

South West Milton Keynes

Transport Assessment

Environmental Statement Appendix 10.1

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JANUARY 2015

REVISION RECORD Report Ref: M53295 / T01 / R01					
Rev	Description	Date	Originator	Checked	Approved
-	Draft	14/11/2014	EAG	AL	DK
A	2 nd Draft	26/11/2014	EAG	AL	DK
B	3 rd Draft	19/12/2014	EAG	AL	DK
C	Final Draft	20/01/2015	EAG	AL	DK
D	Planning Issue	26/01/2015	EAG	AL	DK

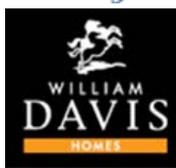
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INTRODUCTION

- 1.1 This Transport Assessment (TA) has been prepared by Pell Frischmann on behalf of the South West Milton Keynes Consortium to accompany an outline planning application for a mixed use sustainable urban extension to the south west of Milton Keynes.
- 1.2 The outline planning application is submitted for the Proposed Development comprising:
- up to 1,855 mixed tenure dwellings (C3) on 54.16 Ha of land;
 - an employment area (B1) on 2.07 Ha of land;
 - a neighbourhood centre on 0.67 Ha of land accommodating retail (A1/A2/A3/A4/A5), community (D1/D2) and residential (C3) uses;
 - provision of a primary school on 3.0 Ha of land;
 - provision of a secondary school on 5.2 Ha of land;
 - allotment space on 1.22 Ha of land;
 - ground remodelling;
 - 55.75 Ha of multi-functional green open space including: parkland, sports and recreational facilities with pavilion/changing facilities; play areas, wildlife areas, a range of strategic open spaces including a community orchard and new landscaping;
 - a Sustainable Drainage Scheme including 5.05 Ha of land for surface water attenuation measures;
 - associated infrastructure including new junctions to the A421, Whaddon Road and Buckingham Road, primary streets, residential streets, pedestrian footpaths and cycle routes, foul water pumping stations and statutory undertakers equipment;
 - A Grid Road Reserve of 7.24 Ha;
 - Highway improvements on 5.56 Ha;
 - public transport infrastructure, car and cycle parking for all uses; and
 - undergrounding of 132Kv overhead power lines.
- 1.3 The TA considers the multi-modal access arrangements into the site, the trips generated by the development as well as the distribution and impact of vehicular traffic across the local highway network. It also reviews relevant national and local

land use planning and transport policies against which the development proposals are then considered to assess accordance with both national and local policy objectives.

- 1.4 A Framework Travel Plan that encompasses the arrangements for residential, commercial and school travel planning at the Proposed Development has been prepared to accompany the planning application and as such should be considered in conjunction with this TA.

2. PLANNING POLICY CONTEXT

2.1 Introduction

2.1.1 This section of the Transport Assessment sets out the planning policy context against which the Proposed Development is to be considered insofar as it relates to transportation and highway matters. It sets out the relevant statements of planning policy within the statutory development plan and the National Planning Policy Framework (NPPF) that relate to the scheme. On 6th March 2014, the Government published National Planning Practice Guidance (NPPG) to explain how NPPF policy should be implemented.

2.1.2 S38(6) of the Planning and Compulsory Purchase Act 2004 states *that “If regard is to be had to the development plan for the purpose of any determination to be made under the planning Acts the determination must be made in accordance with the plan unless material considerations indicate otherwise”*. Therefore, the development plan is the starting point for the determination of planning applications.

2.1.3 The Proposed Development straddles the administrative boundaries of two local planning authorities. Milton Keynes Council (MKC) is a Unitary Authority and consequently has responsibility for highways and transportation matters within its administrative boundaries. The principal highway access points to the Proposed Development are taken from the A421 in Milton Keynes. However, most of the site area of the Proposed Development falls within the administrative area of Aylesbury Vale District Council (AVDC). AVDC is a District Council and matters relating to transportation and highways are consequently the responsibility of Buckinghamshire County Council (BCC).

2.1.4 The following elements of the statutory development plan, national and local planning and transportation policy guidance have been considered in the preparation of the TA and the TPs:

- Saved policies of the Aylesbury Vale District Plan (2004)
- Saved policies of the Milton Keynes Local Plan (2005)
- Milton Keynes Core Strategy (2013)
- National Planning Policy Framework (2012)

- National Planning Practice Guidance (2014)
- The Strategic Road Network and the Delivery of Sustainable Development (2013)
- The Highways Agency and the Planning Application Process – A Protocol for the handling of Planning Applications (2014)
- A Transport Vision and Strategy for Milton Keynes. Local Transport Plan 3 - 2011 to 2031 (2011)
- Buckinghamshire Local Transport Plan 3 (2011)
- Aylesbury Vale District Local Plan – Parking Guidelines SPG (2002)
- Milton Keynes Residential Design Guide SPD (2012)
- Milton Keynes Local Investment Plan (2013)

2.2 Aylesbury Vale District Local Plan (AVDLP), January 2004

2.2.1 The statutory development plan in Aylesbury Vale, insofar as it relates to transportation and highways matters, comprises the following saved policies of the Aylesbury Vale District Plan (AVDLP) which was statutorily adopted in January 2004.

GP.24 Car Parking Guidelines

2.2.2 This policy explains that *“New development will be required to provide vehicular parking in accordance with the Council’s operative guidelines published as Supplementary Planning Guidance”* and that the *“... guidelines are intended to promote more sustainable transport options and will establish maximum levels of parking appropriate to the scale, type and location of development.”*

2.2.3 Policy GP.24 seeks to ensure that car parking is provided in accordance with the standards contained in the adopted Aylesbury Vale Parking Guidelines SPG (May 2000). The maximum parking guidelines range from 1 space for a one bedroom flat to 3 spaces for a 4+ bedroom house. The National Planning Policy Framework (at Paragraph 39) has introduced a degree of flexibility to car parking standards, so that factors such as accessibility and availability of public transport for example are taken into account. The proposed residential areas will provide sufficient car parking, with the exact amount to be determined at detailed design stage.

GP.25 Re-opening of Rail Routes

- 2.2.4 In this policy the Council states that it “... *will resist development that might prejudice the use of the rail route running through the District between Bicester and Bletchley, and the northward link from Aylesbury, by passenger and freight services.*” A section of the Bicester to Bletchley route, which is part of Phase 2 of the East West Rail scheme, comprises the south east boundary of the Proposed Development site.
- 2.2.5 Phase 2 of the East West Rail scheme comprises the routes from Bicester to Bedford and Milton Keynes to Aylesbury. At the present time this phase is the subject of public consultation as topographical, environmental and structural surveys continue and a consultant has been appointed to develop the railway design. The Proposed Development assumes that the link will be reopened during the lifetime of the scheme and consequently it has been designed to accommodate the likely impacts of rail traffic from noise and vibration. As such the Proposed Development will not prejudice the use of the rail route.
- 2.2.6 Furthermore, the Proposed Development has made provision of land to accommodate the alignment of a new grid road (Policy RA.35 below) at a point where it would be expected to cross the Bicester to Bletchley route by means of an underpass.

RA.35 Safeguarded Road Corridor at Newton Longville Brickworks

- 2.2.7 The development of the Newton Longville Brickworks site in Milton Keynes has made provision for a link road to the A4146 Fenny Stratford bypass. Policy RA.35 states that the Council “..... *will also seek to ensure that the opportunity for construction of a link between the proposed development in Milton Keynes and the Buckingham Road (A421) is not prejudiced by development.*”
- 2.2.8 As noted above, the Proposed Development will provide land to accommodate the alignment of a new grid road and will not, therefore, prejudice the construction of a new link road between the A4146 and the A421.

RA.37 New accesses to inter-urban A-class or Trunk Roads

- 2.2.9 This policy states that new accesses to such roads “ *will not be permitted, unless they are required as part of any other proposal in this Plan...*” The only access to the Proposed Development from an A-class road is within Milton Keynes Council’s administrative area. This policy therefore has no statutory force with regard to the proposed access arrangements. However, it is noted here since Policy RA.35 envisages a new link road connecting with the A421. In this regard, it is therefore considered that Policy RA.37 would not apply in any event.

2.3 Milton Keynes Local Plan (MKLP), December 2005

- 2.3.1 The statutory development plan, insofar as it relates to transportation and highways matters, comprises the following saved policies of the Milton Keynes Local Plan (MKLP) which was statutorily adopted in December 2005, along with the Milton Keynes Core Strategy (MKCS) which was statutorily adopted in July 2013.

- 2.3.2 Whilst the adopted development plan policies will only carry statutory force insofar as they relate to the elements of the scheme that fall within the Council’s administrative area; the relevant policies are assessed below to demonstrate how overall the Development Proposal reflects the requirements of local planning policy.

Policy D1 – Impact of Development Proposals on Locality

- 2.3.3 Policy D1 states that planning permission will be refused for development that would be harmful for a number of reasons including:

“(i) *Additional traffic generation which would overload the existing road network or cause undue disturbance, noise or fumes.....*

and

(vi) *Inadequate access to, and vehicle movement within, the site”*

- 2.3.4 The Proposed Development will not conflict with this policy. It is a sustainable mixed use proposal which will encourage significant numbers of internal trips negating the need to travel externally. In order to further encourage the use of more sustainable modes of travel a Transport Strategy as described at Section 5 will be implemented at the Proposed Development. The Proposed Development

will provide suitable and appropriate mitigation to accommodate the forecast travel demands and therefore additional traffic generation will not overload the existing road network or cause undue disturbance.

- 2.3.5 Access to the Proposed Development is adequate as is demonstrated within this Transport Assessment and the Design and Access Statement, as are the arrangements for vehicle movement within the site.

Policy T1 – The Transport User Hierarchy

- 2.3.6 This policy describes an order of priority in terms of meeting future transportation need, pedestrians and those with impaired mobility; cyclists; public transport users, taxis and motorcyclists; and then ‘others’.

- 2.3.7 The Proposed Development responds to this order of priority by ensuring that pedestrian and cyclist interconnectivity is a key aim of its movement strategy.

Policy T2 – Access for those with Impaired Mobility

- 2.3.8 Policy T2 requires development proposals to be designed to meet the access needs of those with impaired mobility. In particular, specifically identified and convenient parking spaces should be provided and the layout of the external environment, including links to adjoining areas, must provide convenient, direct and safe access.

- 2.3.9 The Proposed Development will accommodate the access needs of those with impaired mobility with all public parking areas being equipped with sufficient accessible parking. The principal footway/cycleway routes will provide convenient, direct and safe access throughout the Proposed Development and will be suitable for those with impaired mobility.

Policy T3 – Pedestrians and Cyclists

- 2.3.10 This policy sets out the Council’s requirements for meeting the needs of pedestrians and cyclists with particular reference to layout of the external environment and the provision of direct, secure and legible routes that are not isolated from other transport uses. The policy also requires the provision of cycle parking and associated facilities to meet its standards.

2.3.11 The needs of pedestrians and cyclists are at the forefront of the movement strategy for the Proposed Development. State-of-the-art cycle storage and parking will be provided where required to meet the needs of all users of the development. The Design and Access Statement prepared as part of this outline planning application provides full details of the movement strategy.

Policy T4 – Pedestrians and Cyclists

2.3.12 Policy T4 sets out the Council's priorities for improving access and conditions for pedestrians and cyclists. These are, in order: routes from nearby settlements to Milton Keynes City; routes to and within CMK and Town Centres; and The National Cycle Network.

2.3.13 The Proposed Development seeks to maintain and improve where possible linkages with existing pedestrian and cycle facilities, both the urban Redway system and rural footpath/bridleway routes.

Policy T5 – Public Transport

2.3.14 This policy requires development proposals to meet the needs of public transport operators and users. In particular:

- “(i) Road layouts must include direct, convenient and safe bus routes*
- (ii) Bus priority measures must be implemented, where appropriate*
- (iii) All houses and most other development must be no more than 400m from a bus stop*
- (iv) Bus stops must have suitable shelters, good pedestrian access and be open to public supervision*
- (v) Specific consideration must be given to the provision of public transport services in planning new development*

2.3.15 The Proposed Development has been designed to ensure that the requirements of this policy are met. A main consideration in the design of the road layout has been the need to provide for public transport services within the development to ensure that all houses and other development is within 400 metres of a bus stop and bus routes are direct, convenient and safe. Bus stops and facilities will be to the latest design, with shelters, information and access for all users.

2.3.16 In relation to Policy T5 MKLP also states that:
“7.17 In major developments and in new development areas, Developers will be expected to help ‘pump prime’ public transport services through planning obligations, to provide a satisfactory level of bus service. This is a minimum of three buses per hour between 7am-7pm Monday – Saturday, 2 buses per hour between 10 am – 6pm on Sunday and an hourly service at other times or the appropriate level of service set out in the Bus Strategy.”

2.3.17 A Public Transport Strategy has been developed as part of the Proposed Development and is included in Section 5.4 of this Transport Assessment. Through this strategy the Consortium will fund a satisfactory level of bus service which will be developed to meet the ongoing needs of the Proposed Development and contribute towards MKC’s wider Public Transport Strategy contained in LTP3.

Policy T9 – The Road Hierarchy

2.3.18 Policy T9 establishes a road hierarchy within MK, comprising Primary Distributors, District Distributors, Local Distributors and Access Roads. It states that planning permission will be refused if proposed highways do not comply with the Council’s Highway Design Guide, unless it is necessary to achieve good urban design.

2.3.19 The Proposed Development will also have a road hierarchy, based broadly on that already established for MK and providing the same priorities with regard to the needs of pedestrians and cyclists, and that of public transport.

Policy T10 - Traffic

2.3.20 This policy indicates that planning permission will be refused for development if it would be likely to generate motor traffic that exceeds the environmental or highway capacity of the local road network or which would cause significant disturbance, noise, pollution or risk of accidents.

2.3.21 It is considered that this older policy is not consistent with the new test in paragraph 32 of the National Planning Policy Framework which is that development should only be prevented or refused on transport grounds *“where the residual cumulative impacts of development are severe.”*

Policy T11 – Transport Assessments and Travel Plans

2.3.22 Policy T11 explains that planning applications for development proposals that will generate significant levels of traffic, must be accompanied by a Transport Assessment and a Travel Plan produced in consultation with local transport providers and agreed with the Council. There is an associated table which provides thresholds based on land-use over which a Transport Assessment is required.

2.3.23 This Transport Assessment has been prepared to fully explain the likely impacts of the Proposed Development and also to provide details of the strategies proposed to mitigate these impacts. An important element of the mitigation strategy will be the implementation, management and monitoring of Travel Plans for all key elements of the Proposed Development.

Policy T12 - Major Transport Schemes

2.3.24 This policy states that planning permission will be refused for development that would prejudice certain road and rail improvement schemes. These include the East West Rail scheme and the Standing Way to Newton Road road link, Bletchley.

2.3.25 As already noted, the Proposed Development will make provision of land to accommodate the alignment of a new grid road. The Proposed Development therefore assumes that the East West Rail link will be reopened during the lifetime of the scheme and consequently it has been designed to accommodate the likely impacts of rail traffic from noise and vibration. The Proposed Development will make provision for future road and rail improvement schemes and will not compromise their future implementation.

Policy T15 – Parking Provision

2.3.26 Policy T15 provides guidance relating to car parking provision. Car parking standards must not exceed the Council's 'maximum standards', nor be reduced below these if it is likely to result in off-site car parking problems; car parking areas must be well designed and assist pedestrian and cycle access.

- 2.3.27 Parking will be provided to meet the standards of the Aylesbury Vale Parking Guidelines SPG (May 2000). The maximum parking guidelines range from 1 space for a one bedroom flat to 3 spaces for a 4+ bedroom house. The National Planning Policy Framework (at Paragraph 39) has introduced a degree of flexibility to car parking standards, so that factors such as accessibility and availability of public transport for example are taken into account. The proposed residential areas will provide sufficient car parking, with the exact amount to be determined in conjunction with the local planning authority at detailed design stage.

Policy T17 – Traffic Calming

- 2.3.28 This policy explains that the Council will expect new development areas to secure traffic calming as an integral part of street design, whilst ensuring that there is adequate provision for efficient and convenient public transport provision.
- 2.3.29 As the Illustrative Master Plan is developed, traffic calming features will be designed to be an integral part of the public realm rather than something which is ‘bolted on’ retrospectively. The type of features used will be carefully selected for their appropriateness within the road hierarchy.

Policy KS1 – Newton Leys

- 2.3.30 Newton Leys is an allocated site for a comprehensive development including housing, employment and retail. It specifically states that within the site there will be a safeguarded route “... for a link road between the A4146 Fenny Stratford bypass and the A421 Buckingham Road / H8 Standing Way.” A similarly safeguarded route is to be provided within the Proposed Development.

2.4 Milton Keynes Core Strategy (MKCS), July 2013

- 2.4.1 The Milton Keynes Core Strategy (MKCS), adopted July 2013, contains a ‘Spatial Vision’ for the Borough in 2026 and identifies a number of specific objectives that will assist in its delivery. Whilst these are not development plan policies, they are material to the consideration of the Proposed Development in transportation and highways terms. In particular the Spatial Vision states in part that:
- “9. *The city’s iconic grid road system will have been conserved and extended into any major new development areas. The layout of development areas will route through-traffic onto suitable arteries whilst providing direct routes*

for public transport and a network of redways for convenient cycling and walking.

10. *New public transport routes for low carbon vehicles (such as guided electric buses) will link new and existing communities to the city centre and other important centres and facilities. This will have reduced overall congestion and lowered peak hour commuting by car from 68% to 57% by 2026. Low carbon transport such as electric cars will also be supported.*
11. *Transport links to other towns, including Aylesbury, Bedford, Luton and Northampton, will have been improved. These include the East - West rail link between Oxford and Cambridge via Milton Keynes, the A421 corridor through the city (linking the A1, M1 and M40)...*

2.4.2 The following 'Core Strategy Objectives' are of particular relevance.

"To work jointly with neighbouring authorities and other key organisations on the planning of any development located on the edge of Milton Keynes (but outside the current MK boundary) so that these areas are integrated with the city and contribute to its role and character."

and

"To manage increased travel demands through:

- *Promoting improvements to public transport and supporting the development of an East - West rail link between Oxford and Cambridge...*
- *Encouraging an increased number of people to walk and cycle by developing an expanded and improved Redway network*
- *Extending the grid road pattern into any major new development areas*
- *Utilising demand management measures to reduce the growth of road congestion, whilst upgrading key traffic routes such as the A421 and the A509"*

2.4.3 The Public Transport Strategy for the Proposed Development includes improvements to existing public transport ensuring that an acceptable level of service is provided that will be developed to meet the ongoing needs and assist in reducing the growth of road congestion.

2.4.4 A main feature of the Proposed Development is also its linkages with the existing Redway system and an extension of these into all areas allowing ease of access

for pedestrians and cyclists which again will assist in reducing the growth of road congestion. This along with a continuation of the grid road pattern into the Proposed Development will ensure that it is integrated with the city and contributes to its role and character.

Policy CS6 Place-shaping Principles for Sustainable Urban Extensions in Adjacent Local Authorities

2.4.5 Policy CS6 provides a policy framework setting the basis for MKC to respond to development proposals for Sustainable Urban Extensions (SUE) adjoining the City. It establishes principles that the Council will apply and a number of these relate to transportation and highways matters:

- “2. A sustainable, safe and high quality urban extension should be created which is well integrated with, and accessible from, the existing city. Its structure and layout should be based on the principles that have shaped the existing city, especially the grid road system, redways*
- 5. Linear parks should be extended into the development where possible to provide recreational, walking and cycling links within the development area and to the city’s extensive green infrastructure and redway network.*
- 6. Technical work to be undertaken to fully assess the traffic impacts of the development on the road network within the city and nearby town and district centres and adjoining rural areas, and to identify necessary improvements to public transport and to the road network, including parking.*
- 7. A route for the future construction of a strategic link road(s) and/or rail link should be protected where necessary.*
- 9. The opportunity for new ‘Park and Ride’ sites for the city should be fully explored and where possible provided and efficiently and effectively linked to the city road system.”*

2.4.6 The Proposed Development will be a sustainable, safe and high quality urban extension which will be integrated with, and easily accessible from, the existing Central Milton Keynes. The principles that have shaped the existing city have been used to develop the Illustrative Master Plan that is described in detail in the Design and Access Statement.

2.4.7 A main feature of the Proposed Development is its linkages with the existing Redway system and an extension of these into all areas allowing ease of access for pedestrians and cyclists.

2.4.8 This Transport Assessment contains details of the technical work that has been carried out to fully assess the traffic impacts of the Proposed Development on the road network within Milton Keynes and also Aylesbury Vale. Necessary improvements to public transport have been discussed with Arriva and a strategy is provided also within this Transport Assessment.

2.4.9 It has been agreed with Milton Keynes Council that the Proposed Development site is not a suitable location for a 'Park and Ride' site.

Policy CS10 Housing

2.4.10 Policy CS 10 promotes design that encourages access by walking, cycling and other forms of non-car travel within the neighbourhood and across the city; and notes that car parking standards should meet projected levels of car ownership (in addition to visitor parking).

2.4.11 Access by walking, cycling and other forms of non-car travel is at the forefront of the design concept for the Proposed Development. The design provides excellent walking and cycling facilities within the development and safe, convenient linkages to the existing Redway system.

Policy CS11 A Well Connected Milton Keynes

2.4.12 Policy CS11 states that the Council will work with its partners to accommodate increasing demand for movement and deliver a reduction in the Borough's carbon footprint. It identifies measures that will be used in this regard:

- “1. A step change in improvements to public transport... new bus services will be provided to major new areas of development when sufficient buildings are occupied.*
- 2. More sustainable transport choices for car owners and information and measures to encourage them to use non-car modes for more journeys.*
- 3. Encouraging greater movement within the Borough by cycling and walking through improvements to the existing Redway network and other paths*

including more direct routes, enhanced facilities and signage, better integration with transport interchange hubs, and improved surveillance; by extending the Redways network throughout major development areas (including the creation of routes that are shorter than the equivalent road journey).

4. *Planning the development of large housing and employment areas... so that it is well served by public transport and easily accessible by walking and cycling...*
5. *Demand management in order to help achieve a shift from journeys by car to more sustainable transport.*
6. *Maintaining and future-proofing the city's grid road network and extending it into new development areas whilst safeguarding the corridors for possible mass transit schemes. Road networks in new development areas in neighbouring authorities will be dependent on the strategies and preferences of those neighbouring authorities and partnership working.*
7. *Maximising the capacity of the Borough's highway network through phased improvements in step with housing and employment growth...*
8. *The highway network will be served by high quality transport interchanges well located to transport nodes and the strategic highway network, and by park and Ride sites on the edge of the city and in close proximity to the strategic highway network.*
9. *To engage with Network Rail and relevant stakeholders along the East-West Rail line to identify operational benefits which thereby provides additional support for a more sustainable transport strategy and/or economic growth of the city."*

2.4.13 The Proposed Development has been designed to satisfy all relevant elements of this policy, particularly by virtue of its mixed-use nature which will significantly reduce the need to travel to other parts of the Borough for work, education and leisure. It will also be well served by public transport from first occupation, with the proposed Public Transport Strategy also improving provision for others along the route into Central Milton Keynes. Travel planning and personal journey planning will provide information from the outset designed to encourage car users to switch to sustainable modes of travel.

- 2.4.14 There will be good linkages with the existing Redway network that will permit permeability with existing communities and allowance will be made for the extension of the City's iconic grid road network through the development.

Policy CS12 Developing Successful Neighbourhoods

- 2.4.15 Policy CS 12 encourages development that will support 'sustainable lifestyles' indicating in part that this will include creating "... *walkable neighbourhoods and extensions of the existing walking, cycling and key public transport networks*" and "*siting key day-to-day facilities, including schools, shops, leisure and employment in locations easily accessible on foot, by bike and by public transport.*"
- 2.4.16 The Proposed Development has been carefully designed to support sustainable lifestyles, incorporating a mix of uses that are located to be easily accessible for pedestrians and cyclists.

Policy CS13 Ensuring High Quality, Well Designed Places

- 2.4.17 Policy CS13 deals with the 'Character of Place' and the 'Design of Place'. With regard to Design this policy encourages new developments to "*Champion new approaches to sustainable urban form and structure, which build on the concept of the grid, so that everyone lives within walking distance of a viable bus route, local shops and other day-to-day facilities*"
- 2.4.18 Policy CS13 also states that "*Redways (another unique element of MK) should be built within the landscape corridor of all new grid roads, as well as elsewhere within new developments, having regard to delivery of other sustainable transport and landscape character requirements.*"
- 2.4.19 The Proposed Development is designed to accommodate the concept of the grid, and provides for an extension of this through the development. It also provides for safe, efficient and user-friendly linkages to the existing Redway network, mirroring its concept within the development itself.

2.5 National Planning Policy Framework (2012)

- 2.5.1 Paragraph 1 of the NPPF states in part that:

“The National Planning Policy Framework sets out the Government’s planning policies for England and how these are expected to be applied. It sets out the Government’s requirements for the planning system only to the extent that it is relevant, proportionate and necessary to do so...”

2.5.2 The NPPF is written on the premise that the purpose of planning is to help achieve sustainable development and the sustainable development is about positive growth. The NPPF states that *“Development that is sustainable should go ahead, without delay.....”* and *“In order to fulfil its purpose of helping to achieve sustainable development, planning must not simply be about scrutiny.”* (Ministerial foreword)

2.5.3 In paragraph 17 the NPPF identifies a series of ‘Core planning principles’ that should underpin both plan making and decision taking. Key amongst these is to: *“actively manage patterns of growth to make the fullest possible use of public transport, walking and cycling, and focus significant development in locations which are or can be made sustainable”*

2.5.4 Section 4 of the NPPF addresses the matter of ‘Promoting sustainable transport’. The following extracts are considered to be of relevance to the Proposed Development:

“Encouragement should be given to solutions which support reductions in greenhouse gas emissions and reduce congestion. In preparing Local Plans, local planning authorities should therefore support a pattern of development which, where reasonable to do so, facilitates the use of sustainable modes of transport” (paragraph 30)

and

“All developments that generate significant amounts of movement should be supported by a Transport Statement or Transport Assessment. Plans and decisions should take account of whether:

- *the opportunities for sustainable transport modes have been taken up depending on the nature and location of the site, to reduce the need for major transport infrastructure;*
- *safe and suitable access to the site can be achieved for all people; and*

• *improvements can be undertaken within the transport network that cost effectively limit the significant impacts of the development. Development should only be prevented or refused on transport grounds where the residual cumulative impacts of development are severe.*” (paragraph 32) and

“Plans and decisions should ensure developments that generate significant movement are located where the need to travel will be minimised and the use of sustainable transport modes can be maximised...” (paragraph 34)

and

‘... developments should be located and designed where practical to

- *accommodate the efficient delivery of goods and supplies;*
- *give priority to pedestrian and cycle movements, and have access to high quality public transport facilities;*
- *create safe and secure layouts which minimise conflicts between traffic and cyclists or pedestrians, avoiding street clutter and where appropriate establishing home zones;*
- *incorporate facilities for charging plug-in and other ultra-low emission vehicles;*
and
- *consider the needs of people with disabilities by all modes of transport.’*
(paragraph 35)

and

“A key tool to facilitate this will be a Travel Plan. All developments which generate significant amounts of movement should be required to provide a Travel Plan.”
(paragraph 36)

and

“... Where practical, particularly within large-scale developments, key facilities such as primary schools and local shops should be located within walking distance of most properties.” (paragraph 38)

- 2.5.5 In reflection of paragraph 32 of the NPPF, this Transport Assessment supports the Proposed Development and demonstrates that the opportunities for sustainable transport modes have been fully explored in order to reduce the need for major transport infrastructure. There will be safe and suitable access into and within the Proposed Development for all users, with the needs of pedestrians and cyclists at the forefront of the access hierarchy. In line with Milton Keynes ‘A Transport Vision and Strategy for Milton Keynes – Local Transport Plan 3 – 2011 to 2031’,

appropriate mitigation will be discussed and agreed with MKC to ensure that the residual cumulative impact will not be severe.

- 2.5.6 Improvements are required by the local and strategic highway authorities to enable general growth forecasts (i.e. without the Proposed Development) to be accommodated on the highway and transport network and the Proposed Development is able to facilitate and act as a catalyst for implementing those required infrastructure improvements.
- 2.5.7 The mixed-use nature of the Proposed Development will minimise the need to travel and its location ensures easy and safe access for pedestrians and cyclists on to the established Milton Keynes' Redway network. Paragraph 34 of NPPF will therefore be satisfied, as will paragraph 38 given that all key facilities will be easily accessible from all properties.
- 2.5.8 The NPPF recognises the importance of Travel Planning as a key tool to facilitate the use of sustainable transport modes for the movement of goods or people and therefore considers that large development proposals should be required to provide a Travel Plan (paragraph 36). A Framework Travel Plan, providing details of travel planning at all key elements of the Proposed Development, has been prepared in conjunction with this Transport Assessment to be considered as part of the planning application.

2.6 National Planning Practice Guidance (2014)

- 2.6.1 On 6th March 2014 the Department for Communities and Local Government launched its planning practice guidance web-based resource. This guidance has updated and replaced a wide range of planning policy and circular guidance. It addresses transportation and highway matters under the headings of 'Travel plans, transport assessments and statements in decision-taking' and 'Design'.

Travel plans, transport assessments and statements in decision-taking

- 2.6.2 The NPPG explains that Travel Plans (TP) and Transport Assessments (TA) are ways of assessing and mitigating the negative transport impacts of development in order to promote sustainable development and that they are required for developments which generate significant amounts of traffic movements. It goes

on to advise that a TA may propose mitigation measures where these are necessary to avoid unacceptable or “severe” impacts. Travel Plans are identified as playing an effective role in taking forward those mitigation measures which relate to on-going occupation and operation of the development. (Paragraph: 004 Reference ID: 42-004-20140306).

2.6.3 The guidance goes on to state (Paragraph: 006 Reference ID: 42-006-20140306) that TAs can positively contribute to:

- encouraging sustainable travel;
- lessening traffic generation and its detrimental impacts;
- reducing carbon emissions and climate impacts;
- creating accessible, connected, inclusive communities;
- improving health outcomes and quality of life;
- improving road safety; and
- reducing the need for new development to increase existing road capacity or provide new roads.

2.6.4 With regard to TPs, the guidance advises that these should identify the specific required outcomes, targets and measures, and set out clear future monitoring and management arrangements all of which should be proportionate. TPs should also consider what additional measures may be required to offset unacceptable impacts if the targets are not met.

2.6.5 It is necessary for TPs to set out explicit outcomes rather than just identify processes to be followed. A TP should also address all journeys resulting from a proposed development by anyone who may need to visit or stay and it should seek to fit in with wider strategies for transport in the area (Paragraph: 011 Reference ID: 42-011-20140306)

2.6.6 An important part of the overall strategy for the Proposed Development is the implementation, maintenance and monitoring of a Framework Travel Plan that encompasses individual Travel Plans for the main elements of the Proposed Development. The Framework Travel Plan in conjunction with the Transport Assessment are geared towards encouraging sustainable travel.

Design

- 2.6.7 In Paragraph: 042 Reference ID: 26-042-20140306, the NPPG notes that *“Successful streets are those where traffic and other activities have been integrated successfully, and where buildings and spaces, and the needs of people, not just of their vehicles, shape the area”*. It goes on to state that *“Every element of the street scene contributes to the identity of the place...”* and that *“Public transport, and in particular interchanges, should be designed as an integral part of the street layout.”*
- 2.6.8 It also notes that *“The likelihood of people choosing to walk somewhere is influenced not only by distance but also by the quality of the walking experience. When considering pedestrians plan for wheelchair users and people with sensory or cognitive impairments. Legible design, which makes it easier for people to work out where they are and where they are going, is especially helpful for disabled people”*.
- 2.6.9 The design of the Proposed Development very much responds to this part of the NPPG in that it aims to address the needs of people and to encourage all users of the development to use sustainable modes for travel both within and to and from the development.
- 2.7 A Transport Vision and Strategy for Milton Keynes: Local Transport Plan 3 - 2011 to 2031**
- 2.7.1 LTP3 acknowledges that Milton Keynes is expected to grow rapidly over the next twenty years and therefore it is essential that as the City grows, so does the transport choice available to residents and visitors alike. LTP3 states that *“making better use of existing infrastructure, improving highway and Redway connectivity and providing an attractive public transport network are the key.”*
- 2.7.2 The Transport Vision for Milton Keynes expects that *“Transport networks, including the unique grid road and Redway networks, will be expanded and fully integrated into new developments and regeneration areas to support more sustainable communities.”* To support this vision, there are seven objectives, including one for the provision of real and attractive transport choices to encourage more sustainable travel behaviour as Milton Keynes grows.

- 2.7.3 There is a strategy to deliver the vision and meet the objectives. The strategy contains seven strands; Public Transport, Cycling and Walking, Smarter Choices, Highways and Traffic Management, Technology, Infrastructure Management and Development Planning.
- 2.7.4 Key interventions are identified to support the strategy and these include expansion of grid roads into and through future Expansion Areas, the dualling of the A421 from M1 Junction 13 to M40 in Oxfordshire and junction improvements.
- 2.7.5 It is clear that MKC's Vision and Strategy is very much focussed on sustainable travel as a preference to simply increasing highway capacity for general vehicular traffic. The complementary strategies on Public Transport and Travel Demand Management that will be implemented as part of the Proposed Development will therefore assist the Council in delivering its Vision for sustainable development and travel.

2.8 Buckinghamshire's Local Transport Plan 2011-2016

- 2.8.1 Buckinghamshire's third Local Transport Plan sets out Buckinghamshire County Council's (BCC) transport policies and strategies for the next five years (2011/12-2015/16). Buckinghamshire is divided into nine Local Transport Areas each with its own local area strategy and linked action plan. The Proposed Development is located within the Buckingham and Winslow area. The headline of the local area strategy for the Buckingham and Winslow area is that *"In 2026 the Buckingham and Winslow area will have accommodated a significant amount of residential and employment growth, whilst at the same time retaining its local character. The walking and cycling environment in local centres will be improved, in addition to the public realm, and access by all modes will be enhanced to local and regional centres. The impact of transport on the built environment will be reduced, and the roads in the area will be well maintained and safer than they are today."*

2.9 Milton Keynes Transport and Sustainable Transport SPD (June 2009)

- 2.9.1 The main purpose of the Sustainable Transport SPD is to clarify and advise where developer contributions for transport improvements will be sought and how those contribution sums are calculated and committed. The SPD has been drawn up to

interpret several policies of the Local Plan (December 2005) of which T5 and T11 have already been identified as being applicable to the Proposed Development.

2.10 New Residential Development Design Guide SPD (April 2012)

2.10.1 The Design Guide for New Residential Development in Milton Keynes is intended to ensure a high quality of development for future growth and regeneration of Milton Keynes.

2.10.2 The purpose of the Guide is two-fold; as a tool to assist the Council in the determination of planning applications and reserved matters and to help developers understand what is expected from them particularly in terms of design, layout and landscaping of new residential development. The guidance has been used to inform the master planning process and MKC has been part of that process, participating in a series of workshops to enable to development of the Illustrative Master Plan.

2.11 Milton Keynes Local Investment Plan (October 2013)

2.11.1 The Local Investment Plan (LIP) sets out the vision and aspirations for the Milton Keynes area as it continues to grow with the aim of delivering a further 28,000 new homes and over 40,000 new jobs by 2026. The plan outlines the investment requirements and funding mechanisms to support the delivery of growth.

2.11.2 The Local Investment Plan identifies that the commitment to future growth and the policies and strategies in place for Milton Keynes creates both ‘challenges’ and ‘opportunities’ in terms of the infrastructure and investment required.

2.11.3 The ‘Capacity of Transport Grid and Transport Links’ is identified as an opportunity as the LIP recognises that Milton Keynes has good transport links and was planned to deliver high speed access across the whole city. A specific opportunity that is noted is the extension of the railway through Bletchley and on to Bedford and Cambridge.

2.11.4 In identifying the main development areas in Milton Keynes, mention is made of land reserved within the Newton Leys development for a possible A421-A4146 link road.

2.12 Conclusions

- 2.12.1 It is clear that there are certain themes running through both national and local policy that the Proposed Development should respond to. Development proposals should be such that they encourage the use of sustainable modes of transport and give priority to pedestrian and cycle movements, and have access to high quality public transport facilities. This enables best use to be made of existing infrastructure.
- 2.12.2 The National Planning Policy Framework encourages and promotes sustainable development and states that development should only be prevented or refused on transport grounds if the residual cumulative impacts are severe. In line with Milton Keynes 'A Transport Vision and Strategy for Milton Keynes – Local Transport Plan 3 – 2011 to 2031', appropriate mitigation will be discussed and agreed with MKC to ensure that the residual cumulative impact will not be severe.
- 2.12.3 Improvements are required by the local and strategic highway authorities to enable general growth forecasts (without the Proposed Development) to be accommodated on the highway and transport network and the Proposed Development is able to facilitate and act as a catalyst for implementing those required infrastructure improvements.
- 2.12.4 The Transport Assessment also demonstrates that the Proposed Development:
- Complies with extant Development Plan Policy;
 - Complies with Government policy contained in the NPPF and guidance contained in National Planning Practice Guidance; and
 - Positively responds to the aspirations of Aylesbury Vale District Council and Milton Keynes Council as reflected in the respective Local Transport Plans and development plans.

3. EXISTING CONDITIONS

3.1 Application Site

3.1.1 The area of land that will accommodate the Proposed Development comprises a green field site, north-west of Newton Longville and immediately west of Far Bletchley and south west of the centre of Milton Keynes. The application site, which covers an area of approximately 144 hectares, is bound to the north by A421 Standing Way, to the east by the existing built up area of Far Bletchley, to the south by the disused railway line and to the west by Whaddon Road. A plan showing the location of the site in relation to the surrounding area is provided in **Figure 3.1**.

3.1.2 There is currently no formal means of vehicular access into the application site that could be used to serve the Proposed Development. Weasel Lane crosses the site in a north easterly direction from Whaddon Lane to B4034 Buckingham Road. Weasel Lane is a restricted byway, a highway over which the public has a right of way on foot, bicycle, horseback, and with non-mechanically propelled vehicles. Notwithstanding its status, Weasel Lane is accessible by motor vehicle from both Whaddon Lane and Buckingham Road by means of simple priority junctions at both ends and provides access from Whaddon Road to an existing residential property which is not within the application site and therefore is expected to remain.

3.2 Local and Regional Highway Network

3.2.1 The application site is well connected on a local, sub-regional and regional scale. A421/H8 Standing Way runs in a north easterly direction towards the A5 providing connections to the Bletchley, Emerson Valley and Furzton areas. A roundabout at the junction of H8 Standing Way and V6 Grafton Street allows access to Redmoor Roundabout which interchanges with the A5. To the east of the A5, A421 Standing Way provides access through the Beanhill, Netherfield, Monkston, Kents Hill and Brinklow areas to Junction 13 on the M1 Motorway and also north into Bedford.

3.2.2 To the west, the A421 provides links to Buckingham and the A43. The A421 runs west from Bottle Dump Roundabout in the north-west corner of the application

site, and has a number of junctions along its length providing links to minor roads that serve the surrounding villages. The A421 continues west and meets the A413 at a roundabout to the east of Buckingham, some 12.5km west of the site, before continuing around the south of Buckingham, north of the Buckingham Industrial Estate. The A421 continues west from Buckingham, bypassing Tingewick to the south before joining the A43 approximately 4km south of the centre of Brackley.

3.2.3 Whaddon Road runs in a south easterly direction along the western edge of the application site, over the disused railway, into the village of Newton Longville. Within the village, Whaddon Road gives way to Bletchley Road/Drayton Road at a cross road type junction before continuing as Stoke Road. Stoke Road provides access to A4146 Stoke Hammond bypass to the south of which the A4146 provides a southern bypass to Leighton Buzzard before running into the A505. A505 joins A5 Watling Street at roundabout junction to the north west of Houghton Regis. The location of the application site in relation to the local and regional highway network is shown on **Figure 3.2**.

3.3 Existing Pedestrian & Cycle Routes

3.3.1 National Cycle Route 51 runs south-west through the site, along Weasel Lane from Buckingham Road, crossing Whaddon Road before re-joining the road network on a small farm track, east of Lower Salden Farm. Weasel Lane is a restricted byway, with the following public right of way classifications:

- NLO/25 at the north eastern end (between Buckingham Road and footpath NLO/19 – around 250metres) with a metalled surface around 4m in width and with verges both sides;
- NLO/20 between footpath NLO/19 and the parish boundary – around 1150m in length generally metalled and with a similar width of around 4m and verges to both sides; and
- MUR/15 between the parish boundary and the track to Lower Salden Farm – around 550m, with width and surface generally as for NLO/20.

3.3.2 The route is sign-posted throughout as National Cycle Route 51, providing connections to Bicester and Oxford to the south-west, and Bedford and Huntingdon to the north-east.

- 3.3.3 Bridleway WHA/16 runs south from the A421 (approximately 150m west of Bottle Dump Roundabout) to Whaddon Road (Mursley) and beyond Whaddon Road to the west as LHO/19.
- 3.3.4 Footpath NLO/19 runs from Weasel Lane (250m west of Buckingham Road) south to Whaddon Road, Newton Longville, opposite Westbrook End. It crosses under the currently disused route of the East West rail line via a bridge.
- 3.3.5 There are two recreational footpath routes in the vicinity of the site:
- The Midshires Way is a long distance footpath and bridleway that runs from Bledlow in Buckinghamshire, to Stockport in Great Manchester. In this area, it runs along Bridleway WHA/16 from Whaddon Road (Mursley) under the subway at Bottle Dump Roundabout, and north along the western boundary of Tattenhoe Park; and
 - The Milton Keynes Boundary Walk is a circular route around Milton Keynes. It runs through Newton Longville, north along footpath NLO/19 to Weasel Lane, along Weasel Lane, north along Whaddon Road to Bottle Dump Roundabout and north along the western boundary of Tattenhoe Park.
- 3.3.6 The Milton Keynes cycle network, the Redway system, connects to the site, beginning west of Bottle Dump Roundabout before continuing eastbound, north of A421 Standing Way, reaching Tattenhoe Roundabout where it passes under the Snelshall Street and A421 Standing Way arms of the roundabout via subways. At this point, the Redway splits in three. A route can be followed north-east alongside the A421 Standing Way towards the City Centre and Central Milton Keynes Railway Station, or to the south east alongside Buckingham Road, and to the north alongside Snelshall Street.
- 3.3.7 The Redway network can be accessed from the site via:
- Whaddon Road, immediately south of Bottle Dump roundabout;
 - The subway under the A421, east of Steinbeck Crescent; and
 - Buckingham Road, south east of Tattenhoe Roundabout.

3.3.8 The existing pedestrian and cycle routes through and around the application site are shown in **Figure 3.3**.

3.4 Existing Public Transport Provision

3.4.1 The nearest bus stops to the application site that are served by a regular bus service are on Chepstow Drive in Far Bletchley to the east of the site. These existing bus stops on Chepstow Drive are currently on Route 28 operated by Red Rose Travel. On Monday to Saturday an hourly service operates between Central Milton Keynes and Bletchley Bus Station.

3.4.2 The nearest bus stops to the application site that provide a more frequent level of service are around 800 metres walking distance from the site boundary on Whaddon Way. These stops are currently on Route 4 operated by Arriva which provides a 10 minute service during peak weekday hours and a 20 minute service throughout the rest of the day.

3.4.3 An extract from the Milton Keynes Urban Bus Map showing the existing bus routes in the vicinity of the Proposed Development is contained at **Appendix A**.

3.4.4 Bletchley Railway Station is approximately 4km driving distance from the application site to the east via Buckingham Road and therefore is accessible both by cycle and car. The station has 638 parking spaces with 29 of these for use by the mobility impaired. There is also sheltered parking for 54 cycles.

3.4.5 The station, operated by London Midland, is located on the West Coast Main Line, providing connections to Milton Keynes Central and Birmingham New Street to the north, and Watford and Euston to the south. The station also provides links to local stations, including Leighton Buzzard. Southern Trains operates an hourly service which terminates at South Croydon. **Table 3.1** below provides details of the services from Bletchley Railway Station with the current timetables contained at **Appendix B**.

Table 3.1: Services from Bletchley Railway Station

Service	Frequency		
	Monday-Friday	Saturday	Sunday
London Midland Bedford - Bletchley Bletchley - London Euston Bletchley – Milton Keynes	Hourly Hourly Hourly	Hourly Hourly Hourly	No Service No Service No Service
Southern Trains Croydon and Clapham Jn. to Watford Jn. and Milton Keynes (connections to Northampton and Birmingham New Street)	Hourly	Hourly	Hourly

3.4.6 Milton Keynes Central is approximately 7km driving distance from the site via Snelshall Street, Childs Way and Elder Gate and is therefore accessible by both cycle and car. Cyclists can also use the network of Redways to access the station which provides sheltered storage for 900 spaces. Car parking is available at the station although this is more costly than the provision at Bletchley and therefore may be a less attractive option for drivers wishing to access rail journeys.

3.4.7 The train operators serving Milton Keynes Central are London Midland, Southern trains and Virgin Trains. **Table 3.2** below provides details of the services from Milton Keynes Central with the current Virgin Trains timetable also contained at **Appendix B**.

Table 3.2: Services from Milton Keynes Central

Service	Frequency		
	Monday-Friday	Saturday	Sunday
London Midland Bletchley – Milton Keynes	Hourly	Hourly	No Service
Southern Trains Croydon and Clapham Jn. to Watford Jn. and Milton Keynes (connections to Northampton and Birmingham New Street)	Hourly	Hourly	Hourly
Virgin Trains London & West Midlands - North West & Scotland Milton Keynes - London Euston	Hourly	Hourly	Hourly

3.5 Personal Injury Accident Data

- 3.5.1 Personal injury accident data to cover the last five years has been obtained from both Buckinghamshire County Council and Milton Keynes Council. The area of interest in Buckinghamshire County Council's administrative area is from A421 Whaddon Crossroads in the west, along A421 up to and including Bottle Dump Roundabout, Whaddon Road into Newton Longville and Stoke Road to the roundabout at the northern end of A4146 Stoke Hammond bypass.
- 3.5.2 Within this area of interest there have been a total of 41 accidents in the 5 year period, 1st July 2009 to 30th June 2014. 35 accidents were classified as slight in severity, 5 as serious and 1 accident resulted in a fatality. There have been 11 accidents at or near Whaddon Crossroads; 1 classified as serious in severity and the remaining 10 as slight. Whilst 3 accidents involve rear end collisions on the A421 approaches to the roundabout, there do not appear to be any underlying road geometry issues associated with any of the accidents at this location.
- 3.5.3 There have been 8 accidents at or near the roundabout at the northern end of A4146 Stock Hammond Bypass; 1 fatal, 2 serious and 5 slight. 3 of these accidents, including that which caused a fatality, were as a result of loss of control although there does not appear to be any overriding factor causing this.
- 3.5.4 There have been 18 accidents along Whaddon Road and Stoke Road through Newton Longville and including at the junction of Stoke Road and Newton Road, just to the south west of Newton Leys. There is no pattern to these accidents that would suggest an underlying road safety issue.
- 3.5.6 The personal injury accident data obtained from Milton Keynes Council covers a large area of interest including the following roundabouts and the road links between them; Bottle Dump, Tattenhoe, Kingsmead, Westcroft, Furzton, The Bowl, Elfield Park, Emerson and Windmill Hill. The accidents that have occurred within this area of interest in the 5 year period, 1st July 2009 to 30th June 2014, are summarised in **Table 3.3** below.

Table 3.3: Number of PIAs in Milton Keynes Area of Interest

Location	Number of PIAs		
	Slight	Severe	Fatal
Bottle Dump and Tattenhoe Roundabouts	14	0	0
H8 to Windmill Hill Roundabout	6	3	0
H8 to Emerson Roundabout	14	0	0
H8 to Elfield Park Roundabout	19	2	0
V1 to Kingsmead Roundabout	7	2	0
V2 Tattenhoe Street	7	1	0
V3 Fulmer Street	17	2	1
V4 Watling Street	15	1	1
H7 to Westcroft Roundabout	7	2	1
H7 to Furzton Roundabout	10	1	0
H7 to The Bowl Roundabout	11	3	0

3.5.7 An interrogation of the data for the whole study area reveals that there have been only 2 pedestrian casualties albeit one of these was fatal and the other serious. In the same time period there have been 7 cyclist casualties. Road safety does not appear to be a significant issue in relation to users of these modes.

3.5.8 The accident records show incidents at junctions but there is no indication from the identified causation factors that there are any underlying road geometry issues at fault. Plots showing the locations of the accidents in both study areas are contained at **Appendix C**.

4. THE PROPOSED DEVELOPMENT

4.1 Quantum of Development

4.1.1 The proposal seeks outline planning permission (all matters reserved except for access) for the following:

- a mixed-use sustainable urban extension on 144.77 Ha of land to the south west of Milton Keynes, to provide for the following:
- up to 1,855 mixed tenure dwellings (C3) on 54.16 Ha of land;
- an employment area (B1) on 2.07 Ha of land;
- a neighbourhood centre on 0.67 Ha of land accommodating retail (A1/A2/A3/A4/A5), community (D1/D2) and residential (C3) uses;
- provision of a primary school on 3.0 Ha of land;
- provision of a secondary school on 5.2 Ha of land;
- allotment space on 1.22 Ha of land;
- ground remodelling;
- 55.75 Ha of multi-functional green open space including: parkland, sports and recreational facilities with pavilion/changing facilities; play areas, wildlife areas, a range of strategic open spaces including a community orchard and new landscaping;
- a Sustainable Drainage Scheme including 5.05 Ha of land for surface water attenuation measures;
- associated infrastructure including new junctions to the A421, Whaddon Road and Buckingham Road, primary streets, residential streets, pedestrian footpaths and cycle routes, foul water pumping stations and statutory undertakers equipment;
- A Grid Road Reserve of 7.24 Ha;
- Highway improvements on 5.56 Ha;
- public transport infrastructure, car and cycle parking for all uses; and
- undergrounding of 132Kv overhead power lines.

4.1.2 The residential component of the Proposed Development includes up to 1,855 new dwellings, the precise mix of which will be fixed through subsequent reserved matters planning applications pursuant to any outline planning permission. There will be a range of residential densities from up to 50 dwellings per hectare abutting

the Neighbourhood Centre to 20-25 dwellings per hectare on the southern edge of the development where this will meet the open countryside.

- 4.1.3 The Proposed Development makes provision for a range of employment uses. Principally, employment uses will be provided within an Employment Zone set around a mixed use Neighbourhood Centre located close to the northern gateway to the site adjacent to the north western edge of the planning application boundary.
- 4.1.4 The Employment Zone is likely to accommodate small 'starter' office units that would provide appropriate space for small local businesses, but will not preclude larger single buildings / businesses.
- 4.1.5 The proposed mix of uses, to include both primary and secondary school provision, will encourage internalisation of trips and therefore satisfies key local and national policy requirements to reduce the impact of development on the wider highway network and to encourage greater use of sustainable modes of travel, in particular walking and cycling.

4.2 Illustrative Master Plan

- 4.2.1 An Illustrative Master Plan that forms the basis of the planning application for the Proposed Development has been developed, informed by discussions on emerging versions of the master plan in a series of pre-application meetings and Design Workshops held with officers from both AVDC and MKC during 2013 and 2014.
- 4.2.2 The development and details of the subsequently refined master plan are described in detail in the Design and Access Statement prepared to accompany the planning application. The Illustrative Master Plan is shown in the figure contained at **Appendix D**. The extent of the proposed improvements is discussed in Section 5 of this TA but broadly include the following:
- Weasel Lane and National Cycle Route 51 to be retained and enhanced as an important route through the new development, new homes set back from Weasel Lane and existing landscape features and orientated to

provide overlooking of public routes, and provision of two appropriately designed, at-grade, road crossings;

- An extensive linear park running alongside Whaddon Road fronted by lower density homes, incorporating new landscape planting, trees, footpaths and cycleway links to improve northwest section of MK Boundary Walk;
- New highway improvements to Bottledump Roundabout;
- New highway improvements to Tattenhoe Roundabout; and
- A new roundabout terminates the southern end of a primary street on the proposed alignment of the grid road reserve.

4.2.3 The design of the Proposed Development coupled with its location in close proximity to Milton Keynes' established network of Redways will encourage walking and cycling as an alternative to the private car. Pedestrian and cycling facilities within the Proposed Development will be designed as high quality, convenient and direct routes to both internal and external destinations.

4.2.4 The provision of the grid road reserve is an important element to be accommodated by the proposals. Whilst the Proposed Development requires only provision of a single carriageway road, the Illustrative Master Plan protects the corridor such that a dual carriageway could be provided in the future.

5. THE TRANSPORT STRATEGY

5.1 Introduction

5.1.1 The underlying principle of the Transport Strategy for the Proposed Development is to provide the future community with a sustainable travel network which will influence behaviour to reduce the need to travel and thereby minimise the impact on the external transport network. Key priority is given to pedestrian and cycle movements, and the Proposed Development has access to high quality public transport facilities.

5.1.2 At the heart of the overall Transport Strategy are the implementation, monitoring and management of Travel Plans for the residential, commercial/employment and school uses. These Travel Plans under the umbrella of the Framework Travel Plan will be the key tool for achieving a successful Travel Demand Management Strategy.

5.2 Development Access

5.2.1 The Access Strategy for the Proposed Development has evolved in line with the evolution of the Illustrative Master Plan. Pedestrian access to the Proposed Development will be achieved as follows with all but the recreational footpaths being available for use by cyclists:

- a connection with the existing Redway on the northern side of A421 Standing Way as well as other recreational routes, and via the pedestrian / cycle route running along the line of the old Buckingham Road route south of the current A421 dual carriageway:
 - across the A421 close to Bottledump Roundabout via the existing subway;
 - across the A421 to Snelshall West via the existing subway; and
 - via Tattenhoe Roundabout;
- to Buckingham Road, approximately 600m to the south of Tattenhoe Roundabout, via National Cycle Route 51 on Weasel Lane, and via a new access to the site between this point and Tattenhoe Roundabout;
- to Hamilton Lane, Far Bletchley, on the eastern boundary of the site, via a cycleway / footway; and

- at four locations to the south and west of the site, via existing bridleways / footpaths NLO/19, MUR/15, WHA/15 and WHA/16.

5.2.2 Three vehicular means of access will be provided to the Proposed Development via:

- Whaddon Road – by means of a priority T-junction with a ghost island right turn holding lane;
- An extension to Buckingham Road into the Proposed Development – by means of a traffic signal controlled junction; and
- A421 Standing Way – by means of left in / left out only priority junction.

5.2.3 These proposals for vehicular access are shown on the drawings contained at **Appendix D**.

5.3 Street Hierarchy

5.3.1 The key strategic route within the Proposed Development is the allocation of space for a future grid road. This is aligned from the Tattenhoe Roundabout south to the railway line. In this allocation a new Primary Street will be provided. The Primary Street will be sited within the reserved corridor such that a dual carriageway can be accommodated for a future bypass to the south of Bletchley, passing under the railway, through Newton Leys (on land already reserved for this purpose) to the Stoke Hammond Bypass.

5.3.2 A network of Primary Streets will form the principal circulation route for all vehicular traffic through the Proposed Development. This route will connect with the existing highway network at the three proposed vehicular means of access. Primary Streets are the principal structuring element of the Proposed Development and they will be designed to achieve three aims:

- to accommodate vehicular capacity without compromising character;
- to provide a network of legible, direct streets design in accordance with the principles set out in Manual for Streets and Manual for Streets 2;
- to complement and enhance the local network of public footpaths, cycleways and bridleways.

5.3.3 Providing a connector function, linking the Primary Streets through the development areas, will be Secondary Streets from which will lead a network of Tertiary Streets. Tertiary Streets will provide a very low speed environment with shared space and home zone principles applied to their design. Throughout the Proposed Development on all streets, speeds will be limited to 30mph or less providing a safe and attractive environment to all road users.

5.4 Public Transport Strategy

5.4.1 Pell Frischmann has consulted with Arriva with regard to the provision of bus services for the Proposed Development. Arriva has advised that it would be feasible to extend the Oxley Park to Brownswood via Kingsmead, Westcroft, Kingston and CMK Route 8.

5.4.2 At the present time Route 8 travels from CMK in a south westerly direction and follows Childs Way and V3 Fulmer Street to Furzton Roundabout, then turns right on to H7 Chaffron Way. At Kingsmead Roundabout the route currently turns to the right towards Oxley Park.

5.4.3 The service into the Proposed Development will be a diversion at Kingsmead Roundabout to the south along Snellshall Street, through Tattenhoe Roundabout and into the Buckingham Road access. Once within the Proposed Development it will follow a circular route, exiting at the Buckingham Road access, through Tattenhoe Roundabout and along Snellshall Street to rejoin its existing route at Kingsmead Roundabout. The route to be followed is shown on the drawing contained at **Appendix F**.

5.4.4 The details of service provision will be further considered but currently Arriva envisages that there will be three buses per hour to the Proposed Development and three per hour to Oxley Park. The total vehicle requirement for this provision will be six buses of which Arriva considers three will be developer funded; 1.5 as part of the Proposed Development and 1.5 as part of the Oxley Park development.

5.5 Travel Demand Management Strategy

5.5.1 Travel Demand Management is an important part of the Proposed Development. Sustainable development principles are accorded with and a number of key

objectives which ensure consistency with relevant policy provisions are met. The design:

- minimises the need to travel by providing a mix of land uses that are within acceptable walking and cycling distances of each other;
- maximises the opportunity for travel by non-car modes of transport, particularly by the design of the urban form itself, by maximising priority to pedestrians and other non-car users;
- minimising the impact of traffic associated with the development; and
- maximising integration with adjacent development areas.

5.5.2 Furthermore the Public Transport Strategy is designed to encourage people living and working at the Proposed Development to use alternative modes of transport than the private car.

5.5.3 It is recognised that communication is a key factor in influencing modal choice and in order to maximise communication to everyone living and working at the Proposed Development a series of Travel Plans will be implemented, maintained and monitored. As well as assisting in communicating the availability and benefits of non-car modes, the Travel Plans will contain the details of a number of measures and initiatives designed to encourage, promote and maintain mode shift from use of private vehicles, in particular single-occupancy car use, to more sustainable means such as walking, cycling, use of public transport, car sharing and taxis.

5.5.4 A Framework Travel Plan is provided as a separate document as part of the planning application for the Proposed Development. Following receipt of permission for the first reserved matters planning application the South West Milton Keynes Consortium will appoint a Travel Plan Manager who will be the main point of contact for all travel planning matters at South West Milton Keynes.

5.6 Conclusions

5.6.1 Current national and local planning policy in respect of transportation matters requires that development should be sustainable and best use should be made of existing infrastructure. Therefore development proposals should be such that they encourage the use of sustainable modes of transport and give priority to

pedestrian and cycle movements, and have access to high quality public transport facilities. This enables best use to be made of existing infrastructure.

5.6.2 The Proposed Development will be a sustainable development that takes advantage of its location in close proximity to existing excellent pedestrian and cycle facilities which when replicated throughout the development will encourage greater use of these sustainable modes of travel. The Public Transport Strategy is designed to ensure that users of the Proposed Development have access to high quality public transport facilities both in terms of service and infrastructure.

5.6.3 Given its complementary mix of uses, the Proposed Development will result in a greater internalisation of trips than would be expected at a large single use development. Therefore the Proposed Development:

- Complies with extant Development Plan Policy;
- Complies with Government policy contained in the NPPF and guidance contained in National Planning Practice Guidance; and
- Positively responds to the aspirations of Aylesbury Vale District Council and Milton Keynes Council as reflected in the respective Local Transport Plans and development plans.

6. TRANSPORT MODELLING

6.1 Introduction

6.1.1 Halcrow Group Limited (a CH2M HILL company), in association with RAND Europe, Stirling Maynard Transportation (SMT) and Count on Us, was appointed by MKC in 2009 to develop a comprehensive transport modelling capability for the Milton Keynes area. This involved the development of spatially detailed highway and public transport models and their interaction to demand models to enable the assessment of planning and infrastructure schemes planned for the Milton Keynes area.

6.1.2 The model is a behaviourally based four stage model developed in line with the current WebTAG guidance on model form and procedures. The model determines the travel demand from the underlying characteristics of the transport supply and the characteristics of travellers in the area. The demand models take population and employment data as an input and use trip rates to generate the travel demand across all modes of travel to all destinations based on the respective change in cost of travel by the different modes. A demand model is required as a result of the major changes in travel demand expected in and around Milton Keynes as a result of major land use and infrastructure changes over the next twenty years or so.

6.1.3 The Base Year 2009 Milton Keynes Transport Model was approved by the Highways Agency as providing a robust representation of base year traffic flows for the strategic and local highway network. As a result the Base Year 2009 model has provided a suitable platform for the development of a 2026 forecast model which MKC has used to assess proposed future development and infrastructure in Milton Keynes to 2026.

6.2 Use of Model for SWMK

6.2.1 Halcrow has been commissioned to use the Milton Keynes Transport Model to assess the impact of the Proposed Development on the local and strategic highway network. In order to carry out this work Halcrow was provided with information about the proposals in terms of land use and access.

- 6.2.2 Halcrow has provided SATURN model output data (UFS files) for the am, pm and inter-peak time periods covering two scenarios as follows:
- Scenario 1 (S1): 2026 Forecast + committed development and infrastructure
 - Scenario 2 (S2): 2026 Forecast + committed development and infrastructure + the Proposed Development
- 6.2.3 The committed development and infrastructure that has been included within the modelling is described within the 'Milton Keynes Transport Model Traffic Forecast Report', May 2012, provided to MKC by Halcrow. The report provides details of 'committed' strategic infrastructure changes to road and rail and also local road network infrastructure schemes. Extracts from this report detailing the committed infrastructure are contained at **Appendix G**.
- 6.2.4 With regard to committed development, Halcrow's 2012 work for MKC considered growth rates within Milton Keynes as a result of both the South East Plan (SEP) (now revoked) and Milton Keynes' Revised Core Strategy (RCS). The Traffic Forecast Report acknowledges that the SEP has been revoked and this case is left in as a point of reference only.
- 6.2.5 In Halcrow's work to consider the Proposed Development, the committed development assumed accords with the RCS scenario. A note explaining more detail of Halcrow's work to specifically model the impact of the Proposed Development is contained at **Appendix H**.

7. TRAFFIC IMPACT ANALYSIS AND JUNCTION CAPACITY ASSESSMENTS

7.1 Scope of Assessment

7.1.1 In November 2013, prior to the preparation of this Transport Assessment, Pell Frischmann produced a 'Scoping Note for the Development and Delivery of the Site'. The Scoping Note identifies that use will be made of the Milton Keynes Transport Model in order to obtain traffic data for the highway network in the vicinity of the Proposed Development. The Scoping Note, a copy of which is contained at **Appendix I**, also identifies the junctions that will be considered within the Transport Assessment as follows, with the locations of these junctions being shown on **Figure 6.1**:

Development Access

- a) Whaddon Road Access Junction
- b) A421 Left In/Left Out Only Priority Junction
- c) Buckingham Road Traffic Signals

Offsite Junctions

1. Whaddon Crossroads
2. Bottle Dump Roundabout
3. Tattenhoe Roundabout
4. Kingsmead Roundabout
5. Westcroft Roundabout
6. Windmill Hill Roundabout
7. Emerson Roundabout
8. Furzton Roundabout
9. Elfield Park Roundabout
10. Bleak Hall Roundabout
11. A5 Bletcham and Caldecotte Roundabouts
12. A5 Redmore Roundabout
13. A5 Portway Roundabout
14. A5 Abbey Hill Roundabout

7.1.2 Using data from the S1 and S2 models it has been possible to determine the percentage change in peak hour traffic at each of the offsite junctions in both the AM and PM peak hours. This information has then been used to take a view on which junctions are to be further assessed in terms of capacity. The traffic turning

flows at each junction for the S1 and S2 scenarios are shown on the diagrams contained at **Appendix J**.

7.1.4 There will be a varying difference in peak hour flows at the local road junctions under consideration as a result of the Proposed Development and therefore further assessment work has been carried out to look at the capacity of each the junctions. The results of this further assessment work are contained in the following Section 7.4.

7.1.5 It has been determined that in general the differences in the traffic with and without the Proposed Development at the four Trunk Road junctions under consideration is such that this is unlikely to be discernible over and above the usual daily fluctuations in traffic flows (+/-5%) (albeit that further assessment of lesser percentage changes can be undertaken).

7.1.6 The Redmore, Portway and Abbey Hill Roundabouts are traffic signal controlled, and therefore it is considered that this control can be used to optimise the operation to allow for the daily fluctuations in flows. No further capacity assessment work has therefore been carried out in respect of these four junctions.

7.2 Junction Capacity Assessment Methodology

7.2.1 The junction modelling software used for assessing the capacity of the Development Access and the existing off-site junctions is as follows:

- Priority roundabouts using **ARCADY**;
- Priority junctions using **PICADY**; and
- Traffic signal controlled junctions using **LINSIG**.

Priority Roundabouts and Priority Junctions

7.2.2 For priority roundabouts and junctions modelled in ARCADY and PICADY, the **Ratio of Flow to Capacity (RFC)** is commonly used as an indicator of the likely performance of each arm of a junction. An RFC value of 0.85 or less demonstrates that the arm is operating within its reserve capacity with minimal queuing and delay. An RFC value between 0.85 and 1.0 shows that the arm is nearing its theoretical capacity with queues beginning to form and delays

occurring. An RFC value greater than 1.0 indicates that the arm is operating over theoretical capacity and queues and delays will increase.

7.2.3 It is also accepted by transportation professionals and backed by Transport Research Laboratory (TRL) recommendation and advice that ARCADY predictions become unreliable at junctions that are operating over capacity i.e. when RFC values greater than 1.0 occur.

7.2.4 This was specifically commented upon by the Inspector in his Appeal Decision into Appeal Ref: APP/J0405/A/12/2177458, land to the north of Manor Park Farm, Moreton Road, Buckingham, MK18 1PW when he stated *“While the industry-standard ARCADY programme predicts high levels of queuing on West Street and Bridge Street arms of the Old Town Hall roundabout, from 2016, this largely derives from theoretical and predicted traffic growth rather than the appeal proposal. Furthermore, the parties agree that ARCADY predictions become unreliable at junctions which are operating at capacity.”* A copy of the Appeal Decision is contained at **Appendix K**.

Signalised Junctions

7.2.5 For signalised junctions modelled in LINSIG, the **Degree of Saturation (DOS)** is the ratio of demand to capacity on each approach. A DOS greater than 90% is commonly accepted as the threshold above which the approach to the junction is reaching capacity and queues will start to form with subsequent delays occurring. The **Practical Reserve Capacity (PRC)** is a measure of spare capacity left in the junction; a value of 0% indicates that junction is operating at capacity, with a negative value indication that the junction is over capacity.

7.3 Development Access

Whaddon Road Access Junction

7.3.1 Development Access from Whaddon Road will be provided in the form of a priority T-junction with a ghost island right turning lane assisting traffic turning right into the Proposed Development from Whaddon Road. The junction will be located approximately 600 metres south of Bottle Dump Roundabout.

7.3.2 A drawing showing the preliminary design of this junction is provided at **Appendix E** and an assessment of the operation of the junction in 2026 with the full development traffic has been carried out using PICADY software. The full PICADY output is contained at **Appendix L** with the results summarised in **Table 7.1** below.

Table 7.1: Whaddon Road Development Access – PICADY results

Traffic Stream	Assessment Period			
	AM Peak		PM Peak	
	RFC	Queue	RFC	Queue
B-AC Left/Right turn out to Whaddon Road	0.741	2.62	0.247	0.33
C-B Right turn in from Whaddon Road	0.061	0.06	0.206	0.26

7.3.3 This form of access is suitable to accommodate the likely use in 2026 following completion of the Proposed Development.

A421 Left In/Left Out Only Priority Junction

7.3.4 Development Access directly from A421 Standing Way is to be provided by means of a left in/left out only junction, located on the northern boundary of the Proposed Development. A drawing showing the preliminary design of this junction is also provided at **Appendix E**. An assessment of the operation of this junction in 2026 with the full development has been carried out using PICADY software. The full PICADY output is also contained at **Appendix L** with the results summarised in **Table 7.2** below.

Table 7.2: A421 left In/Left Out Only Priority Junction – PICADY results

Traffic Stream	Assessment Period			
	AM Peak		PM Peak	
	RFC	Queue	RFC	Queue
B-C Left turn out to A421 Standing Way	0.624	2.0	0.128	0.2

7.3.5 The results of this analysis demonstrate that an uncontrolled priority left in/left out only junction on to A421 Standing Way will accommodate the traffic predicted to be accessing the Proposed Development at this location.

Buckingham Road Access

7.3.6 The principal vehicular access into the Proposed Development will be at the north east corner where it is intended that the southbound and northbound arms of

Buckingham Road just to the south of Tattenhoe Roundabout will be split to introduce a traffic signal controlled gyratory system as shown on the drawing contained at **Appendix E**.

7.3.7 This arrangement safeguards any future expansion of the Grid Road system through the Proposed Development and also provides a safe crossing of the Redway route from the north side of Buckingham Road, extending it into the Proposed Development. Associated with this gyratory proposal is an improvement to the Buckingham Road arm into Tattenhoe Roundabout providing a continuous two lane entry through the traffic signals at the entrance to the Proposed Development.

7.3.8 The proposed traffic signal controlled gyratory has been assessed using LINSIG which demonstrates that with a 60 second cycle time the junction will have a PRC of 13.1% in the S2 AM peak hour and 26.8% in the PM peak hour. This is on the assumption that the pedestrian phases run to 75% of the maximum allowable clearance time. The LINSIG output is contained at **Appendix M** and the results demonstrate that the form of junction proposed is suitable to serve as the primary vehicular access into the Proposed Development.

7.4 Assessment of Offsite Junctions

7.4.1 Each of the off-site local road roundabouts (1-10) as identified in Section 7.1 for capacity assessment has been analysed using the ARCADY software and traffic flows for the S1 and S2 scenarios. This section contains a summary of the results of each assessment with the full ARCADY outputs contained at **Appendix N**. The S1 and S2 AM and PM peak hour flows for each junction, as well as for the development access junctions, as extracted from the Milton Keynes Transport Model are shown on the diagrams contained at **Appendix J**.

7.4.2 The S1 and S2 scenario results for each roundabout are summarised in **Table 7.3** to **Table 7.12** below. The tables contain maximum RFC values for the 2026 AM and PM peak hours under consideration, and where RFC values are less than 1.0, queue lengths are included. Where RFC values are above 1.0 on the majority of the arms of the roundabout, queue lengths have been omitted as it is accepted by

transportation professionals on advice from TRL that ARCADY queue length predictions become unreliable at junctions that are operating over capacity.

Table 7.3: ARCADY Results – Whaddon Crossroads

Scenario	Arm	AM	PM
		RFC	RFC
S1	A421 (E)	1.35	1.37
	Whaddon Road	0.74	0.80
	A421 (W)	1.16	1.15
	Coddimoor Lane	1.09	1.39
S2	A421 (E)	1.51	1.32
	Whaddon Road	0.76	0.84
	A421 (W)	1.13	1.19
	Coddimoor Lane	1.09	1.41

7.4.3 The Scenario S1 results for Whaddon Crossroads show that, even without the additional traffic generated by the Proposed Development, this junction will be over-capacity in 2026 on three of the four arms in both the AM and PM peak hours. However, the traffic from the Proposed Development gives rise to a minor additional impact and only on one arm of the roundabout and the impact is certainly not severe in terms of paragraph 32 of the NPPF.

Table 7.4: ARCADY Results – Bottle Dump Roundabout

Scenario	Arm	AM		PM	
		RFC	Queue	RFC	Queue
S1	A421 Standing Way (E)	0.77	3.27	0.66	1.91
	Whaddon Road (S)	0.31	0.45	0.39	0.65
	A421 (W)	0.68	2.09	0.78	3.49
S2	A421 Standing Way (E)	0.79	3.74	0.62	1.61
	Whaddon Road (S)	0.34	0.52	0.30	0.44
	A421 (W)	0.64	1.82	0.77	3.27

Table 7.5: ARCADY Results – Tattenhoe Roundabout

Scenario	Arm	AM		PM	
		RFC	Queue	RFC	Queue
S1	Snelshall Street	0.47	0.89	0.25	0.33
	A421 Standing Way (E)	0.60	1.50	0.61	1.58
	B4034 Buckingham Rd	0.59	1.43	0.41	0.69
	A421 Standing Way (W)	0.46	0.86	0.63	1.73
S2	Snelshall Street	0.63	1.69	0.41	0.70
	A421 Standing Way (E)	0.72	2.62	0.81	4.15
	B4034 Buckingham Rd	0.86	5.48	0.77	3.31
	A421 Standing Way (W)	0.53	1.14	0.68	2.09

Table 7.6: ARCADY Results – Kingsmead Roundabout

Scenario	Arm	AM		PM	
		RFC	Queue	RFC	Queue
S1	Snellshall Street (N)	0.21	0.27	0.15	0.18
	H7 Chaffron Way	0.31	0.45	0.46	0.86
	Snellshall Street (S)	0.12	0.14	0.27	0.38
	Hayton Way	0.58	1.38	0.36	0.56
S2	Snellshall Street (N)	0.24	0.31	0.18	0.22
	H7 Chaffron Way	0.32	0.48	0.50	1.02
	Snellshall Street (S)	0.18	0.22	0.31	0.46
	Hayton Way	0.59	1.42	0.37	0.60

Table 7.7: ARCADY Results – Westcroft Roundabout

Scenario	Arm	AM		PM	
		RFC	Queue	RFC	Queue
S1	V2 Tattenhoe Street (N)	0.11	0.13	0.22	0.29
	H7 Chaffron Way (E)	0.35	0.55	0.48	0.93
	V2 Tattenhoe Street (S)	0.23	0.31	0.22	0.29
	H7 Chaffron Way (W)	0.49	0.96	0.31	0.45
S2	V2 Tattenhoe Street (N)	0.13	0.15	0.25	0.34
	H7 Chaffron Way (E)	0.37	0.58	0.53	1.15
	V2 Tattenhoe Street (S)	0.24	0.32	0.23	0.31
	H7 Chaffron Way (W)	0.58	1.38	0.37	0.59

Table 7.8: ARCADY Results – Windmill Hill Roundabout

Scenario	Arm	AM		PM	
		RFC	Queue	RFC	Queue
S1	V2 Tattenhoe Street (N)	0.55	1.24	0.55	1.23
	H8 Standing Way (E)	0.54	1.17	0.66	1.94
	V2 Tattenhoe Street (S)	0.56	1.29	0.35	0.53
	H8 Standing Way (W)	0.43	0.75	0.47	0.90
S2	V2 Tattenhoe Street (N)	0.66	1.91	0.72	2.50
	H8 Standing Way (E)	0.60	1.52	0.78	3.53
	V2 Tattenhoe Street (S)	0.70	2.32	0.58	1.38
	H8 Standing Way (W)	0.57	1.32	0.56	1.31

7.4.4 The results tabulated above demonstrate that Bottle Dump, Kingsmead, Westcroft and Windmill Hill Roundabouts will continue to operate with maximum RFC values below 0.85 and only minimal queuing and delays are predicted. Therefore no mitigation works to these roundabouts are required and none are proposed.

Table 7.9: ARCADY Results – Emerson Roundabout

Scenario	Arm	AM	PM
		RFC	RFC
S1	V3 Fulmer Street	1.28	1.14
	H8 Standing Way (E)	0.58	0.93
	Shenley Road	1.89	3.06
	H8 Standing Way (W)	0.73	0.55
S2	V3 Fulmer Street	1.43	1.22
	H8 Standing Way (E)	0.63	0.99
	Shenley Road	1.97	3.97
	H8 Standing Way (W)	0.77	0.60

Table 7.10: ARCADY Results – Furzton Roundabout

Scenario	Arm	AM		PM	
		RFC	Queue	RFC	Queue
S1	V3 Fulmer Street (N)	0.42	0.73	0.45	0.83
	H7 Chaffron Way (E)	0.29	0.41	0.89	7.22
	V3 Fulmer Street (S)	0.83	4.59	0.99	19.42
	H7 Chaffron Way (W)	0.42	0.73	0.35	0.54
S2	V3 Fulmer Street (N)	0.42	0.72	0.47	0.88
	H7 Chaffron Way (E)	0.28	0.40	0.93	10.74
	V3 Fulmer Street (S)	0.82	4.46	1.00	21.32
	H7 Chaffron Way (W)	0.49	0.95	0.36	0.57

Table 7.11: ARCADY Results – Elfield Park Roundabout

Scenario	Arm	AM	PM
		RFC	RFC
S1	V4 Watling Street (N)	1.18	1.03
	H8 Standing Way (E)	1.21	1.44
	V4 Watling Street (S)	1.63	0.72
	H8 Standing Way (W)	1.26	0.94
S2	V4 Watling Street (N)	1.26	1.02
	H8 Standing Way (E)	1.27	1.46
	V4 Watling Street (S)	1.62	0.71
	H8 Standing Way (W)	1.28	0.97

Table 7.12: ARCADY Results – Bleak Hall Roundabout

Scenario	Arm	AM	PM
		RFC	RFC
S1	V6 Grafton Street (N)	0.61	1.26
	H8 Standing Way (E)	1.09	1.14
	V6 (S)	1.02	0.97
	H8 Standing Way (W)	1.21	0.95
S2	V6 Grafton Street (N)	0.67	1.27
	H8 Standing Way (E)	1.11	1.14
	V6 (S)	1.07	1.01
	H8 Standing Way (W)	1.21	0.96

- 7.4.5 The Scenario S1 results for Emerson, Elfield Park and Bleak Hall Roundabouts show that, even without the additional traffic generated by the Proposed Development, these junctions will be over-capacity in 2026 on one or more arms in both the AM and PM peak hours. At Furzton Roundabout the additional traffic from the Proposed Development has only a minimal impact and the junction is left within capacity with maximum RFC values remaining below 1.0.
- 7.4.6 At the present time, no works have been proposed to these roundabouts as it is considered reasonable to expect that Milton Keynes Council will need to address this baseline over-capacity sometime over the next 12 years in order to accommodate the planned growth and improvements to public transport.
- 7.4.7 This is a point that was recognised by the Inspector in his Decision into Appeal Ref: APP/Y0435/A/12/2172378, Windmill Hill Golf Course, Tattenhoe Lane, Milton Keynes, MK3 7RB, where he states *“The model indicates that queuing is likely to get significantly worse by 2015 even without the consequence of additional traffic generated by the proposed development....It is unlikely that the highway authority would allow traffic congestion to increase to such an extent without taking mitigating measures.”* A copy of the Appeal Decision is contained at **Appendix O**.
- 7.4.8 Junction improvements are a ‘Key Intervention’ identified within MKC’s LTP3 in relation to the strategy strand of Highways and Traffic Management, Road Safety and Infrastructure Management. In light of this the Applicant will during the course of consideration of application have further discussions with MKC and BCC to consider how the Proposed Development might assist in facilitating improvements to the local highway network that will be a benefit to all users.
- 7.4.9 Taking into account the potential for improvements at key junctions on the grid Road network and also the implementation of a Transport Strategy at the Proposed Development that has at its heart successful travel planning will lead to further assessment based on highways improvements and reduction in trips associated with the implementation of the Transport Strategy.
- 7.4.10 On the basis of the assessment above it is considered that the residual cumulative impacts of the Proposed Development will not be characterised as “severe” in

accordance with paragraph 32 of the NPPF. This will be substantiated further following subsequent discussions with the local highway authorities.

7.5 Mitigation Strategy

7.5.1 As has already been identified, the South West Milton Consortium is committed to the implementation of the Transport Strategy for the Proposed Development. At the heart of this strategy is the implementation, maintenance and monitoring of Travel Plans for all significant generators of traffic, which are aimed at reducing generated traffic from the Proposed Development to below that predicted by the Milton Keynes Transport Model.

7.5.2 The Framework Travel Plan submitted as part of the planning application includes details of the initial targets that will be set with regard to modal shift and details of the measures that will be put into place to achieve this modal shift. The Public Transport Strategy is also a key element of the mitigation strategy as is the focus on providing excellent linkages and provision for pedestrians and cyclists.

7.5.3 As already indicated, the Applicant will also have further discussions with MKC regarding how the Proposed Development might assist in facilitating improvements to the local highway network that will be a benefit to all users. These improvements coupled with the Transport Strategy for the Proposed Development will be designed to ensure that any residual cumulative impact cannot be considered as “severe” as defined in paragraph 32 of the NPPF.

7.5.4 As part of the implementation of the Buckingham Road development access there will be a minor improvement to the Tattenhoe Roundabout where it is proposed that the two lane entry on the Buckingham Road arm at the roundabout is extended as two full lanes through the traffic signals. This will therefore increase the capacity of this arm and mitigate the impact of the traffic from the Proposed Development.

7.5.4 While the capacity of Bottle Dump Roundabout is not an issue, there is substandard visibility to the proposed equestrian / cycle / pedestrian crossing facility on Whaddon Road, particularly for traffic turning left from A421 Standing Way. Improvements to the alignment and to visibility by removing vegetation are

proposed to the Whaddon Road arm as shown on the drawing contained at **Appendix P**.

8. CONCLUSIONS

8.1 This Transport Assessment (TA) has been prepared by Pell Frischmann on behalf of the South West Milton Keynes Consortium to accompany an outline planning application for a mixed use sustainable urban extension to the south west of Milton Keynes.

8.2 This Transport Assessment sets out the planning policy context against which the Proposed Development is to be considered insofar as it relates to transportation and highway matters. It sets out the relevant statements of planning policy within the statutory development plan and the National Planning Policy Framework (NPPF) and National Planning Practice Guidance (NPPG) that relate to the scheme. In conclusion therefore, it has been demonstrated that the Proposed Development:

- Complies with extant Development Plan Policy;
- Complies with Government Policy contained in the NPPF and National Planning Practice Guidance; and
- Positively responds to the aspirations of Aylesbury Vale District Council and Milton Keynes Council as laid out in the respective Local Transport Plans and development plans.

8.3 Use has been made of the Milton Keynes Transport Model to obtain 2026 AM and PM peak hour traffic data for two scenarios; S1 which does not include traffic from the Proposed Development and S2 which does. S1 and S2 AM and PM peak hour traffic data has been extracted for the 14 off-site junctions under consideration and for the three proposed development access junctions, S2 data has been extracted.

8.4 From a consideration of the difference in flows between the two scenarios, the need to carry out any more detailed assessment at four of the junctions has at the present time been discounted. These junctions are those on the A5 Trunk Road, three of which are traffic signal controlled. As the difference in flows between the two scenarios at the Trunk Road roundabouts is generally less than would be expected in daily fluctuations in peak hour flows it is considered that this will be accommodated within the traffic signal control.

- 8.5 The capacity of the remainder of the junctions has been assessed using appropriate software and this has demonstrated that several junctions will be significantly over capacity in 2026 before any traffic from the Proposed Development is taken into account. The assessment work contained in this Transport Assessment indicates that the additional traffic from the Proposed Development gives rise to only minor additional impact at these junctions over and above the S1 predicted situation in 2026, without the Proposed Development.
- 8.6 It has also been demonstrated that other junctions will still be operating with reserve capacity in 2026 even allowing for the impact of traffic from the Proposed Development.
- 8.7 A comprehensive mitigation strategy is being developed for the Proposed Development which has at its heart the Transport Strategy. This strategy is aimed, primarily by the implementation, maintenance and monitoring of Travel Plans for all significant generators of traffic, at reducing generated traffic from the Proposed Development below that predicted by the Milton Keynes Transport Model.
- 8.8 The Framework Travel Plan submitted with this application includes details of the initial targets that will be set with regard to modal shift and details of the measures that will be put into place to achieve this modal shift, along with appropriate monitoring procedures. The Public Transport Strategy is also a key element of the mitigation strategy as is the focus on providing excellent linkages and provision for pedestrians and cyclists.
- 8.9 As already indicated, the Applicant will also have further discussions with MKC and BCC regarding how the Proposed Development might assist in facilitating improvements to the local highway network that will be a benefit to all users. These improvements coupled with the Transport Strategy for the Proposed Development will be designed to ensure that any residual cumulative impact cannot be considered as “severe” as defined in paragraph 32 of the NPPF.

FIGURES

**Figure 3.1
Site Location Plan**