

Mobility Management Plan

Proposed Large Scale Residential
Development, Broomfield West,
Midleton, Co. Cork

Castle Rock Homes (Midleton) Ltd

November 2023

HDC1296/02

Hegsons Design Consultancy Limited

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Executive Summary

Hegsons Design Consultancy Limited were commissioned by Castle Rock Homes (Midleton) Limited to undertake a scoping study for the preparation of a Mobility Management Plan (MMP) in support of its planning application for the proposed development of approximately 272 dwellings, a creche and associated ancillary development works at Bromfield West, Midleton, County Cork.

The purpose of this MMP is to outline the means of reducing car dependence and reduce the number of single-occupancy car trips that could be transferred to active modes and public transport. The benefits of sustainable transport are well known and include climate, health, wellbeing, inclusion, local economic and transport gains.

The accompanying TTA provides in-depth information about projected mode split and transport assuming current conditions. Monitoring of this MMP will show whether the TTA predictions are met due to increased use of walking, cycling and public transport and reduced car travel.

The development has been prepared using the Sustainable Recreational Development in Urban Areas (2009), the Urban Design Manual and the Design Manual for Urban Roads and Streets (DMURS). As such its urban form comprises two areas of connected streets separated by steep land with a ramped access for pedestrian traffic. We anticipate that the application of this guidance will produce an environment that is safe and conducive to walking and cycling. It also includes links to nearby public transport services.

Mobility Management Plan Co-ordinator (MMPC) shall be appointed to provide ongoing management of for the MMP. The MMPC will prepare a document detailing the progress of the MMP and the strategy for future development and monitoring.

As part of the planning application, the applicant is committed to developing and implementing the MMP for the proposed development in order to reduce car dependence among both residents and visitors, thereby reflecting current Government policy which is to reduce private car use in favour of more sustainable, low-carbon and healthy modes of travel.

1 Background

1.1 Introduction

Hegsons Design Consultancy Limited were commissioned by Castle Rock Homes (Midleton) Limited to undertake a scoping study for the preparation of a Mobility Management Plan (MMP) in support of a planning application for the proposed large scale residential development at Broomfield West, Midleton Co Cork.

The purpose of this Mobility Management Plan is to outline the objectives of the Mobility Management Plan (MMP) as applied to the proposed development. Their purpose is to ultimately reduce the number of single occupancy car trips and promote the use of more sustainable modes of travel.

This MMP complies with the principles of 'smarter travel', with reference to the principles of the DTO Advice Note – Mobility Management Plans (Dublin Transport Office July 2022). As such, this MMP indicates a dynamic approach that allows evolution over time to deliver mobility management objectives including increased uptake of public transport, walking, wheeling and cycling.

The aim being to minimise vehicle trip rates, the volume of which has been outlined in the Traffic and Transport Assessment (TTA) for the proposed development. For the purpose of this assessment, it has been assumed that the proposed development would be operational in 2025. However, the overall scheme will take between 4-5 years to complete, and it is expected that some portions of the scheme would be expected to be open later than 2025.

The TTA underpins this Mobility Management Plan (MMP), which seeks to outperform the worst-case "business as usual" predictions set out in the transport assessment by reducing car dependence. The limitation of TAs is that they must assume past travel patterns to predict the future, therefore the MMP should set out a means of achieving a more optimistic future based on regular monitoring of interventions. The performance of the MMP will be monitored by the appointed Mobility Management Plan Co-ordinator (MMPC).

1.2 Consultation Documents

This document has been prepared and takes into consideration the following:

- Cork County Development Plan 2022-2028;
- Sustainable Recreational Development in urban areas (2009);
- Smarter Travel: A Sustainable Transport Future, 2009 – 2020;
- The Transport Infrastructure Ireland (TII) National Roads Authority (NRA) Traffic and Transport Assessment Guidelines May 2014;
- Cork County Council's Design Guide, 'Making Places: A Design Guide for Residential Development';
- The TII NRA Design Manual for Roads and Bridges (DMRB) TA 79/99 Traffic Capacity of Urban Roads;
- TII Publications PE-PAG-02017 Project Appraisal Guidelines for National Roads Unit 5.3 - Travel Demand Projections May 2019
- The Department of Transport, Tourism and Sport (DTTAS) and the Department of Environment, Community and Local Government (DoECLG) Design Manual for Urban Roads and Streets (DMURS) March 2013.

1.3 Development and Implementation of Mobility Management Plan

Delivering measures to facilitate and encourage future residents to base their travel patterns on the existing and planned sustainable infrastructure is a key element of the planning and design of the subject site.

To implement the vision of government agencies, planning authorities, transport providers and other stakeholders it is proposed to locate new housing, commercial and employment development within the masterplan area in order to provide the greatest encouragement for future residents, employees and visitors to base their travel patterns on sustainable modes rather than the private car.

The following key principles should underpin the transport and mobility strategy of the site include:

- Exploit the potential for users of the area to achieve high levels of modal shift away from the private car in favour of more sustainable modes of transport. High standards of access and mobility will add to the quality of life for users of the area;
- Support the achievement of high levels of modal shift by collaborating to support use of sustainable modes of travel by cycling, walking and public transport;
- Provide direct and convenient access to the town centre, schools, etc by sustainable modes of transport;
- Ensure that the maximum number of new houses have safe and convenient access to facilities within 15-20 minute cycle / walk of the development area and key transport links; and
- Ensure the primary role of the public realm as a network of streets and open spaces that enable a successful and vibrant public life.

The site layout will be prepared following detailed consultation of the Sustainable Recreational Development in Urban Areas (2009), the Urban Design Manual and the Design Manual for Urban Roads and Streets (DMURS) and TII NRA Road Safety Audit HD 19/15 March 2015.

Furthermore, the layout has taken note of the policies an objective set out in the Cork County Development Plan 2022-2028 and the proposal has regard to Cork County Council's Design Guide, 'Making Places: A Design Guide for Residential Development';

1.4 Benefits of the Mobility Management Plan

Climate urgency and the public health effects of physical inactivity and social exclusion and isolation are the main background reasons for needing an effective and robust MMP that removes car dependence and reduces car travel generally.

Car dependence occurs when there are no choices other than to drive for most journeys because alternatives to driving, including the availability of local services, are below the standards that would enable people to easily choose them.

On an individual level, having a choice of modes of transport and access to a range of local facilities within walking, wheeling or cycling distance enable developments to be 'life-long' – responsive to changes in circumstances as people age. An inclusive and sustainable development is one where individuals, regardless of life stage, age, financial or other influences, can meet their daily needs without needing a car.

Clear benefits emerge, including:

- Reduced congestion and air pollution because people are naturally able to choose more space-efficient non-car modes of transport because genuine choice is available to them, or they may choose to use local services rather than going further afield.
- Greater social cohesion and sense of community, and less social isolation, because if people are on the streets and able to see each other they are more likely to get to know their neighbours. A key indicator of a successful and physically active community is the formation of social groups such as gardening clubs.
- More inviting conditions for walking and cycling leads to increased physical activity. The Netherlands has the world's most active population (source: IPSOS 2023) and this may be largely because people integrate exercise with their daily routines – walking or cycling to the station, bus stop or local services, for example. If people feel fitter because they exercise, they may be more inclined to take part in organised sports, such as running, team sports or swimming.
- Financial savings compared with car ownership and use, where the annual maintenance and use costs of a pedal cycle might not exceed € 500 but a car might cost in excess of € 3,000. This enables households to consider owning fewer private cars or renting vehicles from a car club when it is needed rather than owning one at all.
- Support for local businesses where a MMP includes access to a range of local services within walking and / or cycling distance. This notes that existing surrounding (car-oriented) development often does not permit viable services within walking distance, but people can cycle three times the distance at the same time, and especially so if using e-bikes.
- Developments with robust approaches to sustainable transport can make a more positive contribution to their wider settlements than those which impose unfettered adverse impacts on their communities without mitigation. If proposals are to be supported by local communities, they need to tangibly demonstrate their ability to minimise harm as far as possible and mitigate any residual impacts with positive effects.

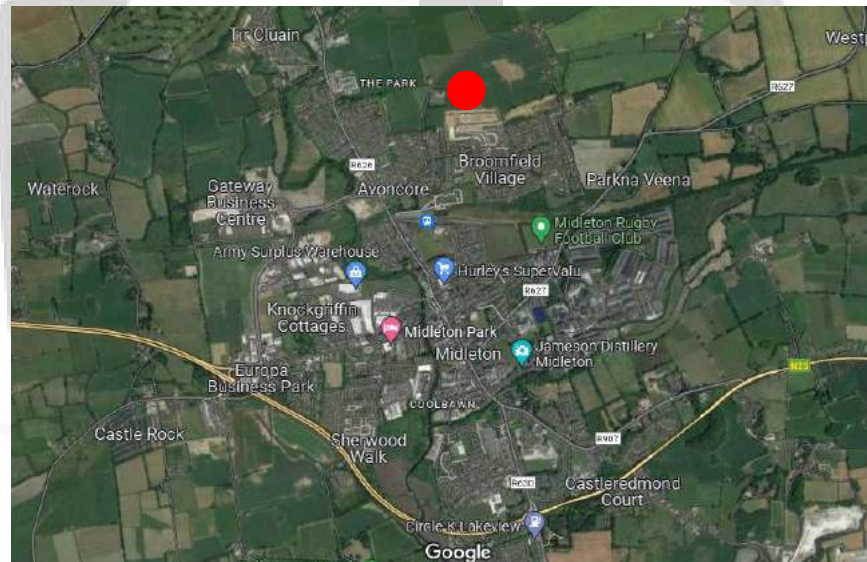
2 Existing Environment

2.1 Site Location

The subject site is located approximately 1.3km from the town of Midleton on the northern site of the town, and it abuts the substantially complete Blossom Hill Housing development being carried out by Castle Rock Homes Midleton Ltd.

Midleton is a busy Cork County Town with a rapidly growing population and sits at the end of the Cork-Midleton rail line and along the N25 East Parkway. In the context of the town the site would be considered elevated and is accessed via established routes through the established residential area of Broomfield, Midleton.

The subject site is located at Broomfield Midleton, Co. Cork. The site is located to the north of Midleton town and to the east of the R626. The site is bound by Broomfield Village to the south and agricultural lands to the east. The subject site is bound on the north and western side by the L-7630 Broomfield Road and the Midleton Water Treatment Plant.



Source: Hegsons Design Consultancy Ltd / Google Maps

● Site Location

Figure 2.1: Site Location

2.2 Existing Sustainable Transport Provisions

2.2.1 Pedestrian and Cycle Infrastructure

The Government's sustainable development strategy, Sustainable Development – A Strategy for Ireland, identifies increased provision of safer facilities for pedestrians and cyclists, including the provision of dedicated cycle lanes as a key priority.

In addition, Smarter Travel: A Sustainable Transport Future 2009 – 2020, sets out as some of its key goals that future population and employment growth will predominantly take place in sustainable compact forms, that the future extent of the

total share of car commuting will drop from 65% to 45% and that alternatives such as walking, cycling and public transport will be supported and provided to the extent that these will rise to 55% of total commuter journeys to work.

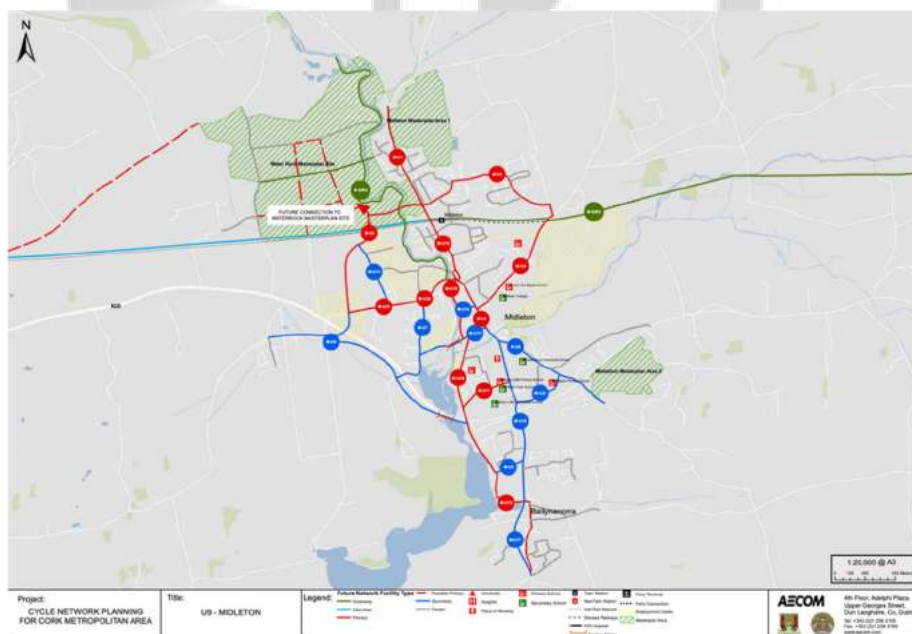
Pedestrian Network

Most of the main roads within Midleton have footways on at least one side of the road. Pedestrian crossing facilities are integrated into the existing road network at the R626 junction by way of the signal controlled crossings. There are adequate footpaths within Broomfield Village and the adjoining road network to accommodate the current pedestrian demand. Footpath are provided along Avoncore Place up to the southern edge of the subject site. No footpaths are provided along L-7630 Broomfield Road along the frontage of the site.

Cycling Network

Unlike public transport, cycling provides door to door transport in the same way as cars do, and, in urban areas, with very little difference in journey times for short distance trips. This means they have considerable potential to replace many local unencumbered car journeys. However, most people fear cycling because of perceptions of traffic danger and so mode share tends to remain low. Providing dedicated, high-quality infrastructure including very quiet streets, greenways and cycleways that connect homes to useful places can have a transformative effect, especially if e-bikes are used.

Infrastructure in Midleton is very limited, although there are some disconnected pieces of segregated cycleway in the northern suburbs. The 2017 Cork Cycle Network Plan proposes a mixture of dedicated cycle infrastructure and slow-speed shared surface carriageways and greenways where cyclists can safely be accommodated. A comprehensive network is proposed but is yet to be realised.



Source: AECOM / Cork County Council

Figure 2.2: Proposed cycle network

The spine road which runs through the new residential area of Broomfield Village (Broomfield Crescent) to the south of the subject site provides dedicated cycleways of reasonable standard adjacent to the footways on both sides of the road, although improvements are necessary to deal with conflicts at junctions and at some sections with missing cycleway links.

Cycleways are provided on both sides of the Northern Relief Road which runs from the N25 junction at Knockgriffin to the R626. A cycleway is also provided on the east / north side of the access road to the Nordic Enterprise Park, which will provide access to the development site.

However, the cycleways do not link up together. Neither do they provide connections all the way into the town centre: the only available routes are Meadowlands Lane / R267 and Mill Road (R626), neither of which have any cycle infrastructure. As the segregated cycleways do not link to any useful facilities it is no surprise that they are not used and cycling mode share in Midleton remains low.

A fully sheltered bicycle parking facility is currently provided for both platforms at Midleton Railway Station, which has the capacity to accommodate approximately 20 – 30 bicycles. The Youghal to Midleton Greenway along the former railway line is being developed at the station.

15-Minute towns

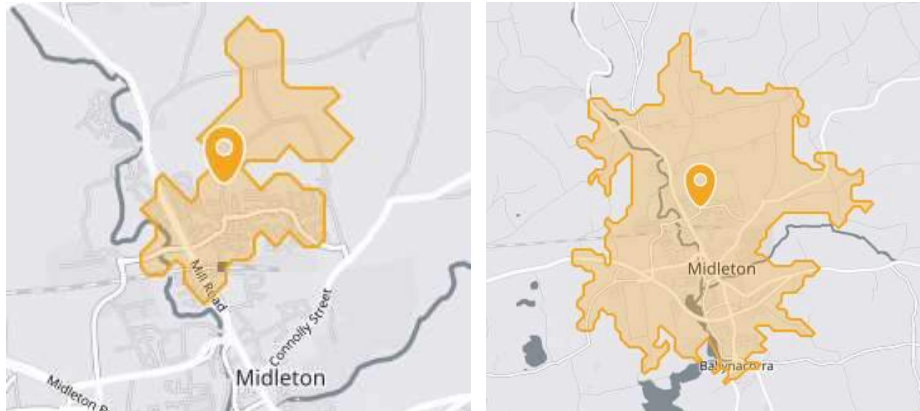
It is recognised that walking and cycling are the most important mode at the local level and offers the greatest potential to replace short car trips, particularly those around 10-15 minutes cycle time (2-3km) and 30-minute walking time (4-5km) respectively. However, it is important to ensure that people have somewhere to walk or cycle to – hence the concept of 15 minute settlements where a range of services are available within a 15 minute return trip.

In suburban areas where most existing development is ‘car-oriented’ it is perhaps more realistic to suggest a cycle ride of 7 minutes each way to encompass a wider range of available services available on foot and cycle.

The nearest local centre can be found on Mill Road, close to the railway station. This includes a hairdresser’s and barbershop, pre-school, high class butcher, several public houses, a Supervalu supermarket, convenience store associated with the petrol filling station, and small shopping centre. The nearest school is the new Midleton Educate Together National school.

Pedestrian & Cycle Isochrones

Pedestrian and cycling isochrone plans have been produced to identify the proximity of the subject site to the surrounding area. Figure 2.3 illustrates the isochrone plan for the area with walking and cycling (15 minutes) distance to the subject site. It can be seen that access can be gained to the local facilities, rail station, schools and nurseries.



Source: Created with TravelTime API: <http://www.traveltimeplatform.com/>

Figure 2.3: Pedestrian (Left) and Cycle (Right) 15-minute isochrone plan for the subject site

2.2.2 Existing Public Transport Network

The nearest bus stop is available within a 20-minute walk of the western boundary of the subject site, although best practice suggests a 400m (5 minute) walk is more appropriate.

The railway station can be reached on foot in nine minutes, which is consistent with a reasonable walking distance to rail-based public transport given its likely higher speed.

Bus Services:

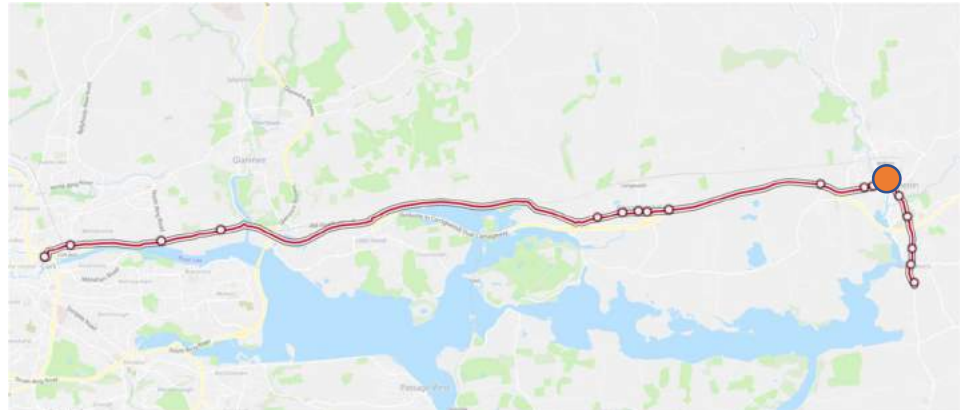
Midleton is well connected by both bus and rail to Cork City. There are five bus services which serve Midleton (not including consideration of weekend and bank holiday services):

- 40 Cork – Cork-Waterford
 - Service operates hourly in each direction between 0900 and 2200; however, it only picks up passengers in the eastbound direction, towards Waterford (other services take passengers towards Cork).
- 240 Cork – Ballycotton:
 - Service operates three buses from Midleton to Cork between 07:00 – 09:00 and operates at irregular intervals throughout the day.
- 241 Cork –Trabolgan:
 - Services operates two buses from Midleton to Cork between 07:00 – 08:00 and at irregular intervals throughout the day.
- 260 Cork – Ardmore:
 - Service provides three buses to Cork between 08:00 – 09:00; one of which provides a non-stop service to Cork from Midleton. The timetabled journey time on this direct bus to Cork is approximately 25 minutes.

- 261 Cork – Ballinacurra:
 - Service provides seven buses to Cork between the hours of 07:00 – 09:00.

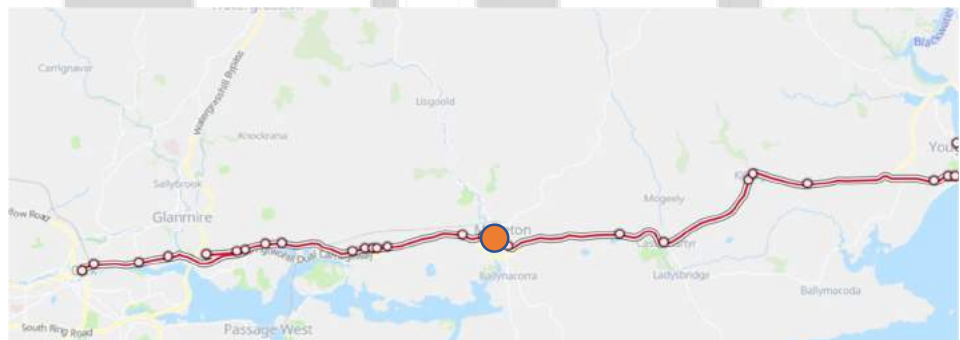
Each of the services above run along Cork Road and route south towards Midleton Town Centre and link with Carrigtwohill to the west. At present, there is no bus service to the north of the Midleton Gyratory. The nearest bus stops are located on the R907 by the gyratory and the Cork Road; both of which are a 1.5km and 1.8km walking distance from the subject site, respectively.

Bus routes are shown as follows:



(Sources: Moovit and Bustimes.org).

Figure 2.4: Bus Service 261



(Sources: Moovit and Bustimes.org).

Figure 2.5: Bus Service 260

Figure 2.6: Bus Service Route 40

A total of 25 trains operates daily each way between Cork and Midleton. Services run at 30-minute intervals during peak periods and every hour off-peak from Monday to Friday.

The map illustrates the rail network from Dublin to Cork. A green line represents the Intercity Service, connecting Dublin, Malware, and Cork. A blue line represents the Commuter Service, running from Cork to Midleton via Limerick, Groudbane, Carrigrohilly, and Midleton. A green line also branches off from the Cork area towards Malware. A legend in the bottom left corner identifies the services: Commuter Service (blue line), Intercity Service (green line), and Park & Ride (blue box with 'P&R').

Figure 2.7: Cork Suburban Rail Network

2.3 Existing Local Road Network

N25 National Road

National road which links the development site with Cork City Centre via the N8 in the west with Rosslare Harbour in the east via Waterford. The road generally runs in an east to west direction and is a dual carriageway between the interchange with the N8 and Lake View Roundabout in the south. The two main junctions from the N25 that serve Midleton are Junction 5 at Knockgriffin (in the west) and the Lake View Roundabout (in the south). To the east of Lake View Roundabout, the N25 is a single carriageway road. There are currently delays on the N25 during peak periods near Midleton, particularly on the westbound approach to Lake View Roundabout.

R626 Regional Road

The R626 runs in a north to south direction and provides a link between Midleton Gyratory in the south and the M8 motorway in the north via the R639. The road is single carriageway and is located to the west of the subject site. The road is generally heavily trafficked during the AM and PM commuter peak periods.

R627 Regional Road

The R627 is located to the east of the development and generally runs in a north-east to south-west direction. The R627 runs between Midleton Town Centre in the south-west to Tallow in the north-east. In the southwest, near the junction with the R907, the road is narrow and constrained by buildings at both sides of the road and by parked cars on the north-west side of the road. Beyond the build-up areas, the R627 is provided to a distributor road standard.

R907 Regional Road

The R907 runs from the Midleton Gyratory in the town centre to the N25 in the east. The R907 is provided to a good standard with no obvious constraints. The junction with the N25 is currently priority controlled with a right-turn ghost island on the N25. A diverge lane is provided for left-turners.

Northern Relief Road (Phase 1)

The Northern Relief Road is located to the south / east of the development and provides a link between the R626 in the east and the N25 in the south via the Knockgriffin junction. The road provides access to the Nordic Enterprise Park which is located at the southern boundary of the development. Signal-controlled crossroads are provided at the junction with the R626 and Avoncore Place complete with pedestrian facilities.

Avoncore Place

Avoncore Place forms an arm of the signal-controlled junction at the R626 / Northern Relief Road. The road runs in a north-east to southwest direction and provides access to the Broomfield residential area. The road is subject to a 50kph speed limit.

To the north, the road becomes L-7630 Broomfield Road which has recently been upgraded from a rural in nature road which provided local access to residential properties, to a 5.5m – 7.0m wide road with a 2.0m wide footpath along the western side. The road, which has recently been upgraded as part of the new Park

Hill View residential development is traffic calmed and is subject to an 80kph speed limit at present.

Broomfield Crescent

Broomfield Crescent provides a link between Avoncore Place and the R627 (via Meadowlands Lane). The road acts as a spine road through the Broomfield Village residential development. Direct frontage access from the road takes place in the west near the junction with Avoncore Place. The road is subject to a 50kph speed limit.

2.4 Existing Modal Split for Midleton

To establish the existing mode-share for the study area, a review of the mode share data from the 2016 census was undertaken for Midleton.

Table 2.1 outlines the share of each mode for all trips to work and education from Midleton. To provide some context, these mode-share figures have been compared to those of Cork County and the Cork City + County average.

Table 2.1 – Census 2016 - Mode of Travel

Mode of Travel	Cork City & County Modal Split (%)	Cork County Modal Split (%)	Midleton Modal Split (%)
On Foot	14.2%	9.4%	12.2%
Bicycle	1.4%	0.7%	1.2%
Bus, Mini bus or coach	8.7%	7.9%	4.9%
Train, DART or LUAS	0.7%	0.8%	3.7%
Motorcycle or scooter	0.3%	0.2%	0.3%
Car Driver	51.9%	56.0%	52.1%
Car Passenger	22.9%	24.9%	25.6%

Source: CSO Census 2016

The analysis indicates that, in terms of walking, the study area is broadly in line with the City and County average while it slightly outperforms the County average. In terms of public transport, the study area has a similar total mode share to both averages but with a greater rail split which is to be expected given its proximity to the station. The car driver and car passenger mode shares (77.7%) are broadly in line with County averages. These high car mode shares are reflective of the dispersed nature of residential developments and their distance from commercial, educational and employment centres.

The above mode shares provide the baseline from which MMP monitoring should take place. A good performance will be evidence of a shift from baseline car dependency to increased walking, cycling and public transport with reduced car use in line with national policy.

This MMP shows that the availability of existing cycle and bus infrastructure is insufficient to increase sustainable travel; however, it is also not the responsibility of the developer to provide such infrastructure other than through negotiated contributions towards the cost. Part of the MMPC's role, therefore, needs to

promote state investment in building attractive and inviting routes for active and sustainable travel in order to facilitate future sustainable development in the town.

2.4.1 Traffic Generation for Other Mode of Travel to /from the Proposed Development

Based the modal split for the area and the vehicle trip rates for private cars, Table 2.2 outlines the trip generation by mode which is envisaged to / from the proposed development of 272 residential dwellings / apartments.

Table 2.2 Total trips by mode for the proposed development (272 residential dwellings & apartments) in the peak periods.

Mode of Travel	Modal Split (%)	Total trip rate by mode (272 residential units) *			
		AM Peak		PM Peak	
		Outbound Trips	Inbound Trips	Outbound Trips	Inbound Trips
Private Car Driver	52.1%	162	47	68	115
Private Car Passenger	25.6%	80	23	34	57
Motorcycle or Scooter	0.3%	1	0	1	1
Public Transport	8.6%	27	8	11	19
Walk	12.2%	38	11	16	27
Cycle	1.2%	3	1	2	2
Total Person Trips	---	311	90	132	221

Source: Hegsons Design Consultancy Ltd May 2023 / CSO Travel Survey 2016

Note: * Based on the trip generation and assessment for the proposed development as outlined in the Transport Assessment May 2023.

3 Characteristics of the Proposed Development

3.1 Introduction

In this chapter, proposals are set out by role. The wider 'government role' provides the context of NTA and County Council funded projects including inter-urban cycling networks and improved public transport.

The local 'MMP role' refers to localised measures within or in near proximity to the site which will help mitigate the proposals' transport impacts and enable effective implementation of the MMP.

3.2 Proposed Development

The subject site is located at Broomfield West, Midleton, Co. Cork. The site is located to the north of Midleton town and to the east of the R626. The site is bound by Broomfield Village to the south and agricultural lands to the east. The subject site is bound on the north and eastern side by the L-7630 Broomfield Road and the Midleton Water Treatment Plant.

The proposed development will consist of a large scale residential development consisting of the development of 272 No. residential units, creche and all associated ancillary developments works at Broomfield West, Midleton, Co. Cork.

The proposal for the 272 No dwellings units is for a mix of 4-bedroom semi-detached dwellings, 3-bedroom semi-detached dwellings, 2, 3 & 4 bedroom terraced dwellings, 2, 3 & 4 bedroom terraced mews style dwellings, 2 bed duplexes and 1 bed apartments.

The proposed development layout has been prepared following detailed consultation of the Sustainable Recreational Development in urban areas (2009), the Urban Design Manual and the Design Manual for Urban Roads and Streets (DMURS).

3.3 Cycle, Car Parking and EV charging

3.3.1 Cycle Parking

Secure cycle parking spaces will be accommodated in a convenient place at the front of each dwellinghouse, and it will be either integral to the main building or in a secure purpose shared or individual built cycle store that also accommodates panniers and wet weather gear. Either way, it is essential that cycling is as easy and convenient as possible: putting cycles in storage units that are complex or difficult to access, or at the rear of the property would undermine prospects for cycling taking a significant modal share. It is anticipated that this will increase the attractiveness of cycling as a mode of transport for visitors and residents of the proposed development.

Parking shall be provided in accordance with the Cork County Development Plan 2022-2028 and the design, layout and location guidance set out in the DoEHLG Urban Design Manual Best Practice Guide.

Private Bicycle Parking Spaces:

4-bedroom Dwellings (22 No.)	Min. 44 spaces
3-bedroom Dwellings (94 No.)	Min. 188 spaces
2-bedroom Dwellings (96 No.)	Min. 96 spaces
2-bedroom Duplex Apartments (26 No.)	26 spaces
1-bedroom Duplex Apartments (26 No.)	26 spaces
1-bedroom Apartments (Roadside) (8 No.)	8 spaces

Public Bicycle Parking Spaces:

Total Public Spaces (within site boundary)	44 spaces
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The provision of additional cycle parking spaces over and above the County Development Plan standards will enhance the sustainable transport credentials of the proposed development and will encourage cycling as a key mode of travel in anticipation of further state investment in safe, best practice cycle infrastructure.

The site also makes provision for shared e-cargo-bike storage. E-cargo-bikes are becoming increasingly important as a way of enabling families to cycle together with young children, or as a means of carrying bulky items including shopping.

3.3.2 Car Parking

Surface level car parking spaces are to be provided within the proposed development. It is proposed to provide a total of 386 car parking spaces on site. A summary of the parking provision includes:

Private Car Parking Spaces:

4-bedroom Dwellings (22 No.)	44 spaces
3-bedroom Dwellings (94 No.)	188 spaces
2-bedroom Dwellings (96 No.)	96 spaces
2-bedroom Duplex Apartments (26 No.)	26 spaces
1-bedroom Duplex Apartments (26 No.)	0 spaces
1-bedroom Apartments (Roadside) (8 No.)	0 spaces

Roadside Car Parking Spaces:

Public Spaces	10 spaces
Roadside 'Resident Only Spaces'	15 spaces
Creche / Community Spaces	7 spaces

A total of 238 No. of the dwellings in this proposal has a designated private parking space provided directly in front / close to their dwelling. On street parking is provided across the site for 26 No. remaining units, where some of the apartments (in particular the 1-bed apartments) are proposed to be car-free. Each dwelling will include an EV charge point directly outside their dwelling.

The size of all the parking spaces will be provided in accordance with the standards and the parking areas will be durable, and surfaced using permeable materials that allow water to percolate through to the ground beneath (sustainable urban drainage). The purpose of this is to reduce the speed of rainwater runoff and thereby reduce flooding risk further downstream – this is particularly important on a hillside.

Parking shall be provided in accordance with the Cork County Development Plan 2022-2028 and the design, layout and location guidance set out in the DoEHLG Urban Design Manual Best Practice Guide.

The proposals include a mixture of on and off-street parking including shared parking areas to enable residents to landscape at least part of their front gardens. the provision of greenspace or street tree planting to soften the appearance of hard space and contribute to the sustainable urban drainage.

Footways will be level and accessible for wheelchair users and they will not undulate for driveways. Instead, ramps will be provided from the carriageway to footway level leaving at least 2m of flat footway surface in accordance with accessibility best practice.

3.3.3 Electric Vehicle Charging Spaces

There is a national target for 10% of all road vehicles to be powered by electricity. To meet this objective, developments that provide ten or more parking spaces are required to provide at least one parking space equipped with a functioning EV charging point and at least 10% of spaces shall be located conveniently to allow for future fit out of a charging point.

The EV infrastructure shall be in accordance with Council's Detailed Standards for EV Charging Infrastructure. Where houses are provided with private, off-street parking, the houses will include ducting to allow homeowners to install EV charging points as required. This will ensure that the proposed development is compliant with the Cork County Development Plan 2022-2028 in relation to the provision of EV charging points.

3.4 Internal Site Layout & Access Arrangement

All new highway layouts were designed in accordance with the Design Manual for Urban Roads and Streets 2019 (DMURS). DMURS aims to aid the design of safer, more attractive and vibrant streets which will generate and sustain communities and neighbourhoods. As well as cars and other vehicles this encompasses pedestrians, cyclists and those using public transport. Research has shown that narrow carriageways are one of the most effective measures of traffic calming. This has been factored into the design of the development.

The hierarchy of the streets on the site are all local in nature which reflects the end destination typology of the site. The design speed for the site is 30 kph, and appropriate speed restriction signs will be set out at the site entrance.

The access roads within the site are at least 5.5 metres wide with adequate radii provided to accommodate general traffic movements and refuse vehicle / fire vehicle movements.

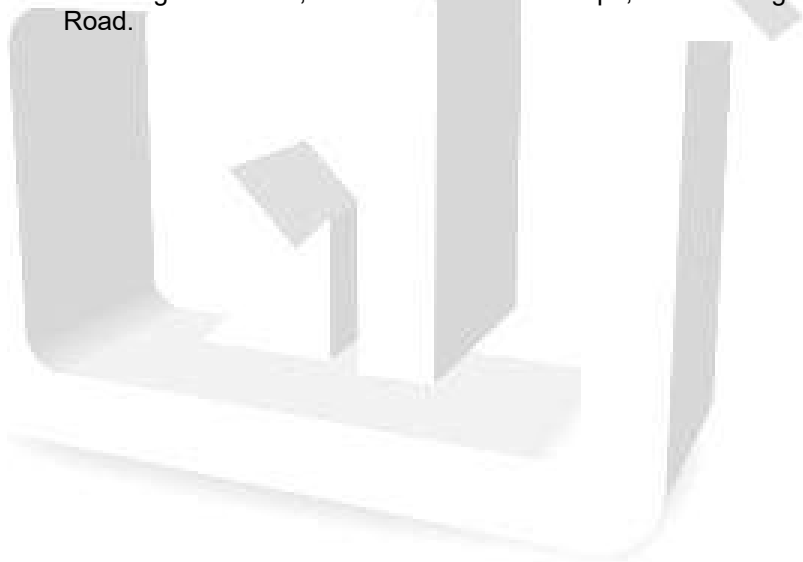
3.4.1 Walking and Cycling Routes within the Site

Walking and cycling routes will be provided as follows, within the proposed development and include the following:

- East-west routes for all modes within the red line, including passive provision for future links to neighbouring sites. This is a best practice

feature, consistent with good urban design practice, which secures sustainable accessibility to future development sites.

- Tight junction and carriageway dimensions which promote low vehicle speeds, securing a safer environment that is conducive to safer travel on foot and cycle. However, measures such as tree planting and bollards need to be included to prevent 'two wheels up' parking on the proposed footway.
- Speed tables and crossing points both within the site and along the link road which are placed at regular intervals to have an even speed reducing effect. Ramps to the speed tables will have a 'sine curve' profile which is gentler for cyclists, and speed table platforms will extend into side roads where they are built at junctions to improve accessibility for disabled users. The tops of speed tables will be smooth, with dished drainage channels profiled to maintain comfortable accessibility.
- Zig-zag ramps with a 1:20 gradient accompanied by flights of stairs will be provided to connect the two halves of the development site, overcoming the steep gradient. Nonetheless, the most direct route to key facilities including the station, town centre and bus stops, will be along Broomfield Road.



4 Planned Infrastructural Improvements

4.1 Proposed Cycle and Pedestrian Improvements

Further planned network expansion improvements of off-road pedestrian and cycle facilities are identified near the site in the Cork Cycle Network Plan.

Substantial off-road and on-road cycling/pedestrian facilities are proposed in the vicinity of the site connecting Midleton town centre to Carrigtwohill and Cork City.

The Cycling Network Plan for the Cork City Metropolitan Area (Cork County) sets out proposals to improve the local and inter-urban cycle network. Within Midleton, a network of quiet street routes is proposed with interventions mainly including traffic speed reduction and public realm treatments rather than dedicated infrastructure. It recognises that there is some pre-existing infrastructure of 'medium' standard in the area.

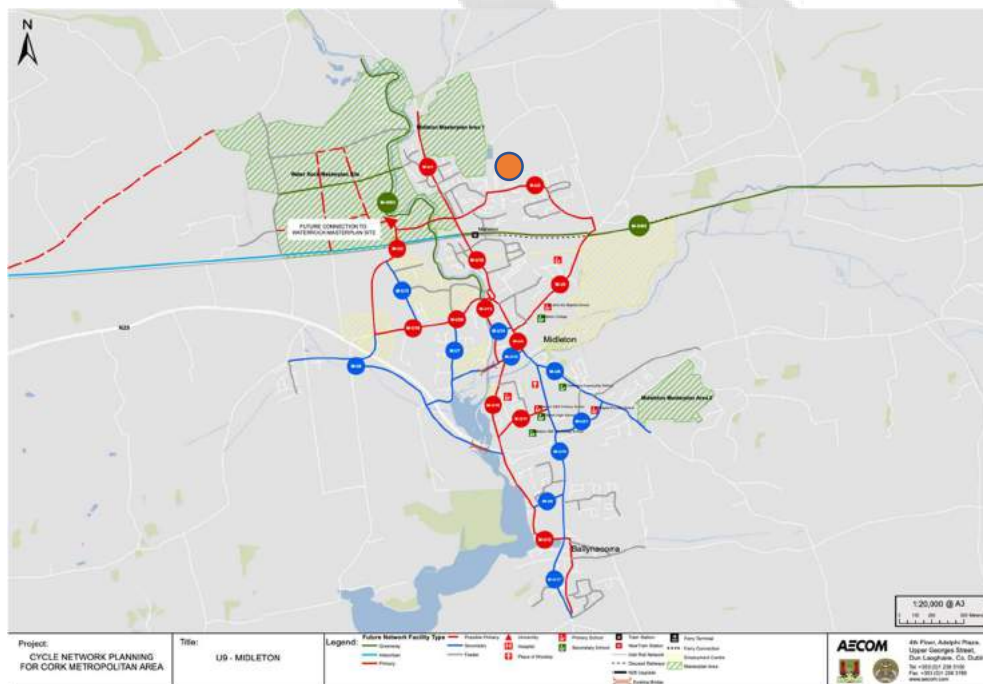


Figure 4.1: Midleton Area Urban Cycle Network

4.2 Bus & Rail Improvements

Cork Metropolitan Area Transport Strategy 2040 (CMATS) provides a framework for the planning of transport services in the Cork Metropolitan area, which includes Midleton. This includes significant NTA funded improvements to bus transport service connectivity, reliability and frequencies by 2040, a train service with a 10-minute headway and an additional station at Water Rock.

Proposals exist to divert some or all mainline bus routes via the Northern Relief Road and R626 Mill Road. This would bring stops and frequent services into much

closer proximity of the proposal site (within 5 minutes' walk) and closer than the station.

CMATS sets out a proposed Bus Connects route map to improve the reliability and efficiency of the public bus network. The proposed Bus Connects scheme will ensure residents of the development can travel to the city effectively using public bus networks. CMATS proposes significant improvements to public transport facilities over and above what is currently available. It is intended that the NTA will fund these improvements and that they will be implemented fully by 2040. With the provision of these facilities and other incentives as part of national policy, it is anticipated that a shift to public transport will occur over the construction phase of this scheme.

The BusConnects Draft Network Plan proposes a bus route from Ballinacura to Cork Bus Station via Midleton. It is proposed that this route will operate every 30 minutes from Monday to Friday and every 60 minutes on the weekend. The proposed upgrades of the bus service will result in a more frequent and efficient service for residents of the proposed development and urban area.

4.3 Suburban Rail

The Cork Metropolitan Area Transport Strategy 2040 also proposes improvements to the commuter rail service in Cork including additional railway stations, more frequent services, and rail line upgrades.

It is proposed to upgrade the Midleton rail line to a dual track to allow for a service every 10 minutes between Cork and Midleton. The travel time between Midleton and Cork is expected to be reduced to 25 minutes. An additional train station is proposed to serve the Water Rock Area. This railway station will provide enhanced sustainable transport access for residents of the Water Rock Urban Expansion Area.

5 Mobility Management Plan

5.1 Introduction

Castle Rock Homes (Midleton) are committed to developing and implementing an effective Mobility Management Plan for the proposed development to set out a longer-term strategy for reducing dependency on cars. This reflects Government policy which sets out to reduce the carbon, congestion, health and wellbeing effects of car use whilst improving the efficiency of the transport network.

Well-designed mobility management has the potential to reduce the impacts of new development on the communities that host them, by reducing localised air pollution and road danger, strengthening communities by encouraging people to walk and cycle on local streets, and providing an additional customer base for independent local services. Further benefits may accrue, including thresholds being met for the provision of enhanced school and medical services for an area.

This MMP outlines the main principles which will be used to build the fully detailed final MMP to be published upon site completion and full occupation. The final MMP will include a baseline travel survey to inform ongoing monitoring.

5.2 Mobility Management Plan: Aims & Objectives

The primary aims and objectives of the Mobility Management Plan will be to:

- Reduce the number of single occupancy car trips to and from the site;
- Increase awareness of the advantages and potential for travel by climate and health-conscious modes of travel;
- Introduce a package of physical and management measures that will assist travel by modes other than the private car; and
- Reduce carbon emissions, congestion and environmental impacts.

The success of the strategy depends on a partnership approach between the management of the development, the Local Authority, and other relevant stakeholders, including other businesses in the area, public transport providers, etc.

5.3 Mobility Management Plan: Co-ordinator / Steering Group

A Mobility Management Plan coordinator will be appointed to provide support to the MMP, feeding into any over-arching plan for the surrounding area.

The coordinator will act as the initial point of contact for information and for exchanging ideas, liaising with residential and other organisations, including local authorities and transport operators, and monitor mobility and access issues on site.

The co-ordinator will be fully committed to the implementation of the plan at the site to maximise its benefits to all users.

The development will also establish an internal Mobility Management Plan Steering Group to assist in the on-going development of the plan. A representative from the various services within the development should be part of this group.

5.4 Mobility Management Plan Measures

A combination of strategies will be developed for incorporation into the full Mobility Management Plan for the site and will include, but not be limited to the following:

- Cycle Initiatives;
- Walking Initiatives;
- Public Transport Initiatives;
- Car Based Initiatives (e.g. car rental, sharing, etc); and
- Residential Information Packs

The following sections of the report outline the various proposed initiatives at this stage.

5.4.1 Cycle Initiatives

The encouragement of cycling use is an important aspect of the Plan. Cycling has potential to be taken up by residents and staff of the new creche building, as adequate facilities are available. Cycling offers a widely accessible, convenient and environmentally friendly way of making local journeys.

Not all commuters will be prepared to cycle, but if the facilities and encouragement are not available, those who may be prepared to give it a try may be prevented from doing so. Initially, the numbers using this mode of transport as an alternative may be relatively small but other incentives can be considered over time to encourage a greater use of the bicycle.

In order to promote the mode of cycling, the following initiatives are proposed for the development:

- Publicise the health benefits of cycling in promotional leaflets;
- Provide residents and visitors with information and advice concerning safe cycle routes to and from the proposed development;
- Provide a minimum number of covered and secure cycle parking spaces for residents and visitors within the site;
- Ensure that all cycle parking spaces are maintained on the site, as secure and sheltered and close to the entrances of the development;
- Demand for the cycle parking will be monitored and additional facilities provided should demand warrant it. In addition to converting unused car parking spaces into cycle parking area, some scope is available to provide secure and covered cycle parking at surface level on the site;
- Set up a Bicycle Users Group or join local (BUG) as part of the plan. The Group will provide a forum for feedback and consultation; and
- Mobility Management Plan Co-ordinator will liaise with the planning authority to ensure that off-site cycle routes are properly maintained and safety concerns taken on board.

5.4.2 Walking Initiatives

The promotion of walking is difficult, but it can be made easier for all that commute all or part of their daily journeys by foot, by ensuring that their location/route is pedestrian friendly. Walkways should be properly maintained, well lit, well patrolled and conveniently placed for bus stops. Negotiations with the Local Authorities to improve walking routes or crossing facilities on the local road network for pedestrians are also recommended.

There are advantages for residents to walk, primarily related to lifestyle issues, such as the opportunity to get exercise and fresh air, and make cost savings. However, the choice to walk or not to walk to work is a pragmatic one and not easily influenced.

The Mobility Management Plan will:

- Publicise the health benefits of walking in promotional leaflets;
- Provide information and advice concerning safe pedestrian routes to and from the site, walking distances and time to nearby facilities, such as local shops, etc;
- Investigate and work with the local authorities and thirds parties in order to improve the permeability of the site with a view to providing better access to the wider community from the proposed development;
- Secure access for pedestrians would be provided to gain access to the car parking and amenity areas;
- Measures will be undertaken to promote walking to and from the site by organising promotional events; and
- Mobility Management Plan Co-ordinator will liaise with the planning authority to ensure that off-site pedestrian routes are properly maintained and that there is good connectivity with the local public transport facilities in the area.

5.4.3 Public Transport Initiatives

Service frequency, reliability and personal safety are three of the main factors driving public transport use. Accessibility to a various modes of public transport is of equal importance. The information available includes travel information, public transport advice, and car parking/traffic information.

One of the most important public transportation elements in relation to the site is the location of the various bus stops and the services connecting with the city. It is therefore clear that the public transportation will be a very viable alternative for travelling to and from the site in the future and should be promoted as such.

In order to further encourage public transport use it is proposed to investigate the following:

- Provide information on public transport services to all residents. Residents and visitors may not be aware that public transport offers a viable alternative because of a lack of information on timetables, routes or even the location of bus stops;
- Provide detailed information on the relevant websites of the various public transport services which operate within the area;

- Investigate and work with the local authorities and thirds parties in order to improve the permeability of the site with a view to providing better access to the wider community; and
- Liaise with the authorities in relation to route improvements and alterations, bus stops locations and facilities in close proximity to the proposed development.

5.4.4 Car Based Initiatives

The proposed development aims to reduce the need for the use of the private car, especially in relation to single occupancy vehicle (SOV) movements.

Not every journey can be accommodated on foot, cycle or public transport. Distances may be too far, or routes may not serve the destinations needed. Car clubs and car share can reduce the need for car ownership while still providing motorised door to door transport when it is needed.

The provision of car clubs and sharing schemes is a component of the MMP guidance and some initiatives would include:

- Car sharing initiatives will be promoted and information provided in relation to reducing car movements to and from the proposed development;
- Inclusion of a car club initiative (e.g. GoCar) would be investigated and accommodate on site or close to the proposed development for use by the residents and other residents of the area;
- Provisions of electric vehicle charging point would be provided within the proposed development so that residents and visitors would be encouraged to use environmental friendly modes of travel, if possible;
- Dedicated EV car share bays; and
- Car sharing between private individuals going in the same direction via a database established on the MMPC website.

5.4.5 Mobility Management Plan Information

It is proposed that the management will provide a 'Mobility Management Plan – Information Pack' to all residents and visitors of the proposed development with which would include the following details:

- Contact numbers/URLs' for the Local Council and nearest amenities;
- Maps showing the location of the nearest amenities;
- Maps showing bus stops/routes, cycle routes and walking routes to the site and the surrounding amenities;
- Public transport timetables;
- Information regarding the health and financial benefits of walking and cycling, car clubs, car sharing, bicycle user group, etc; and
- Information in relation to on-site facilities for alternative sustainable travel.

5.5 Infrastructure Initiatives

Active travel measures in the near vicinity of the proposal site should be investigated with the local authority to include:

- Although a new footway will be provided as part of the proposed development along the eastern side of Broomfield Road no cycle facilities are proposed or needed due to low traffic volumes and speeds. However, it is proposed to extend the 50kph speed limit along the length of the site boundary.
- Cycle safety and access improvements will be made to connect the Broomfield Crescent and Northern Relief Road (phase 1) cycleways and enable safe north-south cycling movements.
- As public transport serves the most popular destination of Cork city centre, we consider public transport access to be generally sustainable, consistent with the aims of this MMP. Accessibility would be further enhanced by:
 - Improving cycle storage and e-bike charging at the rail station and providing additional cycle storage including e-bike charging for mainline bus routes at key stops.
 - Allowing unfolded pedal cycles to be carried on public service buses, especially those serving remote rural areas.

5.6 Mobility Management Plan: SMART Targets

As a starting point, Government targets will be applied to the transport demand assumptions applied to the site from the TRICS database. This travel demand should be considered a 'worst case' scenario (or 'business as usual').

The MMP will need to work hard to achieve even the slightest move away from car dependence, although the best time to influence and establish habitual travel patterns is when people move in and start exploring their travel options.

The Mobility Management Plan will be target driven with real benchmarks identified against which success will be measured. The targets which will be set will be sufficient to make a real difference to overall travel habits and modal split. As a minimum they will be consistent with Government policy targets.

Table 5.1 outlined an indicative modal split target for the proposed development 5 years after opening.

Table 5.1 – Indicative SMART Targets for the Proposed Development 5 years after Opening

Mode of Travel	Modal Split (%)	Smart Travel Targets: (2030: 5 years post opening)
Private Car Driver	52.1%	37.5%
Private Car Passenger	25.6%	25.0%
Motorcycle or Scooter	0.3%	0.5%
Public Transport	8.6%	12.0%
Walk	12.2%	15.0%
Cycle	1.2%	10.0%
Total	100%	100%

Source: CSO Travel Survey 2016 / Hegsons Design Consultancy Ltd – May 2023

5.7 Monitoring of the Mobility Management Plan

A fundamental part of any Mobility Management Plan requirement is a commitment to fund and monitor it to determine its progress, identifying problem areas and initiating corrective measures to ensure targets are met.

The MMPC, in collaboration with the steering group, should carry out regular performance monitoring. The procedure would consist of:

- An inventory of the various infrastructure and promotional measures introduced, with commentary on their uptake and success.
- Surveys of residents of the proposed development to determine baseline demographic and travel behaviour information;
- Re-survey of residents of the proposed development for comparison each year;
- Analysis of the survey results to determine if targets are being met;
- Review and amend measures set out in the Mobility Management Plan;
- Controlling the achievement of the different targets;
- Devise corrective measures if needed; and
- Inform all concerned, including the Council Officers about the implementation and progress of the Mobility Management Plan.

At the end of the first year of the implementation of the plan, a full travel survey of all residents and visitors for the proposed development will be undertaken to determine current travel behaviours and to inform the travel strategy for future years. Monitoring will also be undertaken on an annual basis to assess performance against the targets.

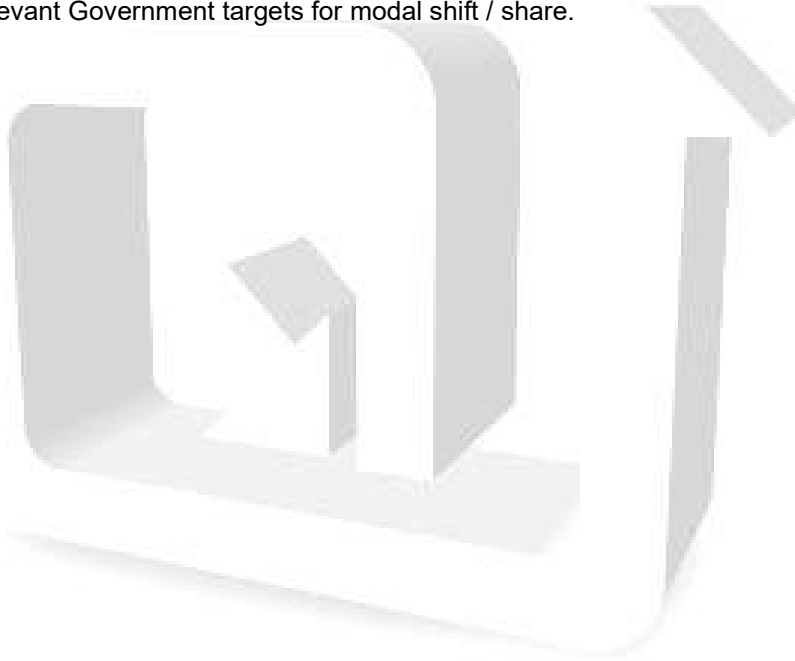
The results of the travel survey and the monitoring can then be used to modify the targets and actions contained within the plan to ensure that it is an ongoing process. By continually reviewing the plan it will help to develop and improve it and ensure that the measures introduced are consistent with the occupier's requirements.

5.8 Summary

It is proposed that, based on the Mobility Management Plan outlined in this section of the report, once the proposed development is fully occupied, a full Mobility Management Plan will be developed for the of the Broomfield Midleton Development, implemented and maintained in order to enhance the sustainable travel credentials of the proposed development and further reduce the reliance on the private car.

One year following completion of the proposed development, the MMP will be revised in more detail based on an understanding of actual travel behaviour at the site, and then subsequent monitoring will take place on an annual basis.

Monitoring will take place to understand the effectiveness of the proposed infrastructure and promotional activities undertaken to enable and promote active and public transport travel, and the extent to which residents are able to leave their cars at home for more of their journeys. The target for effectiveness is meeting relevant Government targets for modal shift / share.



6 Conclusions

The purpose of this Mobility Management Plan is to outline the objectives of the Mobility Management Plan (MMP) as applied to the proposed development. Their purpose is to ultimately reduce the number of single occupancy car trips and promote the use of more sustainable modes of travel. This Mobility Management Plan has been prepared to allow for the full Broomfield Midleton Development.

The MMP aims to use a mixture of infrastructure and behaviour change interventions to minimise private motor vehicle trip rates compared with the 'worst case' (business as usual) assumptions set out in the Transport Assessment (TA) for the proposed development.

The proposed development layout has been prepared following detailed consultation of the Sustainable Recreational Development in urban areas (2009), the Urban Design Manual and the Design Manual for Urban Roads and Streets (DMURS).

A Mobility Management Plan Co-ordinator (MMPC) will be appointed to provide ongoing management for the Mobility Management Plan. The MMPC will be appointed by the organisation managing the proposed residential development. In conjunction with the on-site management team, the MMPC will prepare a document detailing the progress of the Mobility Management Plan and the strategy for its future development as stated with it.

As part of the planning application the applicant is committed to developing and implementing the Mobility Management Plan for the proposed development in order to set out a long-term strategy for reducing the residents and visitors' dependence on travel by car, and thereby reflecting the current Government policy in respect of transport in aiming to reduce private car usage in favour of more sustainable modes of travel.

Hegsons Design Consultancy Limited

Dublin | Cork | London | Bedford | Wendover | Buxton | Saint-Denis-Le-Gast

Hegsons Design Consultancy Ltd - Company Reg: 450793
Pembroke Hall 38/39 Fitzwilliam Square West, Dublin 2,
DO2 NX53, Rep. of Ireland

Hegsons Design Consultancy (UK) Ltd - Company Reg: 6845621
Bedford i-Kan, 38 Mill Street, Bedford, MK40 3HD, United Kingdom

www.hegsons.com

contact@hegsons.com

