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Mobility Management Plan



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Mobility Management Plan

The Green Quarter SHD at Cartrontroiy, Kilnafaddoge, Lissywollen and Ardnaglug (townlands), Athlone, Co. Westmeath

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1 Introduction

ORS have been appointed by Avenir Homes Ltd. to prepare a Mobility Management Plan (MMP) as part of the planning application for the proposed Green Quarter Strategic Housing Development (SHD) at Cartronroy, Kilnafaddoge, Lissywollen and Ardnaglug (townlands), Athlone, Co. Westmeath.

Avenir Homes Ltd. is seeking planning permission for the construction of a mixed-use residential development of 122 no. residential units with ancillary creche, 46 no. student apartments consisting of 283 bed spaces, and all associated site development works. The proposed development makes provision for 60 no. dwelling houses comprising 38 no. 2-storey 3-bed townhouses, 7 no. 2-storey 4-bed townhouses, 7 no. 3-storey 4-bed townhouses, 6 no. 2 storey 4-bed semi-detached and 2 no. 2 storey 4-bed detached. The proposed development includes 62 no. apartments / duplexes to be provided as follows: Block R1 containing 38 no. apartments (16 no. 1 bed units and 22 no. 2 bed units) in a 3-6 storey building, and Block R2 containing 20 no. duplex units (10 no. 2 bed units and 10 no. 3 bed units) over 4 storeys with 4 no. apartments (4 no. 2 bed units) in one 5th storey feature area. The proposed student accommodation makes provision for 283 no. bed spaces in 3 no. blocks to be provided as follows: Block S1 containing 18 apartments with 117 bed spaces over 6 storeys, Block S2 containing 16 apartments with 107 bed spaces over 7 storeys, and Block S3 containing 12 apartments with 59 bed spaces over 5 storeys.

The proposed development will provide for two new vehicular accesses as well as pedestrian entrances onto Lissywollen Avenue east-west access road (as permitted under An Bord Pleanála Reference ABP-309513-21). Minor modifications to ABP-309513-21 are proposed to cater for these access points, alterations to cycle/pedestrian paths, the removal of a central island to facilitate the south-eastern entrance, and provision of bus stop infrastructure. Ancillary site works include public and communal open spaces, hard and soft landscaping, pedestrian / cycleways, car parking, cycle parking, bin storage, public lighting, ESB substation and supporting distribution kiosks, and all other ancillary works above and below ground. The proposal includes pedestrian and cycle linkages onto the Old Rail Trail Greenway to the south and Blackberry Lane (L40061) to the west.

The site location of the proposed mixed-use Green Quarter Strategic Housing Development (SHD) is characterised by the Lissywollen South Framework as Area 1 East end and its landscape is typical of the rural countryside, with small, irregular, and enclosed field patterns. The site is located to the southwest of junction 9 of the National Road N6, and it is bounded by the ESB headquarters to the east, by the Old Rail Trail greenway to the south and by green fields to the west.



Figure 1.1 – Location of proposed residential development (Source: Google Maps).

The Lissywollen South Framework divides the entire Lissywollen South area into 6No. main uses, as can be seen in **Figure 1.2** below, which are: commercial, sporting recreational, educational, residential, mixed-use and business quarter. The proposed Green Quarter SHD will be located to the east of Lissywollen South, primarily within the residential land use.

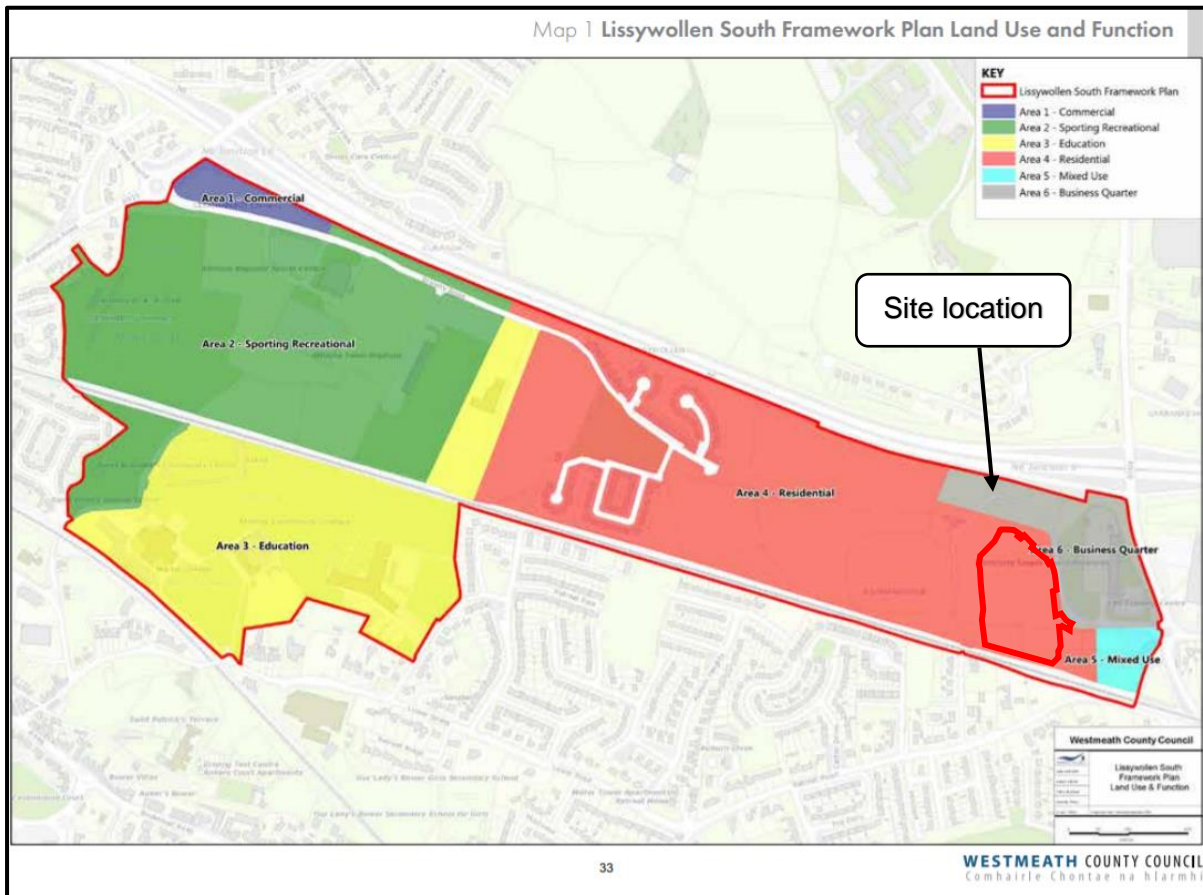


Figure 1.2: Lissywollen South Framework Plan Land Use and Function (Source: Westmeath Co Co).

This plan is being prepared as a transportation demand management tool for the residents’ Mobility Management Coordination Group when established. This will have the aim of reducing car use and the need for cars by increasing the attractiveness and practicality of other modes of transport, in order to achieve a national average of 55% sustainable transport usage (45% private car).

In this context, the MMP will set targets into the future which will be flexible and reflective of the maximum achievable modal split at any time, given the variety of factors involved and the available local infrastructure and other facilities available.

1.1 What is a Mobility and Management Plan?

A Mobility Management Plan aims to provide a package of measures that can be implemented by any given development to motivate users to consider sustainable transportation. Mobility Management Plans are particularly important in urban areas where provision can be made for the transportation needs of people and goods in a well-thought-out and planned manner.

Mobility Management can be best described as a transport demand management mechanism that seeks to provide for the transportation needs of people and goods.

A successful Mobility Management Plan or strategic plan for a development such as this residential development will introduce a higher-than-normal proportion of users into more sustainable forms of transport thus reducing environmental, economic and social impacts.

Mobility Management Plans work best when investment by the relevant authorities presents a choice for users to alter their preferred modes of transport. A list of measures generally includes the attraction of using public transport, cycling, walking, car-sharing, or a combination of these as alternatives to move away from standalone journeys to and from the premises by private vehicles as is the case in many areas.

1.2 Aims and Objectives

This Mobility Management Plan aims to reduce the usage of cars by increasing the attractiveness and practicality of other modes of transport. The measures suggested in this plan should ideally be part of a dynamic process, where they can be implemented by the site management, run on a pilot basis, reviewed by the Local Authority, and monitored over time to assess their performance.

This Mobility Management Plan aims to determine the modes of transport that are utilised and determine the factors which influence travel decisions of those accessing the residential development. The objective of this plan is to seek to achieve small changes in the approach residents have when travelling to and from the residential development.

This Mobility Management Plan recognises the urban setting surrounding the proposed residential development of industrial and residential developments and seeks to help residents to make use of other ways of transport instead of single used private cars. The proposals of mobility in this plan aim to introduce policies which will act together to reduce reliance on private vehicle use when travelling to and from the residential development.

Once the objectives of the travel plan are established, the benefits associated with alternative means of travel should become apparent. This plan aims to bring the following benefits to the proposed residential development upon implementation:

- A net reduction in the level of traffic congestion associated with the residential development and on the surrounding road network at peak times
- Increased safety for pedestrians on the approaches to and from the residential development
- Increased levels of fitness among residents through using sustainable forms of transport such as walking and cycling
- A reduction in the carbon footprint associated with the residential development due to the decreased number of private vehicles travelling to the premises
- A reduction in the parking demand associated with the residential development which in turn will increase the safety for pedestrians and cyclists in the vicinity of the site
- Improved image of development
- Improved relationships being forged by residents engaging in more active forms of transport.

This mobility management plan introduces several policies with a view to making the proposed development a safer, less congested and cleaner zone for all users. The propositions also aim to reduce the reliance on private vehicle use when travelling to and from the residential development. These policies include but are not limited to the following:

- Encouraging residents to use public transport whenever possible
- Encouraging residents to car-pool, reducing the overall number of single-occupant vehicle trips to the residential development
- Encouraging residents to walk or cycle whenever possible
- Introduction of walking clubs
- Make residents aware of the health benefits of walking and cycling
- Introduction of on-site park management.

1.3 Methodology

In preparation for this Mobility Management Plan, reference was made to the following documents:

- Lissywollen South Framework Plan 2018-2024
- Athlone Town Development Plan 2014-2020
- Westmeath County Development Plan 2021-2027
- Smarter Travel – A Sustainable Transport Future 2009-2020
- Athlone Technological University of the Shannon (TUS) – Campus Masterplan
- Aramark Student Accommodation Management Plan
- Traffic Management Guidelines.

The first stage of the plan is to outline the parameters for the residential development, with the information available at this stage. This information includes the following items:

- Exploration of opportunities to reduce car usage
- Suggested incentives to encourage sustainable transport
- Outline the existing level of public transport and the likely future improvements to the network
- Describe the facilities available for pedestrians, ease of accessibility, cycle facilities.

The second stage of a Mobility Management Plan should involve the following items, to be undertaken by the residents' Mobility Management Group:

- Consultation with the Local Authority to agree on measures to be incorporated on site and to discuss any initiatives by the applicant to promote sustainable transport measures
- Consultation with residents and management
- Conducting additional surveys to establish changing travel trends
- Establishing a mobility management plan coordinator
- Implementation of measures outlined in the mobility management plan
- Ongoing review of the mobility management plan.

2 Smarter Travel Strategy

The Smarter Travel Policy 2009 – 2020 is a government policy that recognises the importance of sustainable means of travel and aims to make people aware of the impact their travel patterns have on the environment and to encourage users to opt for more sustainable forms of transport.

Higher demands of private vehicles on roads are not a suitable choice nowadays. Behavioural patterns related to single-car usage, once changed, could minimise congestion and emissions which contribute to the greenhouse effect. Additionally, a move into more active and sustainable transportation could introduce a healthier lifestyle for the people involved.

Aimed to ensure that people adopt sustainable means of transportation, the Smarter Travel Policy sets out 5 key goals, as follows:

- *“Improve quality of life and accessibility to transport for all and, in particular, for people with reduced mobility and those who may experience isolation due to lack of transport*
- *Improve economic competitiveness through maximizing the efficiency of the transport system and alleviating congestion and infrastructure bottlenecks*
- *Minimize the negative impacts of transport on the local and global environment through reducing localized air pollutants and greenhouse gas emissions*
- *Reduce overall travel demand and commuting distances travelled by the private car*
- *Improve security of energy supply by reducing dependency on imported fossil fuels.”*

Furthermore, the government policy sets out key actions to achieve sustainable transport, which will focus on:

- Attractive distances between key locations encouraging behavioural change, consequently reducing the distance travelled by car
- Alternative means of transport be largely available
- Actions aimed at improving alternative technologies and fuel efficiency of motorised transport
- Actions aimed at delivering the targets.

The intention of the government with the Smarter Travel Policy is to support actions where the use of public transport, cycling, walking and a shift of behaviour is encouraged.

2.1 Development Strategy

The Green Quarter Strategic Housing Development, in order to facilitate active travel among future residents and visitors, provides a permeable layout with a large variety of access options which will increase the attractiveness of sustainable means of transportation and promote a behavioural change.

The subject site will offer a wide range of pedestrian and cycle linkages for its residents, through footpaths and cycle linkages which will provide easy access to adjacent lands through the Old Rail Trail Greenway, the recently permitted Lisseywollen Avenue and Blackberry Lane.

There will be 9No. dedicated pedestrian entrances, 3No. shared pedestrian and cyclist entrances available within the site as well as 2No. vehicular entrances. ORS has also compiled a DMURS compliance statement, and it can be confirmed that the development is in compliance with specifications set out within said document. **Figure 2.1** below highlights the numerous accesses across the site.

The access points in the site were strategically modelled to provide future residents the most practical, direct route via existing and proposed infrastructure within the surrounding area. This is reflected on the distances reviewed and compiled in **Appendix B & C** of this report.

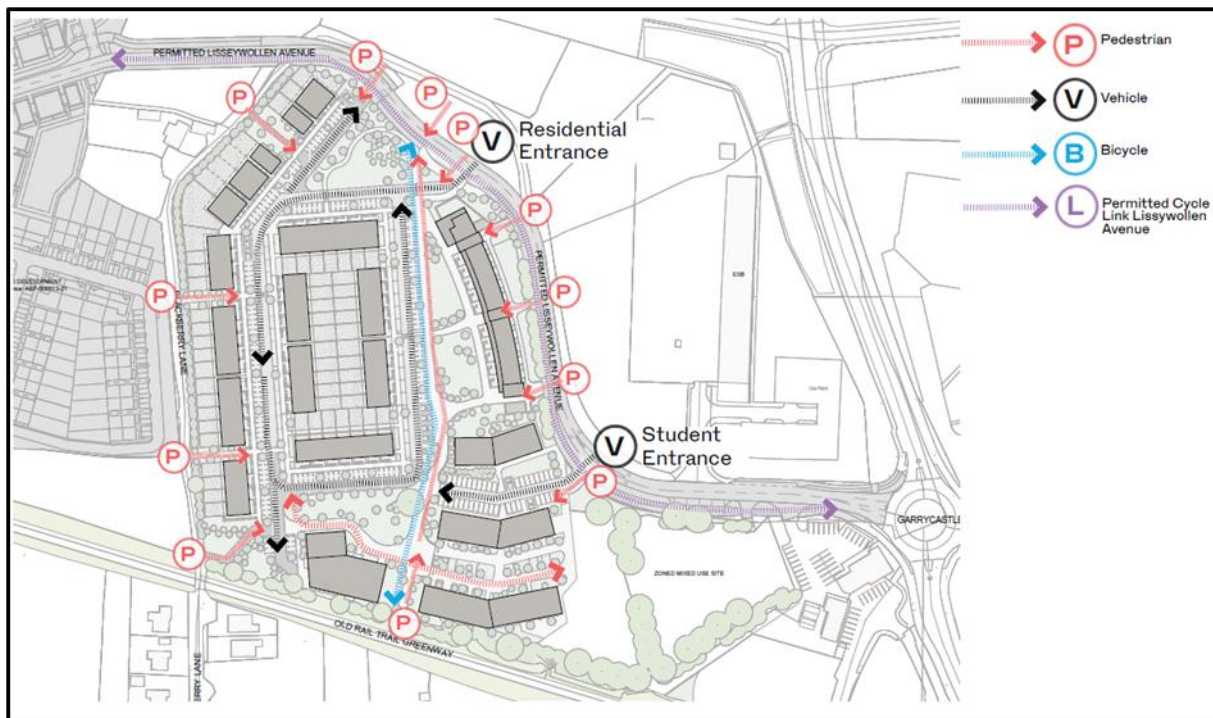


Figure 2.1 – Green Quarter SHD Entrances.

The north-south shared pedestrian-cycle spine will contribute and facilitate to the connectivity within the site and facilitate access to the permitted Lisseywollen Avenue and the Greenway, along with the numerous connections to Blackberry Lane to the west.

A series of footpaths and shared surfaces are provided at the very core of the development. The pedestrian permeability north to south and east to west are strong within the site.

Additionally, it is intended to install 2No. bus stops to the north and east of the site on the permitted Lissywollen Avenue to cater for the future residents and the surrounding area. The proposed development aims to encourage the use of public transport which will be further benefitted by the new A2 bus route will run past the site once Lisseywollen Avenue is constructed. The locations of the bus stops have been agreed in writing the National Transport Authority (NTA).

2.1.1 Residential Point of View

Within the Lissywollen South Framework Plan 2018-2024, the land zone of the proposed residential development is classified as Parcel 2 guiding principle.

It is stated that “*new routes should be fully integrated with existing networks to provide flexibility and accommodate changes in built and social environments*”, also “*parcel 2 shall also comprise of a network of permeable pedestrian and cycle networks connected through a variety of attractive and usable green spaces from pocket parks to larger recreational spaces as part of a wider green network with a range of access points off the National Cycle Network (NCN).*”

In this regard, strategically located and well planned, the site maximises pedestrians and cycle linkages. Residents and visitors will also have access at multiple points to the segregated pedestrian/ cycle infrastructure along the permitted Lissywollen Avenue in which users will be able to gain access to the sports facilities to the west of the Green Quarter SHD and multiple other amenities, as shown in **Appendix B & C**. These accesses on Lissywollen Avenue also connect the scheme to employment centres located northeast and southeast of the site.

The pedestrian and cycle accesses off Blackberry Lane and the Greenway provide access to an existing range of footpaths and cycleways that links the site to several educational, retail facilities and the Athlone bus and rail stations, as displayed in **Appendix B, C & D**.

Permeability and accessibility are the keys to encouraging a behavioural change among future residents and the community. The proposed Green Quarter SHD effectively contributes to this approach by providing a large number of strategically located car-free accesses.

2.1.2 Student Accommodation Point of View

The Lissywollen South Framework Plan 2018-2024 identifies the land zone of the proposed student accommodation as Parcel 4, guiding principle. It documents the opportunity to develop a student quarter in close proximity to the Athlone University of the Shannon (TUS) creating accessibility points along the Old Rail Trail Greenway.

The student accommodation area will offer direct access to the Greenway at the south of the development and access to the Blackberry Lane to the southwest, which also connects to the Greenway. There are also pedestrian/cycle accesses points off the permitted Lissywollen Avenue, along with linkage points stated in Section 2.2.1.

At present, the shortest direct linkage between the proposed student accommodation and the TUS is the pedestrian/cycle routes on the R916 via access on Lissywollen Avenue. The Green Quarter SHD has incorporated pedestrian/cyclist access points within the proposed site to reflect and provide the easiest and shortest routes to future residents. It is expected that through this strategy, active travel among residents will be undertaken as the first choice when travelling to and from the campus.

It is worth mentioning that during the Tripartite meeting it was noted that Westmeath County Council believed there was a route which was 30% shorter to the TUS than that mentioned

above. However, following a meeting with Westmeath County Council on foot of this comment it was confirmed that the route noted to be 30% shorter was in fact an unofficial route from the existing greenway up a very steep and unsafe embankment which users currently cross a wall and fence to gain access to Cartentroy Road. This route is unsafe and as such should be disregarded as an alternative route to TUS. Please refer to **Figures 2.3 - 2.5** which detail this unofficial route onto Cartrontroy Road.

It should also be noted that Westmeath Count Council have confirmed that they intend on reviewing this route further as part of an area plan to see if this route can be developed as part of future works in the area. However, it was agreed that the shortest route currently is along Lissywollen Avenue and onto the R916 to the TUS Campus as noted previously.



Figure 2.3 – Unofficial Access point form Greenway (Source: Google Maps)

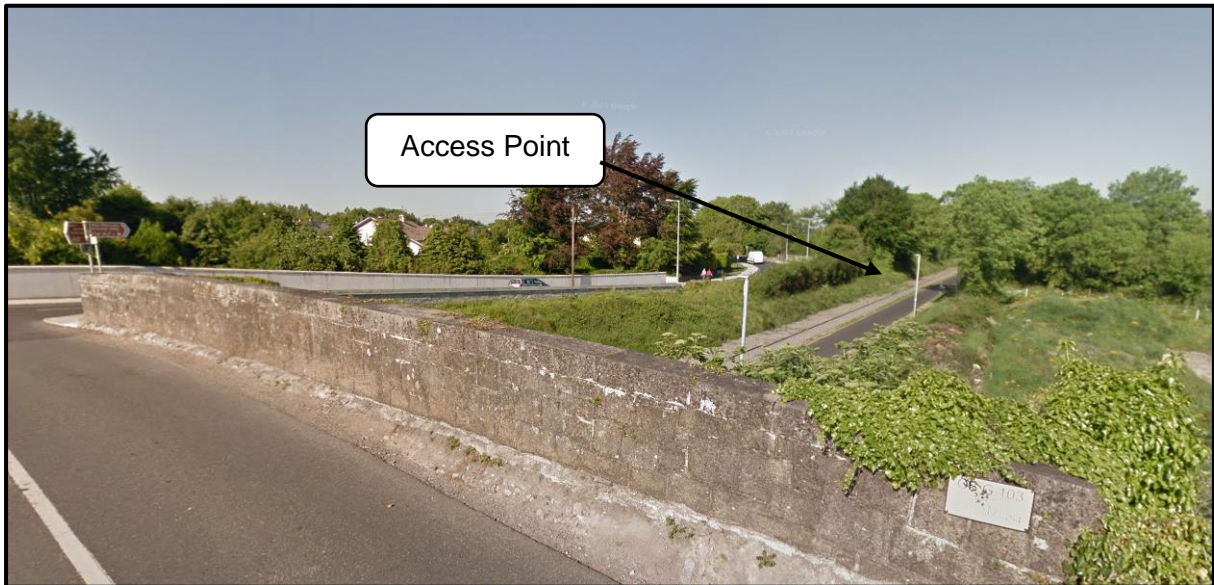


Figure 2.4 – Access point, view from the bridge over Greenway (Source: Google Maps)



Figure 2.5 – Access point, view from Cartrontroiy Road (Source: Google Maps)

The Green Quarter SHD is 850 meters north of the TUS, which is considered a short distance either walking or cycling, encouraging a car-free choice to the campus, as displayed in **Appendix B & C**. The maps attached in the appendices display walking and cycling distances from the proposed site through the most accessible, shortest, and direct routes currently in place.

The Lissywollen South Framework Plan 2018-2024 documents an access route from the greenway to the TUS, as shown in **Figure 2.7** below. This route is an objective of WCC to provide a north-south pedestrian and cycle route between Lissywollen South-Retreat, however, this linkage is currently not in place and is outside of the ownership boundary of

Avenir Homes on third-party lands. Once this proposed linkage is formalised, the Green Quarter SHD students' and residents will be able to complete their journey to the campus via an access point off the greenway which will offer increased connectivity to the development.

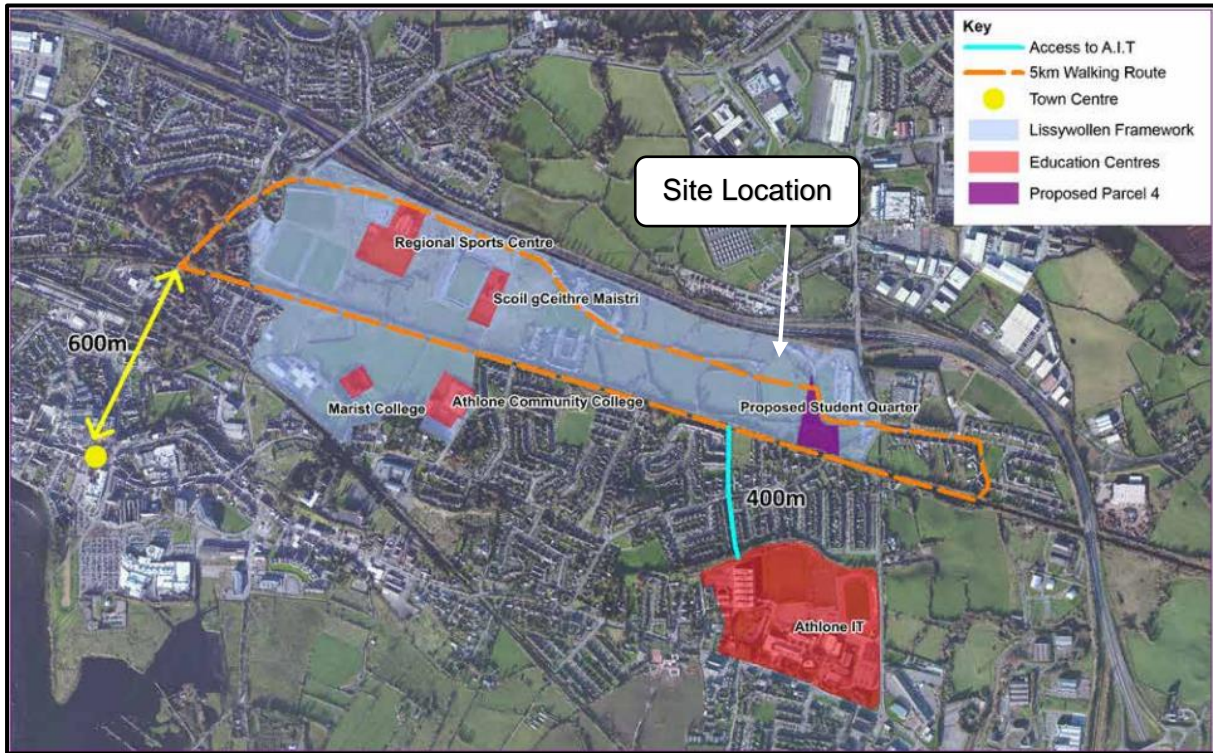


Figure 2.7 – Access Links from Proposed Parcel 4 (Source: Lissywollen SFP).

A travel survey was undertaken by the TUS Campus to obtain existing travel modes among students and campus users. From 406 student respondents it was established that 27% walk to the campus, 1% prefer to cycle, 30% are single car occupancy and 18% stated that they carpool. However, it was noted that when compared the distances travelled, active travel is the preferred travel choice among students who live up to 2km from the campus. As the proposed student accommodation is located 850 metres north of the TUS, it is expected that residents will adopt walking and cycling as their preferred means of transportation.

The future residents of the student accommodation will be able to travel to the recreation amenities utilising the greenway as well as dedicated linkage to the west of the development along Lissywollen Avenue.

Section 5 brings several strategies that can be undertaken by the development to encourage a behavioural shift and reduce the use of single car among residents and visitors. Additionally, a dedicated Student Accommodation Management Plan has been prepared by Aramark separate to this MMP in which recommendations will be incorporated once the development is fully in operation.

3 Baseline Information

3.1 Travel Questionnaires

A comprehensive baseline survey of any given site is required to facilitate the Mobility Coordinator of the development to make informed decisions on mobility management and set realistic modal-split targets. This exercise typically relies on empirical data relating to the building occupant's travel routines, usually obtained by way of a travel questionnaire as detailed in Appendix A.

Given the fact that the status of this project currently lies in planning phase, it is not possible to establish accurate, empirical travel patterns of occupants of the proposed development. Taking this into consideration, this report utilises alternative methods to establish baseline trends and provide a statement of the broad objectives with respect to mobility management for the site. The plan sets out broad targets and objectives along with the mechanisms, including both hard and soft measures, which could be put in place to support modal shifts.

At this stage, the plan is intended to provide a preliminary overview and will be revised accordingly when more detailed information regarding the final residents becomes available. This will also be cognisant of the nature of the development in relation to the number of residents. The formulation and implementation of a Mobility Management Plan is an iterative process; hence this plan is an evolving document and will be regularly updated based on experience gained from its implementation, operation, and the results of future surveys.

3.2 Transport Modal Split

A typical modal split analysis cannot be carried out due to the early stage of the development and the lack of actual data. An analysis of the 2016 Census was undertaken and the transport habits of the Athlone Settlement was used to identify a baseline breakdown of current modes of transport in the area. This can be used to provide an initial modal split target, but it is recommended that a travel survey is undertaken after the proposed residential development has been concluded for a few months. This survey will outline a more comprehensive baseline to re-evaluate the modal split targets.

The breakdown of the reported modes of transport for the Athlone Settlement area in 2016 is displayed in **Figure 3.1** overleaf. A typical modal split target would consist of 55% sustainable transport such as public transport, car-sharing or walking/cycling and 45% personal car use, as stated in Section 1. It is difficult to set targets like these for the sites, considering that the actual method of transport for the occupants is yet to be identified and as mentioned above, a survey after a few months of operation will allow a more comprehensive modal split target to be set.

Based on the census data, there is considerable reliance on private vehicle use at 65% (driver & passenger) within the region for commuting to work or school purposes. From the data obtained, only 11% of the residents of Athlone make use of public transport, such as rail or bus or coach services. However, since after the census was undertaken in 2016, new bus

routes and bus stop locations have been provided around Athlone town which would imply that more people are making use of public transport than what was seen in the last census.

Walking and cycling were a preferred mode for 20% of the respondents and 1% of those surveyed stated they work remotely from their homes.

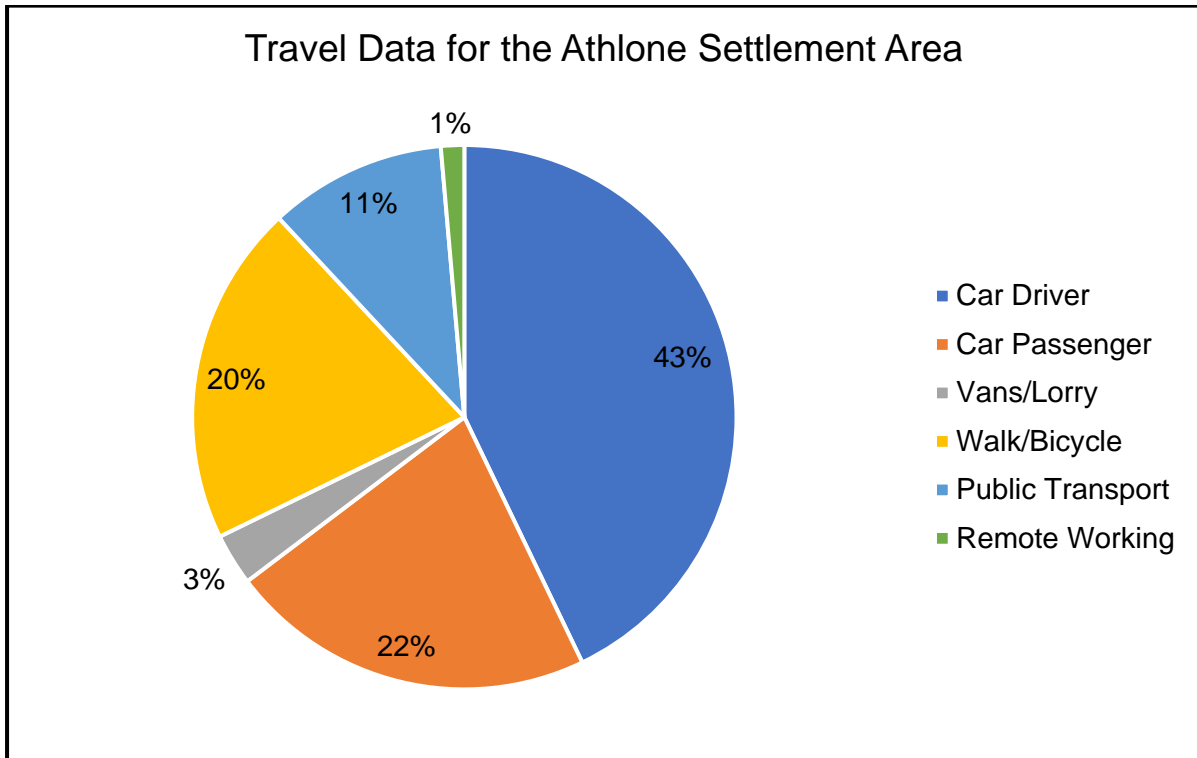


Figure 3.1 – Travel data for the Athlone Settlement Area (CSO, 2016)

4 Transport Infrastructure

4.1 Background

As stated previously, the principal aim of this mobility management plan is to reduce the usage of cars by increasing the attraction and practicality of other modes of transport. The key factor to overcome when influencing a shift towards alternative modes of transport is the perception that no other realistic alternatives exist to using the car.

Car trips are generally perceived as cheap, comfortable and flexible, and in some circumstances, cars represent an exhibition of prestige. Furthermore, Irish Government policy in the late 70's through to the 90's placed undue emphasis on promoting road-based transport at the expense of significant public transport upgrades. In order to stimulate a significant switch to sustainable transport, the surrounding public transport system needs to be, at a bare minimum, cost-effective, reliable and efficient.

While the quality of transport infrastructure within the surrounding area is beyond the control of the management of the proposed residential development, there are many techniques which can be deployed to encourage the switch to sustainable transport, discussed in Section 4. A review of the transport infrastructure within the vicinity is an ideal starting point to inform this discussion.

This section provides a review of the existing and proposed transport infrastructure for the surrounding area and investigates whether the quality of each mode of transport is sufficient to stimulate occupant uptake.

4.2 Internal Site Layout

The overall development will be arranged as follow:

- 60No. house units located at the centre, northwest and west of the site
- 2No. apartments block with a total of 20No. duplex units and 38No. apartments located east and southwest of the site
- 3No. student accommodation buildings comprising a total of 283No. bedrooms to the southeast of the site
- A creche located northeast of the site
- An overall of 200No. car parking spaces
- 519No. bicycle parking spaces
- 2No. vehicular entrances

Figure 4.1 overleaf shows the proposed site layout to the whole scheme.

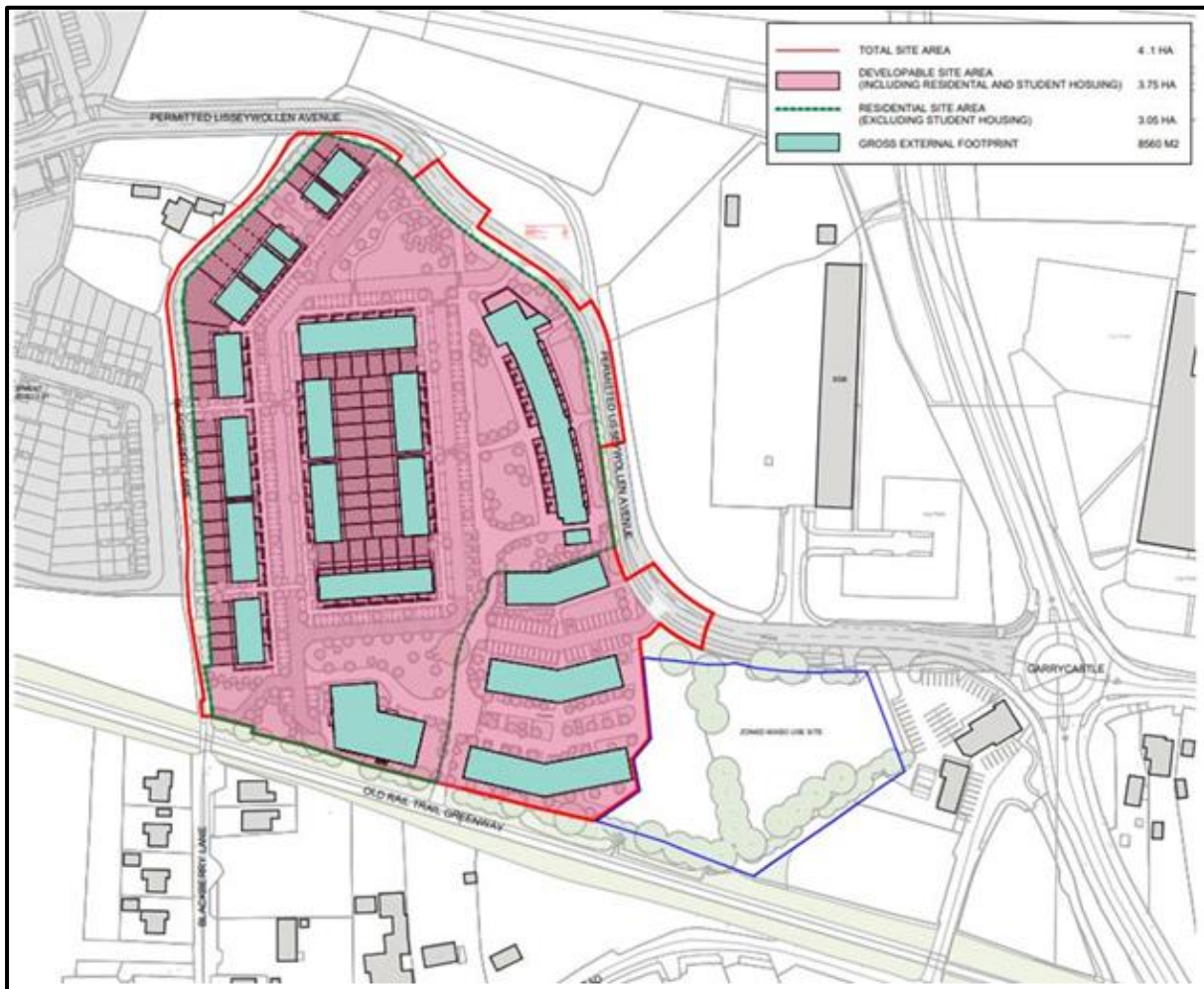


Figure 4.1 – Site Layout Plan (Source: Henry J Lyons)

The proposed internal road network for the scheme will have the provision of a number of uncontrolled crossing points across the site to offer safety to the residents and road users. A total of 2No. vehicle entrances are proposed for the scheme, 1No. to the north of the site which will cater for the houses and apartments and 1No. to the east of the site which will cover the student accommodation.

The Lissywollen South Framework Plan states in the objective O-AM4: *“To promote and support a culture of sustainable travel in conjunction with the local schools and TUS, whilst maximising the user potential of the Old Rail Trail”* and in the objective O-AM5: *“To provide an integrated and permeable network of streets with high-quality pedestrian and cycle networks, maximising linkages within the area, to the Old Rail Trail and to the wider environs”*.

In this regard, the proposed development includes the implementation of footpaths, cycle lanes and as stated previously a number of uncontrolled crossing points to give vulnerable users priority throughout the site. Additionally, as stated in section 2.1, the development will have the provision of 9No. dedicated pedestrian and 3No. shared pedestrian/cycle entrances

to the site, which will integrate the proposed development to the existing network, with the objective of maximising the walking and cycling within the future residents.

Furthermore, the site will offer 519No. bicycle parking spaces which will be secured, and weather proofed. When combining bicycle storage and the cycle lanes, the development aims to increase the cycling attractiveness for residents of the Green Quarter development.

Figure 4.2 details how the proposed scheme will integrate vehicular, pedestrians and cyclists' entrances to the existing road, pedestrian and cycle network.

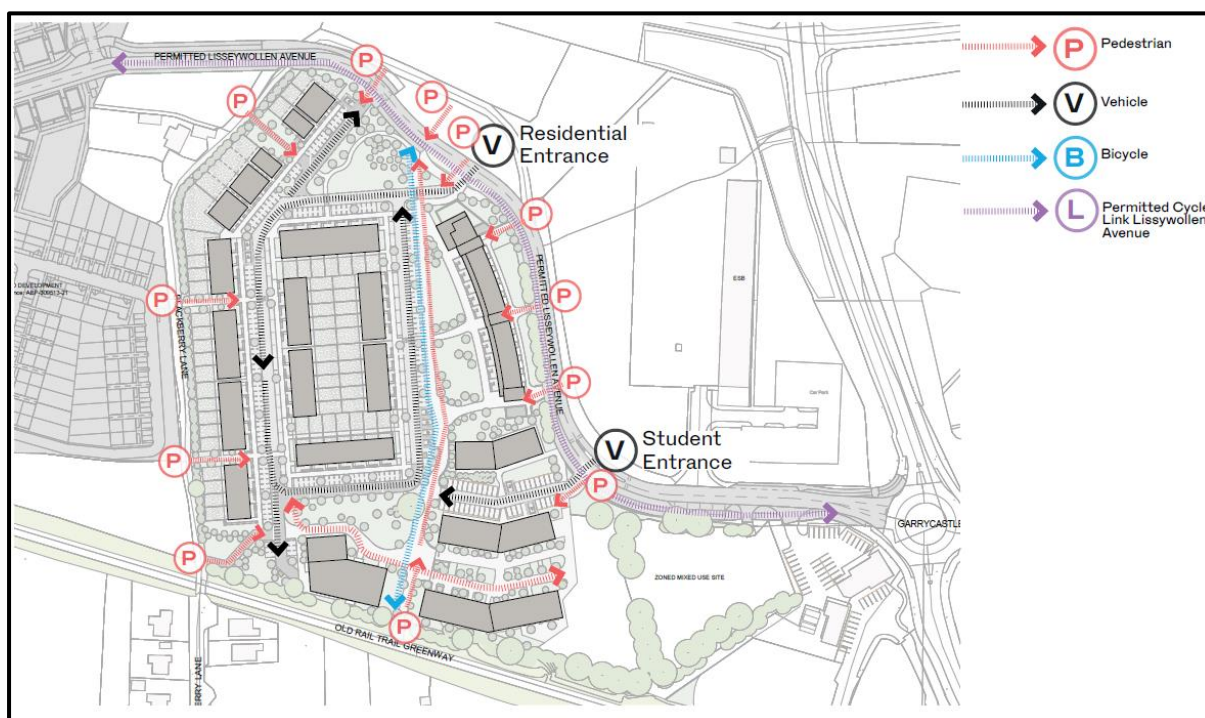


Figure 4.2 – Pedestrian, Cycle and Vehicular Routes

4.3 Site Access and Setting

The residential development is located less than 3km away from the town centre and can be easily accessed by public transport, as outlined in Section 4.4.4. It is anticipated that residents will be able to use the public transport available to reduce the traffic load, as well as that, the proposed development is bounded to the south by the Old Rail Trail greenway, which will give the residents the opportunity to cycle to and from the town centre along the greenway, hence avoiding the roads, making it a safer way for cyclists.

The area surrounding the proposed Green Quarter SHD is characterised by industrial estates to the northeast, residential areas, and the Athlone Technological University of the Shannon (TUS) to the south-east and green fields to the west. There is a further development which was granted permission to the west of the site under planning reference ABP-309513-21. This development will consist of 576No. residential units and 2No. creches. Beyond that, lies the Athlone GAA Club, the Athlone Regional Sports Centre and the Athlone Town Stadium which are easily accessed by walking/cycling as shown in **Appendix B & C**.

It can be seen in **Appendix B & C** that the scheme is strategic located, which will provide the futures residents' easy access to key points and several amenities. Several national and secondary schools are located within 2.3km of the proposed scheme. The TUS is accommodated 0.85km south of the site and 2No. large centres of employment are located between 0.5-0.8km northeast and southeast of the site. Furthermore, there are several shopping units located in the town centre, which is approximately 2.4km southwest of the site.

Appendix B & C details the proposed site location in the context of the aforementioned locations. These Appendices also detail the existing pedestrian and cycle infrastructure surrounding the site which residents can avail off that will offer safe means of sustainable travel for commuters, local trips to school, to the TUS, the sports facilities, or recreational areas.

The Granted Lissywollen Avenue is also clearly marked in the above Appendices which was set out as a main objective (O-AM1) of the Lissywollen South Framework Plan: "*a new east-west link road and extended east-west Lissywollen Avenue in the form of an urban boulevard linking unifying all parts of the plan area.*" The permitted Lissywollen Avenue will unlock and provide to the residents' permeability throughout the Lissywollen area and also reduce the travel time from the proposed development to locations west of the site.

As stated in Section 4.2 above, the proposal includes for 9No. dedicated pedestrian and 3No. shared pedestrian/cycle entrances. With these features, in conjunction with the strategic location of the site, the proposed and existing transport infrastructure, the development will provide excellent opportunities and availability to future residents to shift and adopt to sustainable forms of transportation.

4.3.1 15-Minute City Concept

A concept that has been increasing in the past years is the '15-Minute City', which is a residential urban concept that means that features within the city can be easily accessed by foot or bike in a maximum of 15 minutes journey. **Figure 4.3** below outlines how the concept works.

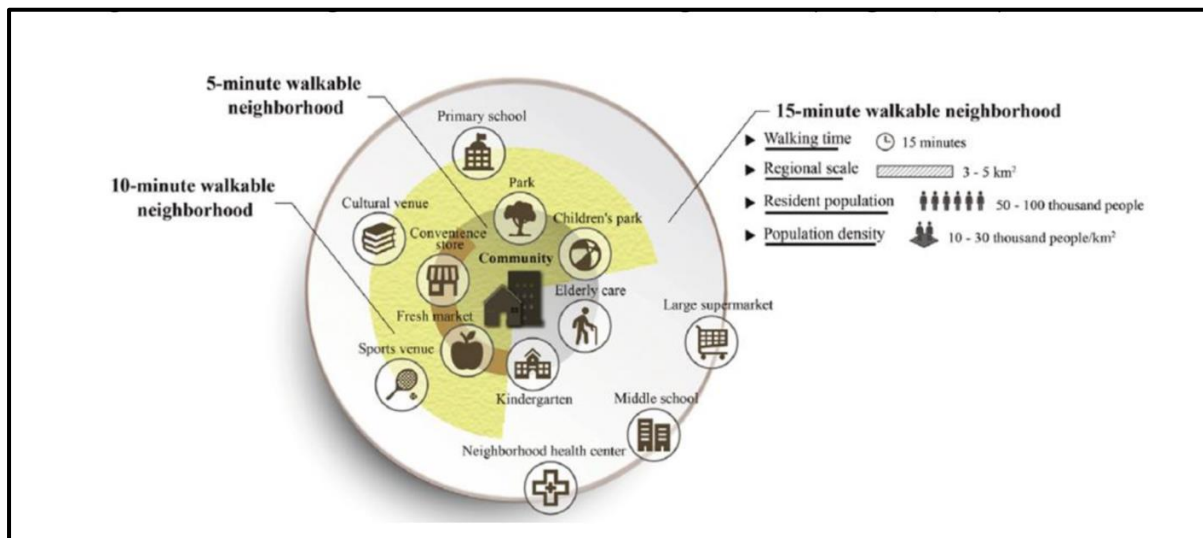


Figure 4.3: 15-Minutes City Concept (Source: University of Waterloo)

The concept was first successfully introduced in Paris, France, and many other cities across Europe have followed. The concept has four key characteristics:

- Proximity: locations must be close to each other
- Diversity: land uses must be mixed to provide a variety of urban amenities nearby
- Density: there must be enough people to support a diverse business in a compact land area
- Ubiquity: the neighbour must be common, so they are available and affordable to anyone who wants to live in one.

According to the key concepts mentioned above and **Appendix B & C**, the proposed development can be considered to be located relatively close to the town centre and is in very close proximity to the TUS to the south, two major employment areas to the northeast and southeast and several schools and leisure locations to the west and will provide future residents with an increased opportunity to walk and cycle for work or school purposes and help reduce the reliance of private vehicles.

4.4 Existing Transport Infrastructure

4.4.1 Road Network

The Lissywollen South area is connected to Athlone town by the Ballymahon Road (N55) and by the Athlone Bypass (M6), both to the north of the development. The regional road R916 lies to the east of the site, connecting Cornamaddy National School to the northeast to Athlone University of the Shannon (TUS), to the southeast. The Old Rail Trail lies on the entire south boundary of the site, which is 42km and links Mullingar town and Athlone. The proposed development will access Lissywollen Avenue once constructed by means of new priority-T junctions, to the northeast and southeast of the site.

4.4.2 Walking

The proposed development is located within Lissywollen South, an area under expanding growth to the east of Athlone town. As described in Section 4.4.1, the site is bounded by national, regional and local roads which will easily link the proposed development to the town. All roads located in the immediate vicinity of the proposed residential development include the provision of footpaths along both sides of the carriageways, with designated pedestrian crossing points with dropped kerbs.

All the roads in the vicinity of the proposed development are flanked by a landscaped verges between the roadway and the footpath, providing a buffer zone between pedestrians and vehicles.

There are industrial parks, shops, schools and the Athlone Technological University of the Shannon (TUS) located within 1km – 1.5km away from the site, as shown in **Figure 4.4** overleaf. The development site provides 9No. dedicated links to existing pedestrian's facilities and 3No. shared walking/cycling entrances making walking and cycling a feasible and attractive option for residents and students alike.

Furthermore, the proposed development will provide a great opportunity for walking and cycling due to its proximity to the Old Rail Trail greenway leading to the town centre and train station. Parking at the train station is very limited and expensive, which would encourage residents of the proposed development to walk or cycle instead of driving their private cars. An additional fact to consider is that the geographical spread of the proposed residents is unknown at this point hence it is unclear where they would have to commute to. The location of the residential development would also benefit secondary students, who could walk from the houses to the schools, located within a short walk from the development.

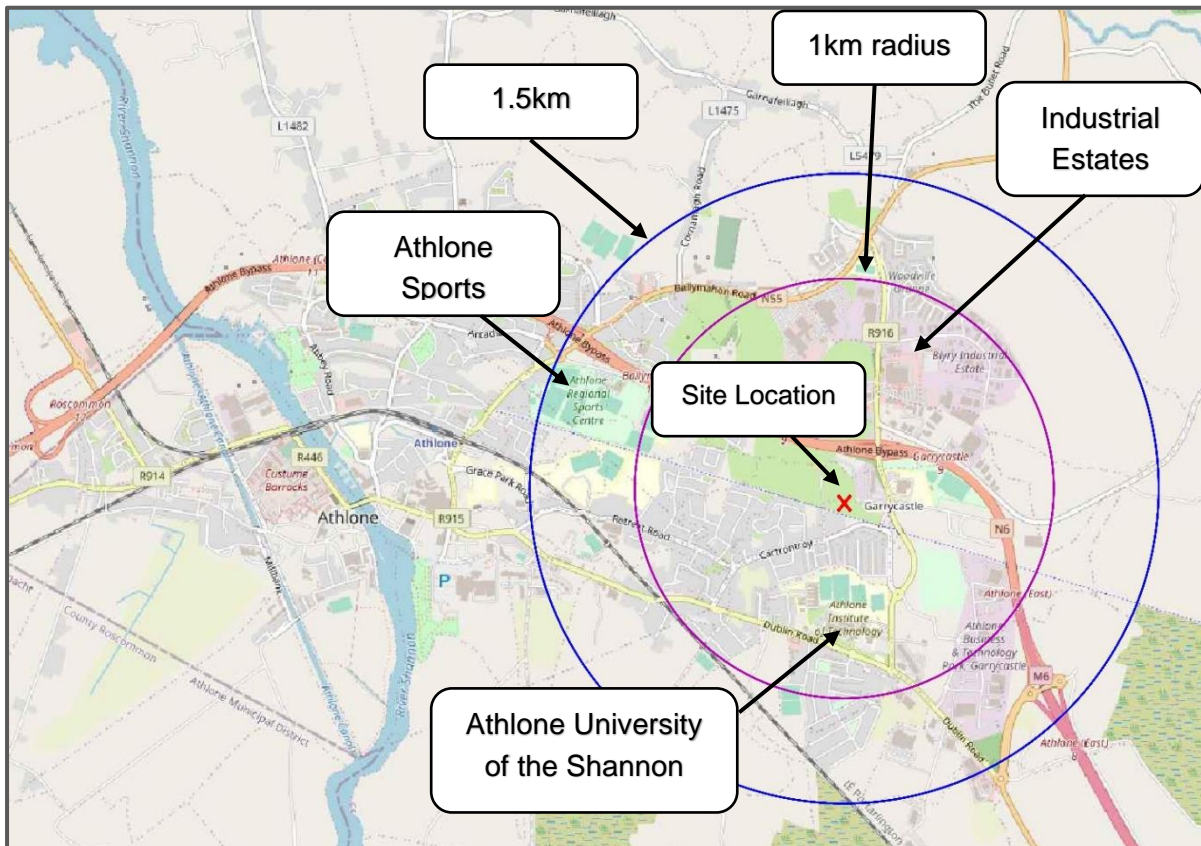


Figure 4.4: Catchment Radius from Proposed Development.

4.4.3 Cycling

The Regional Road R916 are well served with dedicated cycle lanes along both sides of the carriageway, connecting the industrial estates to the north and TUS to the south. There is a greenway immediately to the south of the development which provides safe linkages to schools, to the sports centre, and to the town which would be a better alternative for cyclists rather than utilising existing roadways with motorists.

As stated in Section 4.2, the proposed scheme will offer resident's a north-south cycle spine which will link Lissywollen Avenue to the existing greenway to the south of the development. The proposal will also include the provision of 519No. bicycle parking spaces, to promote and facilitate cycling as a means of transportation for future residents.

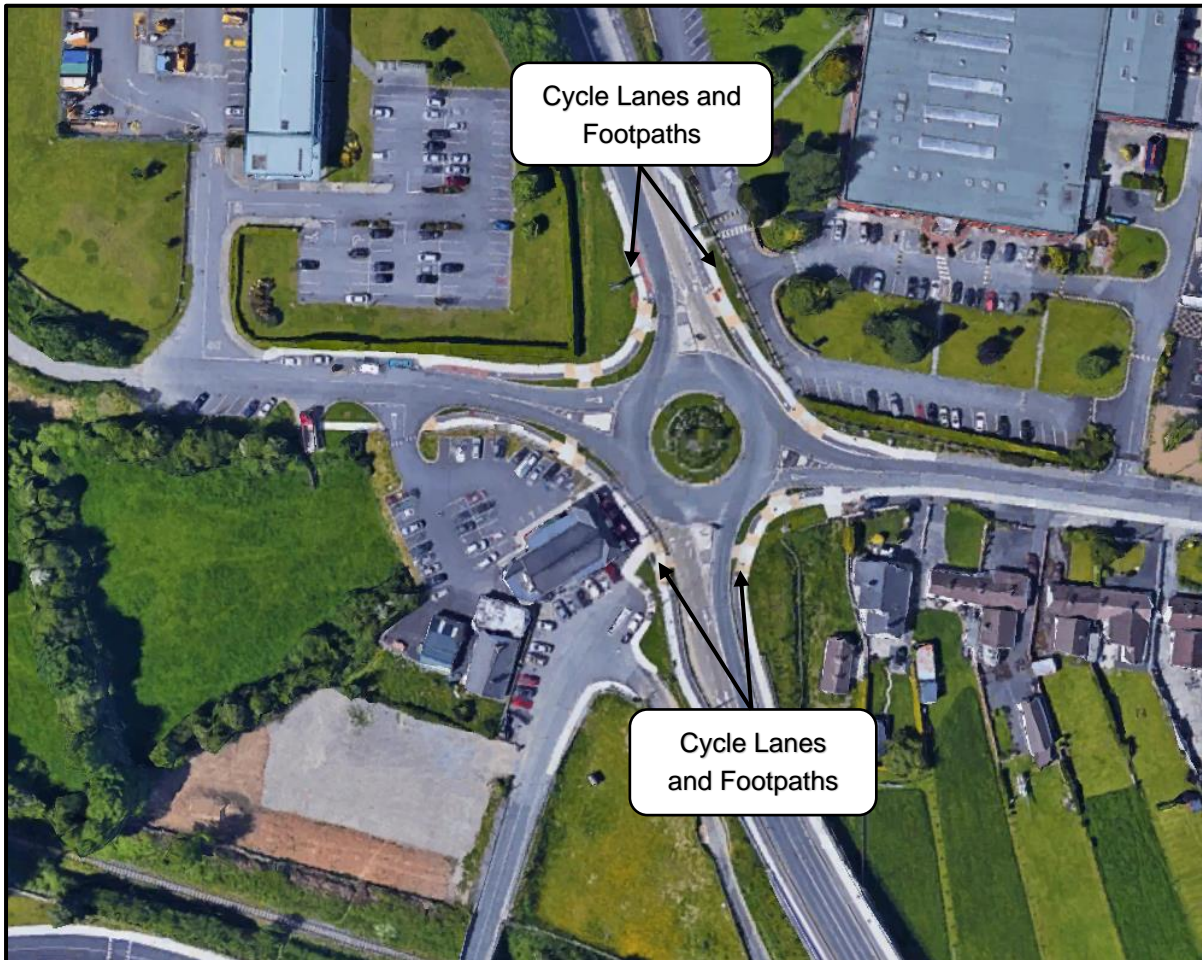


Figure 4.5: Cycle Network in the Vicinity of the Development (Source: Google Earth)

4.4.4 Bus Services

The Athlone town is described as a national hub for public bus services, according to the Athlone Development Plan. Due to its location, Athlone is served by buses to and from Dublin, Galway, Westport, Sligo, Belfast, Tuam, Dundalk, Roscrea and Waterford. **Table 4.1** overleaf summarises the bus routes connecting Athlone to the above-mentioned towns.

Table 4.1 – Bus Services Available in Athlone (Source: TFI)

Route	Bus Operator	Distance	Origin	Destination	Weekday Services
20/X20	Bus Eireann	1.2 km	Dublin	Galway	7
65	Bus Eireann	2.7 km	Galway	Monaghan	2
70	Bus Eireann	1.2 km	Galway	Dundalk	3
72	Bus Eireann	1.2 km	Limerick	Athlone	3
73	Bus Eireann	1.2 km	Waterford	Athlone	2
440	Bus Eireann	2.7 km	Athlone	Westport	4
461	Bus Eireann	2.7 km	Athlone	Roscommon	1
466	Bus Eireann	2.7 km	Athlone	Longford	2
763	Citylink	1.2 km	Galway	Dublin	8
818	Flagline Coaches	2.5 km	Athlone	Tullamore	4

Appendix D below displays the bus services available within Athlone and can potentially be used by the future residents of the development.

Athlone has also two local bus services, A1 outlined in blue and A2 outlined in green, which offers buses from Monday to Friday every 30mins from 7:00am to 8:30pm, and on an hourly basis Saturdays and Sundays. Both routes share the same start and finish, however, as can be seen in **Appendix D**, the routes reach different parts of the town.

The closest bus stop to the proposed Green Quarter SHD is on the regional road R916, 400m east from the proposed development, which serves for bus route A2. For route A1, the closest bus stop is at the southeast, 650m away from the pedestrian southern entrance to the development.

The proposed development will have the provision of a 2No. bus stops to cater for the future residents and the surrounding area. It is intended to install these bus stops to the north and east of the site on the permitted Lissywollen Avenue as agreed with the NTA. Consequently, the proposed site aims to encourage the use of public transport with the introduction of a new A2 route along Lissywollen Avenue once constructed.

4.4.5 Rail Services

The Athlone rail station operates three routes: Dublin Heuston – Galway, Dublin Heuston – Westport and Ballina and Galway – Limerick with trains operating these routes several times a day. The station is located 2.1km west of the proposed site. Cycling to the station is approximately 9 minutes through the Old Rail Trail Greenway, which is the most feasible option for residents, while a walking journey is estimated at 28 minutes. The station can also be reached by public transport, bus service A2, which takes approximately 22 minutes from the proposed development.

The Westmeath Development Plan states that it is of strategic importance to promote public transport interconnectivity, providing important cross-links between towns. **Figure 4.6** details these link as part of the new Westmeath Development Plan 2021-2027.

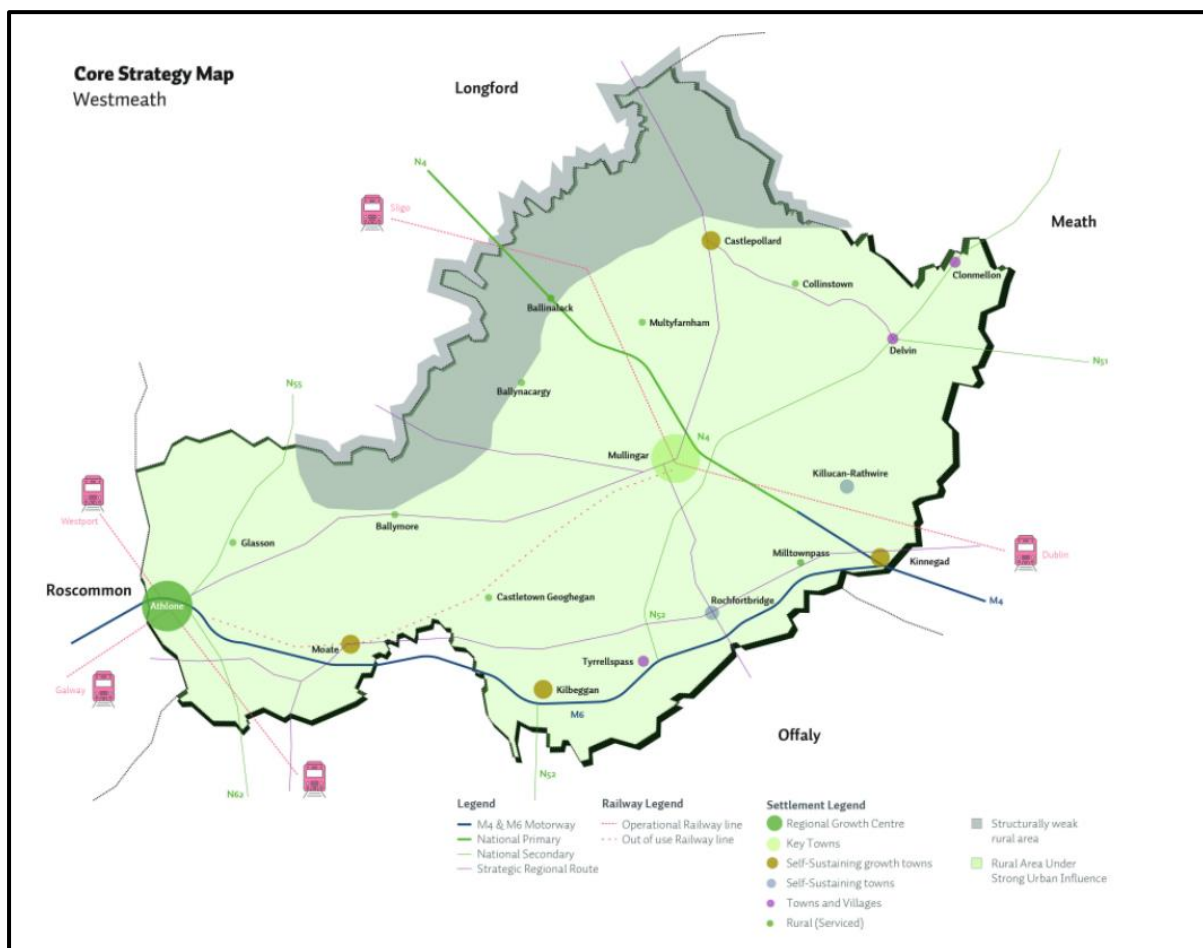


Figure 4.6: Core Strategy Plan for Westmeath (Source: Westmeathcoco.ie)

4.4.6 Car-Sharing

There is one major car-share service in Athlone, called GoCar. The competitive advantage this company holds over traditional rental companies is that customers can rent vehicles by the hour rather than the standard day rate. To make use of this car rental system, future

residents can either use the company’s website or app. Once a member users need only to unlock the car through the app or website and they will be able to use the vehicle, which is insured, with sufficient fuel and also has parking tickets included. Such initiatives reduce the requirement of owning a private vehicle, as future residents can rent cars even for short trips.

There will be 2No. extra locations of GoCar located west of the development, at the Alannah Roadbridge development, which future residents of the proposed Green Quarter SHD could also avail.

Figure 4.7 below shows the locations where a vehicle can be found in the town.

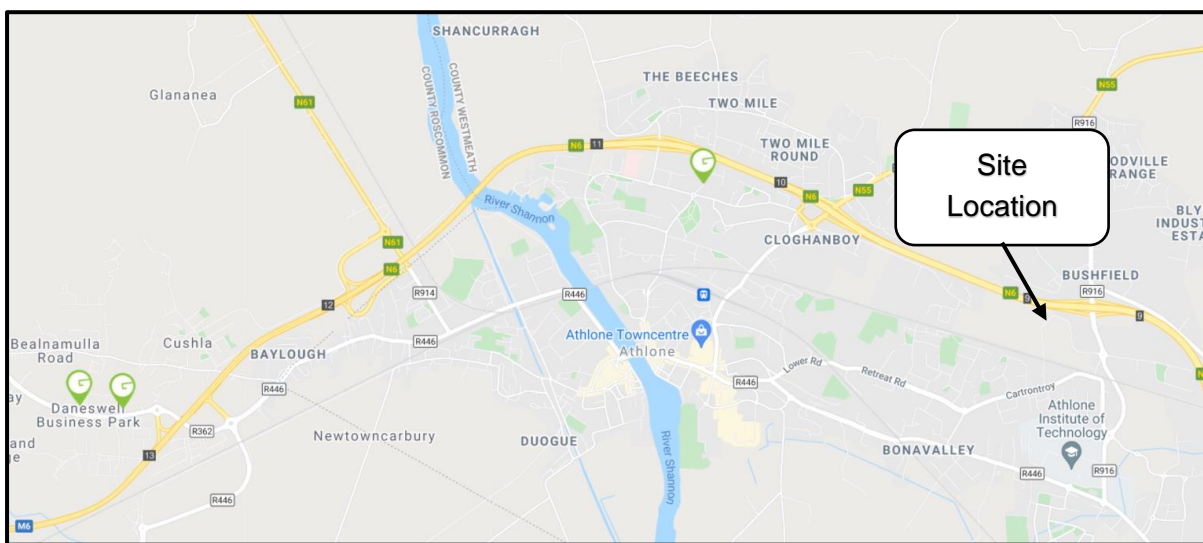


Figure 4.7: GoCar availability within Athlone town area (Source: gocar.ie)

4.5 Proposed Transport Infrastructure

As the site is located within the Athlone town centre area, under the Lissywollen South Local Area Plan, the proposed development maintains a high-level focus on the integration of the land-use and transport by connecting the site to the various public transport options available throughout the town. **Figure 4.8** overleaf and Sections 4.4.4 and 4.4.5 summarise the extensive connectivity Athlone offers regarding public transport.

The permitted Lissywollen Avenue will be constructed as an urban boulevard, which will provide a degree of passive traffic calming measures and design for pedestrians, cyclists and bus priority. The project will be funded by the Local Infrastructure Housing Activation Fund (LIHAF), where €1.83 million were projected towards the delivery of this access roadway. Once the Lissywollen Avenue project is completed, the travel times from the development to the west of the site will be significantly decreased, hence offering advantages to the future residents of the development. The permitted Avenue is due to be delivered in conjunction to the Alanna Roadbridge development and is due to commence in 2022.

The Lissywollen Framework also comments on the North-South route which is proposed to connect Retreat Road to Lissywollen Avenue, via the Old Rail Trail greenway. The North-South route, outlined in orange on **Figure 4.9**, will aim to provide important new linkages for

public transport, cyclists and pedestrians, as well as access improvements to the Regional Sports Centre and local schools once built.

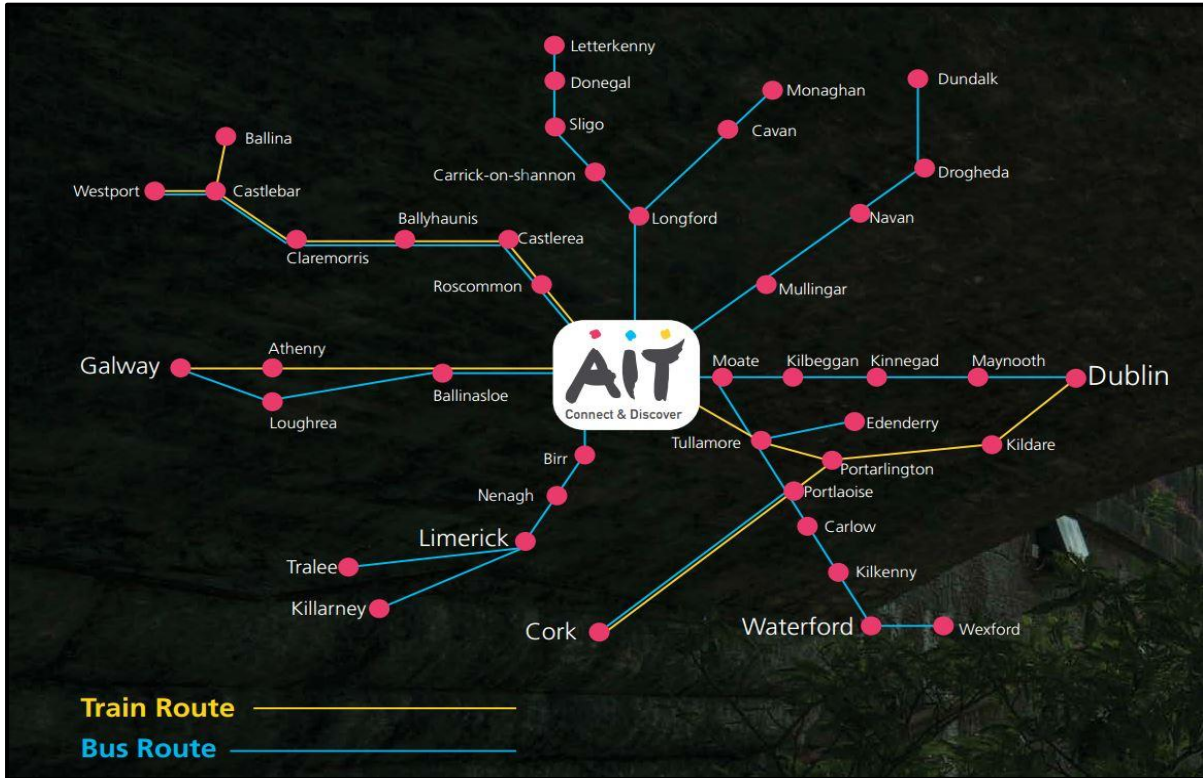


Figure 4.8: Public Transport Available in Athlone (Source: TUS)

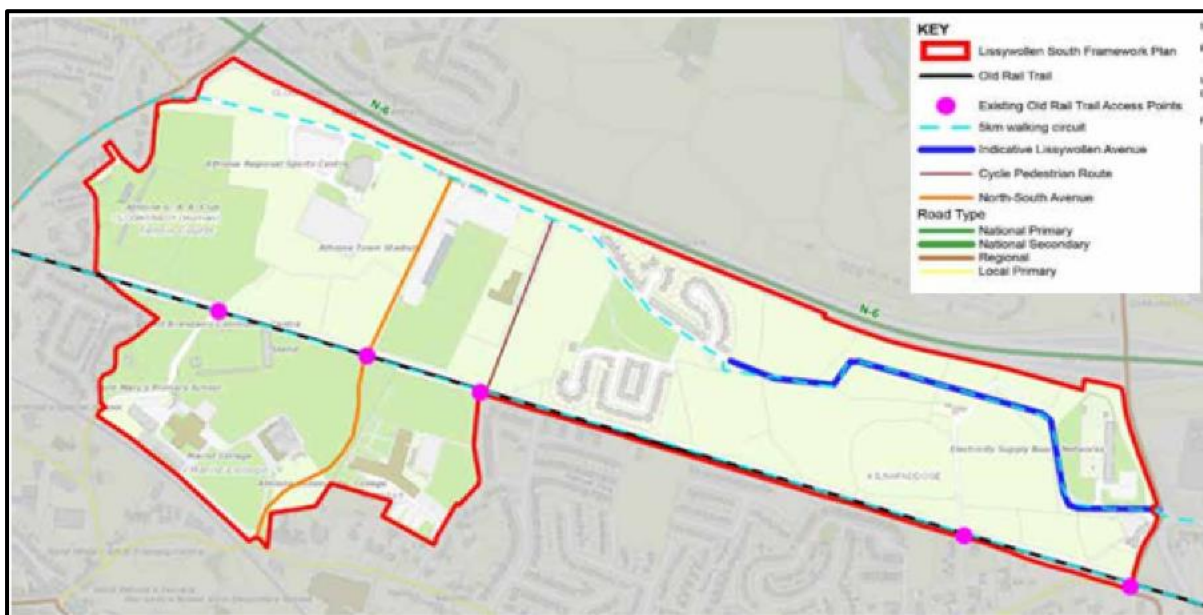


Figure 4.9.: Proposed Cycle/Pedestrian Route (Source: Lissywollen SFP)

One of the main objectives of the Athlone Development Plan 2014-2020 is to improve the existing bus and trains services in the town. To achieve this, existing fleets will need to be

increased, including new transport routes by public and private operators throughout Athlone and to provide improved bus services connecting Athlone to Mullingar and Tullamore. This will also include the provisions of bus priority measures, bus interchanges and park and ride facilities.

In addition, the proposed development will install 2No. bus stops to the north and east of the site. The proposed set-downs are to cater for the A2 local route and to run on the proposed Lissywollen Avenue, as can be seen in **Appendix D**.

The Athlone Development Plan also provides several objectives to improve walking and cycling throughout the town, with one of the main objectives to further develop an integrated cycle network. The Old Rail Trail will form part of the first coast-to-coast greenway that will link Dublin to Galway, and it is aimed to be fully constructed in the coming years. Also, part of the future infrastructure regarding walking and cycling, it is intended to provide designed pedestrian and cycling infrastructure throughout the town, in order to promote walking and cycling as efficient, healthy and environmentally friendly modes of transport.

In conjunction with the ADP, Lissywollen South Framework Plan stated on the objective O-AM8 *“to provide for a bus service to serve the plan area.”* Once more routes and improved services are available to the community, the attractiveness of this means of transportation may increase, consequently decreasing the load of private vehicles on the public road.

5 Action Plan

5.1 Background

In order for the mobility management plan to be implemented successfully, it is important that management of the proposed multi-use development make residents aware of the local public transport and the benefits of reducing the traffic load on the surrounding road network.

The design and implementation of safe infrastructure is a key component to ensure sustainable transport options are attractive to residents. This action plan outlines several strategies to encourage the uptake of more sustainable methods of transport and reduce car journeys by residents of the proposed development, reducing the associated burden on both the surrounding development and the environment.

5.2 Walking

Walking is one of the most beneficial activities people undertake on a day-to-day basis. Walking is a great way for residents to engage, make friends and enhance the sense of community at the proposed development. In addition, there are public bus services operating within walking distance of the proposed development. Some of the main benefits to walking are as follows:

- Research has shown that people who walk to work are more aware of the green cross code and road safety issue
- The more people that walk rather than drive will result in fewer cars in the vicinity of the proposed development leading to a safer environment
- Studies have shown that people who walk to work are more alert than those who do not especially early in the morning
- Walking to work provides an excellent platform for friendships to be formed between people
- Walking reduces the development's carbon footprint and enhances sustainability
- Walking is an excellent activity to increase overall fitness and studies have shown that people that incorporate walking into their daily routines benefit from an increased feeling of well-being.

The location of the proposed Green Quarter SHD is considered relatively close the town centre of Athlone, approximately 16 minutes from the Athlone Regional Sports Centre via greenway and an estimated 14 minutes' walk to the Athlone University of the Shannon (TUS) via R916. **Appendix B** shows walking distances from the proposed development, for 10, 20 and 30 minutes. The proposed development also has easy access to the regional road R916, which links the site to the industrial estates to the north of the development. An approximate 25 minutes' walk will reach all industrial estates in the area.

With the permitted Lissywollen Avenue and once the North-South route is completed, the travel times from the development to nearby locations will be reduced, which will increase the attractiveness of walking and cycling to and from the development by future residents.

The old rail trail is a greenway that links Athlone to Mullingar alongside the disused rail tracks, and in the coming years, the greenway will be part of the major coast-to-coast greenway connecting Dublin to Galway. The greenway is currently 42km and has many entry and exit points, which enable its users to explore nearby towns and villages along the way. The proposed development will have a shared pedestrian/cyclist entry just at the greenway, to the south of the development and a pedestrian linkage off Blackberry Lane to the west, representing a great opportunity to provide a safe and attractive route to residents, linking the proposed development to the town centre and Mullingar.



Figure 5.2: Old Rail Trail Greenway (Source: Athlone.ie)

5.2.1 Incentives to Encourage Walking

With a view to encourage walking to the development, this mobility management plan proposes to introduce several challenges and incentives to capture the attention of residents. Such measures/challenges include but are not limited to the following:

- The introduction of walking clubs: these will encourage residents to support each other, and lead to more walking in groups to and from the proposed multi-use development
- Organise a pedometer challenge among residents: systems like this encourage a friendly rivalry between participants and can lead to friendships being formed.

5.3 Cycling

Cycling is an excellent activity to improve overall fitness. It is one of the fastest ways for an individual to travel, aside from using public and private transport, and raises the level of road safety awareness and it is the third most popular activity in Ireland. Some of the main benefits of cycling are discussed below.

- Cycling will have monetary benefits / savings to those who cycle as opposed to using their private cars as fuel costs will be reduced
- Cycling provides people with the platform to become independent and not reliant on traditional forms of transport to reach their destination
- Cycling is enjoyable and is a fantastic recreational activity

- Cycling is an excellent way to explore the local area and become more aware of the wider community
- If more people cycle as opposed to driving, there will be less traffic congestion thus resulting in a safer route network
- Cycling is an excellent way to make friends, particularly when cycling in groups
- Cycling is an excellent activity to do on a regular basis and improves overall fitness.

The promotion of cycling to and from the proposed Green Quarter SHD is key to increasing the attractiveness of this sustainable form of transport. The proposal also includes for the provision of 519No. bicycle parking spaces within the proposed development site. The site will also benefit from the high-quality cycleways that will run along Lissywollen Avenue once complete which will enable residents of the Green Quarter SHD to cycle safely in all directions from the site.

The site will be connected to the R916 to the east of the development, which is well served with cycle lanes, connecting the site to different parts of Athlone town, and offering a direct link to the TUS. **Appendix C** shows Cycling distances from the proposed development, for 5 and 10 minutes. Due to its proximity to the town centre, cycle distances from the development are considerably short, with the town centre only a 10 min cycle and Athlone Train Station about 8 mins. It will not take more than 15 mins cycling to go from the residential development to any secondary school in town, which will enable students living in the residential development to cycle to school and to the campus.

5.3.1 Incentives to Encourage Cycling

With the aim of encouraging cycling as a mode of transport, this mobility management plan proposes to introduce a number of challenges and incentives to capture the attention of residents. Such measures/challenges include but are not limited to the following:

- Organise training days on the rules of the road and how they apply to cyclists
- Organise bike maintenance training talks
- Encourage participation in local bicycle or triathlon clubs
- Invite bike suppliers for a “try before you buy” demonstration to residents
- Consider organising a bicycle pool for residents where shared bikes are available.

5.3.2 Cycling Clubs

Cycling clubs are a great way of meeting new people while maintaining and improving your fitness. Most cycling clubs put together organised group rides weekly or monthly for cyclists of various skill levels. It is the perfect way to discover new routes, new riding buddies, improve your group-riding skills and connect with fellow cyclists in a social setting. You can also learn things from other cyclists like bike repair tips, workout ideas and other secrets to improve your cycling.

5.4 Public Transport and Incentives to Use Public Transport

As stated previously in Sections 4.4.4 and 4.4.5, Athlone offers a great variety of bus and rail

services, which enables residents to commute to a good range of towns as well as two local bus services. In order to encourage the use of public transport, this mobility management plan proposes to introduce various measures to entice residents to avail of public transport.

- Providing bus timetable information for residents
- Publicise the availability of Real Time Information. Real Time Information shows when your bus is due to arrive at your bus stop so you can plan your journey more accurately
- A ‘buddy’ system for residents travelling to/from similar work/school locations
- Providing information at common areas for taxi services serving the local area.

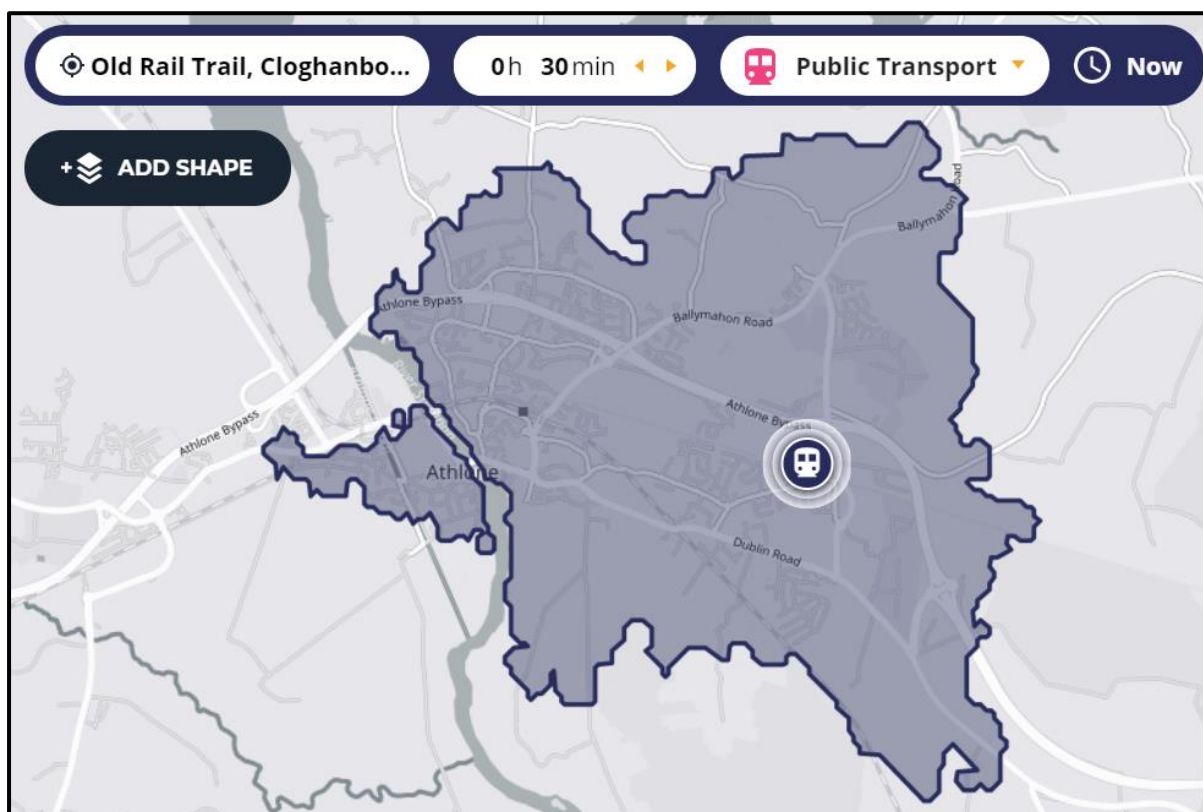


Figure 5.3 –Travel time to the multi-use development by public transport (Source: traveltime.com)

The nearest bus stop for the local bus service is only a 5 min walk from the development, on the east side, on the regional road R196. The train station is located to the west of the site, and it is 28 mins walking away from the proposed development. However, as mentioned above, the permitted Lissywollen Avenue and once the infrastructure project named North-South route is concluded, the travel distance from the development to the train station will be reduced and 2No. additional bus stops will be located along Lissywollen Avenue, which will serve the local route A2.

5.5 Car-Sharing

Car-sharing, also known as carpooling, has been introduced all over the world which has proven to be a successful measure in reducing vehicular traffic. Every day people travel to work, school, etc. and many people near each other make their own individual trips by private vehicle. The main benefit of introducing a carpooling system is that people can share their vehicles thereby reducing the overall number of vehicles to and from the residential development at peak times. By carpooling just once a week, studies have shown that commuters fuel costs can be reduced by up to 20%, and when doing so regularly, emissions can be reduced by 4% to 5%. Furthermore, the reduction of vehicular traffic results in a net decrease in the demand for car parking spaces.

For carpooling schemes to be effective, it is essential that residents and the residential coordinate to ensure that the occupancy of a vehicle travelling from the proposed residential development is maximised. This can be done in a number of ways; however, the most effective way of coordinating the process is to map where each resident works/study and designate drivers to give them a lift on designated days.

The residential management company could also make carpooling software available to residents. This particular software can be used by residents' phones where their information is recorded, and potential matches are automatically generated based on work/school schedule and preferences. This method generally provides greater security, ensuring privacy for participants and enhanced matching facilities.

5.5.1 Incentives to Encourage Car-Sharing

In order to encourage carpooling in the multi-use development, this mobility management plan proposes to introduce a number of incentives to entice residents to embrace the scheme.

- Ensure the most convenient car parking spaces are reserved for residents who carpool
- Make clear that drivers will not have to go out of their way to pick up a person who is not on their desired route
- Promote the financial benefits of the scheme
- Promote systems whereby those who are given a lift share in fuel costs.

5.6 Car Parking Allocation

The site is proposed to have 200No. car parking spaces, which will be allocated as follows: 157No. spaces for the residential units in a ratio of 1.3 per unit, 4No. spaces for the creche – 2No. drop-off spaces and 2No. for staff – and 39No. spaces for the student accommodation. Traditionally, reduction in car park spaces is considered a good approach to discourage single-occupancy car trips however, such measures are not recommended in the absence of a suitable public transport network within the vicinity of a proposed development.

Based on a review of the current transport infrastructure available to the proposed site, the current network provides a significant level of connectivity with the town centre and other towns near Athlone, with both the bus and rail services.

It is recommended that the current parking space allocation remains in place for the proposed development and that this allocation can be refined in future iterations of the MMP when improved transport infrastructure is implemented.

5.7 Action Plan Summary

This Action Plan Summary describe a range of “hard” and “soft” measures set to this MMP, in which hard measures involve a physical approach and soft involves a behavioural approach. Once implemented, these measures will facilitate the shift into a more sustainable way of travel. Therefore, it can be summarised as follow:

Soft measures (behavioural):

- Introduce pedometer challenges between residents
- Introduction of walking clubs
- Introduce cycle challenges
- Provide road safety and bicycle maintenance seminars
- Post bus routes and timetables on common areas across the development
- Post information on costs, commuter tickets / multi-trip reductions
- Raise awareness of well-being, environmental and cost-saving benefits of carpooling
- Provide a platform to connect residents travelling to similar routes
- Encourage the use of sustainable ways of transportation
- Promote within the residents the introduction of working from home scheme with their employees
- Make residents aware of the cycle to work scheme.

Hard measures (infrastructural):

- Identify unsafe locations along the route and liaise with the Local Authority to rectify
- Provide safe, secure, covered bicycle parking throughout the site
- Introduce bike to rent scheme
- Reserve the ‘best’ parking spaces for car-sharing residents who car-pool
- Provide designated parking for e-vehicles
- Introduce car-pooling scheme amongst residents
- Develop a car parking strategy.

In **Table 5.1** overleaf, indicative figures are provided for target modal splits for the next three years after the development is complete. Modal Split Targets was determined following the census survey as discussed in Section 3.2, the actual Modal Split Targets will be determined following the first residents’ survey shortly after the development is constructed, typically within the first six months. The table shows existing travel patterns within the Athlone Settlement Area with realistic targets set achieved by the development.

Given the iterative nature of Mobility Management Plans, this table should be revisited periodically following the completion of future travel and transport surveys issued by the residential’s Mobility Manager.

Table 5.1 – Action Plan Summary

Transport Mode	Travel Distance	Target Modal Split	Key Incentive Mechanisms
Walk	2-3 km	22%	Introduce pedometer challenges
			Introduction of walking clubs
Cycle	5-10km	6%	Introduce cycle challenges
			Organise bike maintenance training talks
			Encourage participation in local bicycle or triathlon clubs
			Invite bike suppliers for a “try before you buy” demonstration to residents
Public Transport	10-50km	17%	Provide road safety and bicycle maintenance seminars
			Post bus routes and timetables
			Post information on costs, commuter tickets / multi-trip reductions
Car Sharing	10-100km	15%	Introduction of a ‘buddy’ system
			Raise awareness of well-being, environmental and cost-saving benefits
Private Vehicle	10-100km	40%	Provide a platform to connect residents travelling to and from similar routes
			Raise awareness of well-being, environmental and cost-saving benefits of alternatives
			Provide designated parking for e-vehicles

6 Implementation of the Mobility Management Plan

6.1 Background

In order for the Mobility Management Plan to be successful, investment and resources will need to be made available to implement the proposals outlined. The mobility management plan will also need to be reviewed periodically to assess how the proposals are being received by the residents and to determine realistic targets for the plan.

Setting realistic targets is vital to the success of the mobility management plan, as is ensuring that its proposals are embraced by residents. It is important that realistic targets are set out early and that promotion drives are undertaken to help ensure that targets are met.

6.2 Mobility Management Plan Coordinator

The main target of this Mobility Management Plan is to ensure that the traffic impacts associated with the day-to-day operations of development are minimised. Achieving this target will result in a wide range of benefits to the daily operation of the development and wider community.

For the Mobility Management Plan to be successful, it is essential that a mobility management coordinator is appointed to monitor the progress of the plan on an ongoing basis. The coordinator and assistant coordinator are to be confirmed when the proposed work has progressed.

- Mobility Management Plan Coordinator
To be confirmed
- Assistant Mobility Management Plan Coordinator
To be confirmed

The duties of the Mobility Coordinator will include:

- Conducting travel surveys at regular intervals once the development is completed and operational. These surveys will provide detailed and up-to-date information on travel habits which can be used to develop new strategies that encourage travel by alternate modes
- Implementation of various schemes/plans aimed at encouraging the uptake of more sustainable means of travel
- Acting as an information point for residents
- Negotiating with public transport companies and other service providers
- Branding of the plan
- Ongoing promotion and marketing of the plan through various mediums
- Evaluation and adaptation of the plan in the light of experience.

It is important that the mobility management plan coordinator and assistant coordinator work closely together while promoting the plan on the proposed Green Quarter SHD. The involvement of residents at an early stage will be essential to the success of the plan. ORS recommend that the Mobility Management Plan coordinators consult with residents and

management to discuss the strategy for the implementation of the plan. This may help to spread the workload involved in implementing the plan and provide a platform for feedback to be presented.

Vital to the success of the mobility management plan will be ensuring that sufficient time and a suitable budget is available to implement the measures discussed in this plan.

The main roles and responsibilities of the mobility management plan coordinator are detailed in the following sections.

6.2.1 Promoting the Mobility and Management Plan

Promotion of the sustainable forms of transport discussed in the mobility management plan is required to ensure that the attitudes of residents are impacted. It is important that the mobility management plan coordinator recognises the needs of residents and the areas where they may be willing to change their attitudes to travel. This information can be obtained by issuing questionnaires.

It is important that the mobility management plan coordinator leads by example by embracing the proposals of the plan in their daily routine.

6.2.2 Management and Review

Management and review of the mobility management plan are vital to track progress and determine realistic milestones in the implementation of the plan. It is recommended that the travel patterns of residents are reviewed on an annual basis. ORS have compiled a questionnaire which is attached in Appendix A of this report which will provide the mobility management plan coordinator(s) with all the necessary information to review travel trends at the development. It is recommended that this questionnaire, or a similar online version, is issued annually to monitor and track travel pattern changes amongst residents. ORS would also suggest leaflets and information booklets to be produced to make dwellers aware of the mobility management plan and what it intends to achieve.

This will allow the mobility management plan coordinator to track progress in terms of milestones and adjust the milestones that are set too high or too low. It will also ensure that changing travel patterns are taken into account to ensure that the plan continues to reflect the needs of the users.

7 Conclusions

7.1 Key Findings

Baseline information was collected from several publicly available sources to demonstrate the viability of different modes of sustainable transport within the vicinity of the site. The present-day scenario for each mode of transport was determined as follow:

- **Private Vehicle:** The Green Quarter SHD is located in relatively close to the town centre of Athlone, Co. Westmeath, which offers great connectivity to several regional and national roads that connect the town to various locations across the country. The site is adjacent to the N6 motorway, which links Athlone to Galway to the west and Dublin to the east.
- **Walking:** The development will be benefited by the existing high-quality footpath network in the area which includes dedicated crossing points with dropped kerb and provision of tactile paving. Walking is a feasible option for residents who work or study nearby. The introduction of the two major projects, the permitted Lissywollen Avenue and the North-South route will increase the pedestrian connectivity to the multiple amenities located near the development. Students will be able to access the TUS via R16, which is a 10-15 min walk from the site.
- **Cycling:** The R916 has the provision of dedicated cycle lanes along both sides of the road. Lissywollen Avenue will connect to the R916/Moydrum Road roundabout to the east and to Brawney Road to the west with a cycle lane to one side of the road. Students are provided with extensive cycle infrastructure connecting the site to the University, via the R916, which is a 5 min journey.
- **Bus Services:** There is an extensive level of service provided by bus services connecting Athlone to various other locations across the country as well as two local bus services. The site will include 2No. bus stops in the site to help increase the uptake of public transport among residents.
- **Rail Services:** The Athlone train station is located less than 30 minutes from the site and offers 3No. routes with several trains throughout the day.

7.2 Recommendations

- Mobility management is an ongoing process over a number of years with the end target being reduced vehicle numbers arriving and departing from the proposed residential development. Sustainable transportation should be embraced by the residents and not be seen as a chore. This report assists in providing alternative modes of transport and incentives to help promote the uptake in such forms of transport. It should be noted however that the actual monitoring and review of the initiatives proposed in this plan will be a far greater part of the mobility management plan itself.
- Essential to the success of the plan is the appointment of a mobility management plan coordinator for the proposed development. The mobility management plan coordinator will be responsible for implementing the measures discussed in the plan and should be granted sufficient time and resources to help ensure the plan is a success.

- The mobility management plan mainly focuses on the travel attitudes of residents, and it is essential to the success of the plan that this group is consulted from the outset. Successful coordination of tasks and communication could also be transferred to residents if they are consulted from the onset of the implementation of the plan.
- The plan will evolve and develop with the premises, taking into account changing patterns in travel and the new needs of the site users.
- In order to ensure that the plan is effective and up to date it is encouraged that the stakeholder survey attached in Appendix A of this report is issued annually to establish changing travel patterns and targets. It should be noted that failing to meet targets should not be viewed as a failure, particularly in the first years following the implementation of the plan. This period should be used to recognise achievable targets and put forward long term goals.
- The propensity for teaching users of the proposed development to use alternatives to single-occupancy car travel will inevitably depend on the convenience and availability of those alternative networks and facilities. The management can play a role in influencing travel choices by implementing various initiatives to encourage even occasional use of alternative modes.
- The availability of a public transport connection between the proposed development and the catchment areas can make a great difference to modal choice and future modal shift, as can the provision of dedicated safe cycle routes and more bus connections. While the proposed development management will have no control over the provision of such services, they can educate and influence the residents to investigate various options in relation to using existing infrastructure for part or all of their journeys.



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Appendix A – Sample Letter and Questionnaire

Dear Residents,

RE: MOBILITY MANAGEMENT PLAN QUESTIONNAIRE

The Local Authority has requested that we prepare a mobility management plan to assess the transport situation at The Green Quarter SHD at Cartronroy, Kilnafaddoge and Lissywollen (townlands), Athlone, Co. Westmeath

The first step in the Mobility Management Plan process is to ascertain the current travel patterns of the residents. In an effort to achieve this, a questionnaire has been designed to assess the methods used by the residents to travel to and from their houses.

The attached questionnaire asks a few short questions associated with how you travel to and from the residential development. This questionnaire will take approximately 5 minutes to complete.

In addition, the last question in the questionnaire provides you with the opportunity to bring your comments and observations associated with the delivery of the improvements to the development. As an important member of the development, your inputs and support are vital to the safe operation of our facilities. On this basis, your observations are welcomed and will be thoroughly considered.

Please return your completed questionnaire to me, no later than XX/XX/XXXX.

Thank you for your consideration and support.

Yours sincerely,

Mobility Management Plan Co-Ordinator

Residents Questionnaire

Section 1: Travel Patterns

1. Are you male or female?

Male	<input type="checkbox"/>
Female	<input type="checkbox"/>
Prefer not to say	<input type="checkbox"/>

2. How far do you travel from house to work/school?

Less than one 1 km	<input type="checkbox"/>
1 – 1.9 km	<input type="checkbox"/>
2 – 2.9 km	<input type="checkbox"/>
3 – 3.9 km	<input type="checkbox"/>
4 – 4.9 km	<input type="checkbox"/>
5 km or more	<input type="checkbox"/>

3. How do you usually travel from your house to work/school? (Please tick the most appropriate, or state other)

<input type="checkbox"/>	By private car
<input type="checkbox"/>	By carpool/car-share
<input type="checkbox"/>	By Bus (public)
<input type="checkbox"/>	On foot
<input type="checkbox"/>	By bicycle
<input type="checkbox"/>	By taxi

Other, please state:

4. How do you normally travel from work/school to your house? (Please tick the most appropriate, or state other)

<input type="checkbox"/>	By private car
<input type="checkbox"/>	By carpool/car-share
<input type="checkbox"/>	By Bus (public)
<input type="checkbox"/>	On foot
<input type="checkbox"/>	By bicycle
<input type="checkbox"/>	By taxi

Other, please state:

5. Is there a bus service available to take you to or from your house?

Yes	<input type="checkbox"/>
No	<input type="checkbox"/>
Don't know	<input type="checkbox"/>

6. How far is the bus stop from your house?

0 – 0.5 km	<input type="checkbox"/>
0.6 – 1 km	<input type="checkbox"/>
1 – 1.9 km	<input type="checkbox"/>
2 – 2.9 km	<input type="checkbox"/>
3 – 3.9 km	<input type="checkbox"/>
4 – 4.9 km	<input type="checkbox"/>
5 km or more	<input type="checkbox"/>

7. How far is the bus stop from your work/school?

0 – 0.5 km	<input type="checkbox"/>
0.6 – 1 km	<input type="checkbox"/>
1 – 1.9 km	<input type="checkbox"/>
2 – 2.9 km	<input type="checkbox"/>
3 – 3.9 km	<input type="checkbox"/>
4 – 4.9 km	<input type="checkbox"/>
5 km or more	<input type="checkbox"/>

8. Do you own a bicycle?

Yes	<input type="checkbox"/>
No	<input type="checkbox"/>

9. How many cars are there at house?

None	<input type="checkbox"/>
1	<input type="checkbox"/>
2	<input type="checkbox"/>
3	<input type="checkbox"/>
Over 3	<input type="checkbox"/>

10. If you could choose, how would you like to travel to your work/school?
(Please tick the most appropriate, or state other)

<input type="checkbox"/>	On foot
<input type="checkbox"/>	By bicycle
<input type="checkbox"/>	By bus
<input type="checkbox"/>	By private car
<input type="checkbox"/>	By carpool/car-share
<input type="checkbox"/>	By taxi

Other, please state:

11. If you do not walk or cycle to work/school, what most stops you from doing so?

.....

.....

.....

Section 2: Travelling by Walking/Cycling

12. I like/would like to cycle to/from my house because:

.....

13. How safe is the journey to your house on foot?

Safe	<input type="checkbox"/>
Average	<input type="checkbox"/>
Unsafe	<input type="checkbox"/>
Dangerous	<input type="checkbox"/>

14. How safe is the journey to your house by bicycle?

Safe	<input type="checkbox"/>
Average	<input type="checkbox"/>
Unsafe	<input type="checkbox"/>
Dangerous	<input type="checkbox"/>

15. Do cars and/or buses cause a problem on or near your house grounds?

Yes	<input type="checkbox"/>
No	<input type="checkbox"/>

16. If yes, what problems do they cause and where?

.....

17. Is bicycle storage good enough at present on the residential development?

Yes	<input type="checkbox"/>
No	<input type="checkbox"/>

Section 3: Travelling by Bus/Train

18. When walking to and from the bus stop, how safe do you consider your route to be?

Safe	<input type="checkbox"/>
Average	<input type="checkbox"/>
Unsafe	<input type="checkbox"/>
Dangerous	<input type="checkbox"/>

19. Do you have a bus or train pass?

Yes	<input type="checkbox"/>
No	<input type="checkbox"/>

20. Is pupils' behaviour a problem on your bus?

Yes	<input type="checkbox"/>
No	<input type="checkbox"/>

21. Does your bus sometimes arrive late or leave too early?

Yes	<input type="text"/>
No	<input type="text"/>

22. Is overcrowding a problem?

Yes	<input type="text"/>
No	<input type="text"/>

Section 4: Travelling by Car

23. How many fellow residents usually travel with you?

None	<input type="text"/>
1	<input type="text"/>
2	<input type="text"/>
3	<input type="text"/>
4	<input type="text"/>

24. If you are given a lift to your work/school, is the journey only being made just to bring you to your work/school?

Yes	<input type="text"/>
No	<input type="text"/>

25. If the answer to the question was NO (e.g., your driver continues driving to go to work) approximately how much longer is your driver's journey because they have taken you to your work/school?

No extra time	<input type="text"/>
Less than 5 minutes	<input type="text"/>
5 – 10 minutes	<input type="text"/>
More than 10 minutes	<input type="text"/>

26. If your work/school is not in the driver's shortest route to work, could you be dropped off at a certain location and complete your journey by bus or on foot?

Yes – By bus	<input type="text"/>
No – By foot	<input type="text"/>
No	<input type="text"/>

27. If yes, how far away from your work/school is the drop off point?

Less than one 1 km	<input type="text"/>
1 – 1.9 km	<input type="text"/>
2 – 2.9 km	<input type="text"/>
3 – 3.9 km	<input type="text"/>
4 – 4.9 km	<input type="text"/>
5 km or more	<input type="text"/>

28. If no, please explain why this option would not work for you and/or your driver.

.....

.....

Section 5: Hazardous Journey

29. Have you ever been involved in a road accident on your journey to or your house?

Yes	<input type="checkbox"/>
No	<input type="checkbox"/>

30. If YES, how were you travelling?

By foot	<input type="checkbox"/>
By bicycle	<input type="checkbox"/>
By bus	<input type="checkbox"/>
Given a lift	<input type="checkbox"/>

31. Please describe what happened.

.....

.....

32. Have you ever been involved in a near-miss on your journey to or from your house?

Yes	<input type="checkbox"/>
No	<input type="checkbox"/>

33. If YES, how were you travelling?

By foot	<input type="checkbox"/>
By bicycle	<input type="checkbox"/>
By bus	<input type="checkbox"/>
Given a lift	<input type="checkbox"/>

34. Please describe what happened.

.....

.....

35. Have you even been bullied, threatened or scared on your journey to or from your house?

Yes	<input type="checkbox"/>
No	<input type="checkbox"/>

36. If YES, how were you travelling?

By foot	<input type="checkbox"/>
By bicycle	<input type="checkbox"/>
By bus	<input type="checkbox"/>
Given a lift	<input type="checkbox"/>

37. Please describe what happened.

.....

.....

Section 6: Health and Fitness

38. How often do play sport or exercise?

Most days	<input type="text"/>
Twice a week	<input type="text"/>
Once a week	<input type="text"/>
Less than once a week	<input type="text"/>
Never	<input type="text"/>

39. How long does each period of exercise last on average?

15 mins or less	<input type="text"/>
Around half an hour	<input type="text"/>
Around 1 hour or more	<input type="text"/>

40. Are you satisfied with your current level of fitness?

I would like to feel fitter	<input type="text"/>
I feel fit enough	<input type="text"/>
I feel unfit	<input type="text"/>

41. List three activities you would like to do which help you get fitter.

1.
2.
3.

42. If you cycle, how many journeys have you made in the last 7 days? (nor including work journeys)

Once	<input type="text"/>
Twice	<input type="text"/>
Three times or more	<input type="text"/>
None	<input type="text"/>

43. Where did you go?

.....

.....

44. If you have any other comments or suggestions about travel to and from the residential development, please share them here:

.....

.....

.....

.....

.....

Thank you for taking the time to complete this questionnaire, your participation is appreciated.



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Appendix B – Walking Accessibility Map



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Appendix C – Cycling Accessibility Map



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Appendix D – Public Transport Map