



Milton Fields, Land West of Didcot

Transport Proposals

On behalf of **Trustees of the LA Barrett Will Trust**

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1 Introduction

- 1.1.1 This document has been prepared by Stantec on behalf of the Trustees of the LA Barrett Will Trust to provide a high-level overview of the transport proposal for a proposed car-free development at "Milton Fields" on land to the west of Didcot (also known as Northwest of Valley Park). This document supplements the masterplan prepared by Carter Jonas LLP for the proposals.
- 1.1.2 Vale of White Horse District Council are the local planning authority and Oxfordshire County Council (OCC) are the Highway Authority.
- 1.1.3 The Site is allocated within the Vale of White Horse DC Local Plan for up to 800 homes and associated green space subject to masterplanning.
- 1.1.4 The masterplan has been designed to realise a car-free vision for the Site which puts people first. A clear route hierarchy is promoted which prioritises walking, cycling, and public transport over the private vehicle. This will reduce the potential for vehicular congestion, provide sustainable travel alternatives, and provide convenient access to employment, amenities and recreational and leisure spaces.
- 1.1.5 This document offers a high-level review of the Site from a car-free transport perspective, exploring how the envisioned development can be achieved. It considers both existing and future sustainable connectivity options and opportunities that can be seized to create a car-free and environmentally friendly development.

1.2 Document Structure:

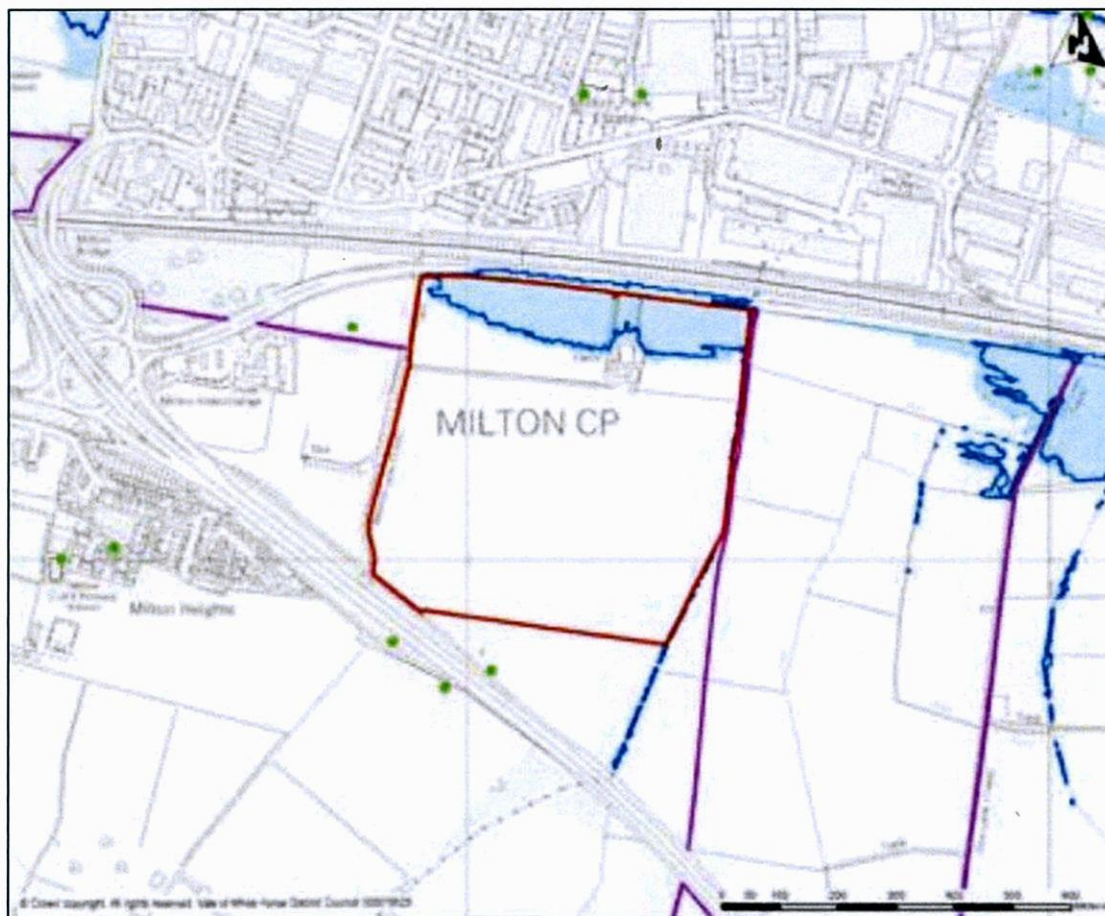
- **Overview of Site:** This section examines the existing transport context of the Site, considering both the currently established infrastructure and proposed future developments.
- **Travel behaviour:** This section analyses the current and anticipated travel patterns of the future users of the Site.
- **Opportunities:** This section explores the opportunities available to achieve the transport vision for the Site.
- **Vision and validation:** This section delves into how these opportunities can be realised and identifies the necessary planning mechanisms to make it happen.
- **Masterplan:** This section outlines the current proposals for the Site, aligning them with the transport proposal previously discussed.
- **Summary and conclusion:** Summarises the transport proposals and provides conclusions on opportunities.

2 Overview of the site

2.1 Overview

- 2.1.1 The Site is situated west of Didcot and falls within the Vale of the White Horse District. It is in the Milton Parish, approximately 3 miles to the west of Didcot town.
- 2.1.2 The Site is rectangular in shape and is bordered by the A4130 to the north and the A34 to the south and southwest. In its wider context, the Site is adjacent to Milton Park to the north and open fields to the east and south, which are part of Valley Park and designated for future development (already granted planning permission for 4,254 homes).
- 2.1.3 On the western side of the Site, there is a road interchange connecting the A34 and A4130, along with a designated area for warehousing. To the south lies the A34, and there is a field between the Site and the A34, which belongs to Valley Park. Directly to the east is Valley Park, a substantial mixed-use urban extension to Didcot. Please refer to Figure 2.1 for the Site boundary illustration.

Figure 2.1: Site Plan



3 Car Free Travel Opportunities

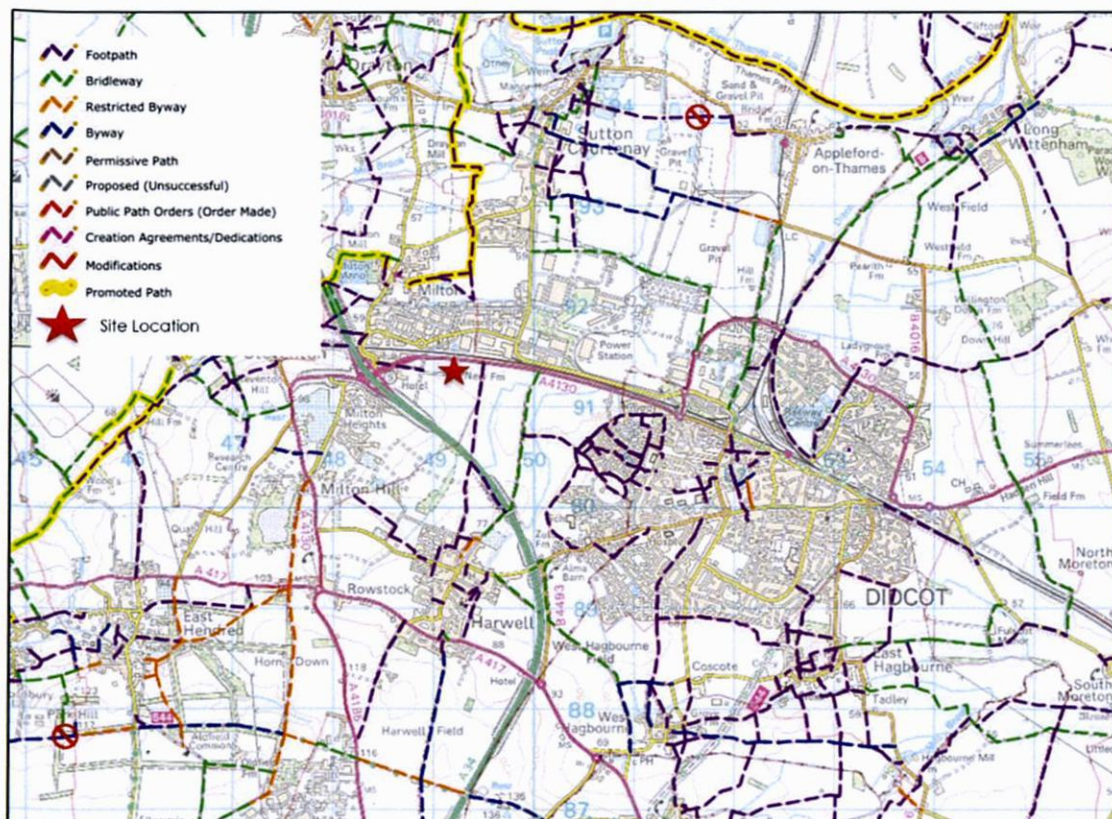
Infrastructure

- 3.1.1 The Site has good existing transport infrastructure to support sustainable access to the development. The existing and forthcoming transport infrastructure which would support the development are detailed below.

Walking

- 3.1.2 The site benefits from pavements along the A4130 at its frontage, which connect the Site to the surrounding network of pavements.
- 3.1.3 Additionally, there are Public Rights of Way (PROWs) located immediately to the east and west of the Site's redline boundary forming part of an extensive network of publicly accessible routes. The footpath to the east is subject to diversion associated with the adjacent Valley Park development.
- 3.1.4 An existing signal crossing northwest of the Site allows pedestrians to cross safely to the north side of the carriageway, providing access to existing bus services and the Milton Park employment area.
- 3.1.5 Refer to Figure 3 - 1 below for an illustration of the existing network of PROWs that serve the Site and the broader area.

Figure 3-1: PROW Routes Near the Site



Source: <https://publicrightsofway.oxfordshire.gov.uk/standardmap.aspx>

Cycling

3.1.6 The Site also enjoys the advantage of being in proximity to several cycle routes, notably a dedicated cycleway running along the Site frontage on the A4130. These routes are part of a wider network connecting the Site to various areas, including:

- Didcot (10 min cycle)
- Abingdon (25 min cycle)
- Oxford (1 hour cycle)

3.1.7 The existing network of local and strategic routes serving the Site is illustrated in Figure 3 - 2 and 3 - 3 below. The figures demonstrate excellent connections to existing towns and cities.

Figure 3 - 2: Local Existing Cycle Infrastructure

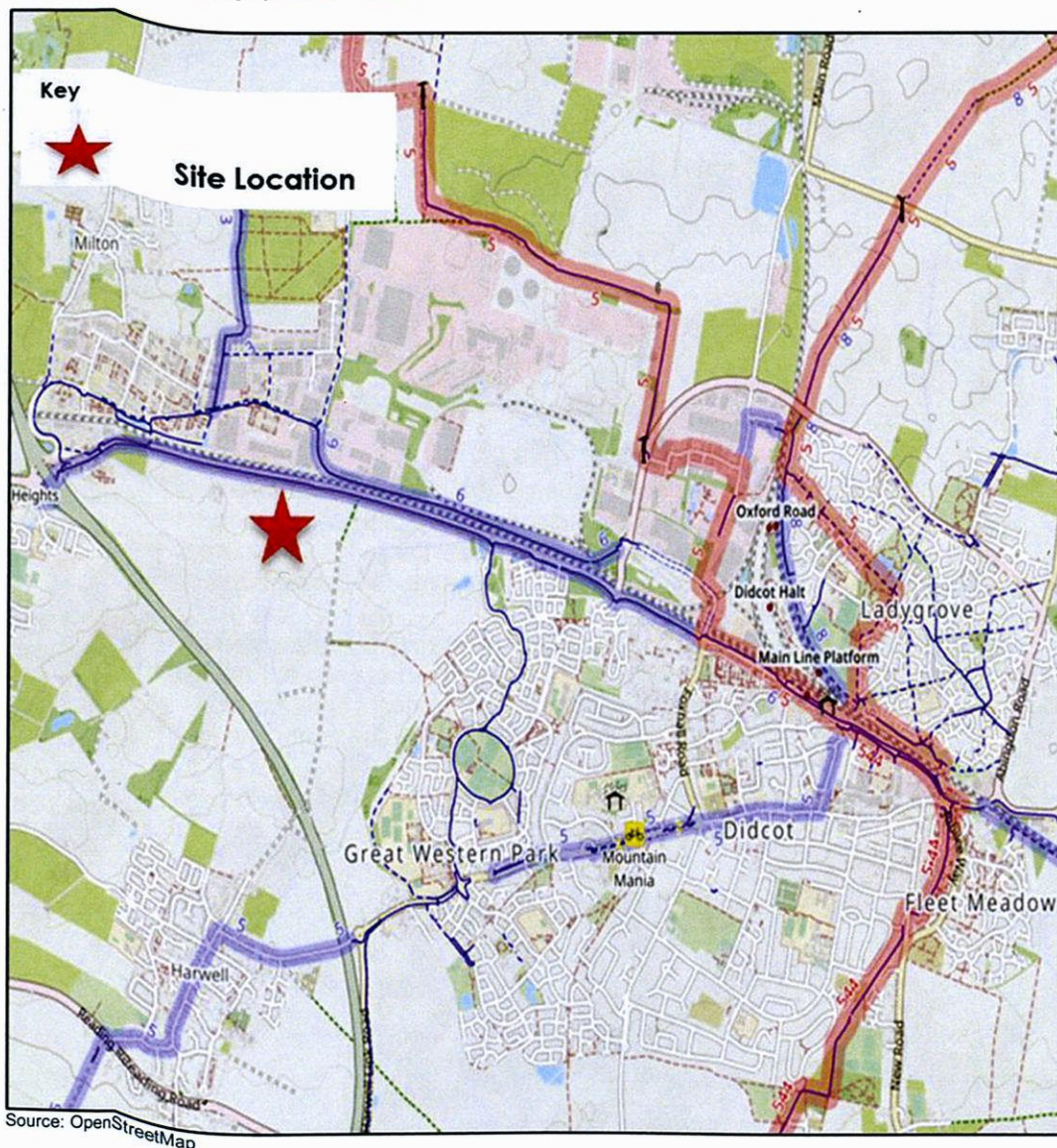
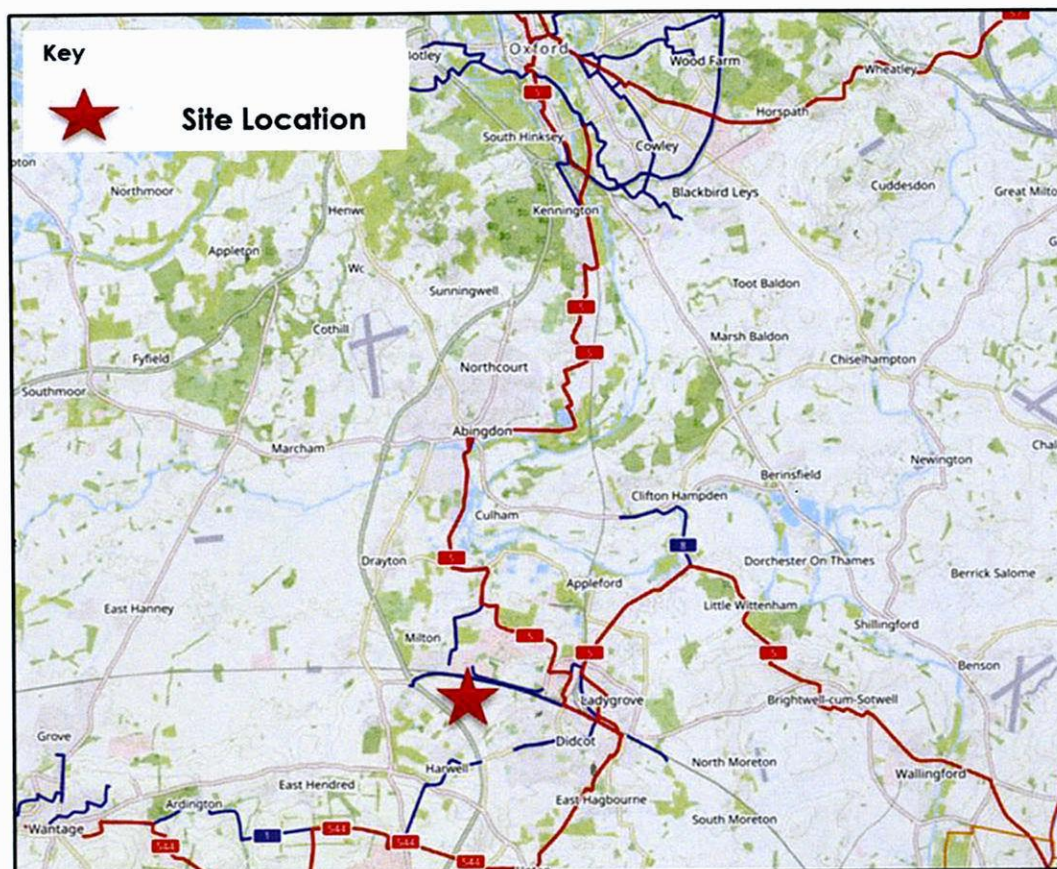


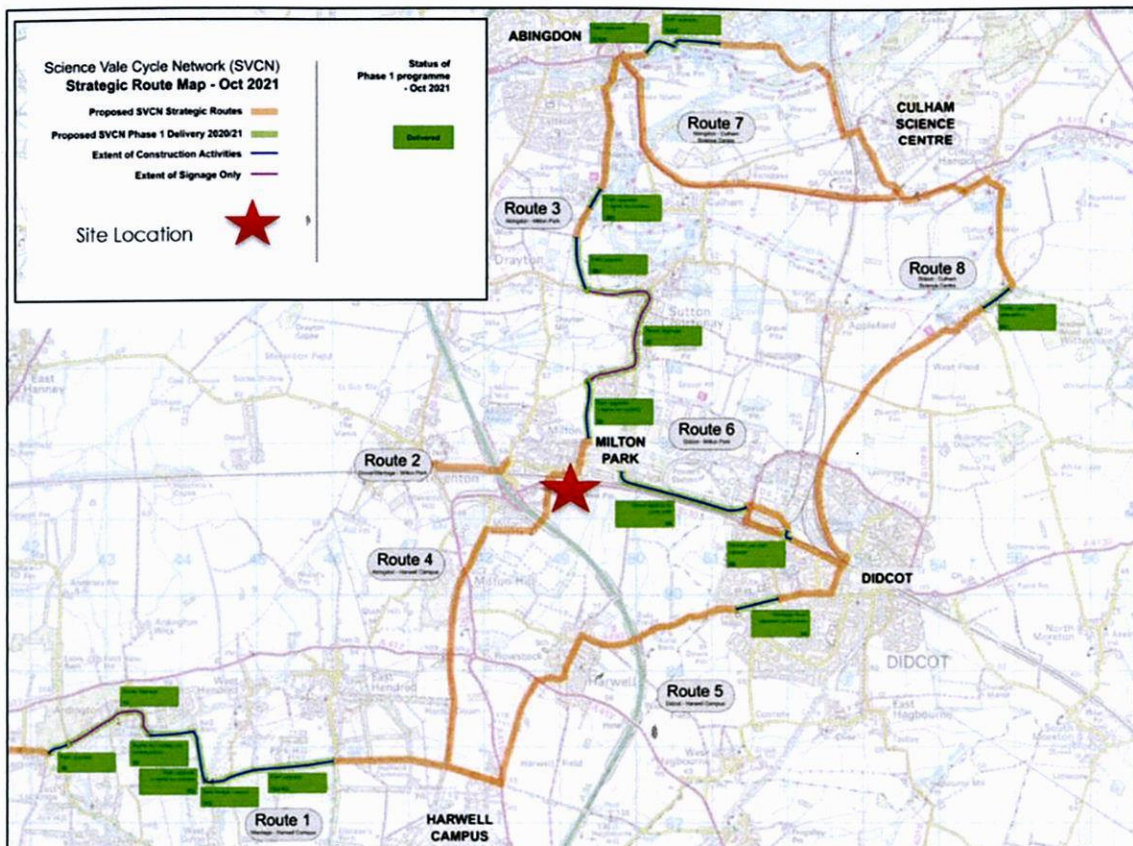
Figure 3 - 3: Strategic Existing Cycle Infrastructure



Source: OpenStreetMap

- 3.1.8 The current walking and cycling environment are set to benefit from several committed improvement schemes, including the Science Vale cycle network and the routes proposed as part of the new Didcot Garden Town Master Plan. These initiatives are expected to enhance significantly the overall walking and cycling experience in the area.
- 3.1.9 Figure 3 - 4 shows the proposed Science Vale routes mentioned above.

Figure 3 - 4: Science Vale Strategic Routes



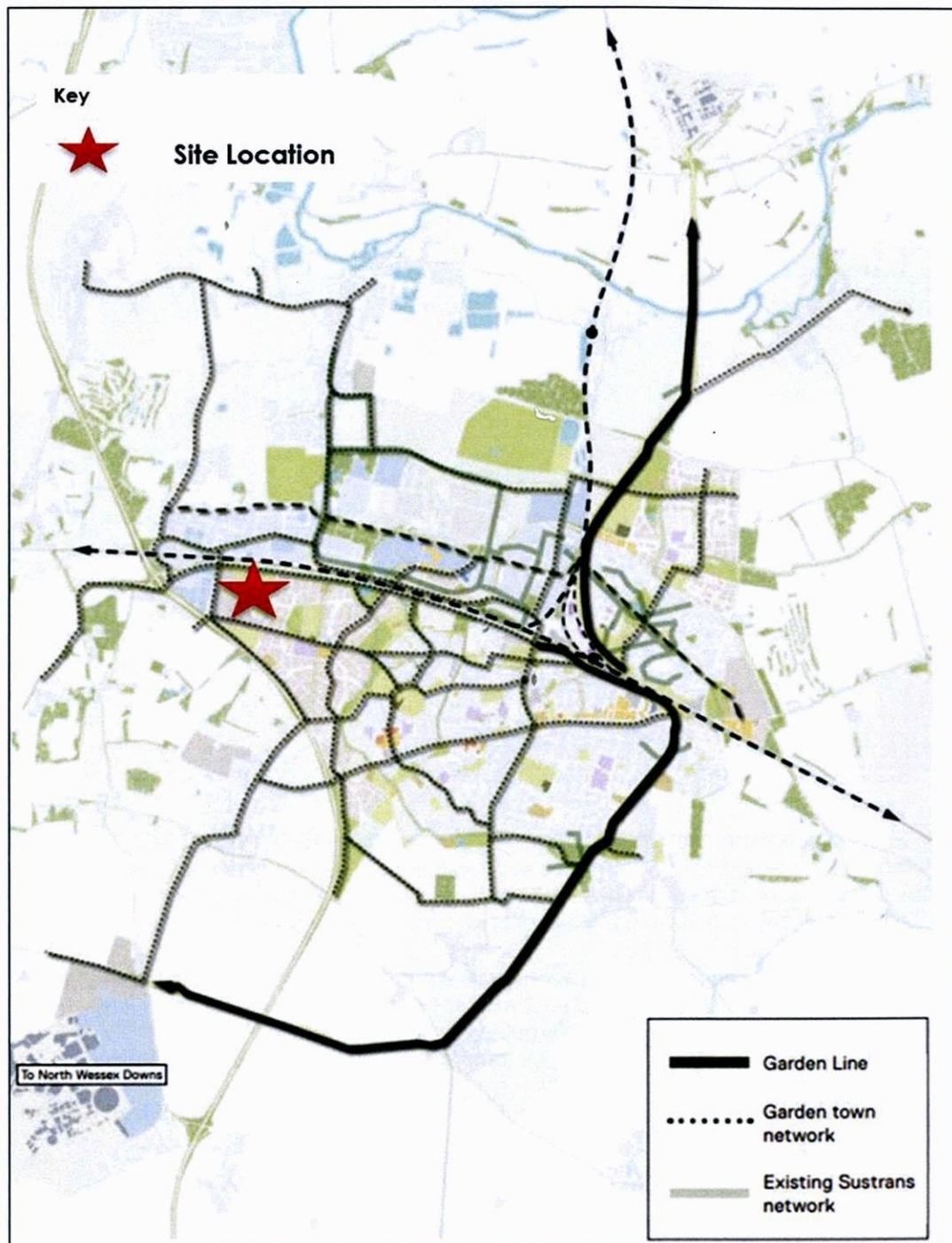
Source: https://www.oxfordshire.gov.uk/sites/default/files/file/roads-and-transport-major-projects/science_vale_cycle_network_0.pdf

- 3.1.10 Some of the aforementioned routes have already been completed, as confirmed by the information provided by OCC.

Garden Town routes

- 3.1.11 The strategic routes mentioned above will be complemented by additional local routes designed to cater for the immediate travel needs of future residents for all types of journeys and travel into Didcot. These local routes will provide convenient accessibility and connectivity within the vicinity, ensuring seamless transportation options for the residents.
- 3.1.12 For further details, please refer to Figure 3 - 5, which illustrates the proposed Garden Town local routes.

Figure 3 - 5: Didcot Garden Town Masterplan Cycle Routes



Source: <https://www.whitehorsedc.gov.uk/wp-content/uploads/sites/2/2019/04/Delivery-Plan-Chapter-5-10th-October-2017-web-q.pdf>

- 3.1.13 It is evident that both existing and planned future cycle improvements will greatly enhance the accessibility of the site through cycling. Notably, the new Garden Town routes, which utilise pathways through adjacent developments, will significantly reduce travel times towards Didcot. Given that many residents are expected to travel to Didcot as a destination or as part of their journey to other locations using the train station, these improved routes will offer an efficient and appealing option for cyclists.

Train

3.1.14 Didcot Parkway is the closest station to the site and provides access to destinations such as:

- **Oxford** (15 mins)
- **Reading** (12 mins)
- **Swindon** (15 mins)
- **London Paddington** (40 mins)
- **Bristol** (56 mins)

3.1.15 In July 2019 and March 2021, a multi-storey car park and a cycle hub offering 600 cycle spaces, were opened at Didcot Parkway station. Additionally, bus services also connect to the station, further enhancing its accessibility.

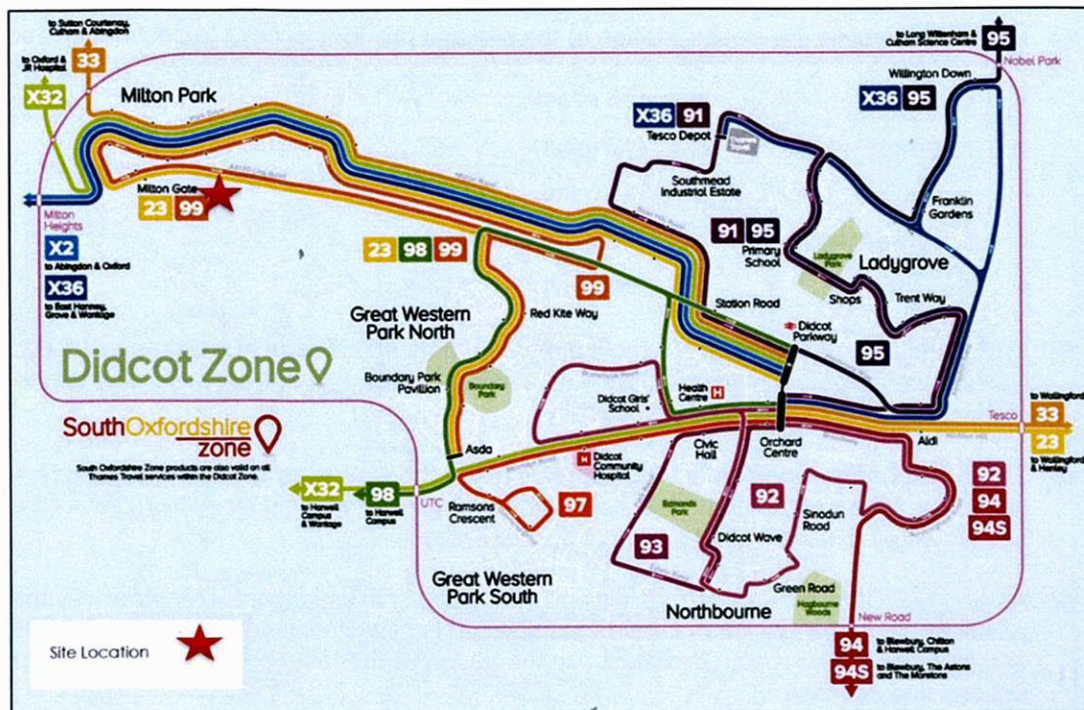
3.1.16 This transport development investment has made the station an appealing destination for combining different travel modes, especially for those commuting by cycling. As a result, the site will enjoy excellent connectivity to the rail station.

3.1.17 As part of OCC's broader connectivity plan for Didcot, investigations are underway for the possibility of a new station at Grove. If realised, this new station could become a significant employment and shopping destination in the future, further enriching the area's transportation options and accessibility.

Bus

3.1.18 The site benefits from excellent bus services, in part due to its proximity to Milton Park. The nearest bus stops are approximately a 7-minute walk from the existing site access near Milton Park, offering up to 6 bus services. Figure 3 - 6 illustrates the site's location in relation to the surrounding bus network.

Figure 3 - 6: Local Bus Network



Source: <https://www.oxfordbustickets.co.uk/wp-content/uploads/Didcot-Zone-January-2023-Network-Map-V2-WEB.pdf>

3.1.19 Buses are frequent, and journey times to popular destinations are favourable, including:

- **Oxford** (27 mins)
- **Didcot Station** (13 mins)
- **Abingdon** (22mins)

3.1.20 The existing bus network is already extensive and will see further improvements through the Science Vale Area Strategy and the Didcot Garden Town Masterplan. Both initiatives involve ongoing efforts by the respective authorities to enhance access to reliable bus services. These endeavours align with the vision to promote sustainable travel options.

3.1.21 Although the site and local surrounds benefits from sustainable transport options, a significant portion of the local population still currently chooses to drive.

3.1.22 To achieve the goal of reducing car usage, the development will present a vision that encourages people to adopt sustainable travel modes instead of relying on private cars.

3.1.23 There are several opportunities to achieve these goals. Some of these opportunities are listed below and should be considered in the context of facilitating travel to the key commuter trip attractors.

3.1.24 Additionally, Didcot is expected to serve as a crucial destination due to its train station and services being accessible within a short cycle or bus ride. As new walking routes are developed, Didcot is also expected to be within a walkable distance (less than 1.2 miles).

3.2 Planning

- Plan communities with a mix of residential, commercial, and recreational areas to reduce the need for long-distance travel and make essential services and amenities more accessible on foot or by bike and indeed by innovative and also more traditional means.
- Plan the development in a way that minimises commuting distances between residential areas and major employment centres, reducing the need for long car trips.

3.3 Walking and cycling

- Design streets and pathways to prioritise pedestrians, cyclists, and other non-motorised forms of transportation.
- Build bike lanes, shared bike paths, and bike storage facilities to encourage cycling as a viable mode of transportation.
- Identify opportunities to connect existing and proposed routes proposed around the Site (Science Vale routes and Didcot Garden Town routes).
- Create east-west movements through this Site in the direction of Didcot town to link with access roads in Valley Park and Great Western Park.

3.4 Public transport

- Integrate public transportation options such as buses into the community's design, making it convenient for residents to use public transit for commuting and leisure.
- Make use of improved bus connectivity to popular destinations and rail stations. The newly available services are already convenient, direct, frequent, and reliable.
- Provide dedicated regular shuttle services to destinations important to the development community.

3.5 Car Use

- Introduce car club services within the community to eliminate the need for privately-owned cars and offer residents an alternative for occasional travel needs.
- Where car travel is required, make sustainable – EV charging provision.

3.6 General

- Promote Travel Plans and conduct awareness campaigns and educational programs to promote sustainable transportation options and highlight the benefits of reducing car usage.
- Ensure that the development is designed to be accessible for people with disabilities, the elderly, and those who may not be able to drive, making public transit and pedestrian options more inclusive.
- Collaborate with local businesses and employers to offer incentives for employees who use public transit, carpool, or cycle or walk to work or use other potential innovative means of transport.

3.7 Next Steps

- 3.7.1 To ensure the success of a car-free development, there are three simple rules to follow as guidelines:
- First - It is important to consider, try out, and evaluate different modes of transportation to get from A to B.
 - Second – Giving every transportation option a fair chance is crucial, even those that might seem outdated or impractical at first glance.
 - Third - To better understand the functionality of car-free neighbourhoods in the UK, including Stantec's work, it is important to study, and where practical visit, their systems in theory and practice as far as possible.
- 3.7.2 The report has focused on the significance of cycling, walking, and buses for public transportation. While walking and cycling are great ways to get around, they might not be suitable for everyone. According to the recent National Travel Survey in 2022, cycling has become less popular in terms of the number of cycling trips taken since 2002. However, there has been a significant increase in the number of cycling miles per trip, which could be due to the construction of numerous cycle lanes across the country. As for walking, good for health no doubt but not particularly attractive inclement weather conditions. As for buses, there is certainly a strong argument that modern buses and trams - clean, swift and unobstructed - would be both a clearer, speedier, and certainly more popular means of public transport.
- 3.7.3 Furthermore, it should be noted that various forms of transport have fallen out of favour or received negative press despite their initial popularity and apparent usefulness. These include a) Segways - after several fatal accidents, b) Mopeds - too often used in crime, c) Skateboards/roller skates - no longer popular except for leisure; and - above all and most recently - d) Electric scooters - banned in Paris very recently by popular referendum and notably dangerous because of their batteries being guilty of causing fatal house fires.
- 3.7.4 The following is a list of potential alternatives to car travel and some are emerging technologies being promoted by technologies companies across the globe. The applicant is open to implementing these options if they are identified as viable for serving a residential development while keeping the local context in mind. Some of these options may not be adequately developed at this stage, but the applicant is interested in exploring emerging alternatives to facilitate car free development, particularly in light of recent policy changes in respect to "vision and validate" approaches which are included in DfT circular 1/22.
- S-Bahns/Trams/Light Railways - *It is worth noting that both Paris and Dublin are re-introducing modern tram systems; as indeed, closer to home, is Barrow-in-Furness.*
 - Pods
 - The Ultra PRT pod system - *is already in use at Heathrow; and SEA (Système Embarques Aeronautiques) of Paris has already proposed a tentative system for this area.*
 - Monorail – *Understood to be much favoured by Mr Ian Hudspeth, former leader of Oxfordshire County Council. The expense of course would be a major factor.*
 - Cabin Car All Weather Mobility Scooters - *made in Great Britain by Middletons. Would alleviate the problems of those with disabilities.*
 - S-Pods - *These are two-wheeled electric vehicles that are similar to Segways but are more affordable.*

- The Electric Fire Truck – *It is understood that the electric fire truck was unveiled at the Consumer Electronic Show in Las Vegas, which takes place every January. Councillors and planners may be aware of this. The fire truck stands at 6 feet and has a water tank capacity of 125 gallons.*
- The Micro Electric Royal Mail Delivery Van
- The EA Van of Heyford Park, Bicester - *classified as a bike, used for deliveries.*
- Droids – *Designed by Starship Technologies (HQ in San Francisco). On trial in Cambridgeshire.*
- Sherpa Robos - *2 ft high, trialled in Milton Keynes.*
- Cargo Bikes - *There are various versions of the cargo bike, and eBullitt has designed a version of the cargo bike with two electric batteries.*
- Go Cycle G4 – *folds in 10 seconds*
- Coboc One Soho - *(electric racing bike).*
- Vespa Elettrica - *Vespas are used in Rhodes Old City and Lemnos.*
- Razor Pocket Mod Bella Mini Moped - *battery powered; designed for children.*
- Aerial Taxis - *created by Archer in Chicago and by Volocopter in Singapore. Vertical take-off.*
- Horse & Cart - *It is understood to be used in the pedestrianised town centre of Soissons, a city in Northern France, for rubbish collection. A Percheron pulls the cart.*
- Jet Packs – *previously trialed by the Royal Navy. Designed by Gravity Industries.*
- The Hyper-Loop - *a futuristic transportation concept that is being developed by Elon Musk and may become a viable option in the future.*
- Cable Car System - *as used in Mexico City.*
- Elevated Walkways - *The High Line in New York and The Promenade in Paris. This would be a very green mode of moving from A to B; and would certainly put Didcot on the map.*

3.7.5 To successfully implement new technologies, it is important to keep in mind some general principles, such as:

- Make travel by car more difficult and provide a more attractive offering of sustainable modes which can compete with car travel.
- Include mobility hubs and micro mobility: electric bikes, e-cargo bikes, droids and indeed drones
- See e-cargo bikes as a potential alternative for long-distance retail trips.
- Consider delivery and servicing innovations to reduce the need to travel - delivery hubs, parcel consolidation, e-cargo bikes.
- Devise proposals for alternative, innovative modes, based on studies of such modes in other locations in the UK and abroad.

- 3.7.6 Other measures include car club services, EV charging provision, mobility hub provision and controlling parking spaces.
- 3.7.7 Promoting travel plans, educational campaigns, and collaboration with local businesses will encourage sustainable transportation choices.
- 3.7.8 Ensuring accessibility for all and offering incentives for using public transit, carpooling, or other methods will make the community more inclusive and eliminate car usage.

3.8 Summary

- 3.8.1 The Site is located west of Didcot, bordered by the A4130 and A34, near Milton Park and Valley Park.
- 3.8.2 The Site benefits from existing infrastructure, including footways, cycle routes, and train station (Didcot Parkway) providing easy access to Oxford, Reading, and London.
- 3.8.3 Bus services are also available with improvements planned as part of the Science Vale Area Strategy and Didcot Garden Town Masterplan.
- 3.8.4 The site enjoys excellent connectivity for walking, cycling, and public transport, allowing the promotion of sustainable travel options for future residents, employees, and visitors on the Site.
- 3.8.5 The Site benefits from sustainable transport options, but car usage remains high. To eliminate car reliance, the development will prioritise pedestrian and cyclist-friendly designs, create convenient connections, and integrate public transportation and other possible modes of transport.

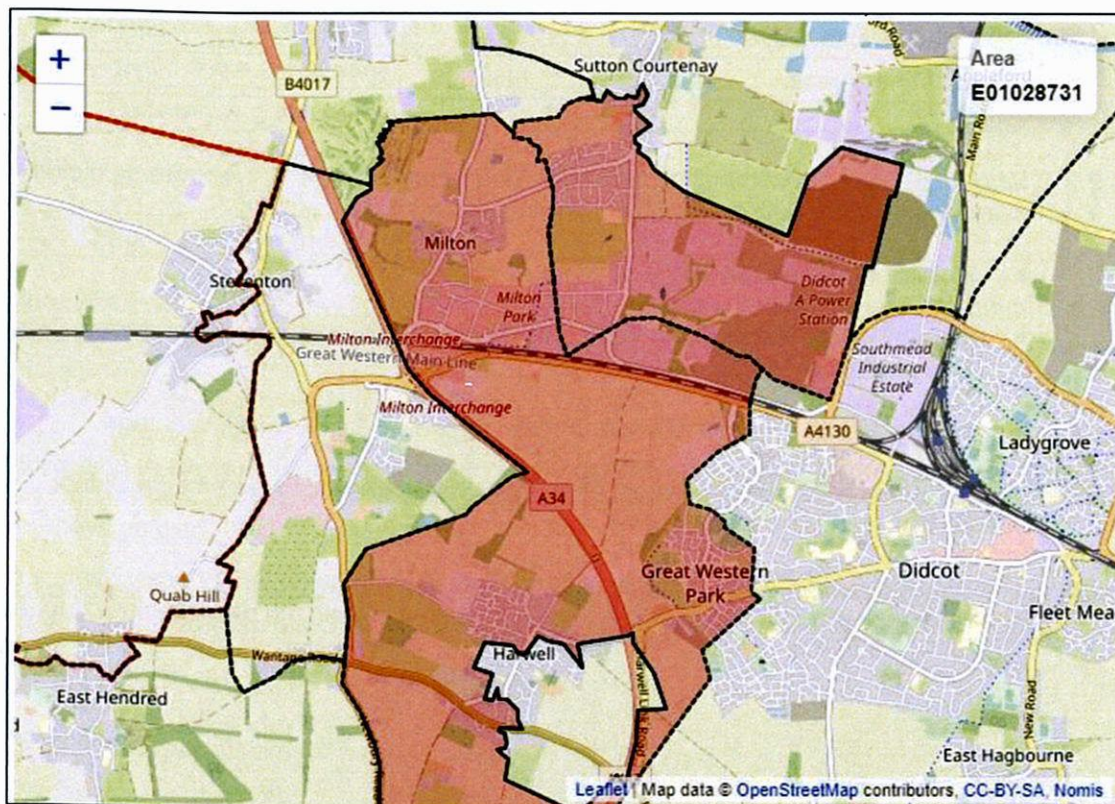
4 Travel behaviour

4.1 Existing travel patterns

- 4.1.1 We can use existing travel data sources to assess the current travel patterns and utilisation of the surrounding area's infrastructure. This data serves as a baseline, enabling us to gauge potential measures to promote healthy changes in travel habits.
- 4.1.2 It is noted that certain local infrastructure has been upgraded since the publication of some of this information.

4.2 Journey to work (Census 2011)

Figure 3.1: 2011 Census Areas



- 4.2.1 The 2011 journey to work data for the areas surrounding the Site has been referenced, providing a valuable baseline to understand the travel patterns and modes of transportation used by people during that period. Whilst this data is relatively historic, it still offers insights into where people travel to and how. This can still inform identification of opportunities to enhance sustainable travel options.
- 4.2.2 The data has been considered for the two specific areas as indicated in Figure 3.1. These areas were selected as the Site is situated at the midpoint of both of them. Given that the Site is currently undeveloped, the surrounding areas, particularly the output areas Vale of White Horse 010D and Vale of White Horse 015B, have been used to capture the existing travel behaviours of residents living near the Site during the 2011 data collection period.

4.3 Journey to work distribution

- 4.3.1 The data reveals that the most popular areas for work among residents are Oxford, South Oxfordshire, and Vale of White Horse. The proportions of individuals working in these areas are presented in Table 3.1 below.

Table 3.1: 2011 Journey to Work Popular Areas

Area	Vale of White Horse 010D	Vale of White Horse 015B
Oxford	15%	13%
South Oxfordshire	17%	19%
Vale of White Horse	53%	44%
Other Areas	14%	23%

- 4.3.2 Most individuals are commuting to destinations within the Vale of White Horse district. A closer examination of the data reveals the following popular areas:

- **Vale of White Horse 006** – contains Abingdon
- **Vale of White Horse 010** – contains Steventon, Drayton, Sutton Courtenay, Didcot Power Station
- **Vale of White Horse 015** – Milton Park, Harwell, East Hendred, Wantage

- 4.3.3 Within South Oxfordshire, the most frequently visited areas for work include Didcot, Wallingford, and surrounding towns.

- 4.3.4 The data indicates that the majority of people are likely to commute for work within a relatively short distance, focusing on existing employment areas within the districts closest to the Site.

4.4 Journey to work travel modes

- 4.4.1 The focus now shifts to how people travel to the destinations identified above. Table 3.2 shows the existing travel modes in the areas identified in around the Site.

Table 3.2: Journey to Work Mode Share

Mode	Mode Share	
	Vale of White Horse 010D	Vale of White Horse 015B
Underground, metro, light rail or tram	0%	0%
Train	1%	7%
Bus, minibus or coach	4%	3%
Taxi	0%	0%
Motorcycle, scooter or moped	2%	1%
Driving a car or van	76%	74%
Passenger in a car or van	6%	4%
Bicycle	6%	4%
On foot	5%	6%
Other method of travel to work	0%	0%

- 4.4.2 The data indicates that driving remains an appealing travel mode for individuals commuting to work from the areas surrounding the Site.

4.5 Future travel patterns (Oxfordshire trends)

- 4.5.1 According to Census information, many people continue to rely on cars for their daily commute and other travel purposes. This reliance on cars is expected to extend to other types of journeys as well.
- 4.5.2 To address this issue, OCC has established several targets aimed at reducing car travel. The targets, sourced from the OCC Local Transport and Connectivity Plan, are outlined below:

Targets

- 4.5.3 By 2030 our targets are to:

- Replace or remove 1 out of every 4 current car trips in Oxfordshire.
- Increase the number of cycle trips in Oxfordshire from 600,000 to 1 million cycle trips per week.
- Reduce road fatalities or life changing injuries by 50%

- 4.5.4 By 2040 our targets are to:

- Deliver a net-zero transport network
- Replace or remove an additional 1 out of 3 car trips in Oxfordshire

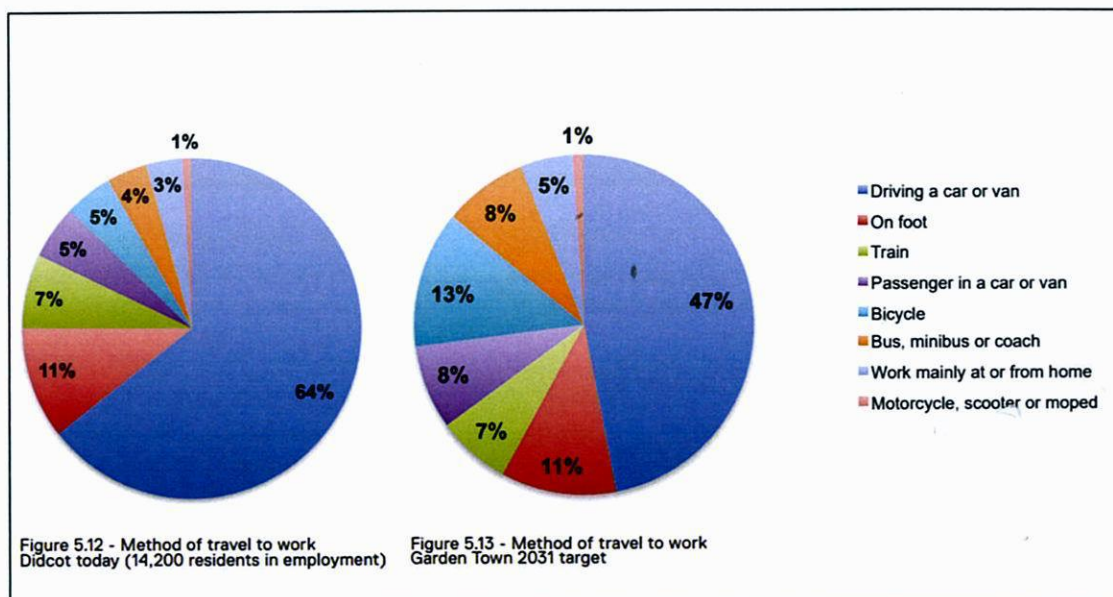
4.5.5 By 2050 our targets are to:

- Deliver a transport network that contributes to a climate positive future
- Have zero, or as close as possible, road fatalities or life-changing injuries

4.5.6 The Site should also be considered in the context of its inclusion in the Didcot Garden Town Masterplan. The Vale of White Horse and South Oxfordshire councils, joint partners in this endeavour, are aiming to develop a new garden community that will bring forth new homes, job opportunities, and sustainable transport improvements.

4.5.7 Figure 3.2 below illustrates the ambitious goals for modal shift resulting from the new garden town by 2031. The targets include a 17% reduction in car driver numbers, an 8% increase in cycling trips, and an 8% increase in bus trips. These targets align with the sustainable interventions proposed as part of the masterplan.

Figure 3.2: Didcot Garden Town Masterplan 2031 Mode share Targets



Source: Garden Town Delivery-Plan-Chapter-5-10th-October-2017-web-q.pdf

4.5.8 The proposed development strives to achieve a substantial reduction in comparison to the overall Didcot Garden Town Masterplan targets. It will prioritise providing all essential resources to facilitate convenient access to employment, leisure, shopping destinations, and more. The specific mode share targets will be assessed during the future planning application process.

4.6 Summary

4.6.1 Whilst the Site benefits from sustainable transport options, a considerable number of local residents still opt for driving.

4.6.2 By utilising data from the 2011 Census, destinations people travel to have been identified, and the development and infrastructure should be informed by these travel patterns to promote appropriate sustainable transport options effectively. Opportunities to enhance connectivity along these desire lines need to be explored.

4.6.3 Oxfordshire aims to reduce car travel and increase active travel trips. The proposed development aligns with these ambitious targets and those set by the Didcot Garden Town

Masterplan, focusing on achieving a substantial reduction in car usage and promoting sustainable transportation options.

- 4.6.4 Specific mode share targets will be assessed during the future planning application process.

5 Vision and Validate

- 5.1.1 A significant shift in how we plan for transport has taken place in the last year or so following changes in government (DfT) and local policy. This has been driven mainly from the requirement to meet the Climate Change Act 2008 and Net Zero date of 2050.
- 5.1.2 The vital thing to bear in mind by Planners and Councillors alike is that cities and towns and their inhabitants existed for centuries without the motor car. As indeed the Didcot Garden Town Proposed Delivery Plan put it (page 123) *"Most of Didcot's urban environment is currently dominated by space taken up by parked cars. The change from a 'carless' society to a car dominated one has happened in less than 60 years....The next few decades will see great changes in our attitudes to cars"*.
- 5.1.3 Or, as Professor PB Goodwin, Chairman of the Panel of Advisors to the White Paper on Integrated Transport Studies, put it:

"Good or bad, the axion's high point was, by one of the ironies of history, its final hour: the 1989 programme of road building, called 'Roads to Prosperity'... The flaw was, the programme would not keep pace with traffic growth. Indeed, one unchallenged study showed that even a fantasy roads programme, even 50% larger than 'Roads to Prosperity' would not keep pace with traffic growth. In practice, 'predict and provide' meant inevitably 'predict and underprovide', and a strategy with road building at its heart would not deliver improvements in travel conditions. We called it the new realism."

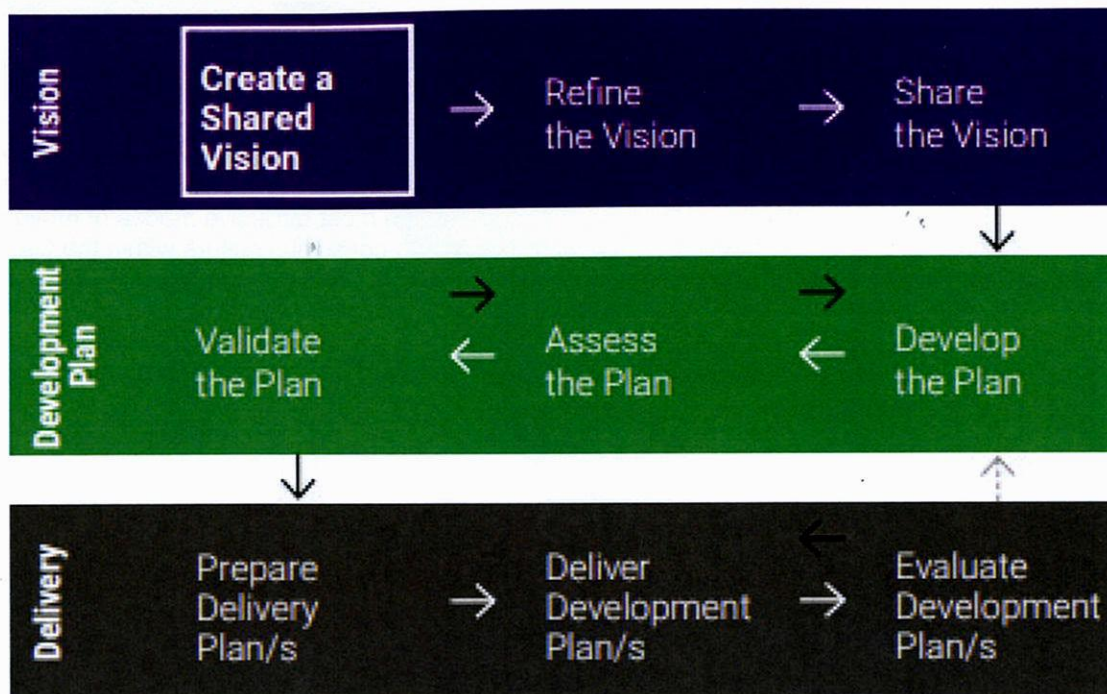
- 5.1.4 Central to the masterplan for the Site is the adoption of a "vision and validate" approach to development, moving away from the traditional "predict and provide" model. This alternative approach (also known as "Decide & Provide") is endorsed by OCC (Oxfordshire County Council).
- 5.1.5 The distinction between these two approaches is explained in OCC's document titled "Implementing 'Decide & Provide': Requirements for Transport Assessments," which highlights the shift towards a more proactive and forward-thinking method in transport planning. It states:

"'predict and provide' can be broadly described as an approach to transport planning that uses current or historical traffic patterns to determine the future need for infrastructure. However, this approach tends to simply maintain the status quo by perpetuating dependence on the private car through provision of additional highway capacity."

By contrast, the 'decide and provide approach to transport planning decides on a preferred vision of the future and then provides the means to work towards that whilst also accommodating uncertainty about the future. This offers the opportunity for more positive transport planning and will help to implement the LTCP transport user hierarchy by considering walking, cycling and public transport upfront."

- 5.1.6 This approach is not only advocated by OCC but also recommended and supported by the DfT (Department for Transport) and National Highways in DfT Circular 1/22 titled "Strategic road network and the delivery of sustainable development" (paragraph 15), published on 23rd December 2022. Figure 5 - 1 illustrates how this vision would be realised.

Figure 5 -1: Vision and Validate Graphic



- 5.1.7 The vision is clear - to create a sustainable development centred around active forms of travel. The "monitor and manage" approach is employed to validate this vision.
- 5.1.8 The "monitor and manage" approach is designed to respond to various factors, including changes in travel patterns and behaviour, shifts in policy, advancements in technology, future initiatives / innovations in transport, and uncertainties in infrastructure provision.
- 5.1.9 Embracing the "vision and validate" approach offers several benefits, such as fostering positive transport planning by prioritising walking, cycling, and public transport. It also redirects infrastructure investment towards social, green, and sustainable developments, leading to the creation of improved living spaces. Additionally, this approach ensures that the vision for places is not solely transport-centric but emphasises access to essential services, goods, and opportunities for people.

5.2 Summary

- 5.2.1 The masterplan adopts a "vision and validate" approach, prioritising walking, cycling, and public transport and other potential innovative means of transport. It ensures positive and sustainable transport planning, responding to changes and uncertainties. This vision aligns with OCC, DfT, and National Highways' recommendations for better living spaces and green developments.

6 Masterplan

- 6.1.1 The proposals outline a residential-led mixed-use development, offering new homes and facilities within the broader Didcot Garden Town Masterplan.
- 6.1.2 The design is driven by the aspiration to create an exemplary development with sustainable travel as its cornerstone. It aims to establish an integrated and accessible transport system, prioritising walking, cycling, and public transport as the most attractive modes of movement. The ultimate goal is to foster a sustainable and health-conscious culture within the Garden Community, thereby contributing to reducing vehicular emissions.
- 6.1.3 The current indicative access and movement plan for the Site is displayed in Figure 6.1. The design aims to facilitate a positive shift in travel patterns by leveraging the opportunities identified earlier in this report.

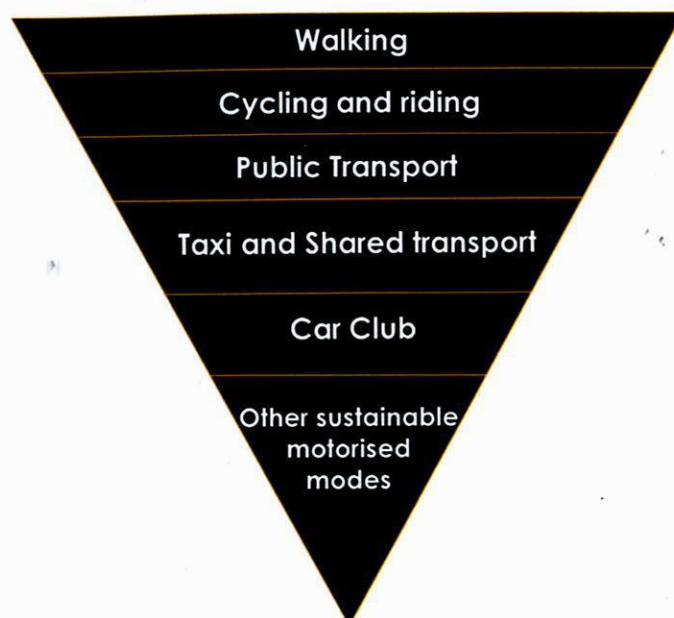
Figure 6.1: Indicative Access and Movement Plan



6.2 Route hierarchy and car-free streets:

- 6.2.1 The development is centred around the core principle of creating a permeable transport network, prioritising sustainable walking and cycling within the Site.
- 6.2.2 The route hierarchy, depicted in Figure 6.2, emphasises easy movement on foot or by bicycle, fostering permeability and connectivity to essential destinations. The goal is to ensure that residents can comfortably navigate the development primarily through sustainable means of transportation like walking and cycling, before considering other modes of transport such as cars or buses.
- 6.2.3 By placing a strong focus on promoting pedestrian and cycling-friendly routes, the development aims to foster a sustainable and environmentally conscious community.

Figure 6.2: Development Route Hierarchy



- 6.2.4 As depicted in the masterplan, the Site will be maintained as car-free, except for a small, designated area for parking electric car club vehicles.
- 6.2.5 Excluding cars from the internal transport network creates ample space for dedicated walking and cycling lanes, along with shared spaces, following government guidance in LTN 1/20.
- 6.2.6 Implementing car-free streets is feasible when enough room is allocated for pedestrian and cycling paths, seamlessly connecting with existing walking, cycling, and public transport infrastructure.

6.3 Vehicle access

- 6.3.1 The Site's vehicle access will be directly from the A4130. It will utilise a simple signal access junction (Figure 6.1) instead of the proposed complex roundabout junction for adjacent land. This approach allows access to all land parcels while using less space for development and reducing crossing points over the A4130.
- 6.3.2 The Site will have a single point of entry and exit for vehicles, enabling them to turn within the Site.
- 6.3.3 The internal road network, as shown in the figure, will primarily serve access to the car park area and the proposed bus stop / mobility hub.

6.4 Refuse Strategy

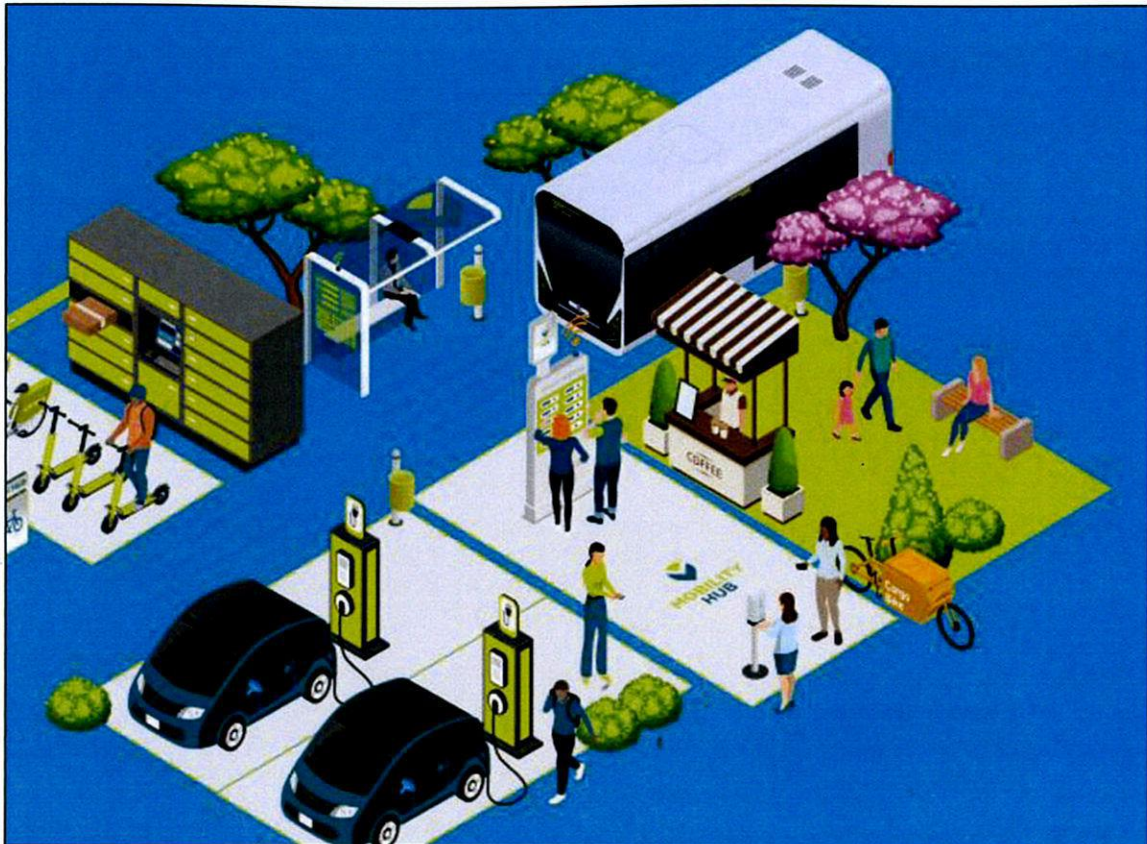
- 6.4.1 Outside of the defined short road network, there will be no access for refuse collection vehicles into the development Site. As a result, a typical refuse collection vehicle cannot access each dwelling and facility.
- 6.4.2 Instead, an innovative and sustainable waste management solution is proposed - a refuse vacuum system. This system, suitable for large developments and urban areas, utilises an underground network of pipes to transport waste from collection points to a central point. The main features of the system include:

- Strategically placed waste collection points equipped with inlet openings for waste disposal.
 - Transportation of waste to the centralised collection station.
 - Temporary storage of waste in large containers or compactors at the collection station until collection by refuse vehicles.
- 6.4.3 The refuse vacuum system not only facilitates car-free streets but also eliminates the need for individual waste bins, freeing up more space and reducing clutter in public and residential areas.

6.5 Mobility Offer On-site

- 6.5.1 The transport vision and strategy aim to encourage walking, cycling, and public transport usage by creating primary and secondary mobility hubs. These hubs will serve as recognisable locations offering a variety of transport options, along with additional facilities and information features to enhance the user experience. By integrating mobility hubs into the Site, travel options for future users will expand, while also accommodating future innovations in mobility.
- 6.5.2 Three hubs are proposed: one primary hub and two secondary hubs (refer to Figure 4.1). The primary mobility hub is situated in the northernmost area, and potential provisions could include:
- Covered and secure cycle parking stands / lockers
 - Cycle repair shop
 - Bus stop / coach parking
 - Car club and taxi parking
 - EV car charging
 - Real time information and Interactive journey planning / way finding.
 - Waiting facilities
 - concierge lockers and package delivery services
- 6.5.3 The primary mobility hub forms part of the bus strategy where the intention is to run a shuttle bus service for residents to and from key destinations.
- 6.5.4 The secondary hubs will function in much the same way but without access to motorised transport options. These hubs also function as a way for residents to get around the community.

Figure 6.3: illustrative Example of a Mobility Hub



Source: Comouk

7 Overall Summary and Conclusion

7.1 Summary

- 7.1.1 The Site is located west of Didcot, bordered by A4130 and A34, near Milton Park and Valley Park. It benefits from existing infrastructure, including footways, cycle routes, and the nearby train station (Didcot Parkway), providing easy access to Oxford, Reading, and London. Bus services are also available, with improvements planned as part of the Science Vale Area Strategy and Didcot Garden Town Masterplan. The Site enjoys excellent connectivity for promoting sustainable travel options.
- 7.1.2 Despite the available sustainable transport options, a significant number of locals still opt for driving. To effectively promote sustainable transportation, the development and infrastructure will cater to travel patterns identified through the 2011 Census data. Enhancing connectivity along these desire lines and prioritising sustainable travel-friendly designs will encourage sustainable transport choices.
- 7.1.3 The proposed development aligns with Oxfordshire's goals to reduce car travel and increase active travel trips. It focuses on substantial reductions in car usage and promoting sustainable transportation options. Specific mode share targets will be assessed during the future application process.
- 7.1.4 The masterplan adopts a "vision and validate" approach, prioritising sustainable travel and positively discouraging car use. This ensures positive and sustainable transport planning, responding to changes and uncertainties. The approach aligns with OCC, DfT, and National Highways' recommendations for better living spaces and green developments.
- 7.1.5 The proposal outlines a residential-led mixed-use development within the Didcot Garden Town Masterplan. The main focus is on creating a sustainable and exemplary development with an emphasis on walking, cycling, and public transport to reduce vehicular emissions and noise pollution; and to promote a pleasant, friendly, neighbourly environment. The Site will be car-free, except for designated electric car club parking spaces, and an innovative refuse vacuum system will be implemented. Mobility hubs are planned to enhance travel options and foster a sustainable community.

7.2 Conclusion

- 7.2.1 The proposed development Site offers excellent opportunities for sustainable transport with its proximity to footways, cycle routes, and the Didcot Parkway train station. However, to effectively promote sustainable travel, the development should address the current car usage pattern and focus on pedestrian and cyclist-friendly designs, convenient public transportation integration, and car-free policies.
- 7.2.2 By adopting a "vision and validate" approach, the masterplan aligns with regional recommendations for sustainable living spaces and green developments, contributing to reduced vehicular emissions and a more eco-conscious community. The proposed development envisages a well-connected, inclusive, and eco-friendly community with much reduced car usage and enhanced sustainable transport options.