking Oxford with Didcot, Harwell and Wantage, with the additional bus providing the scope to include a link to Old Road Campus.
- Cycle hire: the extension of Oxfordshire County Council Local Sustainable Transport Fund (LSTF) cycle hire scheme in the east of Oxford to cover further University sites.
- Cycle salvage and re-use scheme: working with a local partner to re-purpose cycles abandoned at the end of term and re-sell to students. This would result in a source of cheaper, tested, insured and reliable second cycles for students, whilst reducing the issues associated with abandoned cycles and supporting local social enterprise.
- Delivery consolidation trial: as University sites are redeveloped this will allow for a greater coordination and consolidation of purchasing, delivery and distribution, reducing the number of delivery vehicles within the city centre. The approach currently being pursued at the redeveloped ROQ site can provide a trial which could be replicated across the estate.
- Car parking policy review: the decreased expected future availability of car parking in the city centre, in combination with the need to more effectively promote some of the alternative transport options available, will result in the need to comprehensively review the University's current car parking provision. Particular points for review will be the balancing of costs against the equivalent park and ride options and a re-assessment of the balance between daily and annual car parking permits.

1.0 Policy and strategy context

In order to ensure that the University's Transport Strategy is aligned with both the wider strategic objectives of the University and with the policy and strategy goals of the City and County Councils, a review of relevant policy from national to local level was carried out, including the identification of areas of common interest and aspiration for the future of the city.

1.1 Oxford University

1.1.1 Strategic Plan

The University of Oxford Strategic Plan covers the period 2013–18 and sets out the main strategic goals of the University over the next five-year period. The document defines a number of key future challenges for the University, with those particularly relevant to the development of the University's Transport Strategy summarised below:

- to develop the capacity to generate and share knowledge beyond the immediate environment of Oxford University, globally, nationally and regionally
- to identify effective ways to contribute more to public policy making, and to the cultural, social and economic life of the city of Oxford and the Oxfordshire region
- to identify where the University can flexibly and effectively support joint activities with other world-class institutions, to the benefit of both research and teaching
- to establish more effective infrastructure for interdisciplinary collaboration across departments and the wider collegiate University.

1.1.2 Oxford University Estate Strategy

The University's Estate Strategy 2013–18 outlines the future development and growth aspirations of the University and identifies the areas expected to be the focus for this development. In particular growth is forecast in the following areas during the strategy period:

- Radcliffe Observatory Quarter
- Old Road Campus (incorporating the former Park Hospital site)
- Science Area and Keble Road Triangle
- Begbroke Science Park
- Iffley Road Sports Centre
- Egrove Park

The overall level of growth to be planned for is significant, expected to total approximately 251,000m^2 over the next 20-year period (equivalent to 43% growth of the overall estate). The strategy also identifies a number of key development objectives for the University covering the enabling of future

development and the investigation into promoting more flexible and usable spaces across the estate.

The strategy document also refers to the carbon footprint of the estate and includes a reference to the carbon impacts of travel, with business air travel emissions increasing by 13% between 2009–10 and 2010–11 and accounting for 7% of the University's overall carbon emissions. The carbon impacts of the vehicles owned by the University (vehicles are purchased and managed at a departmental level) was also estimated to have increased by 3.5% over the same period, due to an increase in the size of the fleet (although this is based upon a very low initial level, with the total fleet emissions being equivalent to less than 6% of emissions associated with business air travel).

Managing the carbon impacts of the estate and future development is therefore an important aim of the University's Estate Strategy 2013–18 and is reflected in the strategy's continuing commitment to the promotion of sustainable transport, control and management of parking and discouragement of unnecessary travel.

1.2 Wider context

1.2.1 The Third Local Transport Plan

The Third Oxfordshire Local Transport Plan outlines detailed policies aimed at working with communities and employers to encourage sustainable transport for journeys to work, education, health and other facilities. It proposes improving the walking and cycling network and working with transport operators and businesses to reduce transport-related emissions of carbon and pollutants, to help Oxford move towards the vision of a city 'that becomes carbon neutral with high eco standards'. It also states that Oxfordshire County Council will work with businesses and organisations to reduce congestion and its impacts, particularly in relation to the Eastern Arc[1]. Oxfordshire County Council also proposes to improve the bus network by addressing congestion points and exploring ways in which bus services can be streamlined and made more efficient. The enhanced provision of park and ride facilities to intercept car journeys is also positioned as a key means used to reduce congestion and parking pressure in Oxford.

The Third Transport Plan contains an Oxford area specific strategy which refers to the impacts of vehicle congestion within the city resulting in the declaration of a citywide Air Quality Management Area (AQMA). This will be addressed through the development of an Air Quality Management Plan, considered to be an essential component of the overall transport strategy. Strategy proposals contained within the document which are specifically relevant to the University are detailed as follows.

[1] Defined by Oxfordshire County Council as the wards to the east of Oxford which adjoin the ring road, including the major employment areas in Headington and Cowley

Central Area:

- Improving non-car cross-centre journeys including interchanges Reducing private car use relative to sustainable modes for journeys to the University Science Area

Headington Area:

- Delivering a form of high-quality 'rapid transit' public transport (which could be high-quality conventional bus, light rail or guided trolleybus), serving park and ride sites and major employment and housing areas in the Eastern Arc;
- Working with employers to develop travel plans and reduce the availability of car parking for staff
- Improving the reliability of local bus services, and improving cycle links, to encourage mode switch away from car travel for shorter journeys.

1.2.2 Oxford Core Strategy 2026

The Oxford City Council Core Strategy outlines how Oxford City Council will work with its partners to improve the ease and quality of access to, from and between the city and district centres and other key destinations, by:

- not permitting any increase in the overall number of public and private parking spaces in the Transport Central Area
- supporting further development of an orbital bus network and associated infrastructure alongside greater cycle and pedestrian provision, potentially linking Cowley, Headington and Summertown, strategic locations for development, and key employment areas

- promoting sustainable transport and access to major employers, hospitals, schools and colleges in the Headington and Marston area, and to major employment sites at Cowley, working towards a joined-up, city-wide cycle and pedestrian network by addressing 'pinch points', barriers and missing links.

Core Strategy proposals contained within the document which are specifically relevant to the University include the following:

- Policy CS16: planning permission will only be granted for new education facilities in locations accessible by walking, cycling and public transport. Provision for community as well as educational use will be sought.
- Policy CS25: planning permission will only be granted for additional academic/administrative accommodation for the University of Oxford and Oxford Brookes University where that university can demonstrate: that the number of full-time students at that university, who live in Oxford but outside university-provided accommodation, will, before the particular development is completed, be below the 3,000 level and once that figure is reached, thereafter will not exceed that level. All future increases in

student numbers at the two universities as a result of increases in academic/administrative floor space must be matched by a corresponding increase in purpose-built student accommodation. Student accommodation will be restricted to students in full-time education on courses of one academic year or more. Appropriate management controls will be secured, including an undertaking that students do not bring cars to Oxford.

- Policy CS30: hospital-related development will continue to be focused on existing sites in Headington and Marston. Planning permission will be granted for healthcare facilities and medical research associated with the universities and hospitals on existing hospital sites in Headington and Marston. Further sites, if required, will be considered in the Site Allocations DPD. Development will be expected to minimise additional traffic through travel planning, and improve accessibility to the Headington and Marston sites by walking, cycling and public transport.

1.2.3 Economic Growth Strategy

The 2013 Oxford Economic Growth Strategy proposes further work to be undertaken to develop a county-wide agreement on meeting employment land requirements, including partial Green Belt reviews around Begbroke Science Park and the Oxford Science Park (Littlemore). The document states that the City, County and adjacent District Councils should ensure there is a clear strategy and delivery plan agreed by partners for each of the major city employment sites. The strategy also recommends that the LEP and the universities work together to ensure that the Super Connected Cities Programme is successfully delivered and effectively linked with the Better Broadband initiative to enhance broadband across the county and in the city.

Low Carbon Oxford should be supported to develop a more strategic approach to joining up relevant environmental projects, increasing the involvement of the private sector and the universities in addressing the climate challenge, capitalising upon new opportunities and extending this across the county through the Strategic Planning and Infrastructure Partnership (SPIP). The strategy also identified the need for comprehensive infrastructure and transport strategies for the city centre and the wider city, including parking management and measures to improve the ease of pedestrian and cycle movements.

1.2.4 The Oxford City Deal

The Oxford and Oxfordshire City Deal bid was one of those selected as successful for funding by central government. It provides the opportunity to bid for funding to promote growth and development.

The City Deal brings together all of the Oxfordshire Councils, the two universities, the Local Enterprise Partnership (LEP) and the large science facilities at Culham and Harwell with the aim of supporting and accelerating the growth in the knowledge economy in and around Oxford, of which Oxford University forms a key element. The City Deal offers the scope for

additional funding to be sought and secured to deliver infrastructure, development and services which will enable Oxford to realise its economic potential. Funding has been earmarked for two innovation centres based at Oxford University: the Begbroke Innovation Accelerator at Begbroke Science Park and the Oxford BioEscalator at the University's Old Road Campus in Headington.

1.2.5 Policy summary

The main links between the transport objectives relevant to the University's Estate Strategy 2013–18 and the wider policy and strategy framework relevant to the preparation of a University Transport Strategy were identified.

In particular the review of relevant policy and strategy identifies the importance of the following:

- improving local links between sites to enable more efficient working and sharing of resources and space
- improving strategic links, in particular between the University Science Area and Headington and between the centre of Oxford and the less central Science Park sites (for example Begbroke and Harwell)
- efficiently managing parking supply and demand
- reducing carbon impacts and improving air quality.

2.0 Existing transport baseline

2.1 Background

The development of the strategy included a wide range of consultation activities and baseline reviews, including the following:

- A range of direct interviews and workshops with internal and external partners/stakeholders (a list of consultees is provided in **Appendix A**
- An analysis of existing patterns of travel behaviour and a summary of the measures currently operated by the University.

2.2 Current Oxford University travel patterns: journey to work

The University Estates Services currently operate a range of measures and initiatives to encourage and support sustainable transport, predominantly related to staff travel. A number of the measures introduced by the University are contained within the most recent 'University Sustainable Travel Plan', which covered the five-year period 2008–12 (inclusive). The plan contained the target of reducing car driver mode share for staff journeys to and from work from 23% in 2007 to 18% in 2012.

The results from the most recent comprehensive travel survey, undertaken in 2012, suggest that this target has been achieved (and slightly exceeded) for single car occupants, reported at 17% in the latest survey. However when taking into account cars with multiple occupants the percentage increases to 21%, falling between the 2007 levels and the stated 2012 target.

The University is therefore currently operating from a baseline position in which many staff travel by sustainable means, with mode share for car drivers being much lower than the average for Oxford wards.

Staff travel survey results taken from the last four survey periods show a pronounced reduction in car driver mode share since 1997, reducing from 46% of all trips to and from work in 1997 to 21% in 2012. This reduction in car driver trips has been associated with an increase in travel particularly on foot (pedestrian journeys increasing from 7% to 14%) and journeys by bus and coach (increasing from 11% in 2007 to 19% in 2012).

Heat maps showing the home locations of staff working either in the central areas of Oxford or at sites to the east of the city (particularly at the medical and research sites within Headington) are provided in **Appendix B**. The information has been split in this way to reflect the main existing public transport routes to and from Oxford, with most bus services serving either the central area or the east, rather than services which connect to both. Staff detailing their main workplace as central or north Oxford are relatively well distributed across Oxford and Oxfordshire, with clusters of staff living in outlying towns such as Abingdon, Wantage, Witney, Didcot and Bicester.

A larger number of staff based in the city centre also live in the residential areas to the east of the city.

Staff based at sites in and around Headington follow a similar pattern, with clusters in the surrounding market towns. Few of the staff based at Old Road Campus live to the east, which limits the public transport options currently available to them (other than park and ride).

Staff home postcode areas were cross-referenced against existing regular (defined as better than hourly) bus services to identify the current public transport available to staff for home-to-work journeys.

The two plans in **Appendix C** show the differing levels of public transport access available for staff working in either the centre or north of centre sites in Oxford, and for those based in the eastern (Headington) sites. Both areas are well served with regard to local bus routes connecting areas within Oxford, providing for shorter journeys; however there is a significant difference in the level of connection to the surrounding market towns. Central Oxford has links to most of the main surrounding towns, including Abingdon, Bicester and Witney, as might be expected with the main bus interchange being located in the centre of the city. The links to the east, however, are more limited, with most routes originating or terminating much closer to the city and not serving the more distant market towns.

2.3 Current Oxford University inter-site movements

The information previously reviewed only relates to journeys to and from work and as such makes up only a proportion of the total travel demands associated with a large and complex organisation such as the University. Due to the collegiate nature of the organisation, the range of facilities operated by the University and the geographically dispersed nature of a number of the University buildings, there is also the need to consider the demands for travel which arise during the day, particularly for movement between sites.

The 2012 Travel Survey included questions on any secondary sites visited by staff and students over the course of an average week, allowing a reasonable estimate of the demand for movement between sites to be made.

Figures 1.0 and 2.0 on the following pages identify the main weekly demands for movement between sites identified from the survey results, particularly focused on the movements between the centre of Oxford (including the University's city centre sites and the Science Area) and the east of the city (including Old Road Campus and the hospital sites within Headington).

The main demands for movement shown are the following:

- movements between the various city centre sites (Keble Triangle, the city centre and the University Science Area)
- movements between the Science Area and the Headington sites (Old Road Campus, John Radcliffe Hospital and Churchill Hospital)
- movements between the various Headington sites (Old Road Campus, John Radcliffe Hospital and Churchill Hospital)
- some movement between the city centre and the more remote sites at Begbroke Science Park and Osney Mead.

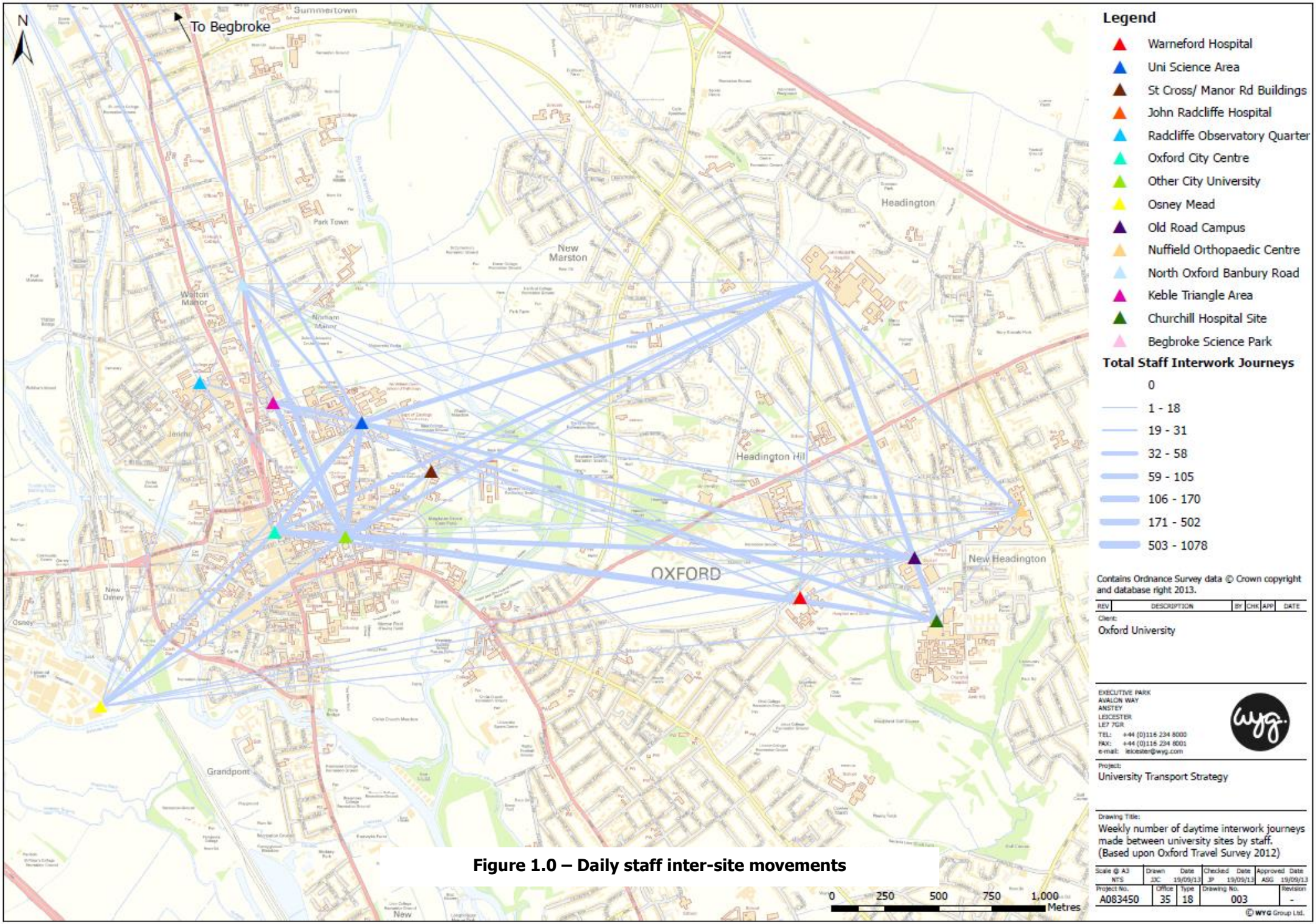

Figure 1.0 – Daily staff inter-site movements

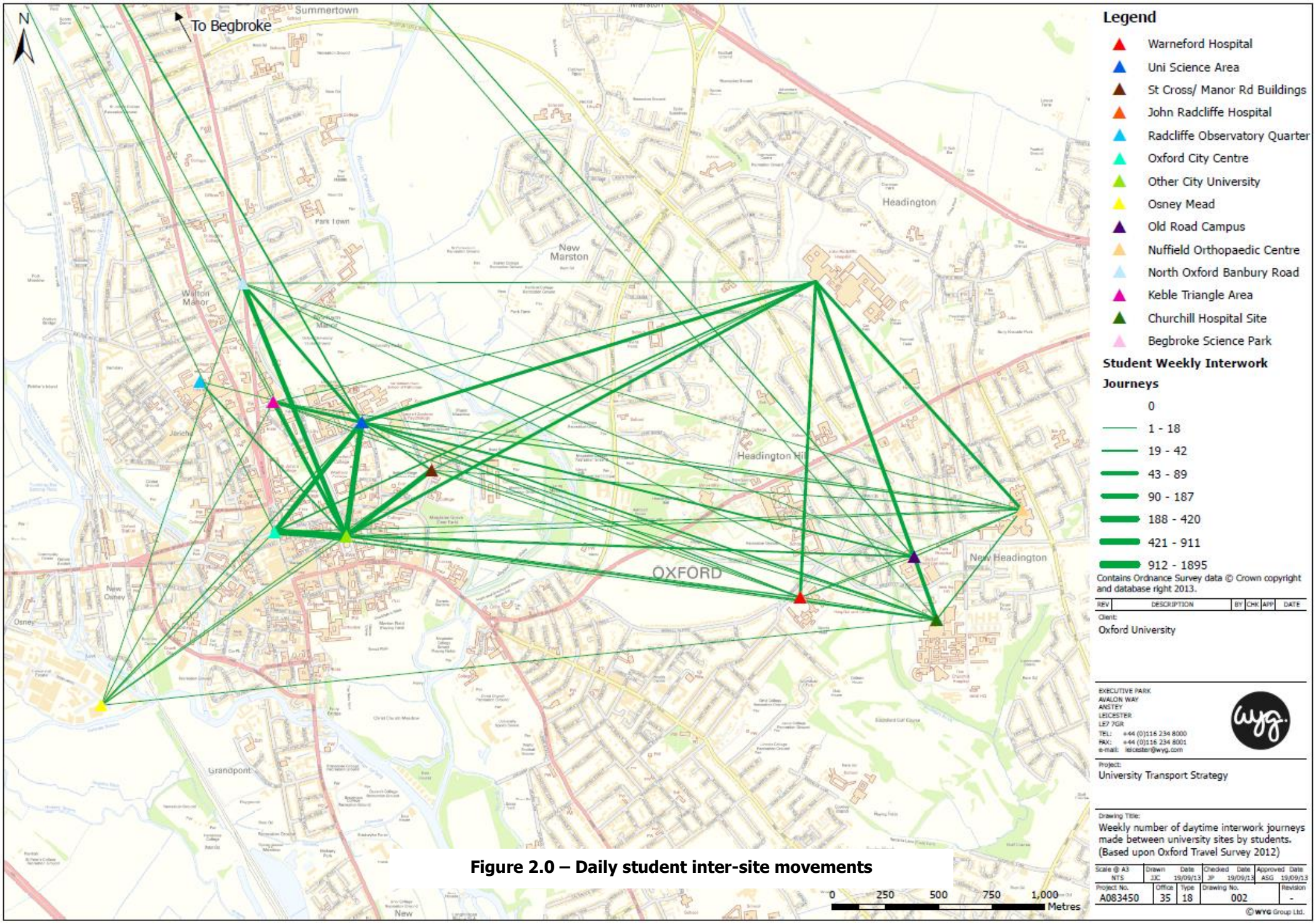

Figure 2.0 – Daily student inter-site movements

Table 1.0 – Daily one-way movements between sites (all modes)

		Alternative Workplaces Attended									
	All Respondents (Staff / College / Student)	Begbroke Science Park	Churchill	John Radcliffe	Nuffield	Old Road	Osney	University Science Area	Warneford	Other city University site	Other non-city University site
Main Workplace	**Oxford city centre**	13	50	83	15	46	71	561	19	3253	588
	University Science Area, South Parks Road	56	94	178	24	81	22		30	1512	207
	Keble Triangle area	20	7	13	5	14	15	105	3	300	31
	North Oxford (eg Banbury Road, Woodstock Road, Summertown)	4	10	13	3	8	5	90	2	540	142
	Radcliffe Observatory Quarter	0	0	1	0	1	0	17	0	59	10
	Churchill Hospital site	2		68	6	94	0	30	2	64	6
	Osney Mead	0	1	1	0	1		10	0	53	2
	St Cross Manor Road buildings	0	1	6	1	0	12	39	1	630	63
	John Radcliffe Hospital site	0	264		117	109	2	121	89	171	30
	Warneford Hospital	0	12	29	2	8	0	13		37	6
	Old Road Campus	3	78	94	16		1	50	1	106	10
	Begbroke Science Park		3	1	0	2	0	29	0	16	0
	Nuffield Orthopaedic Centre	0	8	28		17	0	11	0	20	0
	Other	8	9	15	2	8	6	85	6	389	107
Total	**Daily one-way journeys**	**106**	**537**	**530**	**191**	**389**	**134**	**1,161**	**153**	**7,150**	**1,202**

Table 1.0 above identifies significant numbers of movements estimated as taking place during an average working day: approximately 12,000 daily one-way trips, which excludes any return journeys. Many of these journeys are local and of short distance, eg between various city centre sites, and are largely related to student travel between sites. There are also reasonable numbers of daily movements between the sites located in the centre and the east of the city, eg 621 estimated daily one-way trips by staff based in the centre of Oxford to the hospital sites and Old Road Campus in Headington, with a similar number of daily one-way trips (543) made by staff based in Headington to the centre of Oxford.

Any transport strategy will therefore have to take into account the differing demands for movement generated by both the identified journey-to-work trips and the demand for inter-peak movements between the various University sites.

2.4 Current Oxford University transport provision

The University currently operates a range of initiatives related to transport and travel, split between information provision, financial incentives to encourage increased cycle, bus and rail travel, and physical measures.

2.4.1 Information provision

The University Estates Services currently host a number of web pages providing information on travel options for trips to and from University sites, links to specific University travel schemes and incentives and links to other external information (eg cycling advice from Sustrans and cycle and bus route plans on the Oxfordshire County Council website). A link to the University travel pages is provided below:

http://www.admin.ox.ac.uk/estates/ourservices/travel/

The website also provides links to the University's current guidance related to video conferencing and business travel and to the current Staff Travel Plan document. Information provision also includes more novel measures such as a podcast on efficient commuter cycling.

2.4.2 Sustainable transport incentives

The University currently promotes a range of incentives to assist staff with the costs of travel to and from work, including the following:

- interest-free loans for purchasing public transport season tickets (bus, rail and park and ride)
- discounts on 13- and 52-week bus passes and on annual rail passes
- a University-specific car share scheme (operated through Journeyshare), which includes priority access to peak car-parking permits and a guaranteed ride home for participants in the case of an emergency
- security tagging for cycles
- management of abandoned cycles

- access to cycle training
- personalised transport planning
- transport-planning roadshows (with partners)
- interest-free loans (up to a value of £1,000) for cycle purchase and a range of discounts negotiated at local cycle suppliers
- the operation of a mobile mechanic scheme for cyclists.

2.4.3 Physical and demand management measures

The incentives and travel promotion activities operated by the University are supported by a range of physical and demand-management measures, including rigorous limits on the levels of available parking associated with both the existing estate and any new development. This has been reinforced by increasingly tight control over the issue of parking passes to staff.

The University also supports two minibus services. One serves the Begbroke Science Park site to the north of the city, running a circular service between the Science Park, the Science Area and the city centre twice an hour (planned to increase to three times an hour).The other service is operated by the Bodleian Libraries and connects Osney Mead with the Sackler Library on St. John Street, operating every 30 minutes between 07.30 and 18.00. The majority of staff at other University sites use existing public transport routes.

2.4.4 Summary

A review of the existing transport and travel baseline at the University of Oxford identifies areas where the University has been particularly successful (eg the reduction of car use) to very low current levels and the active promotion of a range of financial support options for staff wishing to travel by cycle or public transport.

The review also identifies areas where a coordinated University Transport Strategy may have scope to further improve the operation of the University Estate, in particular:

- improving access for staff to work locations, particularly to the east of the city
- addressing some of the identified demands for movements between sites during the day
- the strengthening of the more strategic links between major University hubs
- the related potential for a more tailored public transport offering.

The review also identified the more limited levels of support offered to students with regard to travel choices, due in part to the split of responsibility for student travel between the University and the colleges.

3.0 Impacts of growth

Sections 1 to 4 of this report provide a summary of the current baseline transport and travel position relevant to the operation of the University estate within the city. They also include the important wider connections to partner organisations such as the Oxford University Hospital Trusts, as well as links to sites outside the city such as the science parks located at Begbroke and Harwell.

The University's Estate Strategy 2013–18 outlines the future development and growth aspirations of the University and identifies areas with the potential to deliver an additional 251,000m^2 of floor space within the city over the next 20 years. Development within the centre/east of Oxford is expected to be focused within the following main areas:

- Radcliffe Observatory Quarter (107,636m^2)
- Science Area and Keble Road Triangle (83,484m^2)
- Old Road Campus (59,890m^2).

There is also more scope for development at sites away from the centre, with the potential for a further 72,046m^2 on land at:

- Begbroke Science Park (15,000m^2)
- Osney Mead (15,241m^2)
- Egrove (10,259m^2)
- Iffley Road (7,816m^2).
- Swindon (20,000m^2)

Figure 3.0 on the following page identifies the location of the main sites with development potential, and highlights the expected main traffic demands arising from each of the developments based upon assumed levels of interaction with other University sites.

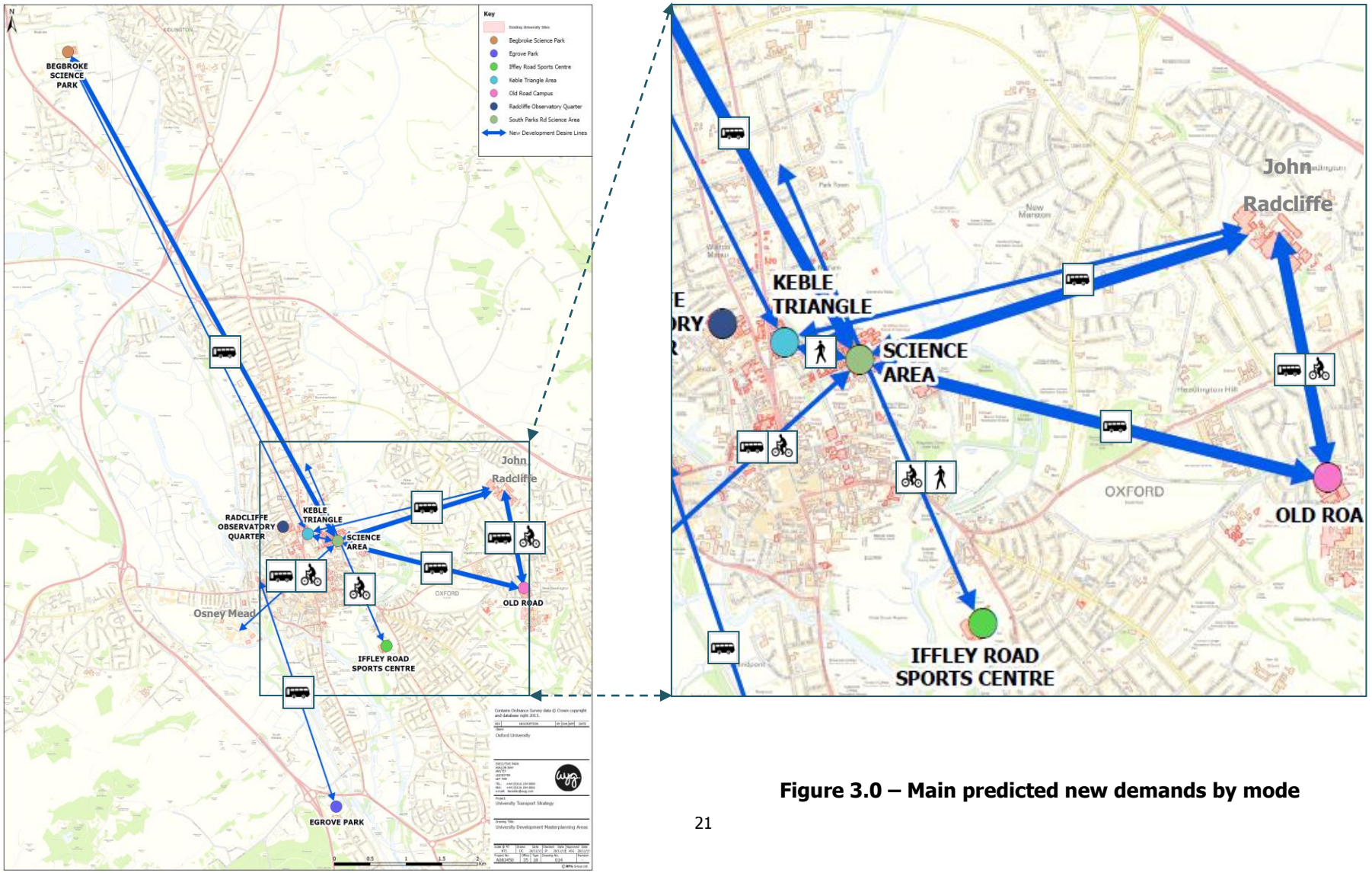

Figure 3.0 – Main predicted new demands by mode

The growth of the estate could be expected to result in the following main changes in demand for travel:

- increased demand for commuting/staff trips into the city centre and Headington sites. Based upon the masterplan proposals limiting car parking (particularly at the city centre sites), the main increase in commuting travel demand into these sites is expected to be via either public transport (bus, or park and ride) for longer distance trips or via pedestrian and cycle trips for shorter trips originating within the city;
- the growth of the ROQ site is expected to result in the further rationalisation of University activities in the area, with most of the interactions being with other city centre sites. As a result, the movement impacts of the development of the ROQ site on trips within the city are expected to be limited;
- based on a continuation of the movement relationships identified in the baseline work, growth in the Science Area and at the Old Road Campus could be expected to result in a related growth in demand for movements between the two sites. Increased demands for travel between the Science Area and Begbroke Science Park could also be expected, as could an increase in demand for travel between the various Headington medical and clinical research sites;
- increased demand for non-student travel to the Egrove Park site, including a reasonable proportion of longer-distance trips requiring highway access from the major road network or public transport links to and from the Rail Station and Said Business School; and
- demand for student travel to and from the Iffley Road sports centre, expected to be predominantly on foot or by cycle.

3.1 Changes in commuting levels

Increases in the scale of the University estate over the next 20-year period could also be expected to result in an increase in the number of commuter trips into the city, as the cost of buying property within Oxford itself continues to be a barrier and as the total numbers of staff (and students) increase. Whilst the levels of staff associated with planned development sites are not known at this stage, based upon an estimated increase in floorspace of up to 43% it would be realistic to expect a substantial increase in staffing levels.

3.2 Changes in student balance

It is expected that the balance of students studying at the University will include an increasing number of postgraduates in the future, which is likely to increase demand for travel to and from University sites (as a smaller proportion of postgraduates is expected to live within Oxford and the rest would have to travel to and from the city to study).

3.3 Changes in inter-site movements

If the patterns of inter-site movements estimated for the current estate based upon the 2012 Oxford University Travel Survey were to be applied to the potential growth of the estate, a considerable increase in the demand for inter-site travel could be expected – in particular between the Science Area and sites in Headington and between the Science Area and Begbroke Science Park. The potential increase in inter-site movement demands resulting from the full development of the masterplan areas identified in the University's Estate Strategy 2013–18 is summarised in **Table 2.0** on the following page (assuming a pro-rata increase in movements based upon increase in development area).

Table 2.0 - Potential increase in the number of daily one-way movements between sites (all modes)

		Alternative workplaces attended									
	All respondents (Staff / College / Student)	Begbroke Science Park	Churchill	John Radcliffe	Nuffield	Old Road	Osney	University Science Area	Warneford	Other city University site	Other non-city University site
Main Workplace	**Oxford city centre**	0	0	0	0	0	0	0	0	0	0
	University Science Area, South Parks Road	+21	+35	+67	+9	+30	+8		+11	+567	+78
	Keble Triangle area	+5	+2	+3	+1	+4	+4	+27	+1	+78	+8
	North Oxford (eg Banbury Road, Woodstock Road, Summertown)	0	0	0	0	0	0	0	0	0	0
	Radcliffe Observatory Quarter	+2	+2	+4	0	+4	+2	+121	0	+424	+72
	Churchill Hospital site	0		0	0	0	0	0	0	0	0
	Osney Mead	0	+1	+1	0	+1		+9	0	+48	+2
	St Cross/Manor Road buildings	0	0	0	0	0	0	0	0	0	0
	John Radcliffe Hospital site	0	0		0	0	0	0	0	0	0
	Warneford Hospital	0	0	0	0	0	0	0		0	0
	Old Road Campus	+4	+113	+137	+23		+1	+73	+1	+155	+15
	Begbroke Science Park		+3	+1	0	+3	0	+31	0	+17	0
	Nuffield Orthopaedic Centre	0	0	0		0	0	0	0	0	0
	Other	0	0	0	0	0	0	0	0	0	0

4.0 Benchmarking and best practice

4.1 Background

A review of a number of benchmarking sites was carried out to allow comparison of the types of transport and travel measures and incentives operated by comparable establishments.

Due to the collegiate nature of the University of Oxford there are few other educational establishments which have comparable characteristics. Many of the other universities within the Russell Group are campus-based or located within London and are therefore subject to very differing sets of transport and travel pressures and opportunities.

The following establishments were selected for an initial benchmarking exercise:

- the University of Cambridge – selected on the basis of being a collegiate university with similar aspirations in terms of growth and development in the fields of science and research, whilst being based within a city having a similar baseline in terms of promotion of sustainable travel options (in particular a strong cycling culture);
- the University of Durham – selected on the basis of being a collegiate university with future plans for development (although through consolidation of provision rather than significant expansion); and
- The University of Princeton – selected as an example of a high-performing American comparison site, in particular as an example site with a robust sustainable transport strategy, although one which is primarily campus-based.

4.2 Summary

The benchmarking exercise identified a number of schemes and initiatives being operated (or planned) by comparable establishments which could be considered for implementation within the University's Transport Strategy. The following initiatives in particular are considered appropriate for further investigation (full details are in **Appendix D**):

- bike rental and/or share service, potentially including the use of salvaged cycles
- increased use of hybrid or low-emission fleet vehicles
- further investigation of discounts for staff and students on some public buses/provision of bespoke services
- consideration of locations for affordable staff housing
- targeted car share and/or other transport schemes considered on a corridor basis (for example on the A34).

5.0 Priorities for the Strategy

As outlined in **Section 1.1.2**, the University estate is expected to grow significantly over the period covered by the Estate Strategy. As also reviewed, the ways in which the University estate will grow and develop are expected to be increasingly influenced by external factors.

In particular the limited capacity of the Oxford urban area has resulted in the need to look further afield than the city centre for potential growth sites, eg the growth in importance of less central sites such as Begbroke and Osney Mead. However whilst these sites provide scope for less constrained areas of development, the growth of less central sites will also result in a more dispersed estate. This will require stronger transport links for the estate to continue to operate efficiently and for the synergies between University sites and departments to be maintained.

Without an improved level of transport connectivity there is a risk that the University's operational efficiency could be undermined by this increased degree of potential separation between sites.

The limited development capacity of the Oxford urban area also creates the need to generate maximum development potential from centrally located development or redevelopment sites. This has resulted in an approach to development in the central areas which promotes very limited amounts of parking (as parking, particularly surface car parking, is very land hungry). The limit on central area parking provision is further reinforced by the County Council's promotion of parking restraint as a demand management tool, to reinforce more sustainable transport options and manage the capacity of the current highway network as efficiently as possible.

As this trend is expected to continue, and possibly intensify as the potential for development within the central areas of Oxford becomes increasingly constrained, future development or redevelopment of the University estate is likely to provide parking at lower levels than those at current University sites.

Without a longer-term transport strategy to provide a range of realistic alternatives to car travel there is therefore a risk that the lack of car parking will be viewed as an obstacle to both the recruitment and retention of staff and to the ongoing operation of the estate.

The University also has obligations to control and, where possible, limit levels of carbon production related to the operation of the University, its associated fleet and its daily activities. As the University grows and becomes more dispersed, the carbon footprint related to travel, particularly between University sites, could be expected to increase without the introduction of further sustainable travel initiatives.

Based upon the need to address these future challenges and risks, and following the baseline review, the following are proposed as the core objectives for the University's Transport Strategy:

- **reduce the numbers of car journeys on the network** – including reducing congestion during peak periods
- **promote appropriate sustainable transport alternatives** – particularly by improving links on the key north–south (connecting Harwell – central Oxford – Begbroke Science Park) and east–west (connecting central Oxford – John Radcliffe – Old Road – Churchill) routes through the city
- **improve users' journey experience** – by improving the quality, reliability and frequency of transport options
- **improve local air quality**
- **reduce the University's carbon footprint**.

6.0 Measures

6.1 Options by mode

From the baseline work, best practice review and consultation exercise undertaken, the following main potential transport scheme options were raised for consideration, split by mode:

6.1.1 Pedestrian measures

Pedestrian links between sites are generally of good quality, with no specific concerns raised over pedestrian provision, safety or routing during the consultations. However it was apparent that a number of departments carry out work and research outside typical working hours, including late evening working, so the provision of lone working and travelling advice could be given to staff likely to work unsociable hours. There is also scope to review the lighting on the main pedestrian routes to and from buildings where late working is regularly undertaken.

6.1.2 Cycle measures

The following cycling measures were raised during the baseline review and subsequent consultation process:

Improved links to and from the rail station: proximity to the station is considered to be one of the benefits of the University Social Sciences Division and Said Business School. However, the current pedestrian and cycling environment on Botley Road as you enter the city centre is not considered to be safe or attractive for walkers and cyclists, for any trips from the station to any of the more distant University buildings.

Consider allowing cycle access through some areas of the University Parks: There are a number of locations where off-carriageway cycle routes in the city are severed or incomplete and where the ability to cycle (on designated routes) through the University Parks would help to fill gaps in the network.

Historically cycle use in the parks (including walking with a cycle) has not been permitted, so this would require a substantial shift in policy to be delivered.

University-specific cycle hire system: during the consultation process the potential for a University cycle hire scheme was generally supported, with specific concerns raised over the disposal of cycles at the end of each term causing a potential nuisance. This would also provide a suitable travel option for some staff, researchers and students who have a need to travel between sites during the working day. There are a number of potential options which a cycle hire scheme could consider:

- wider implementation of the County Council's cycle hire system – the potential to partially fund the provision of further cycle stations at, or near to, University sites as an extension of the County Council's trial cycle hire scheme delivered through the Local Sustainable Transport Fund;
- University-specific cycle hire scheme – the provision of a University-specific cycle hire system with sites in central Oxford, the Science Area, Osney Mead and Headington; and
- cycle salvage and loan system – an alternative cycle loan/hire scheme in which cycles left at the end of terms by students are repaired, serviced and re-branded as University hire cycles; this could potentially include a partnership with local skills or employment groups to provide the servicing and branding.

Review of cycle parking: whilst cycle use is high and there are areas of substantial and high-quality cycle parking at a number of University sites, a number of consultation responses raised the need to consider cycle parking on two levels:

- short-term parking for visitors and staff/students attending meetings or other short-term visits – these spaces likely to be close to building entrances and in the form of 'Sheffield' or other free-standing cycle parking facilities; and
- longer-stay cycle parking for staff and students who commute to a single site by cycle – these spaces could be further from the building entrances but provide a covered and secure longer-stay facility.

A review of the patterns of cycle demands based on the Travel Survey data held by the University, taking into account the travel options considered feasible for inter-site trips, could help identify the balance of provision that would be suited to each main University site.

6.1.3 Public transport measures

The following public transport measures were raised during the baseline review and subsequent consultation process:

University bus service: as identified in the baseline review, the only formal bus service operated by the University is the shuttle service to and from

Begbroke Science Park, which was well regarded in the consultation exercise. The baseline work identified reasonable levels of demand for other movements between University sites, particularly between the city centre and Headington, with public transport or taxi travel being seen as the most viable alternatives to private cars. Based upon the estimated number of current inter-site trips, and a related increase in demand as the Science Area and Old Road Campus masterplan sites are developed, there is scope for a future two-way demand of approximately 1,600 daily inter-site trips between the centre of Oxford and the various Headington sites. The level of demand estimated suggests that a University-specific service could be a viable option. This service would fill an important gap in the current sustainable transport network and give the University a positive visible presence.

Science transit: the expansion of research and development facilities on the outskirts of Oxford, including the site at Harwell, provides the potential for a new north–south service linking key academic, research and development sites across Oxford and the wider area. Whilst not forming part of the University estate, the University plays an important role in the activities at these sites and the scope for any related service to link with the University estate should be explored with the local authorities and public transport operators.

Access to South Parks Road: whilst Oxford as a whole is very well served by public transport, current city centre bus routes do not travel through the South Parks Road area of the city, leaving a large area of the more centrally located University estate without direct access to bus services. Whilst the provision of a specific service may not be merited, the scope for existing services to be diverted through the South Parks area could be explored with the local authority and public transport operators. Any service would have to use smaller buses to navigate some of the streets serving the South Parks Road area.

Consideration of shared service with Brookes Bus: the Brookes Bus has a strong, positive sustainable transport image within the city and provides a valuable local bus service. There could be potential for a shared universities' service, providing an extended route covering a number of Oxford University locations. For example an extension to the U5 service, providing an extended loop via the John Radcliffe rather than terminating at the northern end of Cherwell Drive, would provide links between the city centre, Old Road Campus and the John Radcliffe.

University-specific park and ride: the future development of the Begbroke Science Park to the north of the city can be expected to result in the need for an increased level of public transport connectivity between the University's city centre sites and the science park. The increased demand for this route could open up further opportunities in terms of providing a University-specific park and ride service from the Begbroke site, with an edge-of-city car parking location for staff living to the north of Oxford or travelling in from the northern market towns such as Bicester. An expanded shuttle bus service could then serve the dual role of providing both a park

and ride facility for peak-hour journeys and a shuttle service for inter-site trips between peak hours.

6.1.4 Demand management measures

The University has a preference for co-locating departments and services where possible. It also has appropriate IT provision to allow staff to access files and email remotely in a secure manner, as well as flexible working policies to facilitate home working.

Video conferencing/Skype facilities: the consultation carried out identified varying levels of IT application across the University estate and various divisions and departments. A number of departments referred to the use of Skype and video conferencing to carry out otherwise time-consuming and travel-intensive activities such as first-stage interviews and some examinations, where specialists would otherwise have to fly in for very short visits to undertake examination work. Availability of the Skype or video conferencing suites which would be required for this type of activity was variable, however, with potential for increased usage, both through a wider availability of conferencing facilities and a more formalised policy approach to use.

Car parking charges to be reviewed: parking permits are currently issued to staff on a need basis, split between peak and off-peak permits. Peak permits are currently charged at 0.75% of gross salary for an annual pass (ie equivalent to £300 annual charge for a £40,000 gross salary). During the consultation exercise queries were raised over whether the provision of annual passes (which are geographically limited to specific areas) represented the most efficient approach to parking. A review of parking charges is therefore recommended, in particular regarding the potential for introducing a daily or weekly option.

6.1.5 Travel management measures

Increased student travel support: the baseline review and consultation with the colleges identified a variation in the levels of travel advice, support and incentives available to students. Whilst this strategy concentrates upon the transport needs of the University estate and acknowledges the central role of the colleges in terms of student care, these is some scope to provide a shared travel advisory service and range of sustainable transport measures for students through the University estate. One suggested approach would be to agree a range of possible measures and a common transport message for students which could be disseminated via the Conference of Colleges.

Provide student storage facilities for University holiday periods: during the consultation period the need for students to vacate halls during the longer holiday periods, including the removal of all belongings, was raised, resulting in the need for two major movements of students and belongings per holiday period. One alternative option would be to provide local storage for students, allowing belongings, furniture, cycles etc to be stored locally. This would provide increased convenience for students and their families whilst also removing the need for two major traffic movements per holiday period.

Review of taxi use: the consultation process carried out at the Divisional level identified a significant use of taxis for inter-site travel, in particular for staff journeys where time was limited, where groups travelled to and from meetings together and when there was a need to transport equipment. It is suggested that a review of taxi use, covering a typical month's usage and providing information on costs of journeys, journey purpose and trip origin/destination, is carried out. This information could then be used as part of any business case considering the potential for a University-specific public transport service or private hire service.

Increased use of hybrid or electric fleet vehicles: a review of the University fleet identifies approximately 70 motorcycles, cars and light vans which have the potential to be replaced (in the longer term) by hybrid or electric vehicles. A review of the use of the current fleet identifying main sites of operation, daily distance covered, load-bearing capacity and necessary effective range would identify those vehicles with the greatest scope to be incrementally replaced with lower-carbon options in the longer term.

Consideration of a new delivery consolidation centre on outskirts of city: the University is increasingly making use of shared procurement and site management practices, with a further potential step being the consolidation of freight and deliveries to a designated site on the outskirts of the city. The provision of a freight consolidation centre would allow bulk deliveries to be broken down and delivered to individual sites using smaller vehicles with lower carbon emissions.

Management of permits and parking allocations for contractor vehicles: whilst staff and student parking is tightly controlled by the University, the consultation process and site visits associated with the baseline work identified a lower level of control on contractor visits and parking at University sites. It is suggested that a central booking system is used to manage, monitor and enforce contractor activities on the University estate; this is considered to be particularly relevant in light of the potential scale of future development of the built estate identified in the University's Estate Strategy 2013–18 and therefore the levels of contractor activity which could be expected.

6.2 Refining options

In order to help refine the options which could realistically be considered for each of the main travel demands related to the operation of the University and its wider estate, a review was carried out of the main factors influencing travel choices. The first stage was a review of the travel times and distances between each of the main University sites identified in the baseline report.

Tables 3.0 and 4.0 on the following two pages outline the inter-site trips which could be undertaken on foot or by cycle within 20 minutes, based on an average walking speed of 3mph and cycling speed of 12mph, with the trips which could be made within this time period highlighted in green.

Table 3.0 – Inter-site walking travel times (minutes)

Walking Time (minutes)	Keble Triangle area	Radcliffe Observatory Quarter	Churchill Hospital site	Nuffield Orthopaedic Centre	Old Road Campus	Begbroke Science Park	Warneford Hospital	John Radcliffe Hospital	St Cross/ Manor Rd buildings	Osney Mead	North Oxford Banbury Road	Science Area South Parks Rd	Oxford city centre	Other city University site
Keble Triangle area														
Radcliffe Observatory Quarter	7													
Churchill Hospital site	51	57												
Nuffield Orthopaedic Centre	55	61	11											
Old Road Campus	48	54	5	10										
Begbroke Science Park	102	97	145	145	141									
Warneford Hospital	40	46	13	17	10	141								
John Radcliffe Hospital	38	44	24	23	21	125	25							
St Cross/Manor Rd buildings	14	19	42	46	39	114	30	33						
Osney Mead	29	31	62	66	59	121	50	64	33					
North Oxford Banbury Road	8	7	57	61	54	96	47	44	20	35				
Science Area South Parks Rd	7	13	45	49	42	108	35	32	7	32	13			
Oxford city centre	8	12	47	51	44	107	35	43	12	22	15	11		
Other city University site	10	16	42	46	39	111	30	41	9	25	17	9	6	

Table 4.0 – Inter-site cycle travel times (minutes)

Cycle Time (minutes)	Keble Triangle area	Radcliffe Observatory Quarter	Churchill Hospital site	Nuffield Orthopaedic Centre	Old Road Campus	Begbroke Science Park	Warneford Hospital	John Radcliffe Hospital	St Cross/ Manor Rd buildings	Osney Mead	North Oxford Banbury Road	Science Area South Parks Rd	Oxford city centre	Other city University site
Keble Triangle area														
Radcliffe Observatory Quarter	2													
Churchill Hospital site	13	14												
Nuffield Orthopaedic Centre	14	15	3											
Old Road Campus	12	13	1	2										
Begbroke Science Park	25	24	36	36	35									
Warneford Hospital	10	11	3	4	2	35								
John Radcliffe Hospital	9	11	6	6	5	31	6							
St Cross/Manor Rd buildings	3	5	11	11	10	28	8	8						
Osney Mead	7	8	15	16	15	30	12	16	8					
North Oxford Banbury Road	2	2	14	15	13	24	12	11	5	9				
Science Area South Parks Rd	2	3	11	12	10	27	9	8	2	8	3			
Oxford city centre	2	3	12	13	11	27	9	11	3	5	4	3		
Other city University site	3	4	11	11	10	28	8	10	2	6	4	2	1	

From an initial review of reasonable travel times it appears that whilst most of the University sites are within acceptable cycling distance of each other, the potential for pedestrian movements is more limited. Whilst it is possible to walk between buildings in the centre of Oxford and between the cluster of buildings in Headington, there is little realistic scope for pedestrian movements between the two areas. Osney Mead and Begbroke Science Park are also beyond a reasonable walking distance from other University sites.

When considering cycle movements between sites there is considerably more scope, with most main sites being within a 20-minute cycle trip of the other University estate buildings, the exception being Begbroke Science Park. However this only takes into account journey distances and excludes factors associated with journey convenience or safety; therefore whilst the distances between the city centre and Headington sites suggest that the routes could be undertaken by cycle, the gradient of Headington Hill (when travelling west to east) and concerns over safety expressed through the consultation process are likely to limit cycle trips (although these trips could be more easily made using electric cycles).

Table 5.0 on the following page provides a summary of the main non-car travel options which are considered to be most feasible for inter-site movements, split between pedestrian, cycle and bus trips.

Table 5.0 - Inter-site travel options

Journey origin / destination	Keble Triangle area	Radcliffe Observatory Quarter	Churchill Hospital site	Nuffield Orthopaedic Centre	Old Road Campus	Begbroke Science Park	Warneford Hospital	John Radcliffe Hospital	St Cross/ Manor Rd buildings	Osney Mead	North Oxford Banbury Road	Science Area South Parks Rd	Oxford city centre	Other city University site
Keble Triangle area	🚶 🚲													
Radcliffe Observatory Quarter	🚶 🚲	🚶 🚲												
Churchill Hospital site	🚌	🚌	🚶 🚲											
Nuffield Orthopaedic Centre	🚌	🚌	🚶 🚲	🚶 🚲										
Old Road Campus	🚌	🚌	🚶 🚲	🚶 🚲	🚶 🚲									
Begbroke Science Park	🚌	🚌	🚌	🚌	🚌	🚶 🚲								
Warneford Hospital	🚌	🚌	🚶 🚲	🚶 🚲	🚶 🚲	🚌	🚶 🚲							
John Radcliffe Hospital	🚌	🚌	🚲 🚌	🚲 🚌	🚲 🚌	🚲 🚌	🚲 🚌	🚶 🚲						
St Cross/Manor Rd buildings	🚶 🚲	🚶 🚲	🚌	🚌	🚌	🚌	🚌	🚌	🚶 🚲					
Osney Mead	🚲 🚌	🚲 🚌	🚌	🚌	🚌	🚌	🚌	🚌	🚲 🚌	🚶 🚲				
North Oxford Banbury Road	🚶 🚲	🚶 🚲	🚌	🚌	🚌	🚌	🚌	🚌	🚶 🚲	🚲 🚌	🚶 🚲			
Science Area South Parks Rd	🚶	🚶 🚲	🚌	🚌	🚌	🚌	🚌	🚌	🚶 🚲	🚲 🚌	🚶 🚲	🚶 🚲		
Oxford city centre	🚶 🚲	🚶 🚲	🚌	🚌	🚌	🚌	🚌	🚌	🚶 🚲	🚲 🚌	🚶 🚲	🚶 🚲	🚶 🚲	
Other city University site	🚶 🚲	🚶 🚲	🚌	🚌	🚌	🚌	🚌	🚌	🚶 🚲	🚲 🚌	🚶 🚲	🚶 🚲	🚶 🚲	🚶 🚲

Using this information in combination with the numbers of trips detailed in **Table 1.0** and **Table 2.0** gives a broad initial indication of the major travel demands that the transport strategy schemes should aim to address, split by potential mode. An example of the resulting combined potential mode of and demand for travel for the central to Headington area is shown in **Figure 4.0** below.

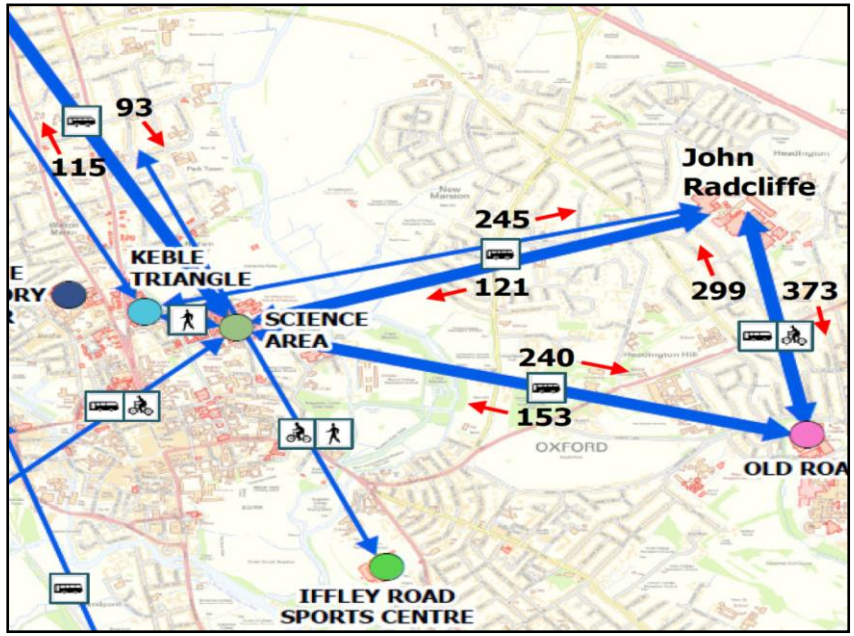

Figure 4.0 – Daily potential inter-site movements

7.0 Implementation and delivery plan

Section 6.0 of this report identified the potential measures which could be considered as part of the University's Transport Strategy and provided a summary of some of the potential impacts. Estates Services is now engaged in prioritising these potential measures and developing an implementation and delivery plan with regard to some of the schemes with the most potential to support the University Transport Strategy.

8.0 Monitoring and review

The University's Transport Strategy will be reviewed against a number of quantitative and qualitative criteria in order to monitor progress against the identified objectives and to allow changes to be made to the strategy (either to individual schemes or to the balance of schemes forming the strategy) over time and if required.

8.1 Key performance indicators

In order to ensure that the performance monitoring targets for the plan were reasonable, a review of the levels of mode share/mode shift achieved as a result of measures delivered and reported through the Travel Plans and Transport Strategies at other Higher Education establishments was carried out and compared with the current position at the University of Oxford (as reported within the Staff Travel Plan and Travel Survey). **Table**

6.0 provides a comparison between the travel mode share recorded at the University of Oxford and those at the Universities of Cambridge and York over a five-year period.

Table 6.0 – Mode share comparisons

	Mode	2006–07	2012–13	Change
University of York	Car (combined)	53.9	45.0	-8.9
	Walk	19.3	17.3	-2.0
	Cycle	20.7	28.0	7.3
	Bus/park and ride	10.1	6.7	-3.4
	Rail	0.8	1.7	0.9
	Other	0.7	1.3	0.6
	Mode	2006–07	2012–13	Change
University of Cambridge	Car (driver)	23.3	23.7	0.4
	Car (share)	7.6	7.9	0.3
	Car (combined)	31.0	31.6	0.6
	Walk	8.8	9.0	0.2
	Cycle	41.9	41.1	-0.8
	Bus/park and ride	10.1	9.5	-0.6
	Rail	0.0	0.0	0.0
	Other	8.3	7.7	-0.6
	Mode	2006–07	2012–13	Change
University of Oxford	Car (driver)	23.0	21.0	-2.0
	Car (share)	1.0	1.0	0.0
	Car (combined)	24.0	22.0	-2.0
	Walk	13.0	14.0	1.0
	Cycle	30.0	31.0	1.0
	Bus/park and ride	25.0	23.0	-2.0
	Rail	6.0	7.0	1.0
	Other	0.0	2.0	2.0

In the examples considered, over a five-year period universities with a higher initial car driver mode share (with York given as the example in **Table 6.0**) achieved reductions in car driver mode share of between 5% and 10%, with these trips redistributed to more sustainable modes. However when considering both Oxford and Cambridge, which have a very low car driver mode share base and a high proportion of travel by walking, cycling and public transport, the scope for significant further shift in mode share is more limited, with the percentage share for most modes remaining stable at both universities across a five-year period.

Taking this into account it is therefore considered that it would not be realistic to set targets for significant further reductions in car driver mode share within Oxford as a result of introducing transport strategy measures. Rather, monitoring should be based on a balance of realistic mode share targets which aim to maintain or slightly reduce car driver mode share. This is itself a challenging target as greater numbers of staff live outside the city due to increased housing costs within Oxford. These targets will be supplemented by qualitative indicators including user travel satisfaction and travel efficiency. The initial monitoring performance indicators proposed are summarised in **Table 7.0** on the following page.

Table 7.0 – Transport Strategy performance indicators

Objective	Key Performance Indicators	Information source	2014–15 target	2018–19 target
Reduce the numbers of car journeys on the network	University staff journey-to-work car drive mode share	University Travel Survey	Maintain current levels	2% reduction
Promote appropriate sustainable transport alternatives	Increase use of University-operated public transport	University Travel Survey	n/a	3% of staff[2]
	Differential between average cost of car parking permits and park and ride (P&R)	Cost comparison between annual car parking and P&R	equal costs	equal costs + 10%
Improve users' journey experiences	Ease of travel (qualitative assessment)	New question in staff survey on travel satisfaction	TBC	TBC
	Door to door journey time between Science Area and Headington	Route journey times	Reduce by 20%	Reduce by 20%
Improve local air quality	Staff journey-to-work car drive mode share during morning and evening peak hour	University Travel Survey	Maintain current levels	2% reduction
	Reduction in deliveries to and from the Radcliffe Observatory Quarter	Facilities Management	Reduce deliveries by 10%	Reduce deliveries by 20%
Reduce the University's carbon footprint	% reduction in relative Scope 1 and 2 transport-related carbon emissions	University carbon reporting (factored to broad gross floor area)	TBC	TBC

[2] Equivalent to 350 staff journeys

8.2 Reporting and oversight

The progress of the Transport Strategy will be reported annually to the Building and Estates Sub-committee (BESC) via the Transport Strategy Steering Group (TSSG).

The annual progress of the Transport Strategy will be reviewed based upon the performance indicators outlined in **Table 7.0** and/or other indicators as subsequently agreed by BESC.

Appendix A: List of consultees

Alan Kendall (Safety Office)
Bart Ashton (Domestic Bursars Committee)
Caroline Livingstone (Manager of Begbroke Science Park)
Cath Astbury (Childcare Services)
Charlotte Sweeney (Zoology)
Christine Hamilton (Area Studies)
Dianne Donald (School of Geography and Environment)
Evelyn James (Medical Sciences)
Ewan McKendrick (Registrar)
Gerry Pocklington (Biochemistry)
Harriet Waters (Head of Environmental Sustainability)
Helen Watson (Planning and Resource Allocation Section)
Ian Walmsley (Pro-Vice-Chancellor)
Ian Wright (Earth Sciences)
Jane Langdale (Mathematical, Physical and Life Sciences Division)
Jennie McKenzie (Statistics)
John Gillic (Physics)
Jon Roycroft (Sport)
Jonathan Michie (Continuing Education)
Karen Brill (Humanities)
Kay Kelly (Radcliffe Science Library)
Keith Zimmerman (Student Admininstration and Services)
Kirsten Yost (Socio-Legal Studies)
Laura How (Bodleian Libraries)
Mark Bowen (Finance)
Mark Hylton (IT Services)
Mat Davies (Said Business School)
Michael Williams (Bodleian Libraries)
Mike Wigg (Estates Services)
Nandini Gooptu (International Development)
Paul Goffin (Estates Services)
Paul Sullivan (Security Services)
Robert Vanderplank (Language Centre)
Roger Ainsworth (BESC)
Rosie Mortimer (Medical Sciences)
Saira Shaikh (MPLS)
Scott Thompson (Structural Genomics Consortium)
Stephen Conway (Social Sciences)
Sue Bellenger (National Perinatal Epidemiology Unit)
Tania Boyt (Physiology, Anatomy and Genetics)
Tara Prayag (Undergraduate Admissions and Access)
Tim Coulson (Zoology)
William James (Pro-Vice-Chancellor)

Oxford Civic Society
Oxford City Council
Oxford County Council