NORTH WEST cambridge

Framework Travel Plan

September 2011

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1 Introduction

1.1 What is a Travel Plan

1.1.1 A Travel Plan is a document that identifies the measures to reduce the occurrence of private vehicle trips to and from a site or location by supporting and promoting sustainable transport modes such as walking, cycling, public transport use, and car sharing, as well as alternatives to travelling such as tele-working. Measures are customised to the site context, but typically include public transport promotion, car sharing schemes and improvements to cycle facilities and walking conditions.

1.2 Background and Proposals

1.2.1 This Framework Travel Plan has been produced by Peter Brett Associates LLP (referred to from here as Peter Brett Associates, or PBA) on behalf of the University of Cambridge to accompany an application for planning permission for the mixed-use development known as North West Cambridge. The Development is located within the administrative areas of both South Cambridgeshire Council and Cambridge City Council, to the north west of the city of Cambridge as shown on Figures 1 and 2.

1.2.2 The promoter of the Development, the University of Cambridge, is one of the world's leading universities. It is renowned for the excellence of its teaching and research, and it makes a significant contribution to the prosperity of the city of Cambridge and the UK economy.

1.2.3 To maintain its reputation as a world leader, the University must continue to develop and grow. In particular the University needs to address the issues of the lack of affordable accommodation for its staff and post-graduate students, and to continue the phenomenal success of the Cambridge area for fostering high technology research and development to ensure future opportunities come to fruition within Cambridge.

1.2.4 The University already has a proud reputation throughout the City for promoting its travel demand management strategy, and has always been proactive in delivering improvements to it – indeed the University was founding member of the Travel for Work Partnership established in co-operation with the County Council. This philosophy will be continued at the Development, which will have significantly different travel characteristics to a typical mixed-use development in the United Kingdom, or indeed to other developments throughout Cambridge. This will be as a result of the following:

- selecting the proposed residential, employment, education and retail land uses for the Development, such as to reduce the need to travel outside of the development;
- providing a food store on the Development such as to reduce the distance to travel to alternative food stores from surrounding residential areas;
- controlling local car ownership for students living in the University's Student Accommodation by using the University's motor proctorial control;
- the majority of the occupants of the University Key Worker housing be working in the University's facilities throughout Cambridge, all within a strong non-car travel mode culture with good access to safe alternative non-car modes of travel;
- key workers and commercial research workers being able to live in close proximity not only to their place of work but also requisite community and leisure facilities;

- key worker housing having a much lower car trip generation rate than market housing;
- University-related commercial research facilities with nearby residential accommodation demonstrably having far lower car trip generation rates than equivalent commercial science park facilities;
- the car parking provision for residential accommodation being 21% lower than the levels identified in the North West Cambridge Area Action Plan;
- academic research land uses within the Development having limited parking and a lower car-based trip generation than commercial research land uses.

1.2.5 The Development and the supporting transport strategy are designed to capitalise upon and emphasise the benefit of the locational and accessibility characteristics of the site.

1.2.6 The Proposed Development has excellent sustainable location and accessibility characteristics outlined above and in the Transport Assessment for the Development. These factors are complemented by and build upon the already extant and highly effective University-wide travel plan designed to encourage non car travel by all University members.

1.2.7 The land-use mix proposed, its location and form, together with the relationship to the key movement corridors and the city centre, are fundamental aspects of this, and mean that most of the employment, retail and community facility needs can be met on site. In addition, the Development would be characterised by good access to public transport routes and key transport nodes to increase opportunities for non-car travel.

1.2.8 This Framework Travel Plan has been prepared in tandem with and to inform the Transport Assessment also produced by Peter Brett Associates. It should therefore be read in conjunction with that document.

1.3 Purpose of this Framework Travel Plan

1.3.1 This Framework Travel Plan sets out the overall travel demand management strategy and framework for the Development. The purpose of this Framework Travel Plan is to provide a core framework of potential measures that can be implemented at the Site to encourage sustainable travel and reduce single occupancy private vehicle use associated with all activities at the Development. The measures identified within this Framework Travel Plan are designed to encourage a mode share geared toward sustainable modes of travel.

1.3.2 This Framework Travel Plan provides an over-arching strategy for the Development as a whole, from within which more localised initiatives will operate. Those localised initiatives could be directed at encompassing all of the proposed land uses such as the individual research occupiers, the residential areas, and the school. This Framework Travel Plan will be used as basis to inform the development of individual, site specific, Travel Plans for each land use once site occupiers are known.

1.3.3 The Framework Travel Plan outlines a holistic group of “hard” and “soft” measures designed to encourage sustainable travel to and from the Development and to reduce the use of private vehicles from the outset. Through this approach, take up of measures such as car sharing would be optimised and improvements to public transport, walking and cycling facilities promoted to a large target audience.

1.3.4 Best practice guidance suggests that a Framework Travel Plan is pertinent for mixed-use developments or developments where there are a number of different organisations.

1.3.5 The Framework Travel Plan will evolve as the planning and development process continues. This will involve fine-tuning to take account of the actual characteristics of the Development when built such as: is due to the number of key variables yet to be determined i.e. the characteristics of target audiences, current mode choice and propensity to change mode.

1.3.6 To ensure effective implementation and management of the Framework Travel Plan and transport strategy, the University of Cambridge will provide and support:

- a Development Transport Coordinator;
- the establishment and running of the Transport Stakeholders Group consisting of key stakeholders;
- a Sustainable Transport Fund for the implementation, management, monitoring and review of the Framework Travel Plan.

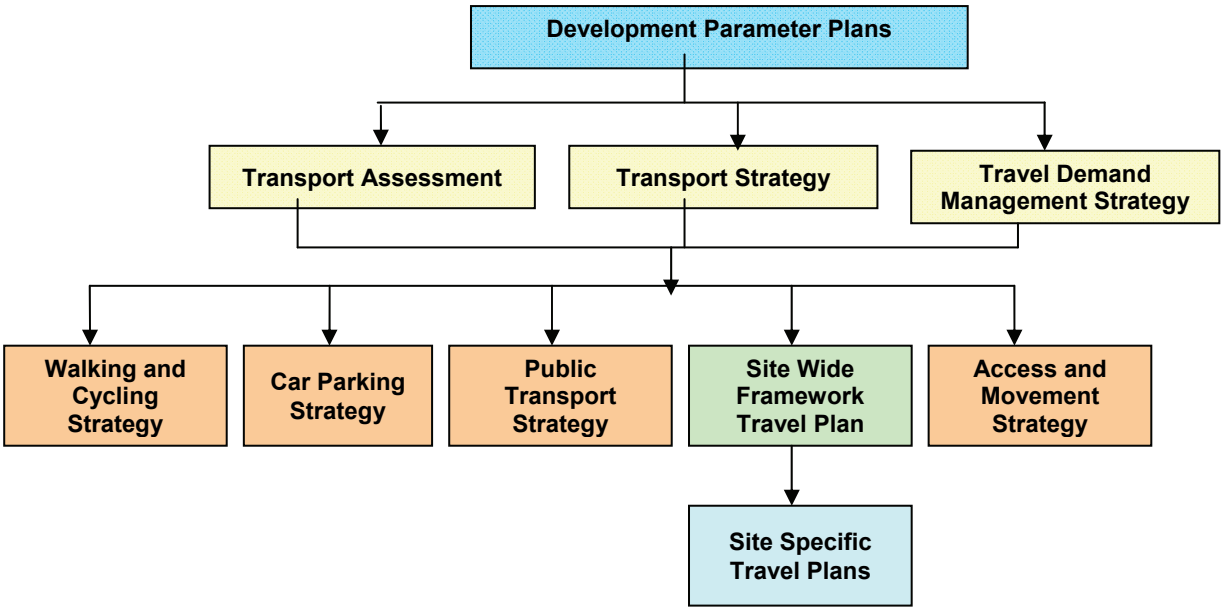
1.3.7 To support this Development Transport Coordinator:

- individual Sustainable Travel Behaviour Champions will be identified within the community to assist in delivering sustainable travel proposals; and
- there will be a requirement to appoint individual workplace, residential and school Travel Plan Coordinators to implement and manage their own measures and strategies.

1.4 Related Documents

1.4.1 The Framework Travel Plan is a key element of the Development Transport Strategy and is part of a family of plans and strategies that will enable the Development to be delivered. Related elements of the Strategy consider Walking and Cycling, Car Parking, Public Transport, and the Access and Movement Strategy. Measures within these strategies will contribute to the objectives of the Framework Travel Plan and the overall Transport Strategy. The relationship between the strategies is shown in Diagram 1.1.

Diagram 1.1: Transport Strategy Delivery Plans



1.4.2 As earlier indicated, this Framework Travel Plan and the Transport Assessment are inter-related.

1.4.3 Within the Transport Assessment:

- a Person Trip Analysis, utilising TRICS data, local trip flow survey data for existing market flats in Cromwell Road Cambridge and the CAPE building in West Cambridge, has been used to assess the total number of person trips by each land use within the Development. As the TRICS data base contains observations of existing development, it will be heavily weighted towards conventional forms of development where workers have to travel some distance to their place of work and for other facilities, in communities which do not have integrated sustainability principles into their daily lives as would occur at North West Cambridge;

- initial modal shares were assumed by reference to the data sources outlined in Table 5.2 of the Transport Assessment as reproduced below. The data sources for each land use were considered in conjunction to provide the trip generation and mode share by land use. These data sets represent conservative (over-estimate) assumptions as to the car driver mode choice - for example, the Cambridge Science Park data are derived from a predominantly car-orientated development without on-site worker accommodation, with only limited (if any) travel demand management and where trip rates by car are significantly higher than those at the University's West Cambridge Development. Similarly, the school mode share data source from across the County - whilst the best available - is also in practice weighted towards less sustainable locations for schools, and where development layouts, development components, facilities for pedestrians and cyclists and overall demographics are far less conducive to use of non-car modes of transport;

Table 1.1: Summary of data sources for the land uses
(reproduced from Transport Assessment Table 5.2)

Land Use	Trip Generation	Mode share	Comments
Market Housing	TRICS – All Sites	TRICS - Chesterton Cambridge survey	Non-car mode share adjusted to reflect the Census data
Market Flats	Cromwell Road survey	Cromwell Road survey	
Key Worker Housing	Cromwell Road survey	University Journey for Work survey / TRICS	Average mode share used, to reflect part of the trip generation not being University related
Key Worker Flats	TRICS – All Sites	University Journey for Work survey	
Collegiate Accommodation	TRICS	Vehicle mode share – TRICS Non-car mode share - University Journey for Work survey	
Commercial Research	TRICS	Cambridge Science Park Journey for Work survey	
Academic Research	CAPE Building survey	CAPE Building survey	
School	TRICS	Off-peak hours – TRICS Peak hour - Cambridgeshire County Council's Sustainable School Travel Strategy Annual Monitoring Report	
Hotel	TRICS	TRICS	
Local centre	TRICS	TRICS	
Senior Care	TRICS	TRICS	

- the Total person trips generated by the Development have been calculated with reference to the land-use and appropriate trip rates. Any internal trips have been removed from the Residential (i.e., the Housing and the Student Accommodation) end to avoid double counting;

- the Base person trip generations referred to previously are an assessment of person trip generation based on conservative standard assumptions derived from developments which have characteristics in common with the Development so far as land uses are concerned - but not necessarily as to development ethos, levels of sustainability and non-car travel culture that is a feature of the University's developments;

- as expressed above, the data sources relied upon to generate a Base Case mode share and Person Movement Assessment represent conservative over-estimates of the likely external trips and vehicle mode share at the Development. Even after adjustment, the data set out in the Transport Assessment at Tables 5.3 and 5.6 are likely therefore to represent a conservative over-estimate as a consequence of assumptions inherent in the data sets used to arrive at them;

- in summary, the analysis of trip generation and Base Case mode share described within Section 8 of the Transport Assessment was to inform baseline travel mode share and indicative targets within this Framework Travel Plan.

1.5 Aims and Objectives

1.5.1 The Planning policy vision and objectives for the Development were established in detail in the North West Cambridge Area Action Plan. Policy NW1: Vision. Of particular note, one stated objective of the North West Cambridge Area Action Plan Policy NW11 "Sustainable Travel" is that:

"Development and transport systems will be planned in order to reduce the need to travel and maximise the use of sustainable transport modes to encourage people to move about by foot, cycle and bus, to achieve a modal share of no more than 40% of trips to work by car (excluding car passengers)".

1.5.2 Assessment of the predicted 12 hour trips and mode share associated with the Development proposals, set out in Tables 5.3 to 5.6 of the Transport Assessment, demonstrates compliance with this policy. Therefore, the primary aim of the Framework Travel Plan is to *maintain* a mode share of no more than 40% car driver trips to work (excluding passengers).

1.5.3 The University is committed to the delivery of this aspiration by a combination of:

- complementary land uses;

- creating an inherently and holistically sustainable form of development;

- focussed travel demand management measures.

- encouraging the use of non-car modes of transport;

- discouraging the use of car mode;

- ensuring that residents of the Development do not need to travel to work, reach leisure facilities, find community facilities or to shop for essential provisions by car.

1.5.4 As the largest single employer in Cambridge, the University is uniquely placed to influence demand for travel and choice of mode for travel within the City.

1.5.5 The University already has a proud reputation throughout the City for promoting its travel demand management strategy, and has always been proactive in delivering improvements to it – indeed the University was founding member of the Travel to Work Partnership established in co-operation with the County Council. The journey to work mode shares reviewed later in this document demonstrate the success of this strategy.

1.5.6 Extending the University's already effective travel demand management strategy to the Development would form a fundamental part of integrating the Development into the City's most sustainable travel patterns.

1.5.7 The University is committed to delivering a Transport Strategy to manage any effects of the Development across the highway network. This Framework Travel Plan forms an integral part of the University's strategy.

1.5.8 The overall broad objectives of the Development Travel Planning process for the Development are:

- to reduce the need to travel through carefully designed land-use provision and location;
- to reduce the overall reliance on the private car for all trip purposes with a long-term strategy of mode shift away from single occupancy car use;
- to build upon good urban design principles that increase the permeability of the development for promoting walking, cycling and public transport use;
- to promote the use of car sharing where appropriate;
- to reduce costly road traffic congestion and further damage to the environment in the context of sustainable development which is consistent with Government policy; and
- to encourage a high level of community involvement in travel behaviour change initiatives.

1.6 Structure of the Framework Travel Plan

1.6.1 This Framework Travel Plan is the latest issue of a working document that will be monitored, reviewed and revised where necessary. Given the length of time over which the development will be implemented, changing transport and planning policies and the potential for different outcomes to that set out in the Transport Assessment, this Framework Travel Plan and the relevant transport measures are designed to be flexible and adaptable to changing circumstances.

1.6.2 Following the Introduction, the Framework Travel Plan has the following structure:

- **Section 2** highlights the development proposals;
- **Section 3** summarises relevant national, regional and local policy.
- **Section 4** summarises the existing transport and movement context for the development;
- **Section 5** outlines the aims and objectives of the Framework Travel Plan;
- **Section 6** sets out the overall travel demand strategy for the Development;
- **Section 7** summarises the estimated trip generation forecasts from the Transport Assessment and outlines the Framework Travel Plan target;
- **Section 8** describes the implementation strategy and a toolkit of measures that can be implemented; and
- **Section 9** describes the on-going management, monitoring and review process including possible funding mechanisms.

2 Development Proposals

2.1 Introduction

2.1.1 This section summarises the site location and existing land uses on-site. Details of the development proposals are also outlined.

2.1.2 The Transport Assessment includes further details of the Development proposals and transport implications.

2.2 Development Background and Site Location

2.2.1 The proposed Development is located to the north-west of the existing urban conurbation of Cambridge, as shown in Figures 1 and 2. The Site is located immediately to the east of the section of the M11 motorway between Junctions 13 and 14. The Site is bordered by two Class A roads: Madingley Road (A1303) which routes between M11 Junction 13 and the centre of Cambridge, and Huntingdon Road (A1307) which connects M11 Junction 14 (the Girton Interchange) with Cambridge city centre. The Site lies within the administrative areas of both South Cambridgeshire District Council and Cambridge City Council, the boundary between these councils bisecting the development on a north-south axis.

2.2.2 The centre of the Site is approximately 2km north-west of the City Centre of Cambridge.

2.2.3 The Site occupies approximately 140 hectares (ha) and is currently primarily in agricultural use by the University Farm.

2.2.4 The strategic location of the Development is shown in Figure 1.

2.3 Development Aims and Aspirations

2.3.1 The promoter of the Development, the University of Cambridge, is one of the world's leading universities. It is renowned for the excellence of its teaching and research, and it makes a significant contribution to the prosperity of the city of Cambridge and UK economy.

2.3.2 To maintain its reputation as a world leader, the University must continue to develop and grow. In particular the University needs to address the issues of the lack of affordable accommodation for its staff and post-graduate students, and to continue the phenomenal success of the Cambridge area for fostering high technology research and development to ensure future opportunities come to fruition within Cambridge.

2.3.3 The University already has a proud reputation throughout the City for promoting its travel demand management strategy, and has always been proactive in delivering improvements to it – indeed the University was founding member of the Journey to Work Partnership established in co-operation with the County Council. This philosophy will be continued at the Development, which will have significantly different travel characteristics to a typical mixed-use development in the United Kingdom, or indeed to other developments throughout Cambridge. This will be as a result of the following:

- selecting the proposed residential, employment, education and retail land uses for the Development, such as to reduce the need to travel outside of the development;
- providing a food store on the Development such as to reduce the distance to travel to alternative food stores from surrounding residential areas;
- controlling local car ownership for students living in the University's Student Accommodation by using the University's motor proctorial control;

- the majority of the occupants of the University Key Worker housing be working in the University's facilities throughout Cambridge, all within a strong non-car travel mode culture with good access to safe alternative non-car modes of travel;
- key workers and commercial research workers being able to live in close proximity not only to their place of work but also requisite community and leisure facilities;
- key worker housing having a much lower car trip generation rate than market housing;
- University-related commercial research facilities with nearby residential accommodation demonstrably having far lower car trip generation rates than equivalent commercial science park facilities;
- the car parking provision for residential accommodation being 21% lower than the levels identified in the North West Cambridge Area Action Plan;
- academic research land uses within the Development having limited parking and a lower car-based trip generation than commercial research land uses.

2.3.4 An effective travel demand management strategy would form a fundamental part of minimising car impact on the surrounding highway network, and maximising sustainable modes of travel. At the heart of delivering this travel demand management strategy would be the Framework Travel Plan and the subsequent site specific Travel Plans.

2.4 Development Proposals

2.4.1 The proposed development incorporates a complementary mix of uses, selected both to respond to the needs of the University and to manage and reduce the need to travel. It has been assumed that the Development mix is as shown in Table 2.1, reflecting the Area Action Plan proposals. This reflects the Description of Development attached as Appendix A.

Table 2.1: Development Land Use Mix

Non-residential Uses		
Land-use	**Size (m^2) / Units**	
Market Housing	Up to 1,500 units	
Key Worker Housing	Up to 1,500 units	
Academic Research	At least 60,000m^2	Total - Up to 100,000m^2
Commercial Research	Up to 40,000m^2	
Collegiate	Up to 2,000 bed spaces	
Local Centre / Community	Up to 5,300m^2 gross retail floorspace (the Food Store is not more than 2,000 m^2 net floorspace Further Local Centre / Community facilities includes: Up to 500m^2 community centre, Up to 450 m^2 indoor sports provision Up to 200m^2 Police office, Up to 700m^2 Primary Health Care	
Hotel	Hotel – Up to 7,000 m^2 (130 bed spaces)	
Nurseries	Up to 2,000m^2	
Senior Living	Up to 6,500 m^2 (75 units of Sheltered Accommodation have been assumed in the Assessment)	
School	Up to 3,750 m^2	

2.4.2 It is anticipated that the development will commence around 2012 and will take around 12 – 14 years to build out.

2.4.3 The Development has been formulated to ensure future flexibility in delivering the transport strategy throughout the implementation process, and reflects the following key principles for access and movement:

i) good permeability and accessibility for non-motorised users, particularly pedestrians and cyclists;

ii) enhanced connectivity for pedestrians to surrounding existing areas, including to local recreational footpaths;

iii) excellent accessibility to public transport through the provision of bus routes through the Site;

iv) on-site highway designed within an overall urban design context based on the key principles in “Manual for Streets”, to reduce traffic speeds to 20mph and reduce the attractiveness of any route through the Development as a rat-run;

v) non-primary vehicular routes – the ability to design these as shared surface with speeds controlled to 20mph or less as set out in the “Manual for Streets” would be established with reference to the bus strategy;

vi) good access for housing, academic and commercial research and student accommodation to bus routes and transport nodes to increase potential patronage.

2.5 Site Access

2.5.1 Pedestrian / cyclist access to the Development and the surrounding area is shown on Figure 3 and on the Parameters Plan 02 – Access included in Appendix A. In summary:

i) connections will be made with Huntingdon Road to the north-east at five locations:

- along the orbital site vehicular access route to the Eastern Huntingdon Road access by a combined cycleway / footway;
- along the radial site vehicular route to the Western Huntingdon Road access by a combined cycleway / footway;
- at the northern end of the Ridgeway cycleway, located on Huntingdon Road opposite the Girton Road priority junction by a combined cycleway / footway;
- Bunkers Hill, located opposite the Whitehouse Lane priority junction, by a combined cycleway / footway;
- to the south of Howes Place priority junction by a footway only connection.

ii) connections with Madingley Road to the south are provided at two locations:

- along the radial site vehicular access route by a combined cycleway / footway;
- along Madingley Rise by a combined cycleway / footway;

iii) a connection to Storey's Way to the south-east by a combined cycleway / footway.

2.5.2 It is proposed to provide three general vehicular accesses to the development. These are:

i) Huntingdon Road East - to the north-east to Huntingdon Road, a traffic signal controlled junction at the Eastern Huntingdon Road access to provide access for the Development orbital site vehicular access route to the south, and the NIAB site to the north;

ii) Huntingdon Road West - to the north-west to Huntingdon Road, a traffic signal controlled junction at the Western Huntingdon Road access to provide access for the Development radial site vehicular route to the south;

iii) to the south to Madingley Road, a crossroad traffic signal controlled junction to provide access for the Development orbital site vehicular access route to the north, and to the West Cambridge Development to the south.

2.5.3 In addition, the existing Madingley Rise (linking to Madingley Road) would service a restricted area of academic research development to the south of the site.

3 Policy and Guidance context

3.1 Introduction

3.1.1 This section outlines the existing National, Regional and Local policy relevant to the preparation and implementation of the Framework Travel Plan.

3.2 National Policy

3.2.1 This section outlines the national policies that have been considered in relation to the development of the Framework Travel Plan for the Development.

i) Transport White Papers:

- "A New Deal for Transport: Better for Everyone" (1998) and "The Future of Transport – A Network for 2030" (2004)
- 'The Future of Transport – A Network for 2030' (2004)
- 'Towards a Sustainable Transport System: Supporting Economic Growth in a Low Carbon World' (October 2007)

ii) Planning Policy Statements:

- Planning Policy Statement 1 (2005) – Delivering Sustainable Development
- Planning Policy Statement: Planning and Climate Change – supplement to PPS1 (2007)
- Planning Policy Statement 3: Housing (2011)
- Planning Policy Guidance (PPG) Note: 13 Transport (2001)

iii) Highways Agency (HA) Circular 02/2007: Planning and the Strategic Road Network.

3.3 Regional Policy

3.3.1 The East of England Plan: The recently published Localism Bill provides for the abolition of Regional Spatial Strategies and is expected to be enacted in November 2011; although the abolition of individual Regional Spatial Strategies is not expected to take effect until the consequence of abolition has been the subject of Strategic Environmental Assessment. Until the East of England Plan is formally abolished it remains, therefore, part of the statutory Development Plan. The current state of play is that decisions must be in accordance with the statutory Development Plan unless material considerations require otherwise. In the meantime, Local Planning Authorities are entitled to take account of the Government's intention to abolish Regional Strategies as a material consideration but the weight to be given will for the time be limited.

3.3.2 The Revision to the Regional Spatial Strategy for the East of England was originally published by the Secretary of State for Communities and Local Government in May 2008, with a subsequent draft revision published in March 2010. To meet housing demand, the subsequent Regional Spatial Strategy for the East of England made provision for 57,400 new homes to be built in Cambridgeshire between 1999 and 2016, with 47,500 in the Cambridge Sub-Region (see Section 4). The East of England Plan supports the development of the Proposed Development, by virtue of Policies CSR1-CRS3 of this plan.

In addition the housing growth targets identified in the East of England Plan were based upon delivery rates from the earlier Structure Plan, prepared by the County Council with involvement from the District Councils. Together with relevant sections of the Milton Keynes South Midlands Sub-Regional Strategy 2005, the RSS had constituted the Regional Spatial Strategy (RSS) for the East of England. The original RSS covered the period until 2021, the draft revision covered the period to 2031, and set a vision, objectives and core strategy for the longer term.

3.4 Local Policy

3.4.1 The key local policies consist of:

i) saved policies from the Cambridgeshire and Peterborough Structure Plan (2003)

ii) saved policies from the Cambridge Local Plan (2006)

iii) North West Cambridge Area Action Plan (2009)

iv) South Cambridgeshire Development Control Policies DPD (2007),

v) Cambridgeshire Local Transport Plan

vi) Long-Term Transport Strategy

3.5 National and Local Guidance and Best Practice on Travel Planning

3.5.1 This Framework Travel Plan has been developed in accordance with best practice guidance, from national, regional and local guidance, including:

i) 'Good Practice Guidelines: Delivering Travel Plans through the Planning Process' (April 2009)

ii) 'Smarter choices – Changing the Way We Travel' (July 2004)

iii) 'Making Residential Travel Plans Work: Good Practice Guidelines for New Development' (September 2005)

iv) 'A Travel Plan Resource Pack for Employers' (originally published in June 2004)

v) 'A Review of the Effectiveness of Personalised Journey Planning Techniques' (December 2005)

vi) 'Making Personal Travel Planning Work: Research Report' (October 2007)

vii) 'The Essential Guide to Travel Planning' (October 2007)

viii) A Safer Journey to School – A Guide to School Travel Plans (July 1999)

ix) Local Guidance on Travel Planning:

- Draft Cambridgeshire Residential Travel Plan Guidance (March 2010)
- Cambridgeshire Workplace Travel Plan Guidance (October 2007)
- Cambridgeshire School Travel Plan Guidance (April 2008)

3.6 Analysis and application of current policy, guidance and emerging strategies

3.6.1 By promoting the selected land-use mixes on the Development, the University of Cambridge is actively reducing the demand to travel. This includes:

i) providing significant levels of Key Worker and post-graduate student housing to accommodate locally those who would otherwise have to travel longer distances from outside into the city;

ii) delivering a mix of both employment and residential accommodation on the development;

iii) providing a food store on the development to reduce the length and number of car-based journey to retail trips;

iv) providing a school and other community facilities within the development.

3.6.2 The Development accords well with national and regional transport policy and guidance to deliver sustainable development:

- Its sustainable location within Cambridge, and the incorporation of mixed employment and residential land-uses reducing the need to travel and supporting the aspirations and objectives of Planning Policy Statement 1, Planning Policy Statement 3, and Planning Policy Guidance 13;

- by locating the development so as to reduce the need to travel, by implementing a parking strategy, and by effecting a major shift in travel away from car use, the Development supports the policies of the East of England Plan;

- by promoting ways to reduce the traffic impact of this development and the University's other activities within Cambridge, and by "managing down" traffic generation, the Development supports the policy of the Highways Agency's Circular 02/2007.

3.6.3 Recent changing transport policy and best practice guidance has emphasised that travel planning can play a real role in tackling traffic congestion encouraging behavioural changes in mode choice. With this in mind, a number of Government policy objectives and publications have referred to and addressed Travel Planning issues. These techniques should be focussed and considered before additional highway capacity is considered.

3.6.4 A review of relevant policy and best practice guidance highlights that Travel Plans play a key role in easing traffic congestion and encouraging behavioural changes in mode choice.

3.6.5 It is clear that the Framework Travel Plan for the Development can significantly contribute towards achieving wider national, regional and local objectives and initiatives. The measures and strategies set out within this Framework Travel Plan are targeted to reducing traffic congestion by reducing single occupancy vehicle travel in favour of encouraging alternative sustainable choices of transport such as walking and cycling from the outset. These measures consist of both 'hard' and 'soft' solutions which will bring benefits to the whole site and the surrounding area and community.

3.6.6 It is considered that the overall travel demand management strategy defined for the Development, along with the constituent travel plans, will play a key role in achieving the objectives of sustainable development policy.

4 Existing Transport and Movement Context

4.1 The existing transport services and facilities within close proximity to the Development are described in Sections 3.1 to 3.6 inclusive of the Transport Assessment and are summarised on Figures 3 to 8 of this Travel Plan.

4.2 In summary, the Site benefits from excellent existing transport connections:

- the highways surrounding the site have good pedestrian facilities along and across them;
- similarly, highways surrounding the site have good cycle facilities along and across these roads. The improvement of cycle parking facilities within the city and at University sites would further encourage the use of bicycles for these movements;
- the Development has excellent public transport links, with roads adjacent the site being served by a number of bus services that link the site with the town centre, local villages and Park and Ride facilities; and
- the nearest railway station is Cambridge, which is located 4km from the site. Although there are no direct bus links from the site to the station, further bus services from the city centre are available.

5 Aims and Objectives

5.1 Introduction

5.1.1 This section builds upon the aims and objectives already stated within Section 1.

5.2 Aims and Objectives

Aims

5.2.1 The North West Cambridge Area Action Plan Policy NW11 "Sustainable Travel" states that: "Development and transport systems will be planned in order to reduce the need to travel and encourage the use of sustainable transport modes to encourage people to move about by foot, cycle and bus, to achieve a modal share of no more than 40% of trips to work by car (excluding car passengers)".

5.2.2 Sharing the stated aim of the Area Action Plan, the University is also committed to the delivery of a transport strategy that facilitates high levels of sustainable transport access and use, to deliver an immediate impact on mode share from the outset of the development, leading to a reduction in private car trips generated by the Development.

5.2.3 The accompanying Transport Assessment provides the technical support that the Development is expected to generate a modal share of less than 40% of car trips to work. The aim of the Framework Travel Plan, and the subsequent Site Specific Travel Plans, is to build upon this and create a further reduction in car usage across the site. This will be achieved by targeting the land uses which generate significant levels of car trips. Continuous promotion and encouragement of sustainable modes such as walking, cycling and public transport will also be endorsed to create mode shift from the private car across the site as a whole.

Objectives

5.2.4 The broad objectives of the Travel Planning process for the Development include:

- reducing the need to travel away from the Development by providing a good mix of land uses;
- reducing the overall reliance on the private car for all trip purposes with a long-term strategy of mode shift away from single occupancy car use;
- building upon good urban design principles that increase permeability of the development for promoting walking, cycling and public transport use;
- promoting the use of car sharing where appropriate;
- reducing costly road traffic congestion and further damage to the environment in the context of sustainable development which is consistent with Government policy; and
- encouraging a high level of community involvement in travel behaviour change initiatives.

5.2.5 The essential principle is to implement an effective alternative to private car use as soon as possible within the progression of the development to influence travel patterns and behaviour. This Framework Travel Plan and its constituent Travel Plans will play a key role in realising the aims and objectives of the overall transport strategy for the Development.

5.3 Delivery of the aims and objectives

5.3.1 To achieve the aims and objectives, a framework of measures will be applied to achieve a high proportion of sustainable transport use.

5.3.2 Cambridge is often recognised as a 'cycling city' and with the city's vision to become 'a world-class cycling city'[1] focus will be given to incorporate measures to encourage cycling associated with the Development.

5.3.3 In addition to this, measures such as car sharing and car clubs will therefore be used to reduce the reliance and maintain the low level of 'drive alone' car trips and improve the efficiency of the transport network.

5.3.4 These objectives will be used as a guide for the development of individual objectives for the Site Specific Travel Plans.

5.3.5 Aims and objectives will be reviewed and updated regularly to monitor progress against these objectives. Annual surveys of travel mode choice will be undertaken to assess changes in travel behaviour and identify changes and / or additions to the aim and objectives.

5.3.6 Details of the monitoring strategy are discussed in more depth in Section 9.

5.4 Connection with Existing Transport Initiatives

5.4.1. A successful Travel Plan requires an effective marketing strategy and robust monitoring. The exact measures of the Framework Travel Plan, and the subsequent site-specific Travel Plans, may be connected to other relevant transport initiatives supported by Cambridgeshire County Council such as:

- Travelwise Campaign - awareness campaign promoting sustainable travel;
- Travelling to School Initiative (TTSI) - examining home to school travel;
- 'Exercise your choice' - a campaign promoting walking, cycling and public transport travel in the area;
- Cambridgeshire Travel for Work Partnership - working with local employers, promoting workplace Travel Plans;
- Travel Plan Plus Project - run by the Travel to Work Partnership, the project will establish a Travel Plan network with employment sites across Cambridge;
- Camshare - an internet based car sharing scheme set up by Cambridge County Council and Travel for Work Partnership; and
- Supporting national 'Walk to School', 'Bike' and 'European Mobility' weeks as well as 'Walking the Way to Health Initiative' run by the Countryside Agency.

[1] Cambridge Cycling Campaign, Cycling 2020, May 2008

Cambridgeshire Travel for Work Partnership

5.4.2 The University of Cambridge is a founding member of the Travel for Work Steering Group who fund and support the Travel for Work Partnership in its work. Therefore, a number of measures incorporated within this Framework Travel will be developed in connection with the Travel for Work Partnership. The partnership will also be promoted to the individual occupiers of the commercial and retail facilities of the Development, encouraging them to join and become a member.

5.4.3 The Travel for Work (TfW) Partnership is a not for profit organisation that works with a network of employers and developers within Cambridge to help deliver effective Workplace Travel Plans.

5.4.4 The TfW offer a number of incentives and initiatives (often free of charge) to help employers promote healthy and sustainable travel to work. Some of the services that TfW provide to their members include:

- travel surveying - A 'benchmarking travel survey' to assess how employees are currently travelling to work as well as free annual travel surveys (delivered via the internet / paper based copies) to monitor the success of the Travel Plan;
- template Travel Plans and guidance;
- access to CamShare (local car sharing facility);
- support on cycling initiatives - i.e. setting up cycle clubs);
- Cambridgeshire and Peterborough Travel Plan Awards - rewarding for efforts towards delivering Travel Plans and raising awareness of the organisations achievements;
- cycle shop discounts – Cycle equipment and maintenance discounts are available from a number of Cambridgeshire shops. Pool bikes could also be purchased with a discount;
- cycle training – this scheme (run by the County Council) facilitates on-site training for staff;
- train season discounts – Discount season tickets for members are available for tickets purchased at National Express, East Anglia and First Capital Connect; and
- networking – TfW provides access to a range of contacts (i.e. other employers and policy makers) that provokes knowledge sharing.

5.5 Summary

5.5.1 The Framework Travel Plan for the Development aims to deliver and maintain the modal share of no more than 40% of car trips to work (excluding passengers), in accordance with local, regional and national policy objectives. In addition to this, the Framework Travel Plan aims to reduce the number of single occupancy car journeys made by users of the site for other trip purposes.

5.5.2 To support these aims, the continuous promotion of sustainable modes of travel will be encouraged through a framework of suitable measures.

6 Overall Demand Management Strategy

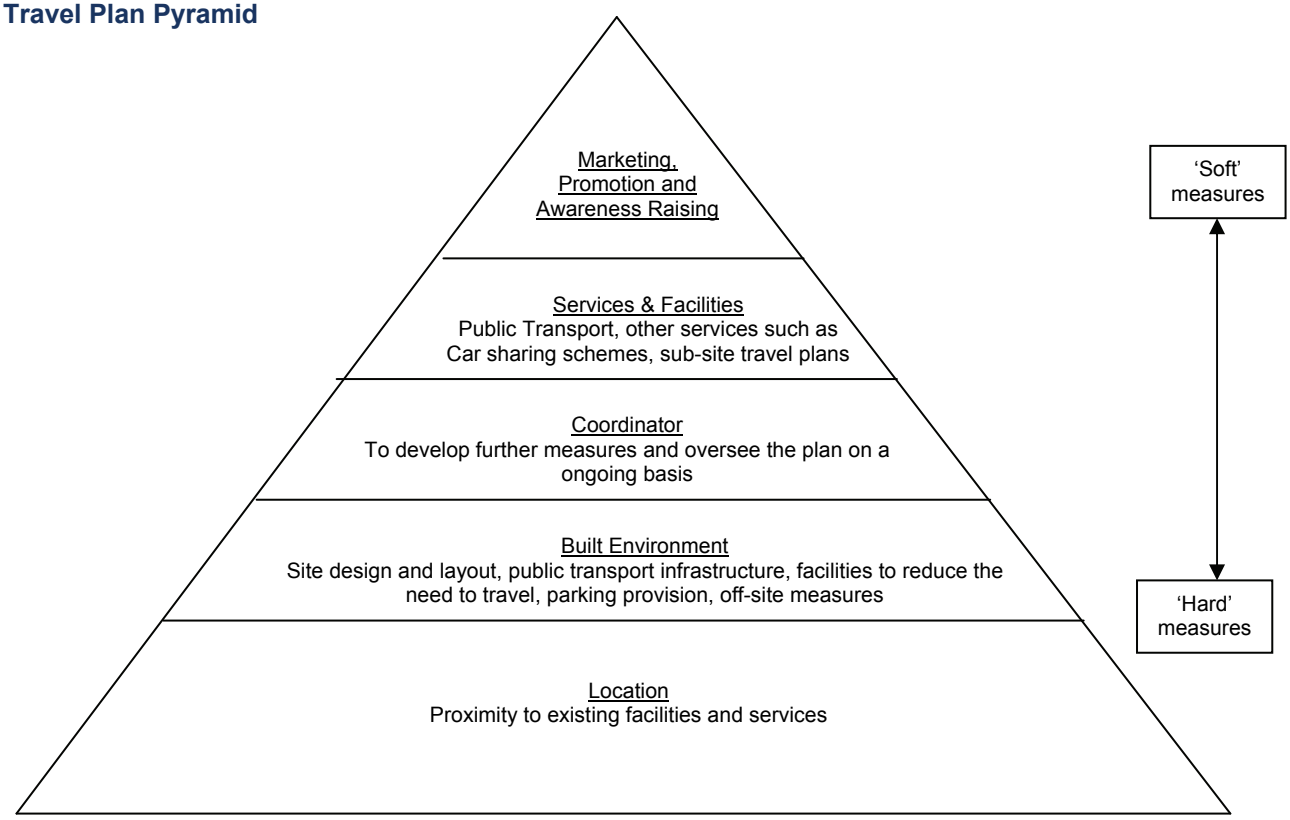
6.1 Introduction

6.1.1 The overall travel demand management strategy for the Development draws on current Travel Plan best practice to ensure sustainable travel practices are embedded from the outset of the development, to deliver immediate impacts and to progress towards achieving the aims and objectives of the Travel Planning process.

6.2 Best Practice

6.2.1 To help demonstrate how a successful Travel Plan strategy is built, reference has been made to 'The Travel Plan Pyramid' contained in the Department for Transport's 'Making Residential Travel Plans Work: Good Practice Guidelines' replicated below (these residential development-based guidelines are appropriate for all elements of the Development). This has been used as a guide for ensuring that all aspects of encouraging sustainable travel are addressed within the Framework Travel Plan strategy.

Travel Plan Pyramid



6.2.2 To help meet the aims and objectives of the Framework Travel Plan, the strategy will combine a number of specific "hard" and "soft" Travel Plan measures, some based on the overall Development proposals, whilst others will be specific to residential, employment and school land-uses. All measures will be integrated into the site design, marketing and occupation of the site.

6.2.3 The remainder of this section sets out in more detail the strategy for the Development. This is focussed on, and in the same order as the tiers identified in the travel plan pyramid, which include:

- Bottom Tier – Location
- Second Tier – Built Environment
- Third Tier – Coordinator
- Fourth Tier – Services and Facilities
- Top Tier – Promotional Strategy

6.3 Bottom Tier – Location

6.3.1 The general location of the Development, within the urban conurbation of Cambridge, means that the site is well-located adjacent other developed areas. Of particular note for the location of this are:

- immediate proximity to existing major local employment areas, particularly at the West Cambridge, and the proposed employment areas on site at the Development;
- close proximity to Colleges, especially Girton, Fitzwilliam, Murray Edwards and Churchill;
- close proximity to the Cambridge Science Park (5km to the north-east);
- proximity to the high quality regular public transport connections along the adjacent Huntingdon Road and Madingley Road – providing good connectivity to the City Centre, surrounding areas and the Cambridge Railway Station; and
- proximity to the Centre of Cambridge (approximately 3km south-east).

6.3.2 Furthermore, the services and facilities proposed within the Development would offer the opportunity to encourage existing residents and employees not only within the Development but also those located in adjacent areas around the site, such as West Cambridge Development and the NIAB Development, both to reduce travel overall, and to reduce car trips.

6.4 Second Tier – Built Environment

Site Design and Layout

6.4.1 The design and layout of the Development will promote the use of sustainable modes of transport over the private car. The Site layout has been designed to ensure that it strongly favours sustainable modes of transport, the road hierarchy of the Site has been designed to limit the permeability of the Site for vehicles and to enhance accessibility for pedestrians and cyclists.

6.4.2 The following design principles have been incorporated in the Development. to reduce the number of car trips to and from the site:

- the focus of the accessibility strategy for the site remains strongly in favour of sustainable modes of transport, the site has been provided with permeable footways and pedestrian crossings delivered along the desire lines;

- footpaths would be provided throughout the development creating links to existing public rights of way and footways would be provided on both sides of the primary route and at the site access locations. Pedestrian crossing points would have dropped kerbs, and traffic calming measures would be present at key junctions close to the schools and local centres to reduce traffic speed and to ease pedestrian movement;

- provision of a cross-site cycle route, The Ridgeway, that enters at the northern end of the site (via Huntingdon Road) and routes through the site in a south easterly direction;

- high levels of cycle parking at least to the adopted North West Cambridge Area Action Plan minimum cycle parking standards will be provided within covered, secure, lit and well-located areas.

- the main traffic routes on-site will be designed within an overall urban design context based on key principles in the Department for Transport's "Manual for Streets" to reduce traffic speeds and deter rat running. These will be designed to keep traffic speeds to 20mph;

- other secondary vehicular routes will be designed to keep traffic speeds at 20mph or less also using design philosophies set out in Manual for Streets, which includes constrained width and alignment and the use of shared surface areas;

- provision of car parking below adopted North West Cambridge Area Action Plan maximum car parking standards;

- elements designed to provide priority for public transport through the Development, including traffic signals with selective vehicle detection, bus-only links, quality on-site bus stops enabled with real time information displays, and increased bus services.

6.4.3 The design and movement principles listed above encourage more sustainable transport modes such as walking and cycling, and access to public transport.

Facilities that Reduce the Need to Travel

6.4.4 Compact mixed-use developments encourage sustainable travel choices, particularly walking and cycling – as emphasised in the Department for Transport's Manual for Streets. The mix of land-uses proposed at the Development is set out in Table 2.1 above.

6.4.5 The comprehensive mixes of employment, food retail, education, leisure and community uses with the residential accommodation within the same development would both reduce the need to travel, and the distance to be travelled by the private car.

6.4.6 It is expected that the proposed mixed land-use of the Development site will enable and encourage sustainable travel choices, particularly walking and cycling:

- as car parking for the students accommodated within the Development would be restricted and controlled, there would be minimal car-use, with modes such as walking, cycling and bus used instead;

- the provision of around 1,500 Key Worker housing units within the Development provides the opportunity significantly to reduce car-based trips on the highway network surrounding Cambridge. As observed in the 2009 University of Cambridge Travel Survey, 48% of University workers are resident outside of the City area, necessitating them travelling into the City to get to their place of work. The results of this survey are shown in Table 6.1:

Table 6.1: 2009 University of Cambridge Travel Survey – mode share of University workers

		No of Respondents	Total 5 Day Survey Count Responses									
			Car	Car Passenger	Cycle	Bus	Walk	M/Cycle	Home	Train	Other	Total
All Survey Returns		1789	1873	604	3271	771	888	111	139	417	292	8366
Mode Share of All Respondents			22%	7%	39%	9%	11%	1%	2%	5%	3%	100%
Respondents with Cambridge Urban Area Home Addresses	CB1	309	161	68	769	157	176	17	22	4	44	1418
	CB2	103	67	28	0	49	80	0	0	0	0	224
	CB3	149	54	13	0	32	162	0	0	0	0	261
	CB4	305	136	42	0	104	179	0	0	0	0	461
	CB5	62	80	4	0	42	18	0	0	0	0	144
Mode Share of Respondents with Cambridge Urban Area Home Addresses		928 (52% of total respondents)	20%	6%	31%	15%	25%	1%	1%	0%	2%	100%
Remainder – Respondents with Home Addresses Outside of the Cambridge Urban Area		861 (48% of total respondents)	1375	449	2502	387	273	94	117	413	248	5858
Mode Share of Remainder			23%	8%	43%	7%	5%	2%	2%	7%	5%	100%

Source – 2009 University of Cambridge Travel Survey

6.4.7 Affordable accommodation within the City for University employees is extremely limited (the University has around only 360 units), is already at capacity, and relatively expensive when compared to similar accommodation from outside the Cambridge area. These proposals will add a substantial volume of affordable Key Worker housing at the Development in a highly sustainable location where non-car mode alternatives would be readily available.

6.4.8 The Car Driver mode is relatively consistent for University employees resident both in the City and in areas surrounding it - around 22%. Even adopting the conservative assumption that the existing mode share is replicated in the future, the provision of 1,500 Key Worker units would result in around 350 fewer long-distance trips being made by car on the highway network surrounding the development. By providing accommodation nearer to the work place, the Key Worker housing at the Development would certainly:

- reduce significantly the number of vehicles travelling on the highway network surrounding Cambridge (although not so much within the City);
- reduce the total distance travelled by vehicles on the surrounding highway network;
- be able better to offer public transport, bicycle and pedestrian modes to travel to work.

6.4.9 However, as all residents within the Development would be subjected to a highly active travel demand management strategy (indeed, any resident University Key Worker employees would also be subjected to this management strategy at their place of work), and as alternative non-car modes of travel would be immediately available from the Development, it is expected that the number of car-based trips made within the City would become lower than that observed as a consequence.

Car and Cycle Parking Provision and Management Strategy

6.4.10 The maximum car parking standards stated in the adopted North West Cambridge Area Action Plan are summarised in Table 6.2.

Table 6.2: North West Cambridge Area Action Plan – Maximum Car Parking Standards

Land Use		Maximum Standards
Residential	1 to 2 bedrooms	1 space
	3 or more bedrooms	2 spaces
	In addition, visitor parking should be provided at a rate of 1 space per 4 units, provided that off-street parking would not be above 1.5 spaces per dwelling	
Academic and Research	B1 Offices, General Industry	1 space per 40m2 GFA
	Non-residential higher education	2 spaces for every 3 staff
Residential Collegiate	Student residential accommodation subject to proctorial control	1 space every 10 beds + 1 space for every resident warden (For the purposes of this assessment, the number of wardens is assumed to be 1 per 40 students)
Retail	Food store	1 space per 50m2 up to 1,400m2 GFA + 1 per additional space per 18m2
	Local Centre Store	1 space per 50m2
PCT	Clinics and Surgeries	1 space per every professional member of staff, + two spaces per consulting room
Local Centre	Public hall / community centres	1 space per 20m2
University Mensa	Food and Drink Takeaways	1 space per 20m^2 drinking / dining area
Hotel	Guest houses and hotels	2 space per 3 bedrooms, and 1 space per resident staff
Nursery	Crèche	2 spaces per 3 staff
Senior Care	Retirement home	1 space per 4 units 1 space per 2 staff
School	Non-residential schools	2 spaces per 3 staff

Source – North West Cambridge Area Action Plan

6.4.11 Based on the land-use schedule summarised in Section 2, had the Area Action Plan parking standards been delivered, a total of 4,488 car parking spaces for the residential element and 3,212 for the non-residential aspects of the development scheme would be provided – a total of 7,700 spaces. For the purposes of initial model runs conducted for the Transport Assessment, the number of car parking spaces reflecting the Area Action Plan maximum standards has been assumed. Nevertheless, within Section 19 of the Transport Assessment, the effects of reducing car parking provision to that actually proposed in connection with the Development are considered (see paragraphs 19.4.6 to 19.4.18 of the Transport Assessment) as a further travel demand management measure.

6.4.12 The University is committed to delivering an appropriate level of car parking to reduce car usage, whilst providing sufficient to accommodate demand. It is therefore proposed that a reduced total of 3,343 car parking spaces for the residential element and 2,712 car parking spaces for the non-residential aspects of the development scheme would be provided – a total of 6,055 spaces. This 21% reduction in the potential AAP maximum number of car parking spaces is considered appropriate in the context of the reductions in demand for car travel that would result from the accessibility of Development to non-car modes, other travel demand management measures, and the proposed mix of land uses. Further details are provided in the Transport Assessment accompanying this Travel Plan.

6.4.13 In accordance with the Area Action Plan standards, at least 5% of the total number of car parking spaces will be reserved for disabled people - calculated as 5% of the AAP maximum for each land use. These dedicated disabled car parking spaces will be:

- located adjacent to entrances (or if not provided within the site, to be located within 100m of the site);
- be convenient to use;
- have dimensions that conform to Part M of the Building Regulations; and
- be suitably marked.

6.4.14 Further details of car parking provision and the allocation of spaces are provided within the Transport Assessment.

6.4.15 The minimum cycle parking standards within the North West Cambridge Area Action Plan are shown in Table 6.3 below.

Table 6.3: North West Cambridge Area Action Plan – Minimum Cycle Parking Standards

Land Use		Minimum Standards
Residential	1 to 3 bedrooms: 4 bedrooms	1 space per bedroom 3 spaces
	5 or more bedrooms:	4 spaces
Academic and Research	B1 Office Storage and Other B use classes	1 space per 30m^2 GFA On merit
	Non-residential higher education	Cycle parking for all students and 1 for every 2 members of staff
Residential Collegiate	Student residential accommodation subject to proctorial control	2 space every 3 beds 1 visitor space per 5 beds
Retail	Food store and Local Centre Store	1 space per 25m^2 GFA up to 1,500m^2, thereafter 1 space per 75m^2
PCT	Clinics and Surgeries	2 spaces per consulting room, 1 space for every 3 professional members of staff
Local Centre	Public hall / community centres	1 space per 15m^2 of public floor area
University Mensa	Food and Drink Takeaways	1 space per 10m^2 dining area
Hotel	Guest houses and hotels	2 spaces per 10 bedrooms, 1 space per 2 members of staff
Nursery	Crèches and Nurseries	1 space per 2 members of staff 1 visitor space per 5 children
Senior Care	Retirement home	1 space per 6 residents 1 space per 2 members of staff
School	Non-residential higher and further education	1 space for 50% of children between 5 and 12

Source – North West Cambridge Area Action Plan

6.4.16 Other cycle parking standards are potentially appropriate in this case. The Code for Sustainable Homes does not specify a particular level of cycle parking – instead, credits are awarded for various features, and the sustainability of any particular dwelling is assessed with respect to the total number of credits. Cycle parking is such a measurement criteria within Category 1 Energy / CO_2. The Code for Sustainable Homes cycle parking standards for 4 bedroom houses would provide one more cycle space than the Area Action Plan standard, hence have been applied so all units achieve two credits.

6.4.17 Based on the land use schedule summarised in Section 2, it is proposed to provide a total of 12,316 cycle parking spaces across the development site; 6,508 for the residential units and 5,806 for the non-residential land uses. Further details of cycle parking provision and the allocation of spaces are provided within Table 9.4 of the Transport Assessment, as reproduced below in Table 6.4:

Table 6.4: – North West Cambridge Residential and Mixed-Use Cycle Parking Ratios

Density of Development	Cycle Parking Provision	Cycle parking space ratio (number per unit)		Approximate number of Dwellings / Area	Number of spaces
Residential Land-Use					
1 bed	North West Area Action Plan	1 space per bedroom	1 space	884	884
2 bed			2 spaces	1,139	2,278
3 bed			3 spaces	570	1,710
4 bed		4 spaces		373	1,492
5 bed		4 spaces		36	144
Total				3,002	6,508
Non-Residential Land-Uses					
Academic Research	North West Area Action Plan	1 space / 30m^2		60,000m^2	2,000
Commercial Research				40,000m^2	1,333
Collegiate		2 spaces / 3 bedrooms 1 visitor space / 5 bedrooms		2,000	1,733
PCT		2 spaces per consulting room, 1 space for every 3 professional members of staff		9 professionals, 8 rooms	19
Local Centre Community Hall		1 space per 15m^2 public floorspace		850m^2	57
Local centre store		1 space per 25m^2 GFA up to 1,500m^2, thereafter 1 space per 75m^2		800m^2	32
Food Store				2,900m^2	79
Mensa		1 space per 10 m^2 dining area		500m^2 dining area	50
Police Office		1 space / 30m^2		300m^2	10
Hotel		2 spaces per 10 bedrooms, 1 space per 2 members of staff. (assumed to be 25 staff)		130 bed spaces	43
Nursery		1 space per 2 members of staff 1 visitor space per 5 children		62 staff, 355 pupils	102
Senior Care		1 space per 6 residents 1 space per 2 members of staff		75 units – 1.25 occupancy, assumed 1 member of staff	17
School		1 space for 50% of children between 5 and 12		500 children	250
Total Non Residential					5,808
Total across the Development					12,316

6.4.18 In addition to the provision of cycle parking provision to the specific land-uses, additional secure cycle parking will be provided at the major bus stops within the development (such as in the local centre) to assist in the adoption of a combination of non-car modes to deliver movement.

6.4.19 Residential and residential collegiate cycle parking will be provided within a covered lockable enclosure, either in a shed or garage, or within lockers or stands within lockable covered enclosures. Cycle parking for the Retail and Hotel areas will be provided as near as possible to the main entrance of the buildings, and will be covered by natural surveillance or CCTV.

On-site Public Transport Infrastructure

6.4.20 This section outlines the bus infrastructure proposed for the Development, Section 6.6 provides further details of the proposed public transport services in the “Services and Facilities” tier of the “Travel Plans Pyramid”.

6.4.21 In order to facilitate an attractive bus service with good, safe headway through the Site and hence to users to the service, the following would be provided:

i) high quality bus stops;

ii) bus priority measures such as bus lanes or bus gates;

iii) measures to allow buses to turn on site;

iv) sections of dedicated bus-only routes; and

v) selected vehicle detection for buses to improve the flow of buses or enable passengers to access facilities.

Bus Stops

6.4.22 High quality bus stops act as the gateway to the network, and as such are the 'shop window' that are seen by travellers on all modes as they make their journeys. Bus stops would be equipped at this development with the following:

i) a high quality, 3 sided shelter;

ii) seating and lighting;

iii) comprehensive timetable information, including network maps and fare details;

iv) a flag indicating services calling at the stop;

v) off-bus ticketing facilities to speed boarding times;

vi) Real Time Passenger Information (RTPI) screens indicating departure times of the next bus;

vii) a raised kerb to assist the less mobile or those with pushchairs to access the bus;

viii) litter bins in close proximity but not obstructing access to and from the bus;

ix) cycle stands to allow cycle-bus interchange; and

x) 'Bus stop' cage markings and an associated clearway order to keep bus stops free of other parked vehicles.

6.4.23 Provision of these facilities, and their prompt maintenance and repair by the bus operator or Development management, would ensure that the point of access to bus services is kept to a high standard, and would act as an attractor to public transport services within the development.

6.4.24 It is considered that six pairs of bus stops would be required on the development site. The provision of these would be phased to reflect the progress of the emerging development.

Bus priority measures

6.4.25 A bus gate is proposed on the Huntingdon Road – Madingley Road Link Road through the centre of Development in the early stages, to prevent traffic from taking a direct route between Huntingdon Road and Madingley Road (although an alternative, longer and less attractive route would be available for all vehicles). Service Uni 4 would make use of this, as would the proposed shuttle service to the Science Park.

6.4.26 Additional bus priority could be provided by the use of Selective Vehicle Detection (SVD) technology at traffic signals controlling the entrance to the Site from Madingley Road and Huntingdon Road. This would detect approaching buses, and alter signal phases accordingly to ensure the minimum of delay to the bus.

Off-site infrastructure enhancements

6.4.27 In terms of off-site enhancements that would provide benefits to the Site, it is considered that the following may be necessary:

i) improvement to three pairs of bus stops on Huntingdon Road located close to pedestrian accesses to the development, including provision of crossing facilities where necessary; and

ii) a new pair of bus stops on Huntingdon Road to be provided to the east of the access to Girton College.

6.4.28 These improvements could enhance access to the bus network on the Service Citi 5 route before the service starts to operate through the Site. It would be desirable to enhance these bus stops to the same standard as those on the Site (where practical) to allow a continuous journey experience to be delivered.

6.4.29 These improvements to the bus infrastructure will increase accessibility to and encourage use of public transport modes.

6.5 Third Tier – Overall Transport Coordinator and Individual Travel Plan Coordinators

Development Transport Coordinator

6.5.1 The appointment of an overall single Transport Coordinator for the Development will be central to the successful implementation and management of measures across the site. It will be the responsibility of the University to appoint a Development Transport Coordinator. This role may be considered to be that of an enhanced Framework Travel Plan Coordinator, taking responsibility for all aspects of the transport strategy proposed for the Development

6.5.2 The Transport Coordinator will work with all relevant stakeholders, including Cambridgeshire County Council, through a Stakeholders Group (see below), to achieve the implementation of the transport strategy for the Development, and with residents and occupiers of the development, to encourage use of the sustainable transport options provided.

6.5.3 As part of the transport strategy for the Development, a 'Transport Stakeholders Group' will be formed by the Transport Coordinator to help deliver, manage, operate, monitor and review the travel management initiatives at the Development. The main stakeholders could include:

- the University of Cambridge;

- the planning and highway authorities including South Cambridgeshire District Council, Cambridge City Council, Cambridgeshire County Council and the Highways Agency;
- public transport operators such as Stagecoach;
- representatives from the community at the Development – both residents and employers, as it expands.

6.5.4 This will not only facilitate the wider transport strategy for the Development itself, but also potentially the wider Cambridge transport strategy.

6.5.5 The Transport Coordinator will take ownership and manage the Framework Travel Plan.

Individual Travel Plan Coordinators

6.5.6 It is envisaged that long-term ownership will remain invested in the University for the Key Worker housing and the Academic Research areas. As such, it is likely that the Transport Coordinator will also assume the role of Travel Plan Coordinator for these elements of the development that remain in the control of the University.

6.5.7 In addition to the University's land holdings, there will be individual travel plan coordinators for the privately developed residential development parcels, the school, the commercial research areas, the proposed food retail and various leisure and community uses. They will all liaise with the Transport Coordinator.

6.5.8 Although the roles and responsibilities between the different land-uses will partly differ, and also between the individual Travel Plan Coordinators and the Transport Coordinator, the main overall roles and responsibilities of each Travel Plan Coordinator are set out below:

- managing and coordinating the implementation of each specific Travel Plan;
- providing the measures set out in the Travel Plan;
- to provide a focal point on Travel Plan issues;
- to liaise with other Travel Plan Coordinators, the Local Authority, and public transport operators;
- to promote and market the individual measures and packages;
- organising periodical travel surveys of residents, employees or parents;
- reviewing and monitoring the success of the Travel Plan;
- setting and amending mode shift targets;
- to implement appropriate levels of action should mode shift targets not be achieved.

6.5.9 Further details about the management of the Framework Travel Plan and the individual Site Specific Travel Plans are included within Section 9.

6.6 Fourth Tier – Services and Facilities

6.6.1 This section outlines some of the measures / services and facilities that could be deployed at the Development to promote and encourage sustainable travel.

6.6.2 Further details on the implementation of the proposed measures at the Development are given in the Transport Assessment.

Walking

6.6.3 To encourage and promote walking within the Development, permeable footways and pedestrian crossings will be delivered along key desire lines. Consideration will also be given to the installation of walking signs to identify key routes and walk to school training, including the possibility of forming a 'walking school bus'.

Cycling

6.6.4 A series of measures are proposed to enhance the accessibility of cycling.

Cycle Pools / Hubs

6.6.5 A cycle pool is a shared bicycle scheme which aims to provide people with the convenience of using a bicycle when required, but without having to consider outlay costs, maintenance and storage.

6.6.6 The University will consider providing cycle hubs located at convenient places through the development, particularly at the key public transport interchange located at the neighbourhood centre. This form of cycle hire is particularly effective for occasional short journeys, and to provide for commuting journeys from public transport interchanges.

6.6.7 As part of this scheme, relationships could be made with off-site attractors by potentially providing cycle hubs off-site at other key attractors to complement the facilities at the Development, such as at the Cambridge Railway Station, the University of Cambridge Central Sites, and the Grand Arcade.

6.6.8 The provision of electric / hybrid pool bikes would be investigated by the University to provide an alternative option to pedal cycles.

"Cycle Buddy" schemes

6.6.9 The already successful Cambridgeshire car and cycle share database with Liftshare (CamShare.co.uk) will be promoted and encouraged to match similar journeys and create "Cycle Buddies" (BikeBUDI), with extensive publicity and incentives to encourage uptake. This website and database allows people to match their travel patterns and requirements with other registered users. It is free for members to sign up, register their journeys and find someone to share a bicycle journey with (this same database also allows people to search for a CarBUDi – see 'Car Sharing' later in Section 6).

Development cycling services

6.6.10 A 'cycle clinic' facility would be provided within the Local Centre. This clinic would allow residents / users of the site to take their bicycle to a dedicated location on-site where simple repairs (i.e. punctures) can be carried out.

Cycle Training

6.6.11 The offer of cycle training for residents and employees will be investigated. Cambridgeshire County Council currently run an Adult Cycle Training Bikeability scheme, providing bespoke training sessions to improve cycle skills and confidence for inexperienced cyclists.

Other Measures

6.6.12 Other measures which are also being considered include:

- creation of a cycle club;
- offer of bike maintenance vouchers for cyclists;
- offer of up to three free cycles per household to all households where the occupants commit to not owning, borrowing or obtaining a car to be parked at the Development for a minimum period of a year;
- offer of discounted cycles and equipment; an
- cycle to work schemes for staff of schools, academic research and the commercial and retail facilities;
- promotion of the existing University of Cambridge cycle purchase scheme for University employees.

Development design measures

6.6.13 Sufficient cycle parking will be provided throughout the site – see Section 6.4.

6.6.14 In addition to cycle parking, all major employers would be required to provide associated shower and changing room facilities at the larger commercial and public facilities for cyclists after cycle journeys.

Public Transport

6.6.15 Details of the public transport improvements are set out in the Public Transport Strategy within the Transport Assessment, and is still the subject of review. However, the strategy is underpinned by three key principles, all of which reflect key elements of current national, regional and local policy. These key principles are as follows:

- to secure a more sustainable pattern of development through the provision of high quality public transport that promotes accessibility to jobs, shopping, leisure facilities and services whilst reducing the reliance on access by private car;
- to encourage modal shift away from single occupancy private car use towards public transport for all trips to help reduce the impact of the development on the local network; and
- to make effective use of existing bus services within Cambridge and integrate the development with the surrounding built up area.

6.6.16 The bus infrastructure improvements associated with the Development have been summarised in Section 6.4 of this section.

6.6.17 The implementation of the proposed bus service will reflect the emerging development construction phasing. The proposed final Bus Service provision is shown on Figure 8, and summarised as follows.

6.6.18 By the end of development, the Huntingdon Road (West) access would be implemented, enabling Service Citi 5 journeys to / from Bar Hill to divert from their current route and serve the Site. Initially, the frequency of Service Citi 5 can be increased to provide 10 minutes frequency during Monday to Saturday daytimes between the Development and the city centre. The evening and Sunday service provide a 30 minute frequency throughout on service Citi 5 to Bar Hill, with the exception of Sunday evenings when the frequency is reduced to every 60 minutes.

6.6.19 The later phases of development at the Site would include a greater emphasis on commercial and academic research facilities. At this time enhanced links between the West Cambridge and the Development would be advantageous, and consideration of improvements to the Service Uni 4 would be appropriate.

6.6.20 By Development completion, it is intended that there would be an increased frequency on Service Uni 4 to every 10 minutes during Monday to Friday daytimes between the Development and the city centre, with the same 30 minute extension to Brooklands Avenue and the Railway Station / Addenbrooke's Hospital. This maintains the existing frequency to the West Cambridge site, and allows Service Citi 4 to operate direct from Cambourne via Madingley Road. At this stage of development, Service Uni 4 would terminate at a point in the north-western corner of the Site. Provision would be made in this area for a bus to manoeuvre safely. .

6.6.21 Overall service frequency by development completion is anticipated to be:

i) a 10 minute frequency during Monday to Saturday daytimes on Service Citi 5 to Bar Hill and Cambridge city centre;

ii) a 30 minute frequency in the evening and on Sundays on Service Citi 5 (except Sunday evenings when the frequency is every 60 minutes);=

iii) a 10 minute frequency service on Service Uni 4 on Mondays to Fridays to Cambridge city centre, with a 30 minute service to the Railway Station / Addenbrooke's on Mondays to Fridays. A 30 minute frequency service on Saturdays as far as the city centre only; and

iv) a 30 minute frequency service between West Cambridge and the Development, NIAB, Orchard Park, the Regional College and the Science Park on Mondays to Fridays.

Car Club

6.6.22 Car Clubs are extremely effective at both reducing the ownership of cars, and car usage - research undertaken by Transport for London in 2007 indicated that each Car Club vehicle would reduce car ownership by 20 vehicles, and that Car Club members would then be 68% less likely to make a journey by car after joining than before. Car pools / clubs are particularly helpful for families or businesses that have the need for only occasional use of a car (such as a second car).

6.6.23 The University of Cambridge currently operates a business account car club membership whereby University Departments and Institutes can book vehicles at any car club location. The car club vehicles are located at the West Cambridge and the Old Addenbrooke's sites, and the University is planning to locate further car club vehicles at other sites in 2011. An agreement would be reached with the car club provider to have an on-site presence, and this scheme would be extended.

6.6.24 Current Government research shows a scheme needs 200-250 residents or members to justify each vehicle. The Development would therefore need between 12-15 car club car parking spaces parked within the development.

6.6.25 It is intended that, for the first ten years of the occupation of the Development, all Key Workers resident on the site who commit to not owning, borrowing or obtaining a car to be parked at the Development would be offered a discounted membership. Additional car parking spaces would be allocated for these within the Key Worker development at a rate of 1 space every 75 units.

Car Sharing

6.6.26 Car sharing can be an effective way of reducing peak hour congestion and demand for car parking spaces. Car sharing involves two or more people sharing a car for their journey for all purposes, which can bring direct cost savings.

6.6.27 The Cambridgeshire car share database with Liftshare (www.CamShare.co.uk) will be encouraged and promoted to match similar journeys either as a CarBUDi, with extensive publicity and incentives to encourage uptake – this will be offered for both residents and employees based at the Development, although it is anticipated that greater use would be made by the employees.

6.6.28 In addition to this, it is proposed to provide controlled car parking spaces for car sharers at commercial facilities conveniently located close to the building entrances to be attractive.

Other facilities

6.6.29 Other measures to be considered include:

- the provision to each household and commercial premises of the infrastructure for broadband access to facilitate remote home working;
- the availability of free / deposit-based cycle trailers from the retail facilities for residents;
- free and fast delivery of supermarket goods around the site will also be considered.

6.6.30 The facilities and measures provided by each land use will be detailed within the individual Site Specific Travel Plans.

6.7 Top Tier – Marketing and Promotional Strategy

6.7.1 There is a wealth of information and guidance available about how to influence travel behaviour through travel plan techniques, travel behaviour change projects, individualised marketing and personal travel planning. All these techniques will be applied at the Development. However, all of this work starts from the basis of hitherto historic, predominately car-based travel behaviour – this basis will be challenged in the proposed Development. The University already has a proud reputation throughout the City for promoting its travel demand management strategy, and has always been proactive in delivering improvements to it – indeed the University was founding member of the Travel to Work Partnership established in co-operation with the County Council. This philosophy will be continued at the Development, which will have significantly different travel characteristics to a typical mixed-use development in the United Kingdom, or indeed to other developments throughout Cambridge.

6.7.2 The starting point for the proposed Development is to begin with a marketing strategy that aims to attract and encourage people and organisations to live and work at the Development who already have a pre-disposition to sustainable travel behaviour. These 'champions' will be attracted by the way in which the development is marketed as a sustainable lifestyle or employment choice, and by targeting potential candidates to be involved in the planning and operation of the transport strategy, who will act as pioneers and advocates within the development.

6.7.3 Traditional tools of marketing and advertising (i.e. travel packs and leaflets) will be used in conjunction with measures that encourage a higher level of community involvement to create awareness and promote sustainable travel at the Development. This will be achieved using a number of techniques:

- recruiting Sustainable Travel Behaviour Champions for key roles in delivering the sustainable travel proposals. These will not be formal roles, but finding individuals who will work through their own social networks to spread the word about travel options;
- identifying influencers, communicators and networkers to create a sustainable living culture in the Development who are respected and able to influence others in the community. The Sustainable Travel Behaviour Champions, whether formal or informal, will meet some of these roles within a community, but others will take on partial roles reflecting their interests and activities;
- creating social networks within the community, since market research has shown that individuals are much more likely to be influenced by personal intervention / recommendation from friends, family and colleagues (i.e., their social network) rather than traditional advertising and information;
- using social marketing techniques using social networks such as clubs, classes, the internet and leaflets;
- existing and New Citizens – recognising that there will be different values and triggers to change in the new communities compared to existing villages and settlements;
- encourage community participation through travel planning events such as travel awareness campaigns with a specific Development travel option identity logo, branding of merchandise including water bottles for cyclists and rucksacks for walkers.

6.7.4 A number of specific traditional measures will be utilised by the Transport Coordinator and the individual land-use Travel Plan Coordinators to increase awareness and prompt people to think about their travel choices. These specific measures include:

- early liaison between the Transport Coordinator and individual Travel Plan Coordinators to promote the benefits of Travel Plans to employers and residents;
- creation of North West Cambridge branding to create an identity and increase awareness;
- Travel Information Centre / Hub located within the Local Centre (in the same premises as the Cycle Clinic) to provide Travel Planning information and advice.

- Staff Induction Packs and Household Welcome Packs. These will include; maps on key walking, cycling and public transport routes. Up-to-date public transport, timetables and fares of bus and rail services. Information on local and national events such as "Walk to Work Week" and "National Bike Week". Information on the health and cost benefits of walking and cycling and the financial benefits of public transport use;
- the Development Website with a dedicated Sustainable Travel Page with a range of supporting Transport information;
- providing the infrastructure for broadband access to each household to encourage home working;
- displaying key Travel Plan information on community notice boards, schools, and places of work;
- introductory seminars for new employees and other seminars at work places promoting sustainable travel;
- Individual Personalised Travel Planning for new occupants, and annual advice to residents and employees; and
- distribution of a local community newsletter for the Development containing travel details.

6.7.5 The Household Travel Packs are also proposed for households and workplaces from first occupation. These would include relevant bus information such as:

i) timetables and network maps for bus services;

ii) summarised rail timetables from the nearest station (in this case Cambridge);

iii) motivational messages to encourage use of sustainable transport modes;

iv) stickers, key rings, air fresheners etc with sustainable travel messages;

v) details of bus services and access points;

vi) passes for free travel (see paragraph 8.7.5 below); and

vii) travel diaries (if appropriate) to record before and after travel habits and measure the success of the project.

6.7.6 In addition to the above, social marketing and media tools could be considered to further widen awareness and create significant behavioural change. For example, a 'Twitter' type campaign could be set up for the site, which would aim to encourage users to share travel knowledge and influence people's travel habits.

6.7.7 The Development Transport Coordinator and individual Travel Plan Coordinators will promote the aims, objectives and benefits of the Travel Planning process. Furthermore, 'Sustainable Travel Behaviour Champions' who would be respected members of the community with an active interest in the community could be recruited to also influence others in the community.

6.7.8 The marketing and promotion strategy will be set out, for each land use, in the individual site specific Travel Plans in accordance with this Framework Travel Plan.

6.8 Summary

6.8.1 It may be concluded that the site is well-located with respect to sustainability. The implementation of "softer" measures to increase awareness and promote sustainable travel will help to reduce to the reliance of the private car and progress towards the sustainable objectives of the Development.

7 Travel Patterns and Targets

7.1 Introduction

7.1.1 This Section provides details on desired targets, which will be developed and used to assess the effectiveness of the Travel Planning process.

7.1.2 In order to set targets for the Framework Travel Plan and benchmark future changes in travel behaviour, baseline travel information must be established. Full details of the Baseline mode share assessment are provided in Section 5 of the Transport Assessment, submitted in conjunction with this Travel Plan in support of the Development. Details of Future Mode Share, taking account of elements within this Framework Travel Plan (other than reductions in car parking facilities beyond those allowed for within the Area Action Plan) are set out in Section 11 of the Transport Assessment. Both Base and Future Mode Shares and Travel Patterns are outlined below.

7.2 Base Mode Share and Travel Patterns

7.2.1 The total Base 12 hour External trip generation and the mode share for the main uses are summarised in Table 7.1. This total Base 12 hour External trip generation excludes trips that stay within the development.

Table 7.1: Base Total 12 hour External trip generation

	PT passengers		Car Driver		Car Passenger		Bicycle		Pedestrians		OGV		Total	
	Arr	Dep	Arr	Dep	Arr	Dep	Arr	Dep	Arr	Dep	Arr	Dep	Arr	Dep
Market Private Housing	131	127	1,128	1,353	217	292	996	960	225	235	49	81	2,746	3,048
Market Flats	81	94	492	555	64	90	95	146	74	100	13	19	819	1,003
Key Worker Flats	281	328	653	781	62	79	1,124	1,310	230	265	30	46	2,381	2,809
Key Worker Houses	61	65	246	269	32	41	293	313	53	57	11	18	696	763
Student Accommodation	402	471	331	360	82	107	1,605	1,889	328	383	6	6	2,757	3,222
TOTAL HOUSING BASE TRIPS	**956**	**1,085**	**2,849**	**3,317**	**457**	**608**	**4,113**	**4,618**	**910**	**1,040**	**109**	**170**	**9,399**	**10,845**
TOTAL HOUSING BASE MOVEMENTS	**1,020 10.1%**		**3,083 30.5%**		**532 5.2%**		**4,366 43.2%**		**975 9.6%**		**140 1.4%**		**10,122 100.0%**	
Acad. Research	402	351	1,209	1,057	157	138	1,421	1,242	224	196	108	94	3,522	3,077
Comm. Research	66	61	1,294	1,184	111	101	409	374	85	78	33	36	1,998	1,835
TOTAL TRIPS	**469**	**412**	**2,503**	**2,241**	**268**	**239**	**1,830**	**1,616**	**310**	**274**	**141**	**131**	**5,520**	**4,912**
TOTAL MOVEMENTS	**440 8.4%**		**2,372 45.5%**		**254 4.9%**		**1,723 33.0%**		**292 5.6%**		**136 2.6%**		**5,216 100%**	

Source – PBA Person Trip Analysis Version 9
Note – Other land uses with minor trip generating not included, nor are all modes reported.

7.3 Future Mode Share and Travel Patterns

7.3.1 Section 11 of the Transport Assessment considered future mode share having regard to the measures outlined above. It concluded that the 12 hour mode shares achievable in connection with the Development would be likely to be as set out in Tables 7.2 and 7.3 below:

Table 7.2 – 12 Hour Peak Hour External person trip departure movements for the Residential element – Base Mode Share, and Future Mode Share targets (reproduced from Table 11.1 of the Transport Assessment)

Base Mode	PT passengers		Car Driver		Car Passenger		Bicycle		Pedestrians		OGV		Total	
	Arr	Dep	Arr	Dep	Arr	Dep	Arr	Dep	Arr	Dep	Arr	Dep	Arr	Dep
Market Private Housing	131	127	1,128	1,353	217	292	996	960	225	235	49	81	2,746	3,048
Market Flats	81	94	492	555	64	90	95	146	74	100	13	19	819	1,003
Key Worker Flats	281	328	653	781	62	79	1,124	1,310	230	265	30	46	2,381	2,809
Key Worker Houses	61	65	246	269	32	41	293	313	53	57	11	18	696	763
Student Accommodation	402	471	331	360	82	107	1,605	1,889	328	383	6	6	2,757	3,222
TOTAL BASE TRIPS	**956**	**1,085**	**2,849**	**3,317**	**457**	**608**	**4,113**	**4,618**	**910**	**1,040**	**109**	**170**	**9,399**	**10,845**
TOTAL HOUSING BASE MOVEMENTS	**1,020 10.1%**		**3,083 30.5%**		**532 5.2%**		**4,366 43.2%**		**975 9.6%**		**140 1.4%**		**10,122 100.0%**	

Future Mode	PT passengers		Car Driver		Car Passenger		Bicycle		Pedestrians		OGV		Total	
	Arr	Dep	Arr	Dep	Arr	Dep	Arr	Dep	Arr	Dep	Arr	Dep	Arr	Dep
Market Private Housing	148	144	955	1,777	224	302	1,070	1,034	237	249	49	81	2,682	2,987
Market Flats	92	107	443	492	66	93	109	167	78	105	13	19	800	853
Key Worker Flats	318	372	464	561	64	81	1,207	1,411	242	281	30	46	2,325	2,751
Key Worker Houses	69	73	196	216	33	42	315	337	56	61	11	18	680	748
Student Accommodation	465	545	263	280	86	113	1,605	1,889	328	383	6	6	2,757	3,222
TOTAL FUTURE TRIPS	**1,091**	**1,240**	**2,320**	**2,726**	**473**	**631**	**4,305**	**4,838**	**941**	**1,078**	**109**	**170**	**9,244**	**10,690**
TOTAL HOUSING FUTURE MOVEMENTS	**1,165 11.7%**		**2,523 25.3%**		**553 5.5%**		**4,572 45.9%**		**1,009 10.1%**		**138 1.4%**		**9,967 100.0%**	
CHANGE IN PERCENTAGE OF THE BASE MODE SHARE	**+ 1.6%**		**-5.2%**		**+0.3%**		**+2.7%**		**+0.5%**		**No Change**		**-1.5%**	

Notes
1. The Home working trips, (155 No Arrival and 155 Departures) do not appear in the above table
2. There are some minor discrepancies in the percentages for non-car movements in the above table, due to the differing sources of information used to derive the mode share, and the total number of person-movements.

Table 7.3 – 12 hour Base and Future Mode Share targets for the Development Commercial and Academic Research areas (reproduced from Table 11.2 from the Transport Assessment)

	PT passengers		Car Driver		Car Passenger		Bicycle		Pedestrians		OGV		Total	
	Arr	Dep	Arr	Dep	Arr	Dep	Arr	Dep	Arr	Dep	Arr	Dep	Arr	Dep
Base Mode Share														
Acad. Research	402	351	1,209	1,057	157	138	1,421	1,242	224	196	108	94	3,522	3,077
Comm. Research	66	61	1,294	1,184	111	101	409	374	85	78	33	36	1,998	1,835
TOTAL BASE TRIPS	**469**	**412**	**2,503**	**2,241**	**268**	**239**	**1,830**	**1,616**	**310**	**274**	**141**	**131**	**5,520**	**4,912**
TOTAL BASE RESEARCH MOVEMENTS	**440 8.4%**		**2,372 45.4%**		**254 4.9%**		**1,723 33.0%**		**292 5.6%**		**136 2.6%**		**5,216 100%**	
Future Mode Share Acad. Research	547	478	863	754	265	231	1,502	1,312	238	208	108	94	3,522	3,077
Comm. Research	90	83	976	893	300	275	497	454	102	93	33	36	1,998	1,835
TOTAL FUTURE TRIPS	**637**	**561**	**1,839**	**1,647**	**565**	**506**	**1,999**	**1,767**	**340**	**301**	**141**	**131**	**5,520**	**4,912**
TOTAL FUTURE RESEARCH MOVEMENTS	**599 11.5%**		**1,743 33.4%**		**535 10.3%**		**1,883 36.1%**		**320 6.1%**		**136 2.6%**		**5.216 100%**	
Mode shift from the Base Mode Share	+159		-629		+281		+160		+28		No Change		No Change	
Change in percentage of the Base Mode Share	**+3.1%**		**-12.0%**		**+5.4%**		**+3.1%**		**+0.5%**		**No Change**		**No Change**	

7.3.2 This Future Mode Share for the Research areas after assuming the success of the Travel Plan measures would - even allowing for the over-estimates of car usage inherent in the Base figures or without taking account of the effect of reduced levels of car parking proposed at the Development by comparison with those assumed by the AAP - deliver Car Driver mode shares far better than the North West Cambridge Area Action Plan Policy NW11 "Sustainable Travel" requirements that "Development and transport systems will be planned … to achieve a modal share of no more than 40% of trips to work by car (excluding car passengers)". The achievability of a single occupancy car driver mode -share even lower than that projected is evidenced by that which has been observed in connection with the West Cambridge Development.

7.4 Future Mode Share – Other land use elements

7.4.1 By considering the Residential and Employment elements, 75% of the total car driver Base trip generation from the Development are accounted for.

7.4.2 Of the remaining car driver trips, the majority (around 22%) are generated by the Food Store. It is noted about Food Store trips that:

i) historically, only limited success has been reported in reducing Food Store-generated car driver trips by the application of travel demand measures;

ii) even so, there is likely to be some reduction in total car driver trips to this land use as a consequence of the Development Access and Movement Strategy – the Atkins North West Cambridge Retail Transport Study (June 2010) predicted that of the trips attracted to a Food Store within the Development, around 50% would be trips from that store's local catchment area. As such, there is a greater opportunity for and likelihood of non-car modes of travel or of shared trips;

iii) of the predicted External car driver trips to the Food Store, these trips are existing trips currently accessing alternative venues - hence the additional number of car driver trips on the network would be minimal, if any. Due to the distant proximity of these alternative existing Food Store venues, these existing trips would be far longer than the Future situation trips made to the proposed Food Store on the Development. As such, the Development Food Store would also assist in reducing the total distance travelled across the network;

iv) the Base person trip analysis would therefore, consistently with other base person trip figures for the Development, represent a conservative over-estimate of likely generation even after application of travel plan measures.

7.4.3 With respect to the School, Hotel and Care Home land uses, there is likely to be some reduction in total car driver trips to these land uses as a consequence of the Development Access and Movement Strategy, the Base person trip analysis movements generated by these land uses are relatively small - around 3% of the total Development generation. Whilst this will provide a further over-estimate, they have not been considered further.

7.5 Targets

7.5.1 Whilst the target requirement for the AAP is a mode share of no more than 40% of trips to work by car (excluding car passengers) the analysis undertaken on behalf of the University indicates that even applying conservative assumptions (over-estimates as to the base rates of car use and under-estimates of the efficacy of travel demand measures) a lower figure of approximately 33.5% of 12 hour flows would be achievable. Although a mode share of 40% for car trips to work would be tenable as a target for the Development, the University wishes to go further in order doubly to emphasise the sustainability credentials of the University and of the Development. It is therefore willing to adopt as a target a 12 hour mode share for car trips to work (excluding passengers) of 33.5% - some 6.5% lower (which is proportionately more than 15% lower) than that set by the AAP.

7.5.2 Each measure within the Framework Travel Plan is designed to contribute to achieving this target objective.

7.5.3 Individual targets will be established and agreed for the Site Specific Travel Plans that will contribute to this overall Framework Travel Plan target.

7.5.4 In addition, the following qualitative targets shown in Table 7.4 have been set.

Table 7.4: Qualitative Travel Plan Targets

Target	Timescale
To ensure that all site users are aware of the Framework Travel Plan and its objectives	Within 6 months of occupation
To reduce the reliance of the private car for all trip purposes	From first occupation
To highlight the benefits of sustainable travel to through marketing initiatives	Within 6 months of occupation
To make a connection with similar Travel Plans in the area to share ideas in liaison with CCC	From first occupation

7.6 Summary

7.6.1 The predicted baseline mode share for the land uses of the Development highlights that the proportion of car driver trips to work are lower than 40% in and out of the development, in line with local policy.

7.6.2 As identified within this section, a further shift away from car driver mode will be sought for commercial and academic research land uses. The University has indicated a willingness to adopt as a target a 12 hour mode share for car trips to work (excluding passenger trips) of approximately 33.5%. This figure is 6.5% (proportionately more than 15%) lower than the 40% target required by AAP policy.

7.6.3 The Framework Travel Plan will also aim to reduce car use for other trip purposes. Individual targets will be developed for each land use.

8 Implementation Programme and Responsibilities

8.1 Introduction

8.1.1 The implementation strategy outlined in this section builds upon the overall demand strategy (outlined in Section 6) providing an indicative implementation programme for the Framework Travel Plan and the delivery of individual measures.

8.2 Implementation Programme

8.2.1 At this early stage of the development proposals, a simplified programme for the implementation of the Framework Travel Plan is summarised in Table 8.1.

Table 8.1: Implementation Strategy

Development Phase	Strategy
Pre-construction Phase	Submit Framework Travel Plan and strategy to Authorities for approval
	Appoint Transport Coordinator
	Establish Transport Stakeholders Group (as soon as practically possible)
	Identify the Sustainable Travel Behaviour Champions (as soon as practicably possible)
Early Construction Phase (Before First Occupation)	Implement 'hard' measures associated with the development scheme, site design and layout (i.e. cycle parking facilities and electric charging points)
	Liaise with public transport operators to agree the phasing and routing of the proposed public transport services.
	Meet and discuss measures with the occupiers / Travel Plan Coordinators
	Implement pre-construction Travel Plan Measures shown in Table 8.2.
Continued Construction and Moving-in phase	Co-ordinate the monitoring / review of travel mode share. Undertake travel surveys and traffic surveys 3 months after full occupation (defined as 75% occupied).
	Review the usage and convenience of facilities (i.e. cycle parking/ car club access.)
	Implement Continued Construction Measures shown in Table 8.2.
Full Occupation	Continue to implement and review the measures set out in the Framework Travel Plan / individual Travel Plans.
	Carry out travel surveys and traffic surveys annually. Monitor results against targets.
	Continue to promote Framework Travel Plan / individual Travel Plans creating the Development branding and identify and increasing awareness.
	Monitor parking within the site, including car parking and bicycle parking

8.3 Implementing the Framework Travel Plan Measures

8.3.1 The measures for the Framework Travel Plan, responsibilities and timing of implementation are summarised in Table 8.2 (with reference to the measures set out with Section 6).

Table 8.2: Toolkit of Measures

Timing	Measure	Details of Measure	Responsibility
Pre-construction Phase	Site design and layout	Establish design guidance and implement to standards. Provide levels of car parking below the Area Action Plan Standards.	University of Cambridge
	Transport Coordinator	Appoint Transport Coordinator	University of Cambridge
	Transport Stakeholders Group	Set up a Stakeholders Group of key developers, planning and highway authorities, public transport operators and community representatives.	Transport Coordinator
	Travel for Work (TfW) Partnership	A connection will be established with the TfW Partnership.	Transport Coordinator
	Community Involvement	Identify the Sustainable Travel Behaviour Champions within the local community (as soon as practicably possible)	Transport Coordinator
Early Construction Phase (Before First Occupation)	Provision of on-site public transport infrastructure	Implement on-site public infrastructure - bus stops, real-time information, SMS codes. Provide public transport to the agreed strategy from the development. Transport Coordinator to liaise with public transport operators.	Transport Coordinator / Developers
	Provision of off-site measures – public transport priority measures	Increased bus service frequencies and consideration of public transport priority measures (i.e. gates and selective vehicle detection). Transport Coordinator to liaise with Cambridgeshire County Council.	Transport Coordinator
	Provision of pedestrian and cycling infrastructure	Implementation of permeable footways and pedestrian crossings delivered along the desire lines. Installation of walking / cycling signage. Covered, secure, lit and well-located cycle stands in commercial and public facilities. Provision of secure residential cycle storage to a generous standard. Shower and changing room facilities at the larger commercial and public facilities.	University of Cambridge / Developers
	Electric charging points	Investigate and implement the provision of electric charging facilities within the site and beyond.	University of Cambridge/Developers
	On site Car Club	Set up an association with a car club to establish a formal on-site car club for people to hire cars.	Transport Coordinator

Timing	Measure	Details of Measure	Responsibility
Early Construction Phase (Before First Occupation) – Cont'd	Broadband Access	Providing the infrastructure for broadband access to each household to encourage home working.	University of Cambridge/Developers
	Car Share	Provide controlled car parking spaces for car sharers at commercial facilities conveniently located close to the building entrances to be attractive.	University of Cambridge/ Occupiers of Development
Continued Construction and Moving-in phase	Individual, site specific, Travel Plans	Identify individual Travel Plan Coordinators for each land use and develop individual, site specific, Travel Plans as soon as practicably possible. Each Travel Plan will identify individual targets, measures and implementation, management and monitoring strategies.	Transport Coordinator / Individual Travel Plan Coordinators
	Public Transport	Consult with public transport operators to investigate the provision of discounted public transport travel	Transport Coordinator / Individual Travel Plan Coordinators
	Cycling	Set up cycle pools / hubs at key locations for people to hire bikes. Investigate the provision of a 'Cycle Clinic' facility that can be accessed by all users of the site. Investigate the possibility of free / discounted cycles and equipment. Creation of cycle clubs during first occupation and possible cycle to work schemes (i.e. bike maintenance vouchers for cyclists) Promote and encourage the Cambridgeshire cycle share database with Liftshare (CamShare.co.uk) to match similar journeys and create BikeBUDi's.	Transport Coordinator / Individual Travel Plan Coordinators
	Car share	Promote and encourage the Cambridgeshire cycle share database with Liftshare (CamShare.co.uk) to match similar journeys and create CarBUDi's.	Transport Coordinator / Individual Travel Plan Coordinators
	Travel Information Centre	Investigate the provision of a travel Information Centre / Hub located at a key location with travel planning information and advice.	Transport Coordinator

Timing	Measure	Details of Measure	Responsibility
Continued Construction and Moving-in phase – Cont'd	Staff Induction Packs / Residential Welcome Packs	Prepare packs for distribution upon occupation at commercial facilities and residential units. Packs will include; maps illustrating walking routes, cycle routes, public transport routes. Timetables and fares of bus and rail services. Information on health, environmental and economic benefits of sustainable travel. Information on car clubs, car sharing and cycling facilities.	Transport Coordinator / Individual Travel Plan Coordinators
	Maps / Travel Information	Displaying key travel plan information on community notice boards, schools, and places of work.	Transport Coordinator / Individual Travel Plan Coordinators
	Website	Development Website with specific sustainable travel page. Create a Travel Plan Forum providing supportive networks.	Transport Coordinator
	Seminars	Introductory seminars for new employees and other seminars at work places promoting sustainable travel.	Individual Travel Plan Coordinators
	Newsletter	Create a local community newsletter for the Development containing travel details. This could be distributed bi-annually.	Transport Coordinator
	Travel Surveys	Travel surveys will be carried out within 3 months of full occupation (defined as 75% occupied) to establish and confirm mode share targets. Traffic surveys will also be undertaken to monitor car driver trips.	Transport Coordinator / Individual Travel Plan Coordinators
Full Occupation	Walking	Promote local and national events such as "Walk to Work Week" through the provision of leaflets / flyers displayed within communal areas of facilities. Provide walking training and investigate the possibility of creating a walking school bus for the School element.	Transport Coordinator / Individual Travel Plan Coordinators

Timing	Measure	Details of Measure	Responsibility
Full Occupation (Cont'd)	Cycling	Offer cycle training. Promote local and national events such as "National Bike Week" and bike festival websites (i.e. Isle of Wight cycling festival or CTC York Rally) through the provision of leaflets / flyers displayed within communal areas of facilities.	Transport Coordinator / Individual Travel Plan Coordinators
	Personalised Travel Planning	Individual Personalised Travel Planning for new occupants, and annual advice to residents and employees.	Individual Travel Plan Coordinators
After Full Occupation	Travel Surveys	Travel Surveys and traffic surveys will be carried out annually to monitor the effectiveness of the Travel Planning process. The Framework Travel Plan and individual Travel Plans will be updated based on the monitoring process. Measures will be reviewed and updated accordingly. Review documents will be submitted to Cambridgeshire County Council	Transport Coordinator / Individual Travel Plan Coordinators

8.3.2 These measures will be continuously monitored and reviewed. New measures may arise through suggestions obtained by the survey process. Any new measures will be added to the existing list.

8.3.3 As with other aspects of this Framework Travel Plan, site specific measures will need to be developed within the individual Travel Plans once site occupiers are known. However, some of the measures that could be implemented within the commercial and retail facilities are listed below:

- availability of free / deposit based cycle trailers from the retail facilities for use by the residents;
- free and fast delivery of supermarket goods around the site to encourage shoppers to walk / cycle; and
- cycle to work schemes.

9 Management, Monitoring and Review

9.1 Introduction

9.1.1 The Framework Travel Plan has been prepared as an over-arching document that sets out an overall strategy for the Development to help promote and encourage more sustainable modes of travel from the outset.

9.1.2 The Framework Travel Plan is intended to deliver a level of proactive management of transport for the development that will reduce reliance on single-occupancy car use.

9.2 The Need to Manage, Monitor and Review

9.2.1 The management, monitoring and review of the Framework Travel Plan and of individual site specific Travel Plans is a key aspect of the process so the plans remain dynamic documents.

9.2.2 Plans would be monitored and adjustments would be considered to targets and measures in the light of changes and of successes and failures within the Travel Plan process and of external changes in circumstance.

9.2.3 Surveys would, therefore, be carried out from time to time and necessary adjustments to the plan made according to the survey results. The TfW Partnership will be consulted to determine an appropriate surveying strategy for the Development.

9.3 Management Structure

Framework Travel Plan and Transport Coordinator

9.3.1 The University of Cambridge will have general responsibility for the Framework Travel Plan and for the relevant obligations.

9.3.2 The University will be contractually required to appoint the Transport Coordinator to cover all forms of occupation within the Development – the role involves ensuring the Framework Travel Plan objectives / actions become established at the outset.

Sustainable Transport Fund

9.3.3 A one-off fall-back 'Sustainable Transport Fund' will be set up and managed by the University covering the Transport Coordinator role, the implementation, management, monitoring and review of the Framework Travel Plan and funding necessary measures in the event of significant variation from the forecast traffic impact for a sustained period of time. The Sustainable Transport Fund could include contributions from:

- the University;
- upfront or phased developer contribution(s);
- revenue raised through potential car parking charges at community parking areas within the Development;
- advertising and sponsorship opportunities;
- third party developer contributions from other development in the area; and

- any remaining funds from transport infrastructure measures or public transport revenue support should the anticipated costs be less than anticipated.

Transport Stakeholders Group

9.3.4 As part of the Development transport strategy, a 'Transport Stakeholders Group' will be set up by the Transport Coordinator, consisting of key developers, planning and highway authorities, public transport operators and community representatives, to help deliver, manage, operate, monitor and review the Development transport proposals.

Sustainable Travel Behaviour Champions

9.3.5 As part of the Development transport strategy, the Transport Coordinator will recruit Sustainable Travel Behaviour Champions for key roles in delivering the sustainable travel proposals. These will not be formal roles, but individuals will be sought who will work through their own social networks to spread the word about travel options. These will be respected individuals within the local community who are able to influence others in the community, such as respected mothers at the school gate or local neighbourhood watch representatives.

Site-specific Travel Plans and Coordinators

9.3.6 In addition to this Development Transport Coordinator role (and in the context of the individual land uses):

- it will be a requirement of employment occupiers, of a specified size, to implement Workplace Travel Plans and appoint a Travel Plan Coordinator;
- it will be a requirement for the developers of the residential areas, of a specified size, to implement a Residential Travel Plan and to appoint / nominate a Travel Plan Coordinator;
- it will be a requirement for the school to appoint / nominate a Travel Plan Coordinator prior to occupation, with the responsibility to implement a Travel Plan for the school;
- it will be a requirement of the food retail supermarket to implement a Retail Travel Plan and nominate a Travel Plan Coordinator. It is not intended that visitors and employees at the Local Centres are exempt from the travel planning process, but will be encouraged to actively promote sustainable transport measures and initiatives.

9.3.7 Additional information on the preparation of individual, site specific, Travel Plans is given within **Appendix B**.

9.4 Transport Coordinator – Roles and Responsibilities

9.4.1 The appointment of an overall Transport Coordinator to the Development has been assumed on a full-time basis.

9.4.2 It will be the responsibility of the University of Cambridge to appoint a Transport Coordinator. This role may be considered to be that of an enhanced Framework Travel Plan Coordinator, taking responsibility for all aspects of the transport strategy proposed for the Development.

9.4.3 The Transport Coordinator will work with all relevant Stakeholders, including Cambridgeshire County Council, through a Stakeholders Group, to achieve the implementation of the

transport strategy, and with occupiers of the development, to encourage use of the sustainable transport options provided.

9.4.4 The Transport Coordinator will also act as a focal point for liaison on travel plan-related issues between the individual Residential Travel Plan Coordinators, commercial research occupier Travel Plan Coordinators, the School Travel Plan Coordinators, and the various retail / community use Travel Plan Coordinators.

9.4.5 The main responsibilities of the Transport Coordinator are set out below but will be amended / reviewed on a regular basis:

- to issue this Framework Travel Plan for guidance to every relevant major occupier;
- provide guidance to developers, occupiers and operators regarding the overall transport strategy and development of their own individual Travel Plans;
- to liaise with and support the School on the early development and implementation of their School Travel Plan, along with Cambridgeshire County Council;
- to act as a broker between stakeholders (i.e. residents, businesses and transport providers) so travel needs are raised and appropriate solutions are delivered;
- to compile and maintain a “best practice” list of measures and techniques;
- to coordinate the timescales for the collection of monitoring data and to provide guidance to the individual co-ordinators on arranging travel monitoring surveys;
- to arrange templates of travel diaries and staff survey questionnaires as part of the monitoring system, if required;
- to co-ordinate the collection of annual review reports from the co-ordinators;
- undertake regular liaison with Cambridgeshire County Council and the public transport operators so the needs and requirements of occupiers and residents are available to the operators in developing their services; and
- undertake reviews of the Framework Travel Plan, and assess the progress towards achieving sustainable objectives.

9.4.6 The post of Transport Coordinator would be retained in the longer term. Reflecting the University’s long-term commitment to the Development, the Transport Coordinator will be maintained as a contact point for a period of at least 20 years.

9.5 Monitoring and Review Schedule

9.5.1 Travel Plans are living documents that require monitoring, reviewing, updating in order to maintain current best practice and address any new issues that may arise during implementation.

9.5.2 The monitoring plan will be developed as the planning process continues. However, it is likely that there will be an initial requirement of undertaking baseline Travel Plan surveys to establish mode share, followed by surveys from time to time.

9.5.3 Therefore, it is suggested that travel surveys and traffic surveys will be carried out 3 months after 75% occupation for each land use. However, the timings of these individual land-use surveys will need to be timed so that surveys for all elements of the Development are carried

out at the same time. Monitoring should be undertaken during neutral months (i.e. not in summer months during school holiday periods).

9.5.4 The monitoring of progress towards the individual journey to work mode share target (and any further targets included within individual Travel Plans) will be the responsibility of the individual Travel Plan Coordinators. Monitoring of the primary Framework Travel Plan target of car driver to work mode share will be assessed by the Transport Coordinator through the collation of monitoring data from the individual Travel Plan Coordinators. This will enable an overall Travel Plan review to be undertaken.

9.5.5 The Transport Coordinator will co-ordinate and liaise with the Authorities over this monitoring process and review. If targets are not being met, a review of the measures will be carried out and new measures investigated to encourage further modal shift.

9.5.6 The frequency of monitoring is subject to agreement with the Authorities. It is anticipated that the monitoring process be undertaken annually, with the option of interim reviews if circumstances suggest that this is necessary.

9.5.7 The results of the monitoring will be reported back to the Transport Stakeholders Group and the Authorities.

9.5.8 The mixed-use nature of the development will create a wide range of residents, occupiers and visitors which will have varying travel needs and requirements. As such, the survey form and method of surveying will need to be tailored to reflect this. The monitoring methods and data collection are to be agreed between the Transport Coordinator, individual Travel Plan Coordinators and the Authorities. However, they are likely to include a mixture of the following:

- staff / resident / student survey questionnaires;
- travel diaries;
- monitoring the uptake of incentives;
- public transport usage;
- registration to the car / cycle share schemes or the on-site car club;
- observation of mode choice of all persons entering and exiting a cordon around the Development.

9.5.9 The monitoring will also provide information about public transport operational performance and uptake. This information will inform of any operational changes that might be required to the on-site bus services.

9.6 Contingency Measures

9.6.1 In the event of significant variation from the forecast values for a sustained period of time, the Development Transport Coordinator, working with the Transport Stakeholders Group, will consider the desirability of implementing contingency measures having regard (among other things) to the beneficial effects of any non-development specific measures implemented by the University such as those mentioned in Section 19 of the Transport Assessment. Any contingency measures would be designed to reduce car use and meet the forecast outcomes over an agreed period of time. These measures may include:

- alterations to the public transport services better to meet demand;
- discounted public transport tickets for a limited period of time;
- additional car parking management through extensions to controlled parking zones;
- membership discounts to the Car Share scheme or the potential on-site car club;
- increased travel behaviour change initiatives such as travel awareness campaigns;
- consideration of further on-site traffic management and access control measures to discourage car use.

9.6.2 The Transport Stakeholder Group will review the measures proposed, and make recommendations to the Authorities, who will help make the decision which contingency measures should be pursed. The appropriate measure will directly relate to the specific shortfalls identified during the monitoring and review process, e.g.., should the percentage of car passengers in one of the land-use elements be such that it could be increased to enable the overall 33.6% target for travel to work by car to be met, further incentives might be offered to help encourage registration to the Car Share scheme, and to increase the number of journeys made by this mode.

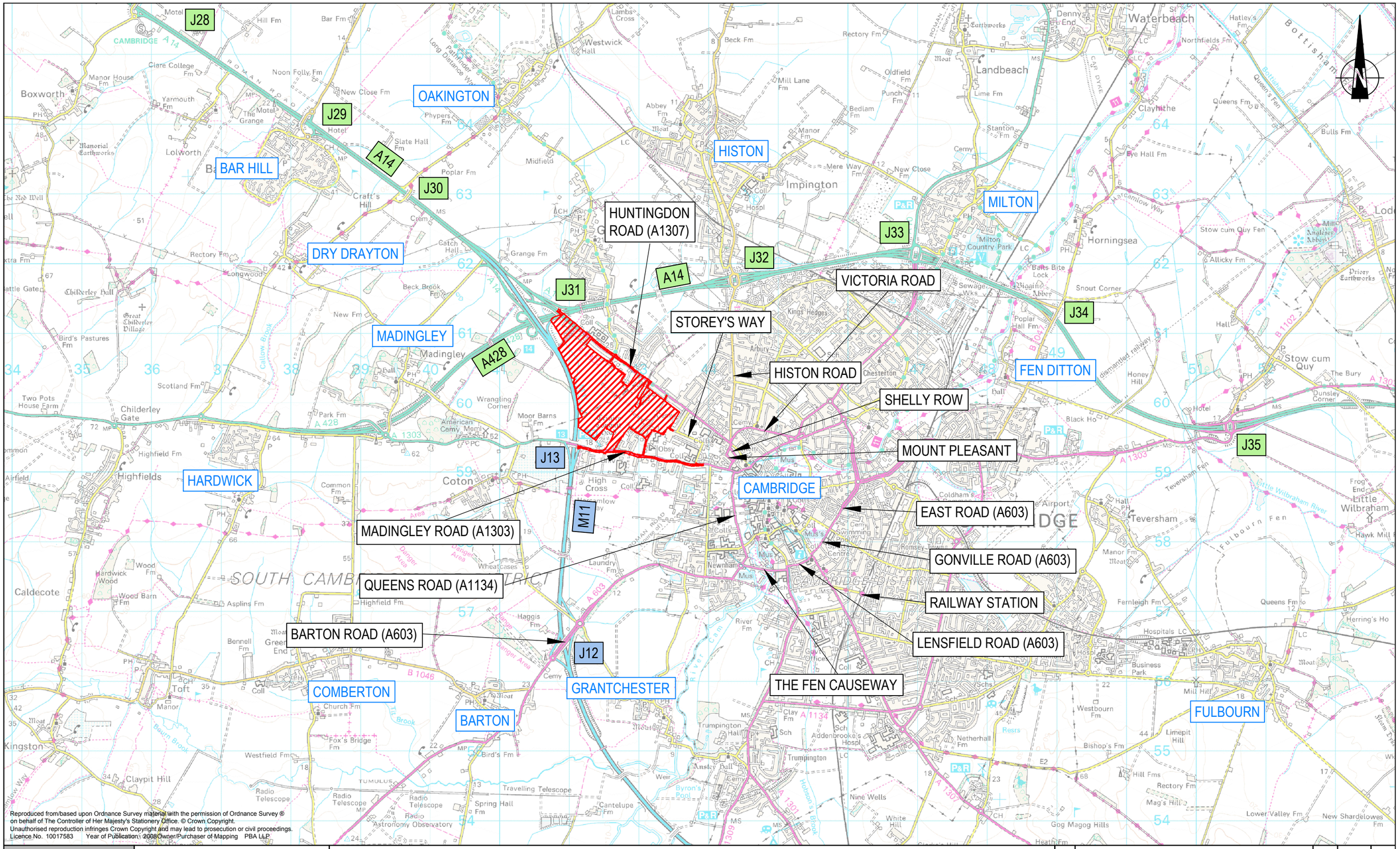
9.6.3 Fall-back funding for the contingency measures will be provided by the University. A sum, to be agreed, will be allocated for a period of 20 years. This sum of money will be released to an agreed placing and represent the maximum which the University would be obliged to contribute.

9.7 Ownership, Duration and Handover

9.7.1 During the development of the Development, the University, through the Transport Stakeholders Group, will provide the long-term management of the development, and monitoring and review of the transport strategy against the agreed forecast outcomes.

9.7.2 In the longer-term (anticipated to be a minimum of twenty years after the start of construction), the Development Transport Coordinator role and Framework Travel Plan may be handed over to local community groups / trusts comprising residents and employers. The continuing role of the coordinator will be at the discretion of these groups, depending if the role is still considered necessary. However, given the length of time which the development will be implemented, and implications of potential delays to development, this arrangement will be monitored and reviewed as the development progresses.

9.7.3 On handover, the University would provide a fixed commuted sum of £10,000 to help the costs of the group for a further 5 years to cover the key responsibilities of managing the Framework Travel Plan and Coordinator role.



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NORTH WEST CAMBRIDGE DEVELOPMENT

SITE LOCATION PLAN

Mark	Revision	Drawn	Date	Chkd
A	PLANNING APPLICATION	TA	09/09/11	JPH

Drawing Status: TRAVEL PLAN

Date of 1st Issue	12/10/10
A3 Scale	1:50,000
Drawn by	TA
Checked by	JPH

Drawing Number: FIGURE 1
23035 / TP / 001 - Figure 1

Revision: A

KEY

- NORTH WEST CAMBRIDGE DEVELOPMENT
- NIAB DEVELOPMENT
- WEST CAMBRIDGE DEVELOPMENT

DUCK END
GIRTON
HOWE FARM
A14
GRANGE DRIVE
M11 JUNCTION 14
A428
GIRTON ROAD
THORNTON ROAD
B1049 HISTON ROAD
ARBURY
WHITEHOUSE LANE
M11
TRINITY FARM
HUNTINGDON ROAD (A1307)
ALL SOULS LANE
UNIVERSITY FARM
STOREY'S WAY
MADINGLEY RISE
CONDUIT HEAD ROAD
CAMBRIDGE ROAD
AMERICAN CEMETERY
MADINGLEY ROAD (A1303)
M11 JUNCTION 13
CHURCHILL ROAD
MOUNT PLEASANT
CLERK MAXWELL ROAD
HIGH CROSS
JJ THOMSON AVENUE
MADINGLEY ROAD (A1303)
LANSDOWNE ROAD

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NORTH WEST CAMBRIDGE DEVELOPMENT

LOCAL CONTEXT PLAN

Mark	Revision	Drawn	Date	Chkd
A	PLANNING APPLICATION	TA	09/09/11	JPH

Drawing Status: TRAVEL PLAN

Date of 1st Issue	12/10/10
A3 Scale	NTS
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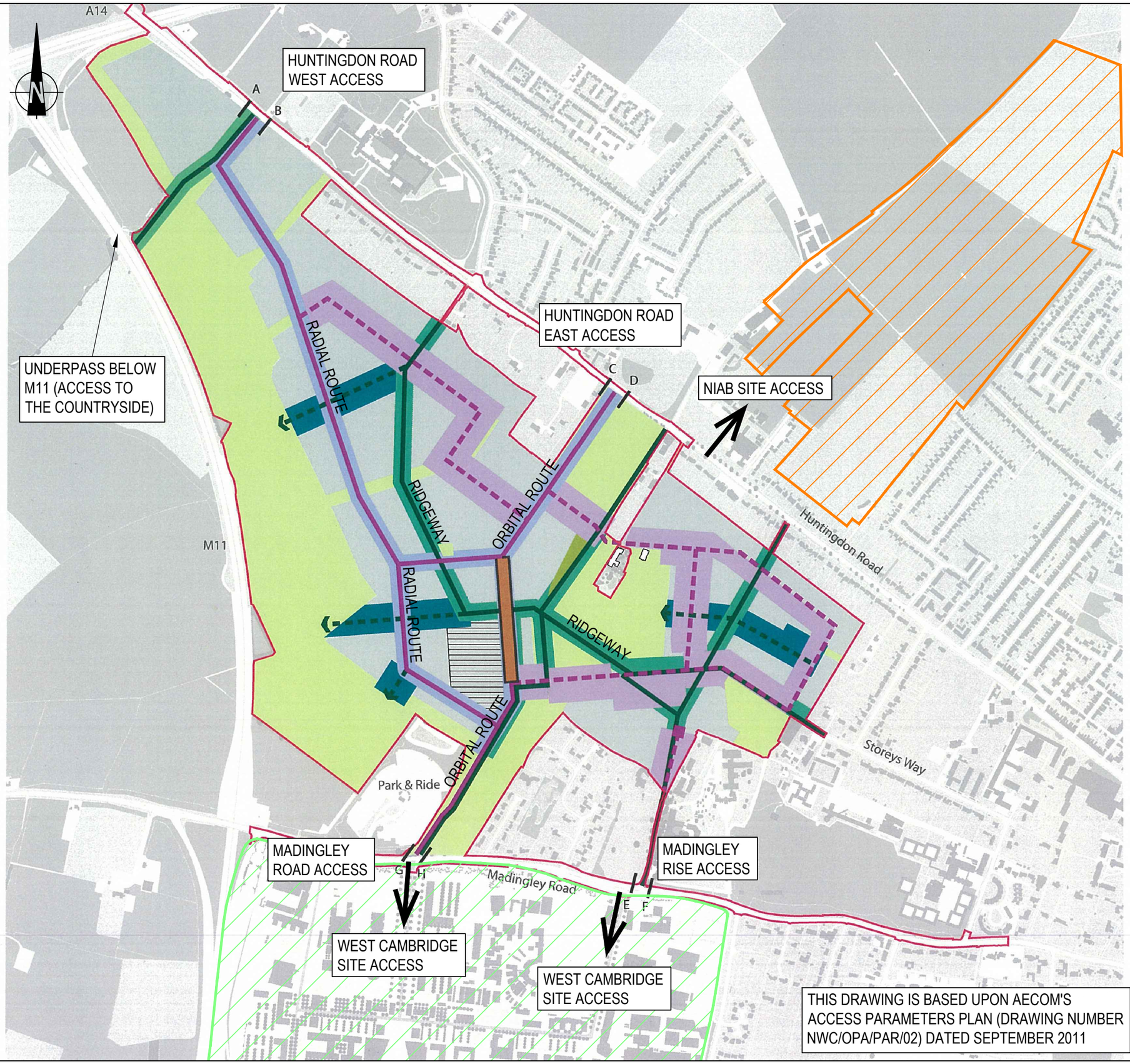
Drawing Number: FIGURE 2
23035 / TP / 002 - Figure 2

Revision: A



KEY

Contextual Information:

- Existing and retained buildings
- Open land (reference NWC/OPA/PAR/03)
- Open land within school site (reference NWC/OPA/PAR/03)
- Primary street
- Secondary street
- Primary pedestrian/cycle route
- Secondary pedestrian/cycle route

For Approval:

- Application site boundary
- Primary street zone*
- Secondary street zone *
- Primary pedestrian/cycle route zone *
- Secondary pedestrian/cycle route zone *
- Restricted Access Zone
- Market Square pedestrianised Zone

* Zones may overlap

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Drawing Issue Status

TRAVEL PLAN

NORTH WEST CAMBRIDGE DEVELOPMENT

ACCESS PARAMETERS PLAN

Client

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14/10/10	TA
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Drawing Number: FIGURE 3

23035 / TP / 003 - Figure 3

Revision: A

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KEY

- SITE BOUNDARY
- FOOTWAY
- COMBINED FOOTWAY / CYCLEWAY
- FORMAL CROSSING POINTS
- NATIONAL CYCLE ROUTES ON-ROAD (NCR 51 / NCR11)
- ON-ROAD CYCLE ROUTE
- CYCLE LANES

PUBLIC RIGHTS OF WAY

- FOOTPATH (AND REFERENCE NUMBER) [48]
- BRIDLEWAY (AND REFERENCE NUMBER) [30]

NCR51

NCR11

WHITEHORSE LANE COMMUTER ROUTE INTO NIAB SITE

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NORTH WEST CAMBRIDGE DEVELOPMENT

EXISTING PEDESTRIAN CYCLIST AND EQUESTRIAN FACILITIES

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A	PLANNING APPLICATION	TA	09/09/11	JPH

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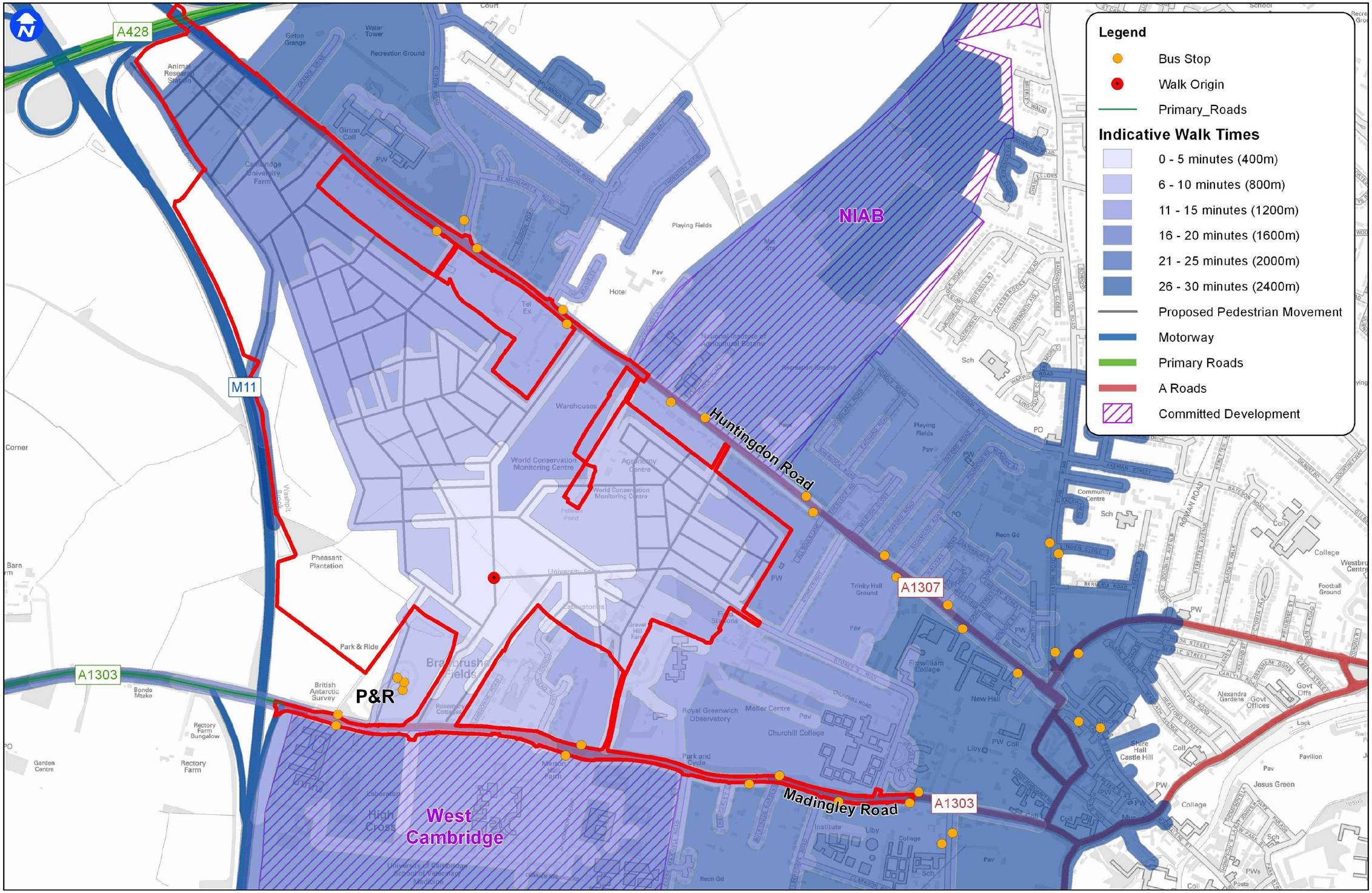
Drawing Number: FIGURE 4
23035 / TP / 004 - Figure 4

Revision: A



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NORTH WEST CAMBRIDGE DEVELOPMENT

POTENTIAL PEDESTRIAN ACCESSIBILITY FROM THE PROPOSED LOCAL CENTRE

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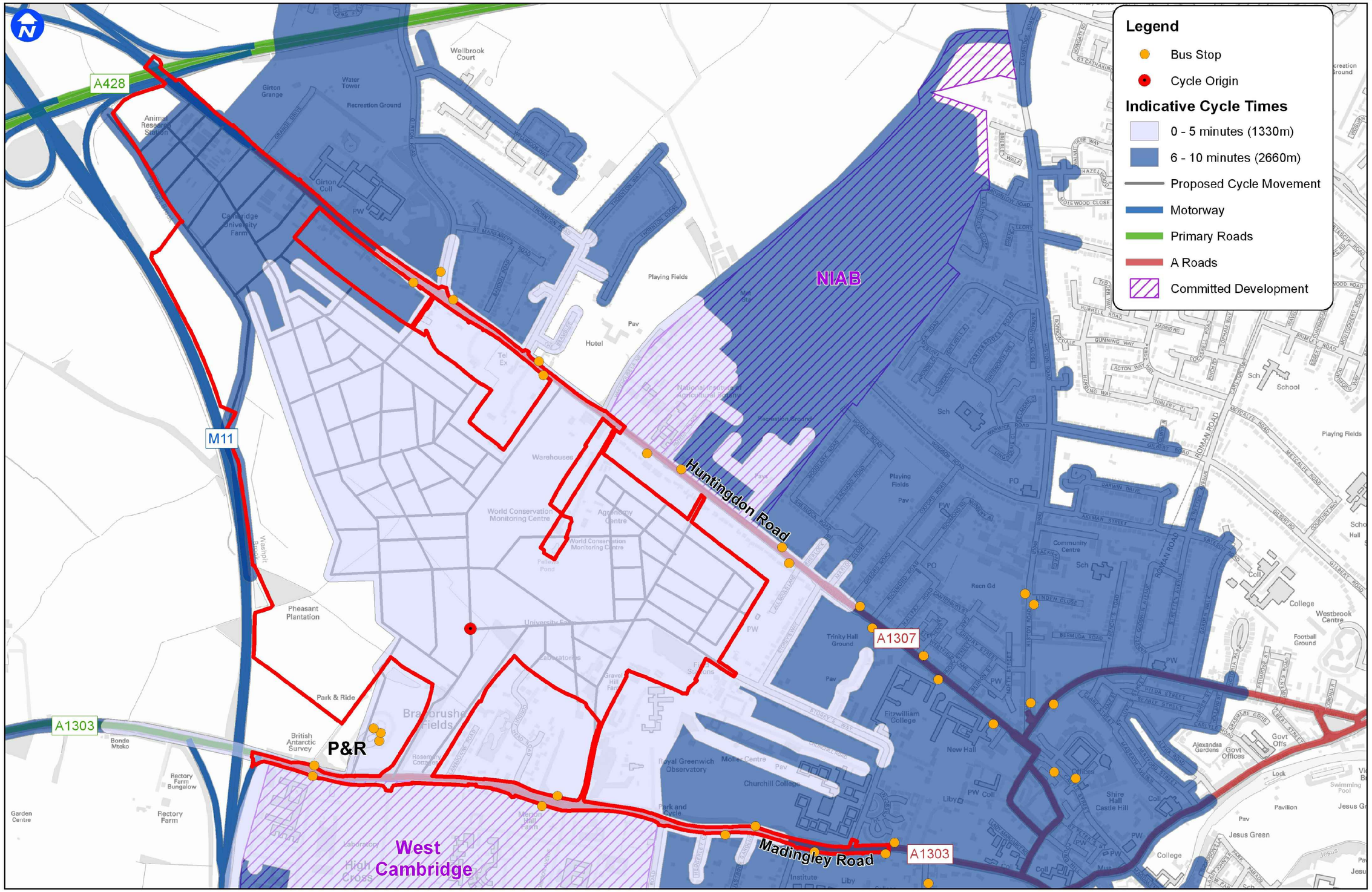
Drawing Number: FIGURE 5
23035 / TP / 005 - Figure 5

Revision: A



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NORTH WEST CAMBRIDGE DEVELOPMENT

POTENTIAL CYCLIST ACCESSIBILITY FROM THE PROPOSED LOCAL CENTRE

Mark	Revision	Drawn	Date	Chkd
A	PLANNING APPLICATION	TA	09/09/11	JPH

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A3 Scale	NTS
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Drawing Number: FIGURE 6
23035 / TP / 006 - Figure 6

Revision: A

HIGHER FREQUENCY BUS SERVICE DETAILS

KEY	SERVICE	DESTINATIONS	MON - SAT	EVENINGS	SUNDAY
	1A WHIPPET	HUNTINGDON - HOUGHTON - ST IVES - FENSTANTON BAR HILL - CAMBRIDGE	30 MINS	NO SERVICE	60 MINS
	55	HUNTINGDON - HOUGHTON - ST IVES - CAMBRIDGE	20 MINS	60 MINS	NO SERVICE
	CITI 5	BAR HILL - WEST CAMBRIDGE - CAMBRIDGE	20 MINS	NO SERVICE	60 MINS
	CITI 6	OAKINGTON - GIRTON - CAMBRIDGE	20 MINS	NO SERVICE	60 MINS
	77	PARK AND RIDE: MADINGLEY ROAD P&R - CAMBRIDGE - NEWMARKET ROAD P&R	10 MINS	NO SERVICE	15 MINS
	CITI 4	ORCHARD PARK - CHESTERTON - CAMBRIDGE - COTON - HARWICK - CAMBOURNE - ST NEOTS	20 MINS	60 MINS	60 MINS
	UNI 4	ADDENBROOKE'S HOSPITAL - NEWHAM - WEST CAMBRIDGE - MADINGLEY ROAD P&R	20 MINS MON - FRI	NO SERVICE	NO SERVICE
	X5	OXFORD - MILTON KEYNES - BEDFORD - ST NEOTS - MADINGLEY ROAD P&R - CAMBRIDGE	30 MINS	60 MINS	30 MINS
	CITI 1, 3 AND 7	CAMBRIDGE - CAMBRIDGE RAILWAY STATION - VARIOUS DESTINATIONS	5 MINS	5 MINS	15 MINS

M11 J14

A1307 HUNTINGDON ROAD

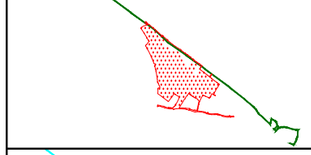
A1305 MADINGLEY ROAD

MADINGLEY PARK AND RIDE SERVICES 77, X5 AND UNI 4

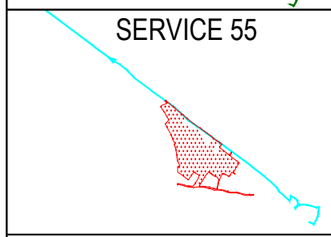
FREQUENCY OF SERVICES FROM RAILWAY STATION TO CITY CENTRE (ST ANDREWS STREET)
MON - SAT = 5 MINS
EVENINGS AND SUNDAYS = 15 MINS

CAMBRIDGE RAILWAY STATION

SERVICE 1A WHIPPET

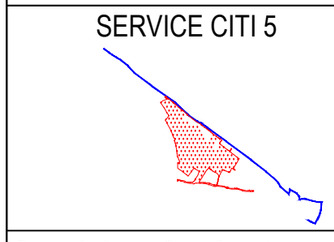


SERVICE 55

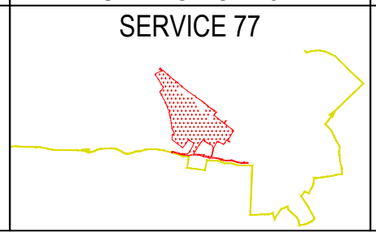


SERVICE CITI 6

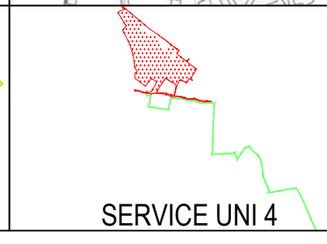
SERVICE CITI 5



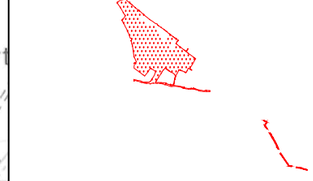
SERVICE 77



SERVICE UNI 4



SERVICE CITI 1,3 AND 5



SERVICE X5

KEY

SITE LOCATION

BUS STOP

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NORTH WEST CAMBRIDGE

EXISTING BUS SERVICES

Mark	Revision	Drawn	Date	Chkd
A	PLANNING APPLICATION	TA	09/09/11	JPH

Drawing Status: TRAVEL PLAN

Date of 1st Issue	12/10/10
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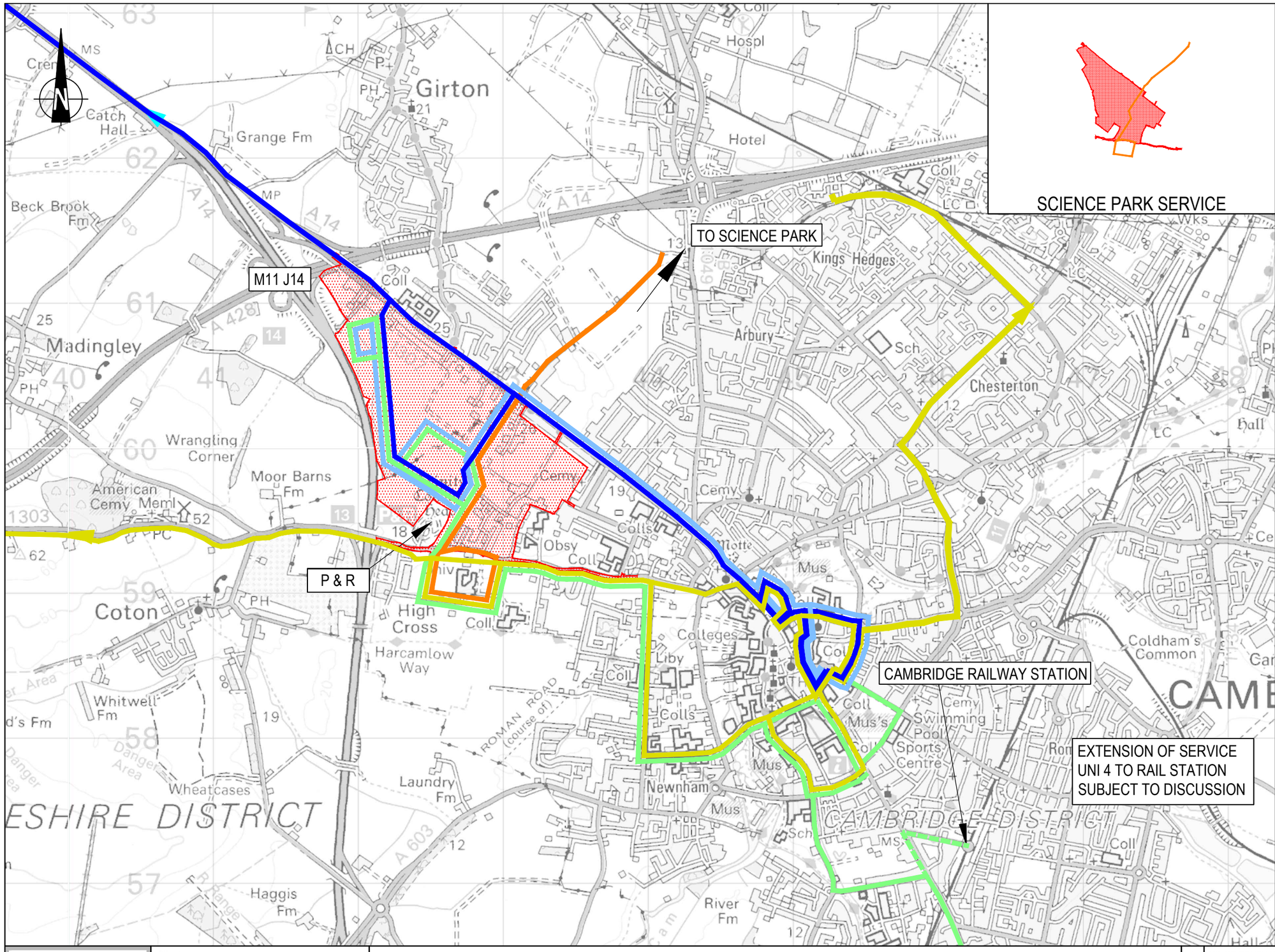
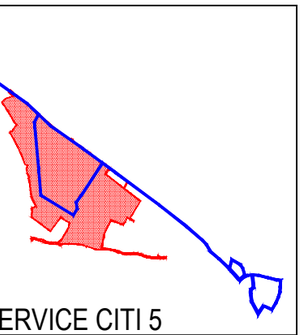
Drawing Number: FIGURE 7
23035 / TP / 007 - Figure 7

Revision: A

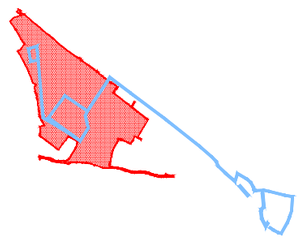


SCIENCE PARK SERVICE

SERVICE CITI 5



SERVICE CITI 8



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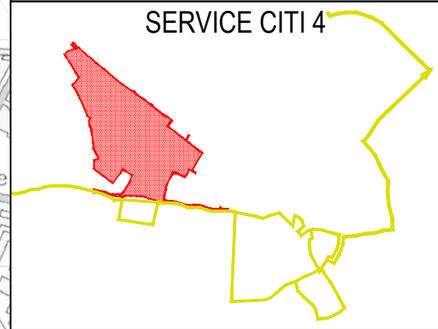

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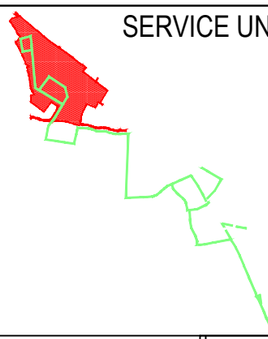

10mins Citi 5
10mins Citi 8
10mins Uni 4 to City, 30 mins to Addenbrookes
30mins Science Park

KEY	SERVICE
	Citi 5
	Uni 4
	Citi 4
	Citi 8
	Science Park Service

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Client

UNIVERSITY OF CAMBRIDGE

SCALING NOTE: Do not scale from this drawing. If in doubt, ask.
UTILITIES NOTE: The position of any existing public or private sewers, utility services, plant or apparatus shown on this drawing is believed to be correct, but no warranty to this is expressed or implied. Other such plant or apparatus may also be present but not shown. The Contractor is therefore advised to undertake his own investigation where the presence of any existing sewers, services, plant or apparatus may affect his operations.

NORTH WEST CAMBRIDGE

PROPOSED BUS SERVICE ROUTE

Mark	Revision	Drawn	Date	Chkd
A	MINOR TEXTUAL CHANGES	TA	20/05/11	JPH

Drawing Status: TRAVEL PLAN

Date of 1st Issue	12/10/10
A3 Scale	NTS
Drawn by	TA
Checked by	JPH

Drawing Number: FIGURE 8
23035 / TP / 008 - Figure 8

Revision: A

Appendix A: Parameter Plan 02 - Access and Description of Development

DESCRIPTION OF DEVELOPMENT

DESCRIPTION OF DEVELOPMENT

1.1 The Planning Application seeks planning permission with details of appearance, landscaping, layout, scale and (save for the matters submitted in respect of zones A and C) access reserved within the parameters set out in the Parameter Plans and Statements.

1.2 The development proposals comprise:

Zone B:

- Up to 3,000 dwellings; (Class C3 and C4)
- Up to 2,000 student bedspaces; 98,000 sq.m. (Class C2)
- Up to 100,000 sq.m. new employment floorspace, of which:
  - Up to 40,000 sq.m. commercial employment floorspace (Class B1(b) and sui generis research uses)
  - At least 60,000 sq.m. academic employment floorspace (Class D1)
- Up to 5,300 sq.m. gross retail floorspace (Use Class A1/A2/A3/A4/A5) (of which the supermarket is not more than 2,000 sq.m. net floorspace)
- Senior living; up to 6,500sq.m. (Class C2)
- Community centre; up to 500 sq.m. (Class D1)
- Indoor sports provision, up to 450 sq.m. (Class D1)
- Police; up to 200 sq.m. (Class B1)
- Primary Health Care; up to 700 sq.m. (Class D1)
- School; up to 3,750 sq.m. (Class D1)
- Nurseries; up to 2,000 sq.m. (Class D1)
- Community Residential; up to 500 sq.m. (Class C3)
- Hotel (130 rooms); up to 7,000 sq.m. (Class C1)
- Access roads
- Pedestrian, cycle and vehicle routes
- Parking
- Energy Centre; up to 1,000 sq.m.
- Provision and/or upgrade of services and related service media and apparatus including pumping stations, substations and pressure regulators
- Drainage works (including sustainable ground and surface water attenuation and control)
- Open space and landscaping (including parks, play areas, playing fields, allotments, water features, formal/informal open space, maintenance sheds, pavilions and support facilities)
- Earthworks to provide revised ground contours
- Demolition of existing buildings

Zone A: Huntingdon Road - Highway and Utility Works

- Construction of a new three arm and a new four arm signal controlled junctions, including pedestrian and cycle crossings, to provide access to the Proposed Development from Huntingdon Road
- Installation of a toucan crossing across Huntingdon Road
- Construction of an unsegregated footway/cycleway on the southern side of Huntingdon Road
- Diversion and/or replacement and/or protection of existing utilities affected by the proposed highway works
- Provision of new telecommunications infrastructure and connection to existing utility infrastructure situated along Huntingdon Road
- Related landscaping, accommodation works, street furniture, drainage, telemetry and utilities

Zone C: Madingley Road - Highway and Utility Works

- Junction improvement works at the High Cross/Madingley Road junction to alter it from a three arm priority junction to a four arm signal controlled junction, including pedestrian and cycle crossings, to provide access to the Proposed Development
- Installation of a toucan crossing across Madingley Road
- Diversion and/or replacement and/or protection of existing utilities affected by the proposed highway works
- Installation of a retaining wall along Madingley Road
- Provision of a new pumped foul water rising main, including chamber connection, and new telecommunications, electricity and gas infrastructure and the associated connection to existing utility infrastructure situated along Madingley Road
- Related landscaping, accommodation works, street furniture, drainage, telemetry and utilities

KEY

Contextual Information:

- Existing and retained buildings
- Open land (reference NWC/OPA/PAR/03)
- Open land within school site (reference NWC/OPA/PAR/03)
- Primary street
- Secondary street
- Primary pedestrian/cycle route
- Secondary pedestrian/cycle route

For Approval:

- Application site boundary
- Primary street zone*
- Secondary street zone *
- Primary pedestrian/cycle route zone *
- Secondary pedestrian/cycle route zone *
- Restricted Access Zone
- Market Square pedestrianised Zone

* Zones may overlap

All information other than that identified as being for approval is shown for contextual purposes only.

North West Cambridge

NWC/OPA/PAR/02 - Access Parameter Plan: Zone B

September 2011

UNIVERSITY OF CAMBRIDGE

0 10 50 100m

Scale 1:5000@A1

Appendix B: Site Specific Travel Plan Templates

Development Travel Plan

Site Specific Business Travel Plan

[Name of Business]

1. Introduction

Explain the purpose of the Travel Plan and the relationship between the Site Specific Plan and the Framework Travel Plan.

Define the aim and objectives of the Travel Plan and describe how these reflect, and contribute to achieving, the aims and objectives of the Framework Travel Plan.

2. Background

Summarise the context of the site including; number of staff, location, and reference to sustainable transport availability (location of bus routes, tram stops, walking and cycling paths, bicycle parking, work from home and flexible working policies etc).

Briefly outline the Travel Plan methodology including the travel survey process used for developing the plan. Identify the stage the Travel Plan is at in relation to the Travel Plan life cycle: prepare, implement, monitor, review.

3. Travel Survey

Summarise the travel survey response rate and profile of respondents.

Include compiled responses to all survey questions and a brief analysis of responses to key questions such as; current mode choice, distance travelled to work, willingness to change mode etc.

Define any significant issues arising through the surveys that may impact on likelihood to change mode. For example: regularly identified barriers such as “busy roads”, “no one to car share with”, “no safe bicycle parking”, etc.

4. Targets

Using current mode choice from the travel surveys as the baseline, list the targets for Travel Plan impact over the coming five years.

Site specific targets should reflect, and collectively combine to achieve, the target of the Framework Travel Plan.

5. Action Plan

List the measures that will be implemented in order to achieve the objectives and targets of the Travel Plan. Each measure should be listed alongside timeframes and responsibility for implementation.

6. Management, Monitoring and Review

Specify how the Travel Plan will be managed, by whom, and how management will liaise with staff and other stakeholders including Cambridge County Council.

Describe how monitoring will take place, specify when reviews will occur and who will be responsible for ensuring that reviews take place.

Specify the procedure for modifications to the Travel Plan if targets are not met or surpassed and define enforcement measures should any parties not fulfil the requirements assigned to them within the measures of the Travel Plan.

7. Summary

Conclude the Travel Plan by summarising key points and reviewing aims, objectives and targets along with the measures identified to achieve them.

Development Travel Plan

Site Specific Residential Travel Plan

[Name of Site]

1. Introduction

Explain the purpose of the Travel Plan and the relationship between the site specific plan and the Framework Travel Plan.

Define the aim and objectives of the Travel Plan and describe how these reflect, and contribute to achieving, the aims and objectives of the Framework Travel Plan.

2. Background

Summarise the context of the site including; number of residents, location, and reference to sustainable transport availability (location of bus routes, tram stops, walking and cycling paths, bicycle parking etc).

Briefly outline the Travel Plan methodology including the travel survey process used for developing the plan. Identify the stage the Travel Plan is at in relation to the Travel Plan life cycle: prepare, implement, monitor, review.

3. Travel Survey

Summarise the travel survey response rate and profile of respondents.

Include compiled responses to all survey questions and a brief analysis of responses to key questions such as; current mode choice, distance travelled during the day, willingness to change mode etc.

Define any significant issues arising through the surveys that may impact on likelihood to change mode. For example: regularly identified barriers such as “busy roads”, “no one to car share with”, “no safe bicycle parking” etc.

4. Targets

Using current mode choice from travel surveys as the baseline, list the targets for Travel Plan impact over the coming five years.

Site specific targets should reflect, and collectively combine to achieve, the targets of the Framework Travel Plan.

5. Action Plan

List the measures that will be implemented in order to achieve the objectives and targets of the Travel Plan. Each measure should be listed alongside timeframes and responsibility for implementation.

6. Management, Monitoring and Review

Specify how the Travel Plan will be managed, by whom, and how management will liaise with residents and other stakeholders.

Describe how monitoring will take place, specify when reviews will occur and who will be responsible for ensuring reviews take place.

Specify the procedure for modifications to the Travel Plan if targets are not met or surpassed and define enforcement measures should any parties not fulfil the requirements assigned to them within the measures of the Travel Plan.

7. Summary

Conclude the Travel Plan by summarising key points and reviewing aims, objectives and targets along with the measures identified to achieve them.