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13 MATERIAL ASSETS

13.5 MOBILITY MANAGEMENT FRAMEWORK

13.5.1 Introduction

13.5.1.1 Introduction

In preparing this Mobility Management Framework Report reference has been made to the following:-

- The Draft Galway City Development Plan 2011 - 2017;
- The Galway Strategic Bus Study;
- The Galway City Council Public Transport Feasibility Study;
- Draft Regional Planning Guidelines for the West Region 2010 – 2022;
- Smarter Travel – A Sustainable Transport Future – A New Transport Policy for Ireland 2009 – 2020;
- Smarter Travel – National Cycle Policy Framework;
- Commission of the European Communities Green Paper “Towards a New Culture for Urban Mobility”;
- Dublin Transport Office Advice Note on Mobility Management Plans.

13.5.1.2 Objectives

The proposed new port will generate an additional demand, in the short, medium and long term, on the existing and proposed transportation infrastructure in Galway City and its environs. The development of an overall transport strategy to accommodate present and future demand is therefore required to manage the proposed workforce, avoid transport infrastructure congestion due to port-related traffic and also reduce impacts on the surrounding areas.

The development proposals for the site will be accompanied by this Mobility Management Framework to demonstrate how the potential traffic impact of the development on the surrounding areas can be minimised or managed.

The development of an overall transport strategy to restrict the impact of haulage operations as well as reducing the reliance on private car is required to effectively tackle the above problems, as well as to reflect the government and regional planning authorities’ sustainable policies. For this purpose, the implementation of a Mobility Framework based on a sustainable transport strategy is considered important.

The main guidelines of this Framework will be, in general terms, the improvements of all short, medium and long-distance accessibility to the new port by using, as much as possible, alternative means of transportation to the car, as well as aiming to minimise the impact of haulage-related activities on the surrounding road network. It is intended that the Mobility Management Framework would provide the basic structure whereby individual tenants of the port could develop their own Mobility Management Plans.

A Mobility Management Plan (MMP) is a general term for a package of measures tailored to meet the needs of individual sites and is aimed at promoting greener, cleaner travel choices and reducing reliance on car travel. It involves the development of a set of mechanisms, initiatives and targets that together can enable an organisation / development to reduce the impact of travel and transport on the environment, whilst also facilitating a number of other benefits, for an employer as well as staff.

A MMP is a dynamic process that grows and develops with time and in accordance with the changing circumstances of the organisation and the environment in which it works. Mobility Management Plans involve changing the established habits and practices of those who travel to

site. It is important that promotion of the benefits of such a plan is led and implemented from senior management of the organisation. The co-operation of those who will travel and local authorities is also essential to the success of any transport plan.

Study Background

13.5.1.3 Site Locations

The proposed new port is located to the south of the existing Galway Harbour Enterprise Park, to the southeast of Galway City Centre. The majority of the proposed site is proposed to be reclaimed from Galway Bay through dredging and filling. Figure 13.5.1 highlights the location of the proposed port.

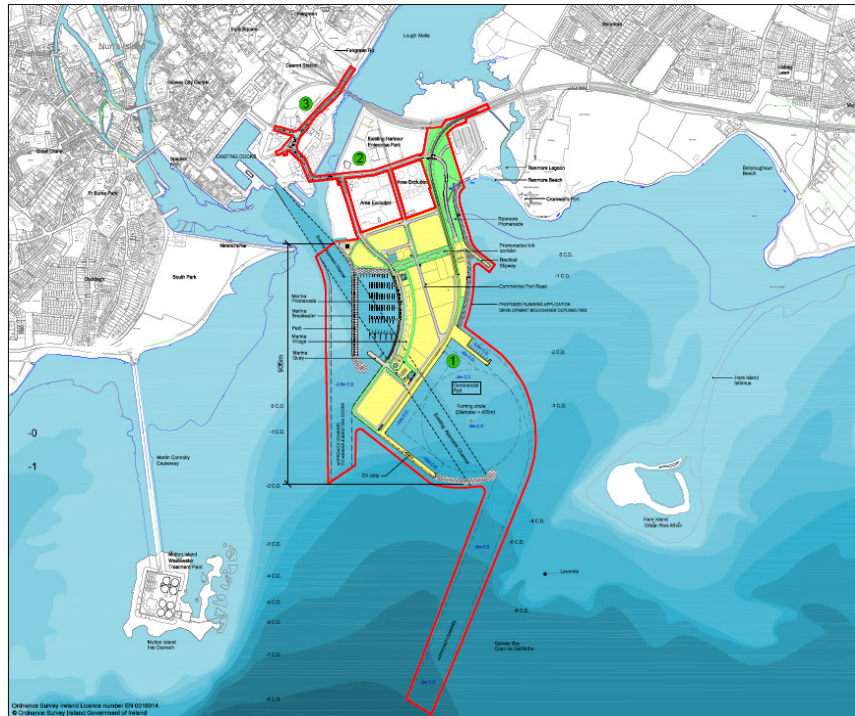


Figure 13.5.1 - Site Location

13.5.1.4 Development Access

As part of the project it is proposed to redesign the Lough Atalia / Dock Road priority junction to a signalised junction. All port-related traffic will access the site through this junction.

13.5.1.5 Local Planning & Transportation Context

The basic planning framework for the port area is set out in the Draft Galway City Development Plan 2011 – 2017 and the Draft Regional Planning Guidelines (RPG) for the West Region 2010 – 2022 (currently under revision).

The Draft Development Plan and RPG are supportive of the redevelopment and expansion of the port, and view the port as being of strategic importance to the region, particularly in terms of economic development and as a transportation link to facilitate the growth and connectivity of the region.

The RPG for the West Region seeks to support sustainable travel in the region in line with the Department of Transport “Smarter Travel – A Sustainable Transport Future – A New Transport Policy for Ireland 2009 – 2020” through a series of measures, including:

- Consolidation of population growths in existing built up areas
- The location of trip-intensive developments in areas well served, or planned to be well served by public transport;
- Ensuring that the scale and density of new land use development is consistent with the available transport capacity (particularly public transport capacity);
- Supporting Mobility Management as a useful tool to achieve higher levels of sustainable travel behaviour.

It is also the aim of the RPG to:

- Support the development of an integrated transportation system for Galway City and County areas;
- Support the construction of new railway stations to facilitate commuter and freight services;
- Support the installation of freight handling equipment at key rail stations to facilitate the greater usage of rail to transport freight;
- Promote the development of safe and convenient pedestrian and walking facilities in Galway City to minimise the dependence on private motor vehicles and to encourage an active and healthy lifestyle.

Galway City Council aims to promote a number of transport-related measures under their Smarter Travel proposals. With the implementation of these measures GCC aims to achieve the following modal split targets:

- 15% of total trips by cycling;
- 25% of total trips by walking;
- 19% of total trips by public transport;
- 40% of total trips by the private car;
- 1% of total trips by other means.

The above policies and objectives will, when implemented, allow for a more sustainable overall transport system for Galway City, and will aid to the reduction in travel times currently experienced in the city.

Further to the above, Galway City Council also proposes to implement a Mobility Management Plan scheme for large businesses. This scheme will help to promote a city-wide change in transportation behaviour which will further improve accessibility throughout the Galway region.

13.5.2 Transportation Facilities

13.5.2.1 Road Network and Accesses

Access to the development is proposed via a traffic signal-controlled junction between Dock Road and Lough Atalia Road, which are both two-way roads and are located to the southeast of the city centre. The Dock Road extends to the west of the city, providing access to both Merchant's Road (leading to Eyre Square) and the western suburbs of Salthill and Knocknacarra and the west in general. The Dock Road links with Lough Atalia Road to the north of the proposed junction, which has an overhead rail bridge with height restriction between the site access junction and Fairgreen Road traffic signals junction. Lough Atalia Road also carries two-way traffic.

Fairgreen Road is a two-way road which links Lough Atalia Road with Forster Street (leading to Eyre Square), College Road and Bóthar Uí Eithir.

Lough Atalia Road also connects with College Road further north through a signalised junction, which in turn provides access to Moneenageisha Junction, a primary network node for the city, providing access to and from the east, north and south of the country.

Figure 13.5.2 overleaf provides an overview of the road network surrounding the proposed port.



Figure 13.5.2 – Local Road Names

13.5.2.2 Proposed Network Improvements

Following the recent interpretation by the European Court of Justice that the N6 Galway City Outer Bypass (GCOB) project would have an adverse impact on the integrity of a European Site, Galway City and County Councils remain committed to the project, and propose to make a new application to An Bord Pleanála for a by-pass of Galway City. Accordingly, Galway County Council has recently appointed consultants to redesign the route of the N6 Galway City Outer Bypass and to progress the scheme through the planning process. It is anticipated that a revised application to An Bord Pleanála will be ready by 2015 with an envisaged opening year of mid 2019 at the earliest. The Galway Harbour Extension Traffic Report and this mobility Management Framework do not depend on the development of the Galway City Bypass.

It is proposed to lower the road under Lough Atalia Bridge, which is currently subject to a height restriction, to allow for 2-way movement of large heavy vehicles.

The M6 Galway to Dublin Motorway has recently been completed, which provides a continuous motorway link between Galway and Dublin, significantly reducing delays along the route. The M17 / M18 Gort to Tuam motorway scheme is currently at Tender Stage and upon completion will provide a link between Galway, Dublin and Limerick. The provision of this motorway will further enhance the connectivity of the New Port of Galway with its natural catchment area.

Funding has recently been obtained for the Bóthar na dTreabh (N6) Multi-Modal Corridor Improvement Scheme. The aims of scheme are as follows:

- Ensure the national road network within Galway protects and supports growth of the regional economy;
- Reduce the environmental impact of transport in Galway City;
- Facilitate and encourage the use of sustainable travel modes;
- Ensure future development of the N6 is integrated with a shared vision for future development of the public transport network;
- Promote integration of walking and cycling links;
- To ensure future development of the N6 is integrated with proposals for upgrading the local and regional road network;
- Improve road safety for all road users on the N6 links and junctions within Galway City;
- Improve access to Galway's vital social infrastructure such as schools, third level institutions, hospitals and large employment areas.

The scheme includes for the upgrading of all roundabouts along the N6 corridor to traffic signals junctions.

Galway City Council is currently in the process of procuring an Urban Traffic Management Control (UTMC) System for use on three corridors in the city, namely:

- Seamus Quirke Road / Bishop O'Donnell Road (completed);
- N6 Corridor (partially complete);
- R338 Dublin Road Corridor, including Moneenageisha Junction (partially complete).

The provision of such a UTMC system will aid in improving the efficiency of traffic signals junctions along each of the corridors, for vehicles in general and public transport in particular, allowing Galway City Council a greater degree of control over traffic movements throughout the city.

Galway City Council also wishes to develop a number of proposals for Galway City and environs as part of their Smarter Travel policy, including:

- Extension of the pedestrian area in Galway City Centre into Cross Street & Middle Street and the provision of a shared surface for public transport and pedestrians & cyclists on Eglinton Street
- Development of a new walking and cycling route from Newtownsmith to the Docks via Abbeygate Street

- A 6 fold increase in the length of bus corridors from 3km to 18km, to serve Knocknacarra, Parkmore, Oranmore, Monivea Road and Tuam Road
- Development of a multi-modal transport hub in Garraun, Oranmore (railway station developed)
- Reduction in speed limits to 30 kph in the City Centre area
- Development of high quality cycle routes from the City Centre to Bearna, Dangan and Oranmore.

The implementation of the above measures will help promote alternative modes of transport to the private car throughout Galway City and environs, which will in turn provide additional capacity to the road network and reduce congestion.

13.5.2.3 Car Parking

Parking provision for the proposed development will consider the proposed staging of the development over a 10 year period and the estimated car-usage as the development progresses, taking into consideration this Mobility Management Framework and the implementation of Galway City Council's Smarter Travel Plan strategy.

However, at this initial stage, it is proposed that at-grade parking areas would provide for approximately 112 spaces to service the marina development. Car parking provision will be carried out on a building-by-building basis for the proposed Enterprise Park extension. It will be a policy of Galway Harbour Company to balance car parking provision with projected demand, as it is understood that an over-provision of car parking spaces will encourage higher single car use.

It is recognised that the number of parking spaces required will reduce in line with the proportion of car users and decommissioning of parking spaces will occur on an individual building basis, where appropriate.

13.5.2.4 Public Transport

13.5.2.4.1 Bus Services

The subject site is convenient to a number of bus routes. The proposed site is located within walking distance of Ceannt Station, the main public bus station in Galway City. A number of bus services operate from Ceannt Station, linking Galway City with major urban hubs including Dublin, Cork, Limerick, Castlebar, Sligo and Derry. Bus services also operate between Galway and its natural catchment area, including towns such as Oranmore, Tuam, Gort, Moycullen and Barna. These services operate several times daily, and provide a significant opportunity for non car-based travel for employees of the proposed port.

The proposed development is also located within walking distance of the Coach Station on Fairgreen Road, where private bus operators GoBus and CityLink operate services. GoBus operate regular direct services to Dublin, Dublin Airport and Shannon Airport. CityLink operates regular services from Galway to Dublin and Cork.

The subject site is also located within close proximity to all local bus services operating in Galway City. The site is located within walking distance of Eyre Square, which acts as a terminus for all local services, and connects the city centre with all suburbs, including Salthill, Knocknacarra, Newcastle, Renmore and Doughiska. These services operate regularly throughout the day, in some cases every 10 minutes at peak periods.

Ceannt Station has proposals to increase the number of bus bays for 7 to 24, which will significantly increase the capacity of the station to cater for additional services and passengers.

Bus Éireann currently has a bus yard and garage within the existing Harbour Enterprise Park. The proximity of this bus yard will facilitate a possible future bus route that would potentially serve the proposed port.

With the proposed increase in bus lanes throughout the city, all the above services have the potential to provide an efficient, reliable and sustainable alternative mode of transport to and from the new port to the private car.

13.5.2.4.2 Train Services

Ceannt Station also serves as the main train station for Galway City. Currently, this service operates between Galway and Dublin, and also serves a number of towns in the vicinity of Galway, including Oranmore, Athenry, Woodlawn, Ballinasloe and Athlone. This service operates 9 times daily.

The Western Rail Corridor re-opened in March 2010, linking Galway with Limerick, with stations at Ennis, Sixmilebridge, Gort, Ardahan and Craughwell. A further extension of the Western Rail Corridor is proposed, which will link north Galway, Mayo and Sligo with Galway, however no definitive date has been set for the completion of these works.

The Ceannt Station redevelopment will also include an increase in provision of rail platforms from 1 to 4 rail platforms, thus significantly increasing the capacity of the station to cater for additional services and passengers.

13.5.2.5 Pedestrian and Cyclist Facilities

The proposed development is committed to ensuring the accessibility for the Galway residents and the future employees who walk or cycle as their preferred means of travel. Furthermore, it is committed to improving the sustainability of the area through the provision of adequate pedestrian/cycle facilities as well as providing cross-connections to the proposed developments in the area, including the Ceannt Station Quarter, as well as facilitating future cycle links to Renmore.

Provision for cyclists on-road and off-road are proposed as part of this application, and adequate space has been provided in the road cross-section to enable cyclists to share the access roads with other (public transport and private) vehicles.

All proposals within the development will compliment the proposals of Galway City Council for bicycle and pedestrian facilities throughout the city. Furthermore, adequate and secure parking for bicycles and changing and shower facilities will be provided to encourage the use of cycling as a primary mode of transport to the port wherever possible.

13.5.3 Mobility Management

13.5.3.1 MMP Coordinator

In order to ensure that the proposals suggested in this Mobility Management Framework are implemented for all tenants within the port, a MMP coordinator will be nominated by the Galway Harbour Company. This coordinator will have a number of tasks and responsibilities, including:

- The implementation of all MMPs;
- The monitoring of progress of the MMPs with regards to set targets;
- The establishment of a Project Steering Group to oversee the implementation and ongoing development of the Framework.
- Liaison with Galway City Council;
- The promotion of alternative measures of transport to the private car for employees or customers of the development;
- The promotion of haulage-related activities by alternative measures to HGV's,
- The promotion of haulage-related activities outside of network peak periods;
- Identification of appropriate targets for the implementation of the MMPs.

It is recognised that implementation of the Framework will be a challenging undertaking with significant resources being required to set up and administer the Framework. It is also proposed to hold events such as Travel to Work Exhibitions to create and maintain staff awareness of the Framework.

Galway Harbour Company and the MMP Coordinator will ensure that senior management of all the tenant companies openly supports the Plan and that a group of members of senior management “champion” the Framework.

Galway Harbour Company and the tenants of the Port and Enterprise Park will establish a Steering Group to oversee the implementation and ongoing development of the Framework. A representative of each of the companies should be part of this group.

13.5.3.2 Projected Demands

It is anticipated that a total of approximately 500 employees will work in the Port and Enterprise Park following completion of the proposed development.

From discussions with tenants within the existing Harbour and Enterprise Park, it was found that the majority of all current movements to the site were by private car, with some utilising public transport or other modes of transport. From these discussions, it was found that a significant proportion of the workforce lives in areas well served by public transport, or where employees live within a relatively small distance of each other. As such there is significant potential for modal shift should adequate incentives be offered and public transport infrastructure be improved.

13.5.3.3 Targets

The Framework is target driven with real identified targets against which success will be measured. The targets set are in line with fixed targets set within national policies aimed at promoting alternative modes of transport to the private car, and are sufficient to make a real difference to overall habits and modal split.

Table 13.5.1 below sets out the Staff Mode Split Targets for the Port and Enterprise Park.

Target Modal Splits for New Port of Galway and Enterprise Park		
Mode	Year 2016	Year 2031
Car (Driver / Passenger)	60%	50%
Public Transport	10%	15%
Walking / Cycling	30%	35%

Table 13.5.1 - Target Modal Splits for Galway Port & Enterprise Park

13.5.3.4 Monitoring

A Fundamental part of any Mobility Framework is monitoring to determine progresses, identify problem areas and initiate corrective measures to ensure targets are achieved. The MMP Coordinator, in collaboration with the Mobility Framework Implementation Group, should carry out this monitoring annually.

The basic procedure will consist of:

- Reviewing the implementation of the different measures of the Mobility Framework.
- Carrying out a new Mobility survey.
- Controlling the achievement of the different targets.
- Updating the boundary conditions.
- Propose corrective measures if needed.
- Informing Galway City Council about the implementation and progress on the Mobility Framework.

13.5.3.5 Haulage-Related Activities

The activities contained within the proposed port extension can be loosely described as being either haulage or non-haulage related. These elements have differing requirements from a transport perspective, and for the purposes of this report will be treated separately.

While it is accepted that the nature of freight haulage requires vehicular transportation, it will be the aim of this Framework and subsequent MMPs to minimise the impact that the haulage activities will have on the surrounding road network. A number of proposals aimed at minimising this impact are detailed below.

13.5.3.5.1 Rail

The proposed development includes for a rail link into the port from the main rail line leading to Ceannt Station. Upon completion of the port, there is the potential to transport freight by rail to a number of destinations throughout the country, particularly on the completion of the full Western Rail Corridor.

The provision of such a link would provide a significant and sustainable transport alternative for Galway Port. It is the aim of Galway Harbour Company to work with its customers to promote the use of rail transport so as to maximise the proportion of its future throughput that will be transported by rail.

13.5.3.5.2 Hours of Operation

The ability of the port to operate on a 24 hour basis will provide significant benefits from a transportation perspective. As such, a restriction on the hours of operation for haulage activities will not significantly impact on the port's ability to operate successfully.

It is noted that significant congestion occurs on the road network in Galway City during peak periods. The majority of junctions in the city operate satisfactorily outside of these peaks. It is therefore proposed that all new haulage-related activities will be restricted on the external road network, as far as is reasonably practicable, between the hours of 08:00 – 09:30 and 16:30 – 18:00. This restriction will ensure that haulage activities will have negligible impact on the surrounding road network at the critical periods.

The MMF coordinator will be responsible for obtaining such undertakings from other haulage-related stakeholders once they have been identified.

13.5.3.6 Non-Haulage-Related Activities

A significant amount of non-haulage-related activities are proposed within the new port. These include the extension of the existing Enterprise Park and cruise liner activities. The development of an overall transport strategy to accommodate present and future demand is required to attract the needed workforce and avoid saturation of the transport infrastructure and impacts in the surrounding areas. The principles, defined by the Galway Harbour Company behind this integrated approach are as follows:

- The need to provide adequate, affordable and sustainable accessibility to the port.
- The will to promote and support alternative means of transport.
- The need to minimise the impact of traffic and parking generated by the port in the surrounding areas.

Different strategies can be put in place to deal with this demand. These are as follows:

- **Optimisation of use of existing infrastructure** in order to balance both demand and supply of mobility. Such strategies include staggering starting/finishing hours and increasing car occupancy rate/car-sharing.
- **Reduction in demand of mobility** in order to rationalise demand. Such strategies include telework (where appropriate) and the reduction of number of working days per week by increasing the number of hours worked every day.
- **Promotion of alternative modes of transport** to reduce the reliance on use of the private car in order to obtain a more sustainable travel mode split and minimises the impact of traffic and parking generated by Galway Port. Such strategies include public transport, cycling and walking.

None of the above strategies could completely succeed in isolation. All have associated pros and cons. A combination of these strategies could shape a suitable strategy able to deal with the demand that the proposed development will generate.

Relying on the provision of infrastructure alone to meet demand would involve significant investment. It is likely however that increases in the capacity of road infrastructure would be under constant pressure from growing demand. It has been proved worldwide that reliance only on the provision of infrastructure without any other alternative measures causes an increase in demand, in the medium term, and congestion of the road system. These measures are therefore inefficient in themselves without support from other policies.

The preferred strategy therefore is to encourage changes in transport mode by offering opportunities for staff to use modes other than the private car and to supplement this with sympathetic infrastructure measures which will assist this objective and improve accessibility for all users.

13.5.3.6.1 Public Transport Initiatives

The transfer of car users to the public transport system will result in an important reduction in traffic congestion. Galway Harbour Company can do a great deal to promote public transport use to their employees and customers. The benefits for commuters of such a change on travel mode to the port include improvements to quality of travel and cost savings.

On the negative side of public transport, lack of services, infrequent and occasionally unreliable services, safety concerns (especially at night) and a lack of information all discourage the car user from transferring to the present public transport system. It is therefore necessary to recognise that improvements to the services are necessary to meet commuter needs.

Experience elsewhere supports the “virtuous circle” concept for public transport. This anticipates that with improvements to services, more custom and income is generated, enabling more investment to be made in services and so on.

There are a number of improvements planned for the public transport system that will help to improve the options available to staff:

- The creation of a major public transport interchange (PTI) at Ceannt Station
- Increasing the number of quality bus corridors (QBC) in Galway;
- Real-time messaging services; and
- Integrated ticketing system.

However, in order to improve the accessibility of the port to the public transport network it is recommended that the following proposals be considered.

Significant collaboration has been undertaken between the Galway Harbour Company and CIE with regards to accessibility between the two developments. This cooperation will ensure optimum connectivity between two prime city centre sites, and will ensure ease of access to the PTI for employees of the port.

Further to the above, the location of the existing Bus Éireann bus yard and garage within the existing Enterprise Park will have the potential to facilitate a shuttle service between the Port and the CSQ PTI, further improving connectivity.

In addition, Galway Harbour Company and its associated stakeholders can play its part in improving the mode share of public transport, through a range of incentives for its use. The Galway Harbour Company or its Management Company will encourage the tenants of Galway Port to:

- Subsidise public transport use by introducing fare discounts. By subsidising public transport use, port staff that can avail of public transport should be sufficiently incentivised to switch travel mode.
- Provide better information on public transport service to staff. Staff may not be aware that public transport offers a viable alternative because of lack of information on timetables, routes or even the location of bus stops. Galway Port will internally publicise the routes that provides easiest access to the site through providing easy-to-understand guides, posters or leaflets on public transport services. This will be done in cooperation with Bus Éireann and Irish Rail.

Staff may be required to have cars available for work purposes. Some staff members may therefore be contributing to peak time traffic congestion simply to ensure that they have a vehicle available during the working day. The availability of pool cars would provide an alternative for staff members that need a car for work purposes. An alternative is to negotiate a contract with a local taxi firm, allowing business-related trips to be invoiced to the Company. This alternative eliminates the reclaiming of expenses for the staff and results in a reduction in travel expenses. Such a facility is offered by a number of taxi firms who offer business or corporate accounts.

Galway Harbour Company or its Management Company will encourage the tenants of the port to study the feasibility of providing pool cars or entering into taxi service to cater for business-related trips during the working day.

13.5.3.6.2 Car Sharing Initiatives

Car sharing should be implemented and encouraged where large numbers of commuters live in common locations and their attendance hours at the location are consistent. Such a measure offers a significant opportunity to reduce the proportion of staff that drive to work.

For those who do car share there are some obvious advantages and these include:

- Travel to work can still be door to door if they are picked up at home;
- There are costs savings available to sharers and participation may even eliminate the need for some families to have a second car;
- Travel to work can be a more relaxing experience, with a chance to socialise.

There are also perceived disadvantages for sharers, associated with the freedom to travel, particularly in the event of an emergency. Difficulties are also experienced within such a scheme for those who have to accommodate secondary trips throughout the course of the day (i.e. dropping children off at school).

Galway Harbour Company or its Management Company in conjunction with the tenants of the Enterprise Park will set up a Car-Sharing scheme in order to maximise the benefit of this initiative and to put potential car sharers in touch with each other. Galway Harbour Company or its Management Company will establish a central database of the journey data of its staff members.

Galway Harbour Company or its Management Company, in conjunction with the tenants of the Enterprise Park will provide incentives for car sharing. Incentives for car sharing may include preferential parking, such that the more attractive parking spaces are allocated to car sharers. Additionally, Galway Harbour Company or its Management Company and tenants of the Enterprise Park will assess the feasibility of providing a “guaranteed ride home” for car sharers should they be stranded in an emergency situation. This would mean subsidising for taxi rides.

The impact of the scheme will be improved by targeted measures including:

- Publicity within Galway Port and Enterprise Park, at Travel to Work exhibitions and through day-to-day staff communication channels, outside, through the media. This publicity will encourage new members to join the scheme.
- Easy access to the Coordinator who will administer the scheme. It is recognised that sharers need to feel that there is an easily accessible contact should they experience problems.
- Helping sharers to agree the practical arrangements for sharing, such as matching car-sharers, splitting the cost of the journey to work, and addressing car insurance issues and tax implications.

13.5.3.6.3 Cycling Initiatives

The encouragement of cycle use is an important aspect of any sustainable Mobility Plan. Cycling could be taken up by a significant number of the local commuters to Galway Port, if adequate facilities were 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 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 may be relatively small but other facilities can be considered over time to encourage a greater use of the bicycle.

The potential for cycling is greatest where a large number staff commute five miles or less, where cycle routes in the area are relatively flat and where good cycle routes are provided. Encouraging

cycling can lead to a healthier community, in addition to being a more reliable and convenient way to travel in peak periods. It is also cheaper than other forms of transport.

The main deterrents to this form of transport are the lack of facilities at work, lack of safe cycle routes, poor weather, the need to own a bicycle and poor facilities. Galway Harbour Company can assist with overcoming some but not all of these disadvantages.

The issue of safety for cyclists on the public road network is a real and significant one, particularly with the ongoing increase in traffic volumes on the network. In recent times, however, Galway City Council has developed cyclist infrastructure on the public road network.

Therefore, Galway Harbour Company or its Management Company and tenants of Galway Port will endeavour to:

- Set up a Bicycle User Group (BUG) as part of the Mobility Management Plan. The Group will provide a forum for feedback and consultation.
- Provide an adequate number of cycle parking spaces on site to deal with projected demand.
- Provide bicycle purchase incentives / discounts.
- Companies to provide bicycle training.
- Provide loaner or trial bicycles.
- Ensure that all bicycle parking spaces provided on the site are secure and sheltered and close to entrances.
- Ensure that additional bicycle parking facilities can be easily facilitated should demand require it.
- Provide cyclists with access to convenient showers and lockers to store equipment and clothing.
- Raise the profile of cycling by incorporating appropriate road markings, signage and marking of cycle tracks in the port and at the interfaces with cyclist on the public road network.
- Provide continual publicity, both internally and to the general public, of the cycling initiatives.
- Consult the Bicycle Users Group before considering the implementation of the aforementioned measures.

13.5.3.6.4 Walking Initiatives

The Draft Galway City and Environs Walking and Cycling Strategy suggests that for trips within 2km of a person's destination, walking and cycling is seen as a viable mode of transport. A number of large residential areas, including large sections of the city centre, Renmore and Claddagh fall within this catchment area. Key transportation hubs, such as Eyre Square and Ceannt Station, are also located within 2km of the proposed port. As such, with the provision of appropriate facilities, walking and cycling have the potential to be a major mode of transport to and from the proposed port, be it for those who live within close proximity of the port, or those who commute into the centre city via public transport.

The promotion of walking is difficult, but organisations can make it easier for employees who commute all or part of their journey to work 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 where appropriate. Negotiations with the Local Authority to improve walking routes or crossing facilities on the road network for pedestrians are also recommended.

There are advantages for staff that walk to work, primarily related to lifestyle issues, such as the opportunity to get exercise and fresh air, and make cost savings. On the negative side, walking scores poorly against the car and other modes, in terms of speed, convenience and exposure to poor weather.

Research into pedestrian behaviour shows that the propensity to walk to work is dependant largely on the walking distance, prevailing weather conditions, the availability of other modes of transport and the availability of car parking at destination. The choice to walk or not to walk to work is a pragmatic one and not easily influenced.

Therefore, Galway Harbour Company or its Management Company and tenants of the port will:

- Provide internal links to the improved pedestrian infrastructure and crossing facilities on the public roadway in conjunction with Galway City Council.
- Ensure adequate security along these routes, particularly during the hours of darkness.

13.5.3.7 Additional Measures

The following measures may also form part of the recommended strategy. It will be recommended that tenants of the Port and Enterprise Park should study the feasibility of including these measures in order to increase the effectiveness of their Mobility Management Plans.

13.5.3.7.1 Staggering Starting/Finishing Hours

This can be a difficult part of a mobility plan to implement. However, staggering starting times in different periods can significantly mitigate the impact of traffic generated on the road network and accesses at peak times.

13.5.3.7.2 Telework

Telework is not a job in its own right, but a different way of working. From the transportation point of view telework is the partial or total substitution of telecommunication, with or without the assistance of computers, for the twice-daily commute to / from work (Jack M. Nilles, "Traffic Reduction by Telecommuting: A Status Review and Selected Bibliography", Transportation Research).

A number of studies have shown improvements arising directly from the introduction of teleworking. These have included improved staff performances, lower overheads, expanded customer service, markets and sales.

The National Advisory Committee on Teleworking, which brought together industry, trade unions, governments, research and public sector groups, proposed in 1999 a number of key action points that would ensure that Ireland becomes "telework friendly" from a fiscal and environment point of view. There has been a significant amount of infrastructural investment in this area over the past 10 years, which has helped to ensure that the Irish communications environment facilitates the adoption of teleworking as a mainstream method of working.

A total telework is practically not achievable in reality. However, there is a large proportion of staff that would be able to telework once a week.

13.5.3.7.3 Reduction in number of working days per week

A reduction in the number of working days is intended to cut down the demand for mobility by increasing the number of hours worked every day. This could mean a reduction in the mobility demand up to 20% and therefore significantly reduce congestion in the surrounding areas.

13.5.3.8 Cruise Liner-Related Activities

An investigation into cruise liner statistics for other representative ports in Ireland indicated that there were on average approximately 845 passengers per cruise. The breakdown of anticipated daily passenger activities is highlighted below in Table 13.5.2.

Projected Passenger Activities	
Activity	Percentage
Tours	70%
City Walks	15%
No Shore Leave	15%

Table 13.5.2 - Projected Passenger Activities

The application of the above rates equates to a total of 12 buses required for tours to sites such as Connemara and the Cliffs of Moher.

Such tours currently operate in Galway, and leave Galway City between 09:30 – 10:00. It is proposed that the cruise liner tours will operate in a similar fashion, and will avoid network peak periods when traffic congestion is experienced.

It is also proposed that all servicing activities relating to the cruise liners will take place outside of network peaks to further ensure as minimal an impact on the surrounding road network as possible.

Galway Harbour Company or its Management Company and tenants of the Port and Enterprise Park will encourage the implementation of the above measures (Staggering Starting/Finishing hours, Teleworking, and reduction of the number of working days per week) within the individual mobility management plans in order to reduce the demand for travel to the site.

13.5.3.9 Construction Activities

During the early stages of the project, a significant amount of construction activities, with associated vehicular movements, will be experienced on site.

It is proposed to implement a Construction Traffic Management Plan, which will aim to reduce the impact of construction traffic on the surrounding road network. This Construction Traffic Management Plan will be developed by the contractor appointed by Galway Harbour Company; however it is recommended that measures such as car pooling and incentivising public transport use be promoted for construction workers accessing the site. It is further recommended that deliveries and other potential HGV movements to and from the site be managed outside of network peak periods.

13.5.4 Conclusions

The proposed Mobility Management Framework aims to provide a sustainable, safe and environmentally-friendly alternative to private car use for employees and visitors to Galway Port.

This Framework will form the basis for all Mobility Management Plans that will be developed by individual tenants of the port, which will themselves evolve as background conditions change, and the end users' needs become clearer.

The ability of a MMP to succeed in its stated objectives is highly dependent on the cooperation of all stakeholders, including Galway City Council. Galway Harbour Company is committed to

ensuring that this cooperation is maintained at all levels to ensure that the impact of the development on the surrounding road network is minimised.