

# Appendix 1 – First and Second Consultation Reports

# DLUTS – Final Report Appendix 1 – 1<sup>st</sup> Public Consultation Report

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# 1 Introduction

## 1.1 Background

- 1.1.1 At the outset of the Douglas Land Use and Transport Strategy (DLUTS) an extensive public and stakeholder consultation was undertaken. This report provides an overview of the written responses relating to land use, traffic and transportation issues received by MVA Consultancy during the 1<sup>st</sup> phase of the public consultation process. Also provided in this report are the findings from the questionnaire evaluation.
- 1.1.2 The consultation process forms an important component of the development of the DLUTS as the responses play a key role in developing a detailed understanding of the current issues affecting Douglas and its environs. The consultation process also provides an insight into potential solutions to these issues and a view as to how Douglas should develop in terms of land use and associated transport improvements. In general, stakeholder and public consultation and consultation with schools and public transport operators is required for the following reasons:
- Local stakeholders have an in-depth understanding of local issues, given that they experience these conditions on a daily basis. It is therefore crucial to gain an understanding of these issues at an early stage in the study, so that opportunities to address these issues can be considered. Furthermore, public representatives and local community groups are best placed to relay the views of local residents for consideration as part of this study;
  - Local businesses are impacted by traffic conditions as a result of general traffic congestion, which increases the costs (and reduces the attractiveness) of accessing their premises to do business. This is particularly true for businesses in the retail industry, where alternative competing locations are generally available. Deliveries are also impacted by general traffic congestion, as is the availability of conveniently located areas to perform these activities. It is important that these issues are understood in the context of making traffic study recommendations;
  - Greater insight is provided, from the day to day users of the road network, in terms of the impact on all road users (i.e. car drivers, public transport users, cyclists and pedestrians and vulnerable road users) of current traffic conditions and existing traffic management arrangements in the Douglas area;
  - General traffic congestion impacts on bus operations by reducing bus operating speeds and making it increasingly difficult to operate bus services in a reliable manner. Furthermore it erodes the attractiveness of using bus services; further increasing levels of general traffic congestion. Consultation with bus operators facilitates an understanding of bus operating conditions in the study area, and an identification of any measures to improve operations to improve the operation of existing bus services; and
  - Traffic associated with school drop-off and pick-up by car can significantly contribute to general traffic congestion in Douglas particularly during the morning peak period. It is therefore crucial that this group of stakeholders are consulted so that issues associated with access arrangements to schools are understood.

## 1.2 Consultation Process

- 1.2.1 The public consultation process carried out for DLUTS involved a number of stages including a public exhibition, a Travel Survey, direct correspondence with key stakeholders in the Study area and a schools survey and meetings with local schools.

### Public Exhibition

- 1.2.2 On the 17 April a public exhibition was held in the Rochestown Park hotel between the hours of 15:00 and 21:00. Members of the public were invited to attend and the event was advertised in local newspapers and on local radio. A copy of the advertisements is included in Appendix A. The purpose of the exhibition was to make people aware of the study and to invite them to make submissions and to inform us of any issues or concerns they may have.
- 1.2.3 The event was hosted by eight members of the DLUTS team from both Cork County Council and MVA consultancy. Visitors who attended were invited to view a number of presentation boards which outlined the vision, aims, objectives, methodology and timeframe for the development of the DLUTS Strategy. A copy of these boards is included in Appendix B. Visitors were encouraged to talk to members of the DLUTS team and discuss any issues or concerns in relation to the study. Visitors were also given the Travel Survey questionnaire for DLUTS and asked to complete it before they left.
- 1.2.4 The exhibition was well attended, with a constant flow of visitors throughout the day. In total over 130 people attended the exhibition and over 50 completed questionnaires were received during the exhibition. Some visitors also took away the questionnaire and posted back responses at a later date.

### Travel Survey Questionnaire

- 1.2.5 An online travel survey was established and instigated in April 2012 in the form of a questionnaire. A link to the website (which could be accessed through the Cork County Council website) was published in the local press, The Examiner, and advertised on local radio. In addition, invitations to complete the survey were circulated to major employers and interest groups in the area. As mentioned above, a number of questionnaires were filled out in person by members of the public attending the public exhibition.
- 1.2.6 In total, 122 completed questionnaires (70 completed online and 52 hard copy submissions) were received. A summary of the key findings from the Travel Survey Questionnaire are outlined later in Chapter Four.
- 1.2.7 Appendix C provides detailed information on the questionnaire.

### Key Stakeholders

- 1.2.8 To ensure a varied and representative response a total of 43 stakeholders and local representatives were contacted and invited to make submissions. Those stakeholders invited to provide submissions include:

- All primary and secondary facilities in the Douglas area and those close to Douglas;
- Bus Éireann;



- Church / parish representatives;
- Department of Education;
- Local Land owners;
- Local transport stakeholders (bus/ coach operators / taxi representatives etc.);
- Major employers in the Douglas area through the chamber of commerce;
- National Roads Authority;
- Organisations for the disabled; and
- Community groups.

### 1.3 Structure of Report

1.3.1 The remainder of this report will be structured as follows:

#### **Chapter 2 - Submissions Received**

- This chapter summarises all the submissions made by key stakeholders and members of the general public.

#### **Chapter 3 - Schools**

- This chapter outlines the submissions and responses given by the schools during interviews with members of the project team.

#### **Chapter 4 – Travel Survey Questionnaire**

- This chapter summarises the findings from the DLUTS survey questionnaires submitted on-line and in person at the public exhibition.

#### **Chapter 5 – Summary of Responses and Conclusions**

- Chapter 5 summarises and highlights key issues and findings from the public consultation process.

## 2 Submissions Received

### 2.1 Introduction

- 2.1.1 This chapter outlines and summarises the submissions received from local stakeholders and the general public.
- 2.1.2 This process forms an important part of the study as the responses play a key role in developing a detailed understanding of the current issues affecting Douglas and of potential solutions to these issues.

### 2.2 Submissions from Local Stakeholder Organisations

- 2.2.1 Cork County Council provided a list of local stakeholder organisations of which 21 were contacted by letter and invited to make submissions. Those contacted included the following:
- Public agencies;
  - Private agencies; and
  - Community groups.
- 2.2.2 As well as the groups mentioned above, local land owners and private individuals were also encouraged to make submissions with any relevant issues.
- 2.2.3 Approximately three - four weeks was allowed for the receipt of submissions in relation to the study. The number and names of the local stakeholders which were contacted in relation to this study, and the number of written submissions received are illustrated in Table 2.1 below. This table shows that a very representative response was received from local groups and stakeholders.

**Table 2.1 Outline Consultation Process**

<b>Group, organisation or individual consulted</b>	<b>Method of consultation</b>	<b>Number contacted</b>	<b>Response</b>
Local sport groups	Contacted by letter and invited to respond by letter or email.	6	2 submission received
Local community groups	Contacted by letter and invited to respond by letter or email.	4	2 submission received
Religious stakeholder organisations	Contacted by letter and invited to respond by letter or email.	3	0 submissions received
Local schools (including primary and secondary and Department of Education)	Contacted by letter and in person and invited to respond by letter or email.	23	16 submissions received
Health organisations	Contacted by letter and phone call and invited to respond by letter or email.	2	0 submission received
Business representatives (Douglas Chamber of Commerce)	Contacted by letter and phone call and invited to respond by letter or email.	1	1 submission received
Transport stakeholders	Contacted by letter and phone call and invited to respond by letter or email.	5	4 Submissions received
Local land owners and private individuals	Invited to make submissions at public consultation meeting and in adverts in local media	Open invitation	9 Submissions received
<b>Total</b>		<b>43</b>	<b>33</b>

### 2.3 Public Bodies / Stakeholders

2.3.1 Written submissions have been received from the following public stakeholders:

- Bus Éireann;
- Cork Taxi Drivers Association;
- Department of Education;
- Douglas Business Association;
- Douglas Community Association;
- Douglas Golf Club;
- Douglas Gymnastics Club;
- Dublin Airport Authority;
- Grange Frankfield Partnership; and
- National Roads Authority.

2.3.2 The key aspects of these submissions have been summarised and are presented below in Tables 2.2 to 2.11. Details of the submissions received from schools are dealt with separately in Chapter Three of this report.

**Table 2.2 Submission from Bus Éireann**

<b>Stakeholder / Organisation Name:</b>	<b>Bus Éireann</b>
<p><b>Identified Issues / Problems:</b></p> <ol style="list-style-type: none"> <li>1. In general traffic congestion in Douglas has had a detrimental effect on bus services operating through Douglas, particularly during peak hours. As well as commuter traffic, school traffic and deliveries as well as the timing of signals have further contributed to congestion.</li> <li>2. The Main Douglas Road / South Link slip / Douglas Court junction becomes congested, particularly during the AM peak. The high volume of traffic exiting the slip road from the N40 causes blocking at the junction which in turn effects the operation of route 207, 216, 222 and 223. Vehicles ignoring the yellow box at this junction further add to the problem.</li> <li>3. Routes 207, 216 and 219 when operating left from Church Street onto East Douglas Street and through Douglas Village to the city get held up at the priority junction at Topaz as traffic on the Relief Road gets priority.</li> <li>4. Routes 206 and 219 experience delays outbound at the approach to the pedestrian lights and the roundabout at the West Douglas Village flyover. A steady flow of traffic from the South Link Road slip road onto the South Douglas Road makes progress difficult.</li> <li>5. Route 206 experiences delay on approach to its terminus at Frankfield. It can take several phases before the vehicle can make the turn due to the steady flow of traffic through the Frankfield / Ballycureen Road Junction. A full yellow box junction would facilitate a clearway at this location.</li> </ol>	
<p><b>Proposed Solutions:</b></p> <p>N/A</p>	
<p><b>Stakeholder Plans for Study Area:</b></p> <p>Currently Bus Éireann is in the process of implementing a Cork City and Suburban Network Review in conjunction with the National Transport Authority (NTA). As part of this review it is proposed that some the routes currently serving Douglas (206, 207, 207a, 216, 219, 222 and 223) will be extended providing Douglas / Grange / Carrigaline and Monkstown with direct connections to and from the Western Suburbs / Kent Station / Glanmire. These changes will involve the following;</p> <ul style="list-style-type: none"> <li>■ Route 206 extended to Kent Station and Glanmire;</li> <li>■ Route 216 extended to operate from Mount Oval to Cork University Hospital (CUH) via Douglas and Cork City Centre and operating every 30 minutes; and</li> <li>■ Routes 222 and 223 will become through services to Classes Lake, Ballincollig and EMC with service departing every 15 minutes. These services will operate via Model Farm Road with two termini in Ballincollig and Greenfields providing direct connections to University College Cork (UCC), Cork Institute of Technology (C.I.T) and Ballincollig as well as various business parks en route.</li> </ul>	
<p><b>Other Comments:</b></p> <p>N/A</p>	

**Table 2.3 Submission from Cork Taxi Drivers Association**

<b>Stakeholder / Organisation Name:</b>	<b>Cork Taxi Drivers Association</b>
<b>Identified Issues / Problems:</b>	<ol style="list-style-type: none"> <li>1. Congestion during the morning and evening peaks is an issue. Traffic is affected by school travel and buses stopping in the carriageway;</li> <li>2. A successful village requires a mix of uses including recreational facilities, residential and employment / industry;</li> <li>3. There is potential for development with the GAA grounds, grounds at the back of the Garda Station, Douglas Golf Club Lands and Mount Vernon Moped Trials Grounds;</li> </ol>
<b>Proposed Solutions:</b>	<ol style="list-style-type: none"> <li>1. Improve public realm with the provision of better lighting and open spaces;</li> <li>2. Improve route signage and road markings and street names;</li> <li>3. Restore waterways (i.e. canal / estuary) and conserve heritage;</li> <li>4. Provide new access to the motorway through the construction of a flyover at Dunnes Stores;</li> <li>5. Widen and extend Shamrock Lawn Road to Alden Grove Estate;</li> <li>6. Widen and extend Clarkes Hill and Garryduff to form a new link to Carrigaline Road;</li> <li>7. Make Church Street one-way;</li> <li>8. Provide park and ride facility and bus hub to connect with a local bus / mini bus;</li> <li>9. Traffic co-ordinator/steward or increase Garda traffic management;</li> </ol>
<b>Taxi Specific Proposals</b>	<ol style="list-style-type: none"> <li>10. Ensure taxi ranks are clearly indicated with the proper road markings and signage;</li> <li>11. Provide permanent 24 hour taxi rank outside Barry's Pub with holding/feeder rank on the Old Carrigaline Slip Road;</li> <li>12. Provide taxi-rank at the end of Church Street with extra "night rank" spaces;</li> <li>13. Provide permanent taxi-rank consolidated outside the East Village Complex;</li> <li>14. Improved access for disabled taxi users with well-designed pick-up and drop off locations;</li> </ol>
<b>Stakeholder Plans for Study Area:</b>	N/A
<b>Other Comments:</b>	Douglas has a very efficient 24 hour cab service covering a large rural area. It has its own dispatch yard and advanced booking order office.

**Table 2.4 Submission from Department of Education**

<b>Stakeholder / Organisation Name:</b>	<b>Department of Education</b>
<b>Identified Issues / Problems:</b>	N/A
<b>Proposed Solutions:</b>	N/A
<b>Stakeholder Plans for Study Area:</b>	<p>The Department wishes to state that lands adjacent to existing schools should be, where possible, protected for possible future educational use to allow for expansion of these schools, if required, subject to site suitability and agreement of the various stakeholders.</p> <p>The Minister for Education made the announcement in June 2011 that 20 new primary schools are to be established up to 2017 to cater for increased demographics across a number of areas, including a new school in the Douglas / Rochestown area to commence operation in September 2013.</p>
<b>Other Comments:</b>	N/A

**Table 2.5 Submission from The Douglas Business Association**

<b>Stakeholder / Organisation Name:</b>	<b>Douglas Business Association (DBA)</b>
<b>Identified Issues / Problems:</b>	<p>1. The Following areas have been highlighted by members of the DBA as immediate traffic concerns:</p> <ul style="list-style-type: none"> <li>■ Douglas West</li> <li>■ Slip road at Douglas West Roundabout at Douglas Community College</li> <li>■ Junction of Main Douglas Road and Douglas Village</li> </ul> <p>2. The creation of a Douglas Business Park has been identified as a priority for Douglas, with access to the link road in West Douglas in order to identify Douglas as a Business and Employment location.</p> <p>3. There are currently a number of vacant buildings on the west side of Douglas Village, a number of which are secured with wooden hoarding along the street.</p> <p>4. The Douglas Business Association would appreciate a meeting with Cork County Council before final decisions are taken.</p>
<b>Proposed Solutions:</b>	N/A
<b>Stakeholder Plans for Study Area:</b>	N/A
<b>Other Comments:</b>	N/A

**Table 2.6 Submission from The Douglas Community Association**

<b>Stakeholder / Organisation Name:</b>	<b>Douglas Community Association</b>
<b>Identified Issues / Problems:</b>	N/A
<b>Proposed Solutions:</b>	<p>The Douglas Community Association have identified the following areas which need to be addressed by the strategy:</p> <ul style="list-style-type: none"> <li>■ Preserve and extend green space and recreational areas in Douglas;</li> <li>■ Restrict additional large developments in the centre of Douglas;</li> <li>■ Pedestrianise areas in Douglas including Church Street from Church Lane to Douglas West;</li> <li>■ One-way traffic in other areas including Church Lane;</li> <li>■ Extend bus lanes and bus stop spaces;</li> <li>■ Remove unnecessary traffic from Douglas East and West;</li> <li>■ Improve traffic flow South Douglas Road to West Village;</li> <li>■ Improve traffic flow from village including Well Road;</li> <li>■ Improve traffic flow from Grange / Frankfield;</li> <li>■ Stagger school starting times;</li> <li>■ Improvements to Board of Works Road to Carrs Hill;</li> <li>■ Improve roads from Donnybrook to Cork Airport;</li> <li>■ Extend bicycle lanes in the area;</li> <li>■ Improve road from Scairt Cross to Carrigaline;</li> <li>■ Ensure that all roads are well maintained;</li> <li>■ Improve signage in the area;</li> <li>■ Upgrade lighting (underground wiring where possible); and</li> <li>■ Encourage walking, especially walking to schools.</li> </ul>
<b>Stakeholder Plans for Study Area:</b>	N/A
<b>Other Comments:</b>	N/A



**Table 2.7 Submission from The Douglas Golf Club**

<b>Stakeholder / Organisation Name:</b>	<b>Douglas Golf Club</b>
<b>Identified Issues / Problems:</b>	<p>1. In 2007 Douglas Golf Club entered into an agreement in respect of a potential move for the club to an alternative site in close proximity of the existing golf club. This option agreement was subject to a number of conditions. As certain conditions were not satisfied within the requisite time period this option lapsed in March 2010. Therefore this land is no longer available for development as envisaged in the most recent Local Area Plan for Douglas.</p> <p>2. For the above reason, Douglas Golf Club is opposed to any designation of its land for purposes other than recreation / open space.</p>
<b>Proposed Solutions:</b>	N/A
<b>Stakeholder Plans for Study Area:</b>	<p>1. The Golf Club have no future plans for its lands (currently referred to as area X-03(b) in the Carrigaline and Douglas Local Area Plan) to be used for anything other than a golf club.</p>
<b>Other Comments:</b>	N/A

**Table 2.8 Submission from The Douglas Gymnastics Club**

<b>Stakeholder / Organisation Name:</b>	<b>Douglas Gymnastics Club (DGC)</b>
<b>Identified Issues / Problems:</b>	<ol style="list-style-type: none"> <li>1. Many members experience delays attending the club during the evening peak, between 16:00 and 18:30.</li> <li>2. Douglas Gymnastics Club currently has 670 members and have completely outgrown the existing facilities in Douglas Community School and Donnybrook Commercial Centre.</li> <li>3. DGC have previously been in talks with both Cork County Council and the Department of Education over a number of proposed sites for a dedicated gymnastics centre. Both failed to materialise due to accessibility issues.</li> </ol>
<b>Proposed Solutions:</b>	<p>Due to the size of the club and nature of the facilities required for a gymnastics club, Douglas Gymnastics Club requires a dedicated building. This would also allow the club to expand the type and nature of the classes offered. Potentially offering dance and martial arts classes, etc.</p> <p>The goal of Douglas Gymnastics Club is to have a world-class facility, which will benefit the entire community in Cork. With a dedicated facility DGC envisage being able to offer gymnastics and other sports to well over 1000 children per week.</p> <p>Significantly the club would be in a position to self-fund the building if a suitable site to build the centre of excellence was provided.</p> <p>DGC have highlighted a number of possible sites within the Douglas area which would be suitable for the location of a gymnastics centre of excellence. These are shown on a map in appendix 2 of the submission.</p>
<b>Stakeholder Plans for Study Area:</b>	N/A
<b>Other Comments:</b>	N/A

**Table 2.9 Submission from Dublin Airport Authority**

<b>Stakeholder / Organisation Name:</b>	<b>Dublin Airport Authority (DAA)</b>
<b>Identified Issues / Problems:</b>	N/A
<b>Proposed Solutions:</b>	N/A
<b>Stakeholder Plans for Study Area:</b>	N/A
<b>Other Comments:</b>	<ol style="list-style-type: none"> <li>1. Any proposals which improve traffic circulation or public transport availability in the vicinity of Cork Airport are welcome.</li> <li>2. DAA welcomes all proposals for improved surface access both in terms of public and private transport options to facilitate passengers accessing Cork Airport.</li> </ol>

**Table 2.10 Submission from Grange Frankfield Partnership**

<b>Stakeholder / Organisation Name:</b>	<b>Grange Frankfield Partnership</b>
<b>Identified Issues / Problems:</b>	N/A
<b>Proposed Solutions:</b>	N/A
<b>Stakeholder Plans for Study Area:</b>	<ol style="list-style-type: none"> <li>1. The Grange Frankfield Partnership have submitted proposals relating to a walkway / cycleway which would go from Grange Road to Turner's Cross via Vernon Mount Valley . This proposed walkway would potentially provide linkages from Grange and Frankfield to Douglas, Turners Cross and Togher.</li> </ol>
<b>Other Comments:</b>	N/A

**Table 2.11 Submission from the National Roads Authority**

<b>Stakeholder / Organisation Name:</b>	<b>National Roads Authority (NRA)</b>
<b>Identified Issues / Problems:</b>	<ol style="list-style-type: none"> <li>1. There needs to be a marked reduction in travel demand and commuting distances travelled by the private car.</li> <li>2. Promoting good planning strategies and avoiding inappropriate development that negatively impact on existing and future national roads represents a significant challenge to ensuring and maintaining the operational efficiency and safety of the national road network.</li> </ol>
<b>Proposed Solutions:</b>	<ol style="list-style-type: none"> <li>1. All options for trip demand should be investigated including the appropriateness of enhancements to the local road network, walking, cycling and public transport modes.</li> <li>2. The integration of land use and transportation planning through forward planning, development management and traffic management (including demand management) is essential. It will be especially important in this area that measures for future development objectives / proposals for the area should be required to alleviate, manage and limit the impacts of congestion on the N40 Southern Ring Road. Such measures could include: <ul style="list-style-type: none"> <li>■ Demand management</li> <li>■ Revised traffic management arrangements</li> <li>■ Modification of local roads</li> <li>■ Public transport provision; and</li> <li>■ Potentially modification of the national road network.</li> </ul> </li> <li>3. Identification of any required road upgrades or other measures to protect capacity, efficiency and safety; including timing and funding arrangements, i.e. local authority and/ or other sources (funding from the authority would not be available) will also need to be identified.</li> </ol>
<b>Stakeholder Plans for Study Area:</b>	N/A
<b>Other Comments:</b>	N/A

## 2.4 Private Stakeholders

2.4.1 Written submissions have been received from the following private stake holders:

- Anna O'Toole;
- Ciaran O'Callaghan;
- Dan and Margaret O'Mahony;
- Deirdre Whelan;
- Dennis O'Regan;
- Michael Dowling;
- O'Brien & O'Flynn Contractors;
- Shipton Group; and
- St Patrick's Mills.

- 2.4.2 The key aspects of these submissions have been summarised and are presented below in Tables 2.12 to 2.20.

**Table 2.12 Submission from Anna O'Toole – Ballybrack House**

<b>Stakeholder Name:</b>	<b>Anna O'Toole – Ballybrack House</b>
<b>Identified Issues / Problems:</b>	As per Cork County Council's Development Plan, an increase of 2,467 households will be required to meet population targets for 2020. Given its range of services and amenities Douglas remains a popular location for housing in the southern environs and this is likely to continue.
<b>Proposed Solutions:</b>	<p>The location of Ballybrack House and its grounds (on the eastern side of Donnybrook Hill) are strategically located immediately adjacent to Douglas Village and could provide for a quality, sustainable development within walking distance of amenities and services. Therefore the DLUTS study should recognise the strategic value of the lands and make provision for appropriate access so that the lands can contribute to the future development of Douglas.</p> <p>The landowners have previously been in discussions with Cork County Council regarding the provision of a Link Road linking Donnybrook Hill and Carrigaline Road. The landowners remain amenable to any future discussions regarding the provision of this road or other proposals.</p>
<b>Stakeholder Plans for Study Area:</b>	N/A
<b>Other Comments:</b>	N/A

**Table 2.13 Submission from Ciaran O'Callaghan**

<b>Stakeholder Name:</b>	<b>Ciaran O'Callaghan</b>
<b>Identified Issues / Problems:</b>	<p>1. It is currently very difficult for pedestrians to cross the Grange Road. There is currently a large demand for pedestrian movements to cross the Grange Road directly east of Clifton Grange Housing estate. Currently traffic moves at a very fast speed at this location.</p>
<b>Proposed Solutions:</b>	<p>1. An upgrade of the pedestrian crossing facilities in Grange at this location, with measures to reduce traffic speed, is needed.</p> <p>2. Cycle provision should be carefully considered, in particular consideration given to the risks posed by railings, walls, unnecessary signage and legal limitations for cyclists via substandard inappropriate mandatory measures.</p>
<b>Stakeholder Plans for Study Area:</b>	N/A
<b>Other Comments:</b>	N/A

**Table 2.14 Submission from Dan and Margaret O'Mahony**

<b>Stakeholder Name:</b>	<b>Dan and Margaret O'Mahony</b>
<b>Identified Issues / Problems:</b>	<ol style="list-style-type: none"> <li>1. The area x03 (b) should not be included in the study as it has been sold for farming land use and so is not relevant.</li> <li>2. This survey is a waste of resources as a previous, comprehensive land use and transport study has already been carried out by Brady Shipman Martin.</li> <li>3. Unauthorised traffic from St Columbus School must be removed from Shamrock Lawn.</li> <li><b>4. We don't need any more surveys about cycle lanes or bus lanes. Douglas currently has a green route.</b></li> <li>5. Buses currently run up to 20 minutes late which encourages people to go back to using their cars.</li> <li>6. In West Douglas the green route is routinely blocked by the loading and unloading of trucks. Massive funding was spent on the creation of this green route and yet no time is spent enforcing obstructions in these bus lanes.</li> <li>7. Douglas needs an innovation business centre, similar to Mahon.</li> </ol>
<b>Proposed Solutions:</b>	<ol style="list-style-type: none"> <li>1. A slip road to the west of Douglas onto the South Ring Road, as proposed in the BSM report, <b>would relieve traffic in the area of Shamrock Lawn and St Coleman's School.</b></li> <li>2. The Cork City boundary should be moved to include Douglas.</li> <li>3. Douglas needs more amenities such as sport and leisure facilities, community centre, cinema and entertainment centre.</li> <li>4. The land in the inner Douglas area should be developed in a similar fashion to Mahon, Blackpool and Curaheen.</li> </ol>
<b>Stakeholder Plans for Study Area:</b>	<ol style="list-style-type: none"> <li>1. I have been in negotiations with Cork County Council and have reached an agreement to create a new town centre west of Douglas G.A.A. Club. The relocating of the G.A.A club involved the participation of Castle Land Group which is now part of NAMA. It would therefore seem that the proposal cannot go ahead without the participation of NAMA.</li> <li>2. I have been in talks with a number of companies and the I.D.A. in relation to job creation in the Douglas area. A German company want to locate in <b>Douglas and create 100's of jobs for the area</b> but require a proper road network system in place before they do so.</li> </ol>
<b>Other Comments:</b>	<p>I would also point out that I purchased my land form Cork County Council. This land is land locked. If I don't get a proper entrance I will go the legal route.</p>

**Table 2.15 Submission from Deirdre Whelan**

<b>Stakeholder Name:</b>	<b>Deirdre Whelan</b>
<b>Identified Issues / Problems:</b>	There are serious road safety issues at the junction of Instow, River Bank Estate and East Douglas Street. Because of the layout of the Well Road / Douglas Road Junction, residents of River Bank must attempt to cross four lanes of traffic when wishing to turn right out of the estate. Previously it was possible to turn left and make a U-Turn at the roundabout located at the top of the village. However since the signalisation of this junction that option has been removed leading to a situation where city bound residents must attempt to cross 4 lanes of traffic to make a right turn.
<b>Proposed Solutions:</b>	<ol style="list-style-type: none"> <li>1. The provision of a yellow box at the entrance to River Bank would facilitate a safer exit for right turning traffic.</li> <li>2. Alternatively the provision of a turning circle close to this junction would facilitate right turning traffic.</li> </ol>
<b>Stakeholder Plans for Study Area:</b>	N/A
<b>Other Comments:</b>	N/A

**Table 2.16 Submission from Dennis O'Regan**

<b>Stakeholder Name:</b>	<b>Denis O'Regan</b>
<b>Identified Issues / Problems:</b>	N/A
<b>Proposed Solutions:</b>	A walkway / cycle way should be constructed along the Douglas Estuary. This would involve creating a pathway between the estuary and the N25. The proposal would involve one bridge to link up with the existing pathway behind Mahon Golf Course which is in turn connected to Rochestown / Passage West, Blackrock, Mahon and the Marina via an old railway line. A map has been included with this submission showing the location of the proposed walkway.
<b>Stakeholder Plans for Study Area:</b>	N/A
<b>Other Comments:</b>	N/A



**Table 2.17 Submission from Michael Dowling**

<b>Stakeholder Name:</b>	<b>Michael Dowling</b>
<b>Identified Issues / Problems:</b>	<p>There is currently severe congestion at the signalised junction of Grange Road and Donnybrook Hill between 08:00 and 09:00 each morning. The signals are controlled by an inductive loop for traffic on the Grange Road but are time controlled for traffic on Donnybrook Hill. It appears that the inductive loop is not working correctly resulting in a situation where traffic from Grange road gets an insufficient amount of green time and only three-four cars can exit Grange Road during each cycle. At times it can take up to twenty minutes for a car to travel 200 meters along the Grange Road.</p>
<b>Proposed Solutions:</b>	N/A
<b>Stakeholder Plans for Study Area:</b>	N/A
<b>Other Comments:</b>	N/A

**Table 2.18 Submission from O'Brien and O'Flynn Contractors**

<b>Stakeholder / Organisation Name:</b>	<b>O'Brien and O'Flynn Contractor</b>
<b>Identified Issues / Problems:</b>	N/A
<b>Proposed Solutions:</b>	N/A
<b>Stakeholder Plans for Study Area:</b>	<p>O'Brien and O'Flynn propose to Zone 9.6 acres for medium density residential and provide a new 12 acre town park in the centre of Douglas. The land for this proposed development is contained in Character Area 9 of Zone X-03(a) of the Carrigaline and Douglas Local Area Plan.</p> <p>Lands to the south and north of the proposed development site have been developed for residential purposes. Lands to the east and west are currently disused or used for agriculture and not open to the public. This submission seeks to provide a substantial town park (over 12 acres) for the Douglas Area.</p> <p>While Douglas is well served in terms of commercial and community facilities it is currently poorly served in terms of amenities and open space. As part of this submission a new town park will be provided including 12 acres of open space mature trees and amenity walks.</p>
<b>Other Comments:</b>	N/A

**Table 2.19 Submission from St Patrick's Mills**

<b>Stakeholder / Organisation Name:</b>	<b>St Patrick's Mills</b>
<b>Identified Issues / Problems:</b>	N/A
<b>Proposed Solutions:</b>	N/A
<b>Stakeholder Plans for Study Area:</b>	<p>This submission proposes to zone the lands at St Patrick's Mills for Town Centre use to help the council's retail and employment needs for the Douglas area as set out in CASP and the outline Strategy for the Carrigaline Electoral Area.</p> <p>The CASP update identifies Douglas as a "priority location" for development within metropolitan Cork and a Primary location for development within Cork City. St Patrick's Mills are Ideally situated to deliver the strategic objectives for the area in relation to the delivery of retail/ commercial development and in relation to the objective to encourage the redevelopment of brownfield lands in the Douglas / South Environs.</p> <p>The St Patrick's Mills site will provide an important opportunity to provide an alternative and unique town centre and retail environment within Douglas. As part of this submission a number of precedent types of development have been presented as examples of the type of development which could be established in St Patrick's Mills. These include:</p> <ol style="list-style-type: none"> <li>1. Kildare Village Shopping centre;</li> <li>2. The Duke of York Square retail and mixed use development in London; and</li> <li>3. Marshalls Yard Development in London.</li> </ol>
<b>Other Comments:</b>	N/A

**Table 2.20 Submission from Shipton Group**

<b>Stakeholder / Organisation Name:</b>	<b>Shipton Group</b>
<b>Identified Issues / Problems:</b>	
<ol style="list-style-type: none"> <li>1. Greater control needed on junctions in the town to ensure maximum capacity. Signalisation of Fingerpost Roundabout could help with this.</li> <li>2. Signal optimisation and a yellow box are needed at the junction of Well Road and Douglas Road.</li> <li>3. The roundabout on South Douglas Road / Willow park needs to be replaced with a signalised junction.</li> <li>4. During school term, Douglas West and Donnybrook Hill experiences severe queuing.</li> <li>5. A proposed development at the cinema site has been requested to set back the front boundaries to facilitate road widening. This road widening should be considered carefully as it may encourage excessive speed and discourage cycling and walking.</li> <li>6. There is currently undeveloped land to the east of Douglas Court Shopping Centre which is part owned by Cork County Council. This land has attracted undesirable use especially at night resulting in problems for residents of Belgard Downs.</li> </ol>	
<b>Proposed Solutions:</b>	
<ol style="list-style-type: none"> <li>1. Cork County Council needs to ensure that through traffic is kept away from Douglas centre so that it can be developed as a pedestrian friendly environment.</li> <li>2. Provision has been made to add an additional floor of parking space onto the multi-storey car park at Douglas Shopping Centre. This can be used for any number of uses as well as parking.</li> <li>3. There is a lack of office space in Douglas. There is significant green and brownfield lands within X03a area of Douglas suitable for the provision of office space and sustainable employment creation within the town, removing the need for car based trips</li> <li>4. Douglas Community Park suffers from a lack of supervision and consideration should be given to the construction of a new roadway along the western boundary of the park.</li> <li>5. Church Street needs to be preserved as a residential street and measures taken to remove non-residential traffic and parking.</li> <li>6. There is scope within the Douglas South Central Area to develop road infrastructure linking Fingerpost Roundabout to Donnybrook Hill area. The proposal, a map of which is included with the submission, involved the removal of the bridge under Carrigaline Road, and realigning Church Road so that it becomes a major east – west link.</li> <li>7. Lands to the south of the Carrigaline Road could be used for the provision of essential services such as petrol station / garage to facilitate the removal of the petrol station in the centre of Douglas village, which is an inappropriate location. Cork County Council should encourage the redevelopment of the Garage site to something more suited to the village centre.</li> <li>8. In Douglas West, the waste ground to the west of the GAA club could be used to provide further community areas for the schools and GAA club located here.</li> <li>9. The west Douglas Relief Road (a map of which is included in the submission), identified</li> </ol>	

previously in numerous submissions to the Council, could be a major help in relieving congestion on Donnybrook Hill and Douglas West.

10. The Garage site, the cinema and former TSB site make up the core of Douglas Village and the **quality of future development in this core is dependent on An Bord Pleanála's imminent decision** on the Cinema site.

11. The site comprised of the former TSB site and adjacent lands provides an excellent opportunity for retail and retail services as well as employment on upper floors, and could facilitate greater permeability within the town centre.

12. There is little need for additional parking in Douglas and given the high number of public transport services that pass through Douglas centre the parking standards applied by Cork County Council are probably too high for a town centre such as Douglas.

13. Undeveloped land to the east of Douglas Court Shopping Centre would be best suited for use as a public park and mixed use development with a focus on employment.

14. Signalisation of the Fingerpost Roundabout should be considered as it is currently very difficult for pedestrians and cyclist to negotiate and lack of control at the junction also impedes traffic flows during peak times. Signalisation at this point would provide the council with the opportunity to regulate the flow of traffic through the town.

#### **Stakeholder Plans for Study Area:**

N/A

#### **Other Comments:**

N/A

## **2.5 Stakeholder Consultation Summary**

2.5.1 By the end of the consultation process a significant number of submissions had been received from a variety of different stakeholders. A review of these submissions identified the following main areas of concern:

- Traffic congestion especially during peak periods;
- School traffic causes major congestion near schools in the AM peak;
- Traffic signals in the study area need to be optimised to run more efficiently;
- A number of junctions in the village centre including the Topaz Junction and Donnybrook Hill are over capacity during peak periods;
- There is a need for more public walkways and cycle ways in Douglas; and
- There is a need for more public amenities and facilities in Douglas.

## 3 Schools Consultation

### 3.1 Overview

- 3.1.1 As was highlighted in a number of submissions in Chapter Two of this report, school traffic is a significant contributor to congestion in the Douglas area during the peak periods. Because of this it was important for this study to understand the travel patterns associated with each of the schools in the study area.
- 3.1.2 As mentioned previously a total of 23 schools were contacted as part of the consultation process for DLUTS. They were sent an introduction letter and a specifically designed schools questionnaire for them to complete and return. The schools contacted are listed in Table 3.1 below.

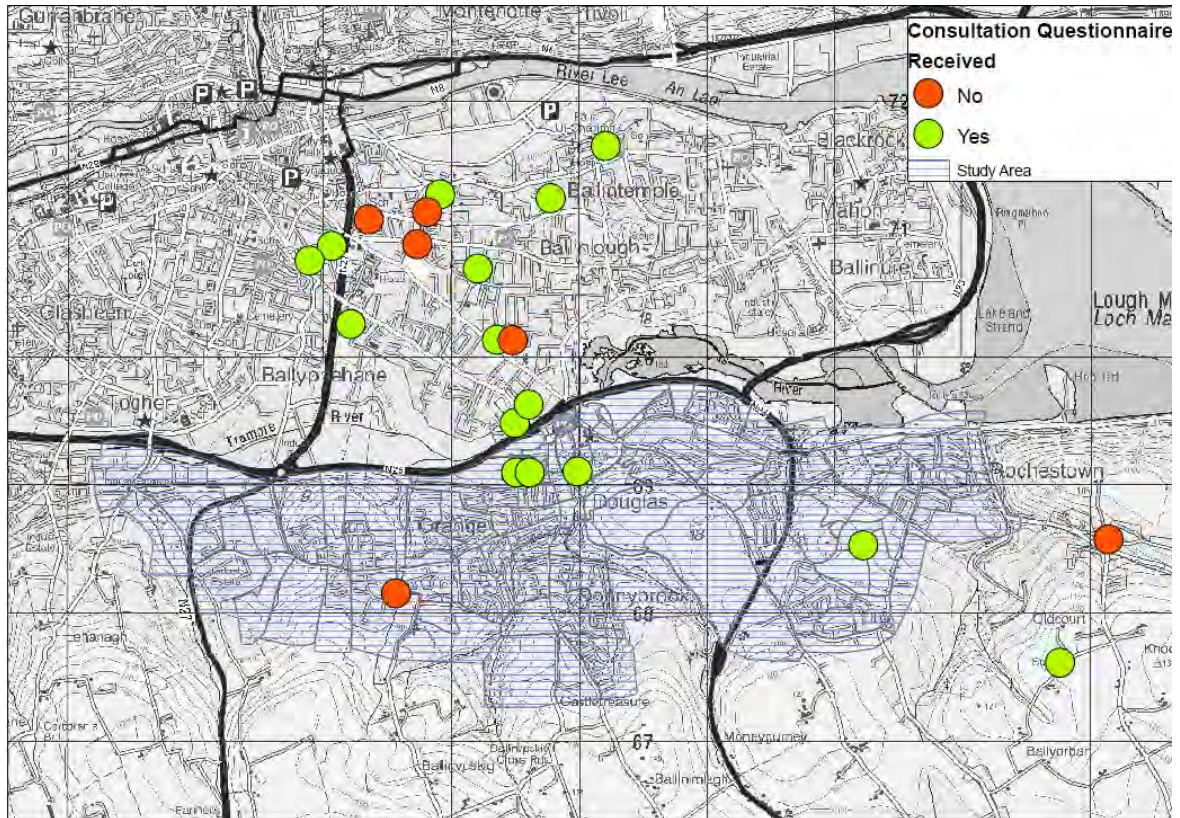
**Table 3.1 Study area Schools contacted to take part in Consultation Process**

School	School Type
Ballintemple National School	Primary School
Bunscoil Chríost Rí	Primary School (Girls)
Bunscoil Chríost Rí	Primary School (Boys)
Gaelscoil na Dúglaise	Primary Gaelscoil
Our Lady of Lourdes NS	Primary School (Girls)
Rockboro Primary School	Primary School
Scoil Bhríde Eglantine	Primary School
<b>Scoil Iosaf Naofa</b>	Primary School
<b>Scoil Nioclais</b>	Primary School
Scoil Phódraig Naofa	Primary School
St Anthony's BNS	Primary School (Boys)
St Columba's BNS	Primary School (Boys)
St Columba's GNS	Primary School (Girls)
St <b>Luke's</b> National School	Primary School
Ashton School	Secondary School
Christ King Girls	Secondary School (Girls)
Colaiste Chríost Rí	Secondary School
Douglas Community School	Secondary School (Boys)
Regina Mundi College	Secondary School
Rochestown College	Secondary School
School of the Devine Child	Special School
Scoil Aislínn	Special School
<b>St Mary's Special School</b>	Special School

3.1.1 We received completed questionnaires from 15 of the schools contacted. Figure 3.1 below shows the study area boundary in grey and the location of the schools contacted and indicates also whether a questionnaire has been returned from them. The response rate from the schools contacted was quite high which reflects the importance of transport issues to the schools in the area.

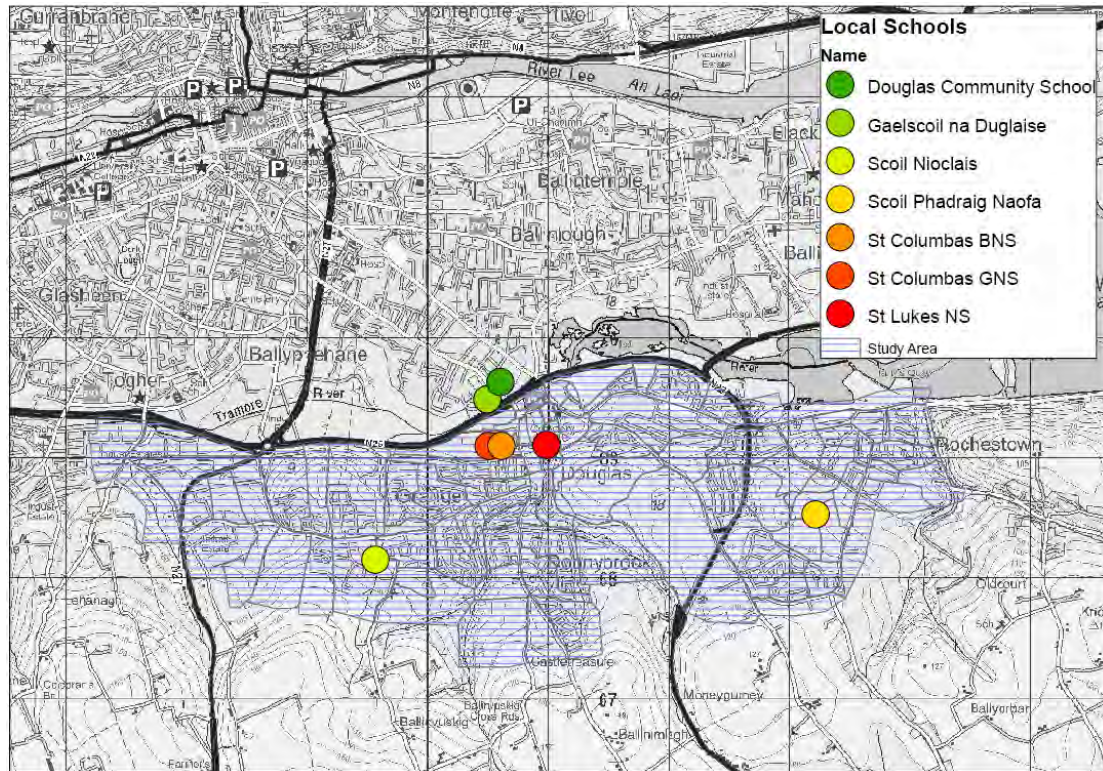
3.1.2 Appendix C provides the detail of the questionnaire which was provided to the schools.

**Figure 3.1 Location of Schools Contacted**



3.1.3 There are five primary schools within the study area (hereon in referred to as 'the local schools'). Gaelscoil na Dúglaise and Douglas Community School are located a short distance north of the study boundary and, given that their catchment is primarily within the study area, they are also considered to be local schools. The location of the local schools is shown below in Figure 3.2.

3.1.4 These local schools as well as all the schools within the surrounding area, whose catchment lies within the study area, were contacted in writing and invited to complete a specially designed questionnaire as part of the public consultation process.

**Figure 3.2 Study Area local Schools**

### 3.2 Evaluation of Responses to the Schools Questionnaire

3.2.1 The survey questionnaire was grouped into a number of categories including:

- School description;
- Cycling;
- Walking;
- Bus;
- Pick up and drop off;
- General traffic issues;
- Car parking;
- Staggered start times; and
- Travel planning.

3.2.2 A summary of the responses received under each of the above headings will be outlined, in turn in the following sections of this chapter.

3.2.3 As mentioned previously we received responses from 15 schools out of the 23 contacted which represents a 65% response rate. Table 3.2 below outlines the general characteristics of the schools who responded to the questionnaire in terms of primary or secondary and the numbers of staff and pupils/students in each school.



**Table 3.2 Characteristics of Schools who Answered Questionnaire**

School	Description	Pupils	Staff
			Full-time/Part-time
Ballintemple National School	Primary School	216	17/1
Bunscoil Chríost Rí	Primary School	574	38/4
Gaelscoil na Dúglaise	Primary Gaelscoil	355	23/1
Scoil Bhríde Eglantine	Primary School	553	35/5
Scoil Phódraig Naofa	Primary School	244	15/1
St Anthony's BNS	Primary School (Boys)	788	56/1
St Columba's BNS	Primary School (Boys)	507	50/1
St Columba's GNS	Primary School (Girls)	515	56/12
St <b>Luke's</b> National School	Primary School	217	12/7
Ashton School	Secondary School	500	50/17
Christ King Girls	Secondary School (Girls)	1011	70/20
Colaiste Chríost Rí	Secondary School	640	51/7
Douglas Community School	Secondary School (Boys)	570	50/50
<b>St Mary's Special School</b>	Special School	61	17/4
School of the Devine Child	Special School	22	10/10

3.2.4 The responses received from the schools are summarised under the following headings:

### Cycling

3.2.5 The rate of cycling to school is very low in the area. Cycling is perceived to be dangerous and, as a consequence, schools are reluctant to promote cycling as a means of travel. However, consultation with the local schools suggests that pupils are interested in cycling.

3.2.6 Cycling appears to be more common amongst boys attending secondary school. Douglas Community School has 235 cycle parking spaces. On the other hand, Christ the King girls secondary school stated that no pupil cycles to school.

3.2.7 There are a small number of pupils who cycle to local primary schools and there are also a small number of teachers who are interested in cycling. **Almost all the schools offered the 'cycle to work scheme' to members of staff which allows them to purchase a bicycle tax free.**

### Walking

3.2.8 Walking is a popular means of travel to and from school. However, most of the local schools have very wide catchment areas and this reduces the propensity for pupils to walk to school.

- 3.2.9 **A number of walking buses are in operation to St Columba's** Girls National School (GNS) and Boys National School (BNS). These require organisation by a member of staff and a commitment from parents to facilitate them and have been very successful.
- 3.2.10 A minority of schools stated that the standard of access for pedestrians was inadequate. In this respect, the most common issue raised by local schools related to the lack of pedestrian crossing facilities near the school entrance. A lack of pedestrian pavements was also mentioned as being of concern in some locations.

### Bus

- 3.2.11 Two of the local schools, Gaelscoil na Dúglaise and St **Luke's** have dedicated school bus services. The buses operate from Passage via Rochestown. There is strong demand for the school bus service, though recent increases in charges have resulted in reduced demand. The two special schools surveyed, **St Mary's** and **School of the Divine child**, also have a dedicated bus service.
- 3.2.12 Table 3.3 provides a summary of the level of travel to school by bus for the schools surveyed.
- 3.2.13 Most of the local schools can be accessed by Bus Éireann regular services. A small number of pupils from each local school travel on these services. Generally, the timetables are suited to the school hours, though not in all cases. The location of bus stops is not ideal for some schools and some stops do not have shelters or timetable information.

**Table 3.3 Travel to School by Bus**

School	Dedicated School Bus	Approximate % of students travelling by bus
St Columba's BNS	No	Small
St Columba's GNS	Yes <sup>1</sup>	Small
St <b>Luke's</b> National School	Yes	15%
Gaelscoil na Dúglaise	Yes	7%
Douglas Community School	No	Small
Scoil Phádraig Naofa	No	Very small
St Anthony's BNS	No	Not stated
Bunscoil Chríost Rí	No	Not stated
Ballintemple National School	No	Not stated
Colaiste Chríost Rí	No	Not stated
Christ King Girls	Yes	40%
Ashton School	Yes	50%
Scoil Bhríde Eglantine	No	Not stated
<b>St Mary's Special School</b>	Yes	95%
School of the Devine Child	Yes	100%

### Pick Up and Drop Off

- 3.2.14 Eleven of the fifteen schools surveyed stated that pick up and drop off activity at the school results in traffic congestion. In some cases, delays caused by school related traffic are a frequent occurrence. Often, the impact can be more pronounced in the afternoon as parents wait for pupils to leave school. Many of the local schools are located beside residential areas and parking associated with pick up activity overflows into these estates which impacts on residents.

### General Traffic Issues

- 3.2.15 The local schools were invited to raise any general traffic issues that affected access to the schools. The following issues were raised:
- there is significant congestion on routes from the Rochestown direction towards Douglas;
  - some junctions within the centre of Douglas and near the N25 are perceived to cause delays;
  - the lack of alternative routes for traffic from the south west of Douglas (e.g. Grange, Frankfield) means that traffic has no option but to route via West Douglas; and
  - on-street parking within Douglas can impede traffic and cause significant delays (e.g. on Church Yard Lane and Church Road).

### Car Parking

- 3.2.16 All but two of the schools surveyed have an on-site car park. The school car parks generally have one space per full-time member of staff and one or two additional spaces for visitors. The allocation of car parking spaces was organised within four of the schools on a needs basis; the remaining schools operated a 'free for all' system.
- 3.2.17 Demand for car parking at the schools is high and nine of the eleven schools with car parks stated that demand exceeded supply at least occasionally. For four of the schools, including Gaelscoil na Dúglaise and St Columba's GNS, demand was stated to be constantly above capacity.

### Staggered Start Times

- 3.2.18 Some efforts have been made to stagger the start times of local schools. The schools either have an early start time of 08:30 or a late start time of 08:45/08:50. The finish times are also staggered 14:10 or 14:30 for the primary schools.

**Table 3.4 Local School Start and Finish Times**

<b>Early Start Schools</b> <b>School hours: 08:30 to 14:10</b>	<b>Late Start Schools</b> <b>School hours: 08:50 to 14:30</b>
St Luke's	St Columba's BNS
Scoil Phádraig Naofa	St Columba's GNS
	Gaelscoil na Dúglaise

### Travel Planning

- 3.2.19 Only two of the fifteen schools surveyed have a nominated travel plan co-ordinator or a post with the responsibility for travel planning. As part of the Green Schools initiative, St Columba's GNS has initiated travel planning. Scoil Phádraig Naofa maintains a mobility management plan and was conditioned to do so as part of their planning permission.

### 3.3 Interviews

- 3.3.1 All of the schools within the study area were invited to participate in a consultation meeting with a member of the DLUTS team. This consultation gave the local schools an opportunity to talk through any issues or concerns they might have as well as providing a valuable source of information on travel behaviour in the study area to the study team.
- 3.3.2 Principals and members of staff from the following five schools accepted the invitation to take part in this phase of the consultation process:
- Gaelscoil Na Dúglaise;
  - St Columbas B.N.S;
  - St Columbas G.N.S;
  - St Luke's National School; and
  - Scoil Phádraig Naofa.
- 3.3.3 The points raised and information gained from interviews with the schools above will be outlined in the remaining sections of this chapter.

### 3.4 Gaelscoil Na Dúglaise

- 3.4.1 The general characteristics of Gaelscoil Na Dúglaise are outlined in Table 3.5 below.

**Table 3.5 Characteristics of Gaelscoil na Dúglaise**

School	Gaelscoil na Dúglaise
Principal	Niamh Ní Mhaoláin
Description of School	All Irish Primary School
Total Number of Pupils	355
Total Number of Staff (full-time/part-time)	23/1
School Hours	08:50 – 14:30
Building Opening Hours	08:15 – 20:00

### School Location and Catchment

3.4.2 The school is located off the Douglas Road, immediately north of the N25 within Willow Lawn. Access to the school is via the roundabout at South Douglas Road / N25 Off-ramp / Willow Lawn (hereon in referred to as the entrance roundabout).

3.4.3 Gaelscoil na Dúglaise is the only all Irish primary school within the area and the catchment, therefore is widespread. Children travel from:

- Passage;
- Rochestown;
- Clarkes Hill; and
- Douglas.

### Traffic Issues

3.4.4 Traffic congestion on the Rochestown Road affects pupils travelling from the Rochestown area. Heavy traffic builds up frequently, particularly east of the N28/N25 junction. Traffic in this area is significant at all times of year and on Saturdays and Sundays too.

3.4.5 The traffic lights at the Tesco junction cause delays in accessing the school.

3.4.6 When the weather is bad and it is raining the traffic around Douglas is very bad and can be at a standstill.

### Walking

3.4.7 Given the large catchment area of the school, the majority of pupils do not live within walking distance.

3.4.8 It is difficult for pedestrians to cross at the entrance roundabout and this greatly impedes pedestrian access to the school.

3.4.9 The school is located within a cul-de-sac and there is no direct route from the residential areas to the north through to the school (e.g. from Glencurragh).

3.4.10 There is no crossing of the South Douglas Road adjacent to the school entrance. There is a pedestrian crossing which provides direct access to Douglas Community School approximately 200m north of the entrance roundabout.

3.4.11 **Children's school bags are heavy and though no lockers are provided, children may leave books in the classroom overnight.** Nonetheless, the weight of schools bags is considered to be significant.

3.4.12 There is no walking bus in operation at the school; nor is there one planned.

### Drop Off and Pick Up Facilities

3.4.13 There is a small half turning circle adjacent to the school on the public road. Space is limited and if one or two cars stop within the turning arc for long, traffic congestion builds up quickly. The school requested that double yellow lines be marked out within the circle and this was facilitated.

### Cycling

- 3.4.14 Children are interested in cycling to school, however, the roads are perceived to be dangerous for cycling.

### Access to School by Bus

- 3.4.15 There is a dedicated school bus which travels from Passage, via Moneygourney, Rochestown Road to the school. The bus generally arrives at 08:15. At present, 25 pupils travel on the school bus and it is used to its full capacity.
- 3.4.16 Some pupils use the regular Bus Éireann services. There is a bus stop within a short distance of the school. The bus timetable does generally suit school times.

### Staggered Start Times

It is not considered to be practical to change the school start time.

## 3.5 St Columbas B.N.S and G.N.S

- 3.5.1 The general characteristics of St Columbas B.N.S. and G.N.S are outlined in Table 3.6 below.

**Table 3.6 Characteristics of St Columbas B.N.S and G.N.S**

School	St Columba's GNS	St Columba's BNS
Principal	Michelle Cashman	Tom Wilkinson
Description of School	All Girls Primary School incorporating a school for the deaf	All Boys Primary School
Total Number of Pupils	515	507
Total Number of Staff (full-time/part-time)	56/12	50/1
School Hours	08:50 – 14:30	08:50 – 14:30
Building Opening Hours	08:00 – 22:00	07:30 – 16:30

### School Location and Catchment

- 3.5.2 The school is located off Douglas West/Donnybrook Hill (hereon referred to as the main road).

- 3.5.3 Children travel from:

- Douglas;
- Rochestown;

- Bishopstown; and
- Grange.

### Traffic Issues

- 3.5.4 West Douglas is a narrow road. Two-way traffic is permitted though the road is not sufficiently wide for two vehicles to pass along some sections.
- 3.5.5 There are limited routes available for traffic and the main road (Douglas Hill / West Douglas) carries large volumes of traffic from the Grange Road and Scairt Hill direction.
- 3.5.6 The northbound bus lane on Douglas Hill ends approximately 50m south of the school entrance. Therefore, traffic merges a short distance from the school entrance. This can cause difficulties for cars wishing to turn into the school (or Inchvale Road).
- 3.5.7 There are two northbound general traffic lanes at the school entrance. For cars arriving from the north and turning right into the school it can be difficult to cross the two lanes with cars moving on the inside. There is a solid white line at the school entrance. There is a yellow box at the entrance to the school, but the observation of this is sometimes lacking.
- 3.5.8 It was suggested that traffic lights at the entrance to the school would improve access.
- 3.5.9 There is a bus stop in the northbound direction on Douglas West. The bus stop is within the left lane and it is perceived that the bus impedes traffic movements when it stops. It was queried whether the bus stop could be located within a lay by in the grass verge near the school.
- 3.5.10 Traffic coming from Church Road can experience delays at the junction with Douglas West. On approach to the junction, Church Road widens to two lanes, one for traffic turning right and one for traffic turning left. However, the nose to kerb parking on Church Road obstructs access to the left turn lane. Furthermore, deliveries to the Centra sometimes occur at school times and cause difficulties for traffic.

### Walking

- 3.5.11 The school is served by one lollipop warden to assist pupils crossing Douglas West. Two traffic wardens supervise pedestrian movements within the school grounds – one at the entrance to the boys school and one at the entrance to the girls school. Pupils are instructed to access the school at designated areas supervised by lollipop and traffic wardens.
- 3.5.12 A walking bus has been in operation for about the last three years. At present there are four to five buses walking to school every day. The walking buses are organised by a teacher and facilitated by volunteering parents. The WOW: Walk on Wednesday initiative has been adopted by the school.
- 3.5.13 Walking buses are arranged by St Columbas BNS for trips during school hours, for example, visits to the local library, community park and local secondary school.
- 3.5.14 Some issues regarding pedestrian access were raised. The school entrance is recessed which can result in conflicts between pedestrians and vehicles. There is no footpath on Douglas Hill opposite the school entrance. There is a sloping path from Shamrock Hill and it is perceived that the path is not well maintained. Parents often pull in along Inchvale Road to pick up and drop off children.

3.5.15 School lockers are available in the classrooms within St Columba's GNS.

#### **Drop Off and Pick Up Facilities**

3.5.16 At present the parents are encouraged to pick up and drop off children off at the community park and walk to the school. A lollipop lady assists children in crossing Douglas West along this route. Parents have been willing to use the community park and this arrangement has assisted in easing traffic congestion at the school entrance.

3.5.17 There are concerns of the impact of the introduction of parking charges on this arrangement. The schools have requested that a waiver be allowed at school drop off and pick up times so that parents will not incur parking charges.

3.5.18 There is also a one way drop off system in operation with drop off outside the main school entrance.

#### **Cycling**

3.5.19 Cycling is perceived as being dangerous. Years ago, the boys school did provide for cycle training. Currently, there is a reluctance to encourage cycling due to the perceptions of its danger.

#### **Access to School by Bus**

3.5.20 There are no dedicated school bus services. However, a few children do use the St Luke's school bus.

3.5.21 Some pupils also use the regular Bus Éireann buses. However, there is no direct service between Rochestown and the school. A private bus was set up a number of years ago to cater for pupils from the Rochestown direction, but the service could not cover its costs and it was withdrawn.

#### **Staggered Start Times**

3.5.22 The school start time is staggered with that of St Luke's which is nearby. St Columba's GNS and BNS start at 08:50, whereas St Luke's starts at 08:30.

#### **Signage**

3.5.23 There is no signage along Douglas Hill / Douglas West to highlight the presence of the school. It was suggested that the provision of advance warning of school children crossing would be beneficial as well as 'school ahead markings'.

#### **Other Issues**

3.5.24 Reference was made to previous proposals for a new road adjacent to St Columba's School and it was queried whether this scheme was under consideration. Concern was raised about the potential impact of a new road relatively close to the school. Traffic noise can interfere with the operation of cochlea implants which are used by a number of pupils within the school for the deaf.

### **3.6 St Luke's National School**

3.6.1 The general characteristics of St Luke's National School are outlined in Table 3.7 below.



**Table 3.7 Characteristics of St Luke's National School**

School	St Luke's NS
Principal	Olwen Anderson
Description of School	Primary School
Total Number of Pupils	217
Total Number of Staff (full-time/part-time)	12/7
School Hours	08:30 – 14:10
Building Opening Hours	08:00

### School Location and Catchment

3.6.2 The school has a wide catchment area which includes:

- Douglas;
- Frankfield;
- Ballygarvan;
- Passage; and
- as far as the boundary with Blackrock.

### Traffic Issues

3.6.3 Parking on Church Yard Lane reduces the width of the road to one lane although two-way traffic is permitted. The impact of parking on Church Yard Lane has a knock on impact on school access as traffic cannot move through the area freely.

3.6.4 Traffic problems are worst in the afternoon. If there is a wedding or funeral in one of the nearby churches, traffic can be at a standstill when pupils are being collected.

### Walking

3.6.5 There are no pedestrian crossing facilities adjacent to the school on Church Road or Church Yard Lane. There is no footpath at the entrance to the school on the opposite side of Church Yard Lane. Footpath widths on Church Yard Lane are narrow. The footpath on Church Road is not continuous on one side. No lollipop warden can be provided because of the absence of footpaths.

3.6.6 There are no walking buses in operation within the school at present. There are not many pupils within direct walking catchment of the school and it is considered that there are insufficient numbers to facilitate a walking bus. However, there is potential for a walk and stride scheme should a suitable drop off / pick up location be identified.

### Drop Off and Pick Up Facilities

- 3.6.7 In the afternoon, the school gates are opened at 14:00 and parents are permitted to drive into the school grounds and circulate around the school hall to pick up pupils.
- 3.6.8 The school has made arrangements with St Columba's Church so that parents may make use of the small car church car park for pick up and drop off. On the other hand, church goers can use the school grounds for parking at the weekends. The church car park provides limited space and there is no pedestrian crossing facility to link it across to the school resulting in conflict between pedestrians and cars on Church Yard Lane. There is some concern that the church car park will be closed to the public when the on-street pay and display scheme is introduced in Douglas. The school is in discussions with the church to see what can be done to maintain the current arrangements.
- 3.6.9 There is limited space for drop off and pick up facilities at the school. It was suggested that a suitable location should be identified to provide for walk and stride links to the school and better facilitate drop off and pick up.

### Cycling

- 3.6.10 Some children cycle to school and new cycle parking racks have been purchased recently. Some teachers also cycle to the school.
- 3.6.11 It is considered dangerous to cycle from the Passage direction. The cycle lanes are not continuous and run out. Cycle lanes are considered the ideal facility for cycling. It is thought that improvements could be made for cycle linkages to Rochestown and Donnybrook.
- 3.6.12 The school would be interested in providing for cycle training, subject to funding. Consideration might be given to participating in the Subway Sprocket Rocket programme.

### Access to School by Bus

- 3.6.13 There is one dedicated school bus route that serves Passage and Rochestown. The bus is currently fully subscribed and caters for approximately 40 pupils. There has been a reduction in demand for school bus services since the increase in bus pass fees. Some pupils would only seek to use the bus in one direction, to get to school, as they have various activities to go to in the afternoon and the school bus fees make this impractical.
- 3.6.14 Very few pupils use the regular Bus Éireann services. There are some issues with using the bus to get home from school. The nearest stop is at the Rochestown Park Hotel. There is no seating at the bus stop and no timetable information. When the bus does arrive, it can be very full.

### Staggered Start Times

- 3.6.15 The school start time is staggered with that of St Columba's GNS and BNS which are nearby. St Columba's GNS and BNS start at 08:50, whereas St Luke's starts at 08:30.

### Other Issues

- 3.6.16 The school participates in the Green Schools Programme and would hope to participate in the transport aspects of the programme over the next five years.

### 3.7 Scoil Phádraig Naofa

3.7.1 The general characteristics of Scoil Phádraig Naofa are outlined in Table 3.8 below.

**Table 3.8 Characteristics of Scoil Phádraig Naofa**

School	Scoil Phádraig Naofa
Principal	Fíodhna Ní Bhaoill
Description of School	Primary School
Total Number of Pupils	244 (catering for junior infants to 2 <sup>nd</sup> class, the school is approximately 50% occupied)
Total Number of Staff (full-time/part-time)	15/1
School Hours	08:30 – 14:10
Building Opening Hours	08:15 – 15:00

#### School Location and Catchment

3.7.2 The school has a limited catchment and caters for the residential areas that surround it including:

- Foxwood;
- Mount Oval; and
- Rochestown.

3.7.3 Three quarters of pupils live within the Mount Oval and Foxwood areas.

3.7.4 The school is located at the end of the Foxwood cul de sac and the main vehicular access route is via Coach Hill / Foxwood (hereon in referred to as the main road).

#### Traffic Issues

3.7.5 There are no major traffic issues in accessing the school.

3.7.6 It was suggested that speed ramps should be installed within Kilbrody (although no specific issue relating to speed was raised).

3.7.7 It was suggested that double yellow lines be provided within Foxwood to prevent parents from dropping off and picking up pupils in non-designated areas.

#### Walking

3.7.8 The majority of pupils live within walking distance of the school and a significant number do so. A walking bus is currently being planned.

3.7.9 There is no pedestrian crossing at the school gate and there is a perceived need for one.

- 3.7.10 There is no pedestrian crossing on the main road at the entrance to the Foxwood Estate. However, there are pedestrian medians and these are perceived to work well.
- 3.7.11 During the preparation of the mobility management plan, many parents remarked on the inadequate footpaths along Mount Oval Road to Forthill and Broadale. The footpaths along Garryduff are also considered poor.

#### **Drop Off and Pick Up**

- 3.7.12 The drop off and pick up area within the school grounds is supervised during busy periods. There are proposals to increase the size of the vehicular turning circle within the school grounds to provide for better access. A new dedicated pick up and drop off location in Mount Oval will also be provided in the future. Although there is no vehicular access between Mount Oval and the school, pedestrian access is available.

#### **Cycling**

- 3.7.13 No children cycle to the school at present, though it must be remembered that all current pupils are aged eight and under.
- 3.7.14 Cycle facilities are provided for and there is a cycle access route to the school and cycle parking racks are in place.

#### **Access to School by Bus**

- 3.7.15 There are no dedicated school bus services. Bus Éireann services operate along the main road, although the bus stop is a distance from the school.

#### **Staggered Start Times**

- 3.7.16 The school start time is staggered with that of other schools in the area. Scoil Phádraig Naofa has an early start time of 08:30.

#### **Signage**

- 3.7.17 There is no signage along the main road to highlight the presence of the school. It was suggested that the provision of advance warning of school children crossing would be beneficial as well as 'school ahead markings'.

#### **Other Issues**

- 3.7.18 The school was opened in September 2009 and is only at 50% capacity at present.
- 3.7.19 As part of the planning permission, the school was conditioned to prepare and maintain a mobility management plan. A copy of the mobility management plan prepared in January 2012 was provided.

### **3.8 Schools Consultation Summary of Issues**

- The majority of pupils travel to school by car;
- Pick up and drop off activities at schools results in traffic disruption and contributes to congestion;

- There is potential to increase the rate of cycling if the issues regarding safety are addressed;
- There are some issues which affect access to schools for pedestrians. A lack of pedestrian footpaths in some locations restricts access. There are a number of local schools which do not have pedestrian crossing facilities near the entrance to the school;
- There is scope to improve the planning and management of travel to school;
- Most of the local schools participate in the Green Schools Programme and, though only one has so far implemented travel initiatives under the programme, a number of others are intending to do so in the near future; and
- Consultation with local schools **suggests that there is potential to organise 'Park and Stride'** schemes to address issues with pick up and drop off.

## 4 Travel Survey Questionnaire Evaluation

### 4.1 Introduction

- 4.1.1 An online travel survey was established and instigated in April 2012. The website was published in the local media, The Examiner and local radio. In addition, invitations to complete the survey were circulated to major employers in the area and to people attending the public exhibition.
- 4.1.2 A summary of the key findings is provided in this section of this report.

### 4.2 Respondent Profile

- 4.2.1 In total, 122 people responded to the survey (via the website, completing them by hand at the public exhibition or by post back). Of the 120 respondents who specified their gender, 61% (n=73) were male and 39% (n=47) were female. Of the 120 respondents who specified their age, 38% (n=46) were over 55, 19% (n=23) were 45-55, 23% (n=27) were 35-44, 16% (n=19) were 25-34, and four per cent (n=5) were under 25.
- 4.2.2 Table 4.1 below details where respondents stated they lived. Almost a third (30%, n=36) stated they lived in Douglas, while 18% (n=22) said they lived in Rochestown.

**Table 4.1 Residence of respondents**

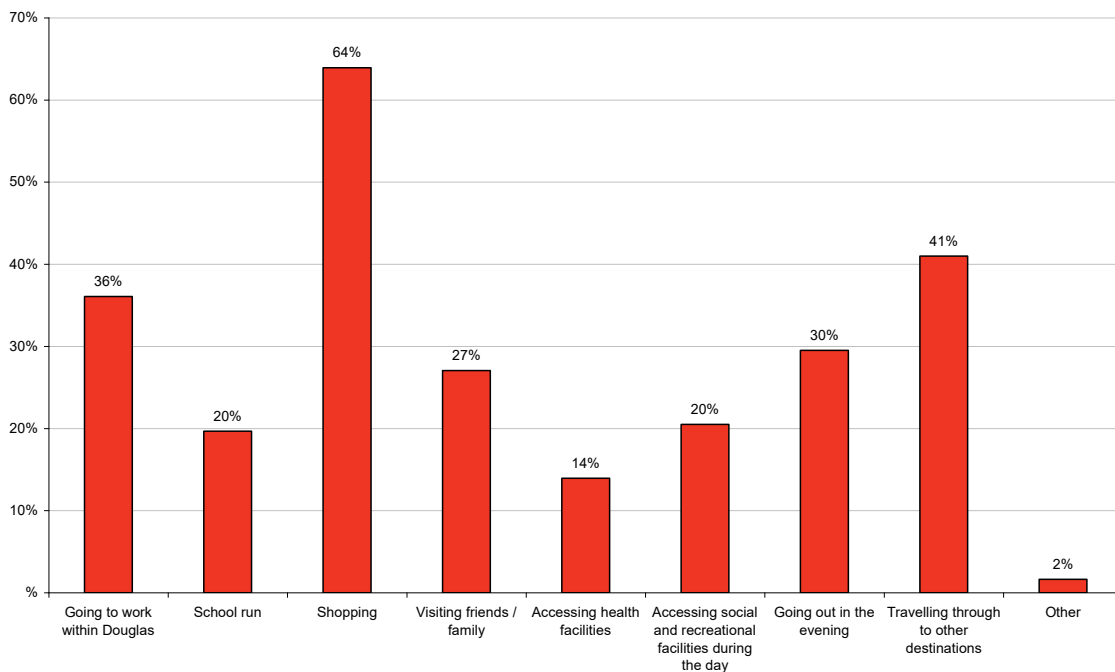
	Number	Percentage
Ballinlough	1	1
Ballinrea Road	1	1
Ballygarvan	1	1
Ballyphehane	2	2
Carrigaline	3	2
Cobh	1	1
Cork	1	1
Donnybrook	14	12
Douglas	36	30
Frankfield	5	4
Grange	7	6
Grange Heights	2	2
Hettyfield	2	2
Killorglan	1	1
Maryborough Hill	3	3
Midleton	1	1
Montstown	1	1
Not specified	14	12
Passage West	1	1
Rochestown	22	18
Top of Scart Hill, Westgrove	1	1
Turners Cross	1	1
Youghal	1	1
<b>Total</b>	<b>122</b>	<b>100</b>

- 4.2.1 Of the 122 respondents who specified whether they drove or not, 93% (n=112) stated that they did, while only seven per cent (n=9) said that they did not drive.
- 4.2.2 In total, 121 respondents specified whether they owned or had access to a bike. Half (50%, n=61) said that they did, the other 50% (n=60) said they did not own or have access to a bike.

4.2.3 When asked how frequently respondents travel within the Douglas area, 119 people answered the question. As many as 84% (n=100) stated that they travel daily within the Douglas area, with a further eight per cent (n=10) stating they travel three - four days per week, six per cent (n=7) staying 1-two days per week, one person stating fortnightly, and one other person stating occasionally.

4.2.4 When asked why respondents travel within the Douglas area, 64% (n=78) said they did so to go shopping, 41% (N=50) said they were travelling through to other destinations, 30% (n=36) said going out in the evening, and 27% (n=33) said visiting friends/family. This is shown in the Figure 4.1. Other responses were Church and going to work via Douglas.

**Figure 4.1 Why respondents travel within the Douglas area**



Note: Totals equal more than 100% due to multiple responses

4.2.5 When asked if respondents had a health problem or disability that affects their choice of travel, almost all (98%, n=120) said that they did not.

4.2.6 The table below shows that half of the respondents (56%, n=68) who returned the questionnaire stated that they worked full-time, while 14% (n=17) said that they worked part-time, and 16% (n=20) said they were retired.



**Table 4.2 Working pattern of respondents**

	Number	Percentage
Working Full-time	68	56
Working Part-time	17	14
Full-time student	6	5
Unable to work due to illness / disability	1	1
Retired	20	16
Looking after home / family	10	8
<b>Total</b>	<b>122</b>	<b>100</b>

### 4.3 Journey to Work or Education

- 4.3.1 Respondents who said that they were working or were a student were asked the town/location of where they work/study. This is shown in the table below.

**Table 4.3 Location of Work/Study**

	Number	Percentage
Across Cork City and County	1	1
Airport Road	1	1
Ballincolig	1	1
Bishopstown	2	2
Blackrock	1	1
Carrigtwohill	2	2
City centre	8	7
Cork	6	5
Cork Airport Business Park	2	2
Cork City	9	7
Cork/Airport	1	1
Cork/Kerry	1	1
Donnybrook	1	1
Douglas	26	21
Douglas Court Shopping	2	2
Douglas Village	2	2
Fermoy	1	1
Fingerpost	1	1
Kinsale Road	1	1
Little Island	2	2
Mahon	2	2
Midleton	1	1
Munster	1	1
Not specified	5	4
Ringaskiddy	1	1
St Finbarrs Hospital	2	2
Turners Cross	1	1
University College Cork	6	5
Victoria Cross	1	1
Other	31	25
<b>Total</b>	<b>122</b>	<b>100</b>

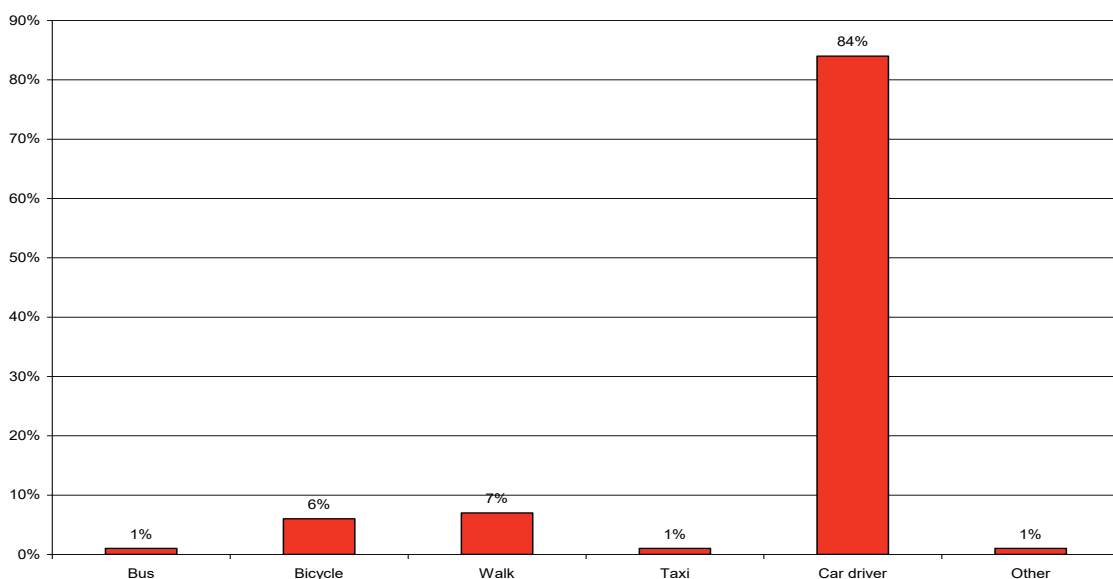
- 4.3.1 Most respondents (88%, n=71) attended a work or education facility from between the hours of 08:00 and 10:00. Almost half of respondents (43%, n=35) left the work or education facility between the hours of 16:00-17:59, while a further 44% (n=36) left between the hours of 18:00 and 19:59. This is detailed in the table below.

**Table 4.4 Hours attending work or education facility**

	From		To	
	Number	Percentage	Number	Percentage
04:00-05:59	1	1	1	1
06:00-07:59	3	4	0	0
08:00-09:59	71	88	0	0
10:00-11:59	4	5	0	0
12:00-13:59	2	2	5	6
14:00-15:59	0	0	2	2
16:00-17:59	0	0	35	43
18:00-19:59	0	0	36	44
20:00-21:59	0	0	2	2
<b>Total</b>	<b>81</b>	<b>100</b>	<b>81</b>	<b>100</b>

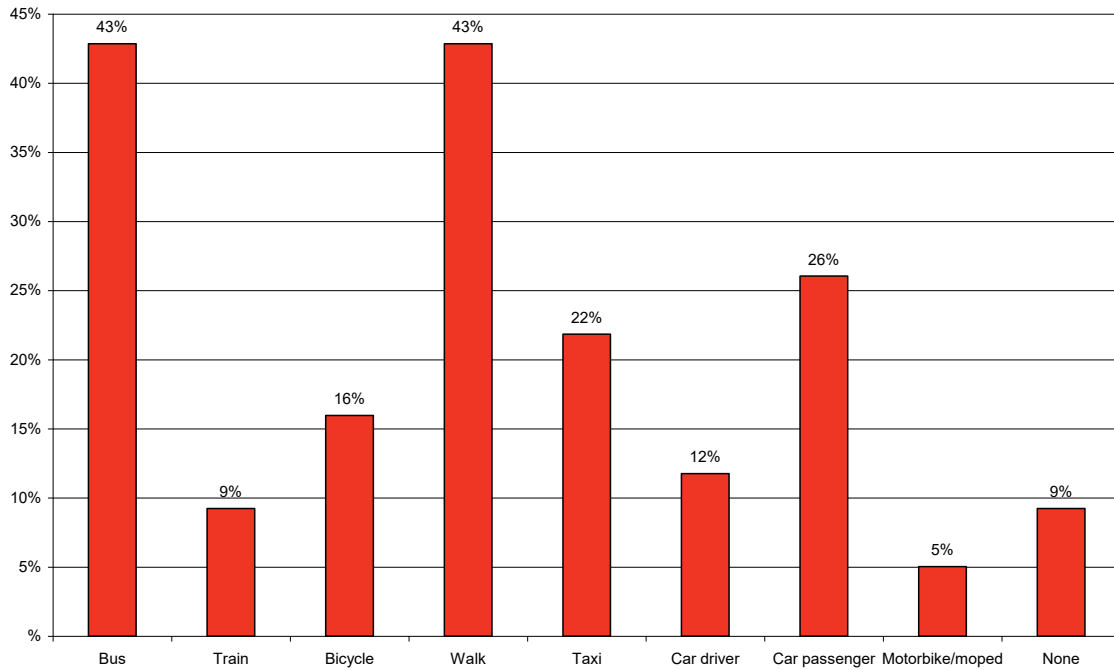
- 4.3.1 Respondents were asked what mode of transport they use most often. All 122 respondents answered the question, and the figure below quite clearly shows that the most frequently cited mode was car driver, with 84% (n=102) stating that this was the mode they used most often. Other responses included travelling by van.

**Figure 4.2 Mode used most often**



4.3.2 Respondents were also asked if there were any other modes that they occasionally use instead of their main mode of transport. The graph below shows that the most frequently cited responses were bus (43%, n=51) and walking (43%, n=51).

**Figure 4.3 Other modes occasionally used**

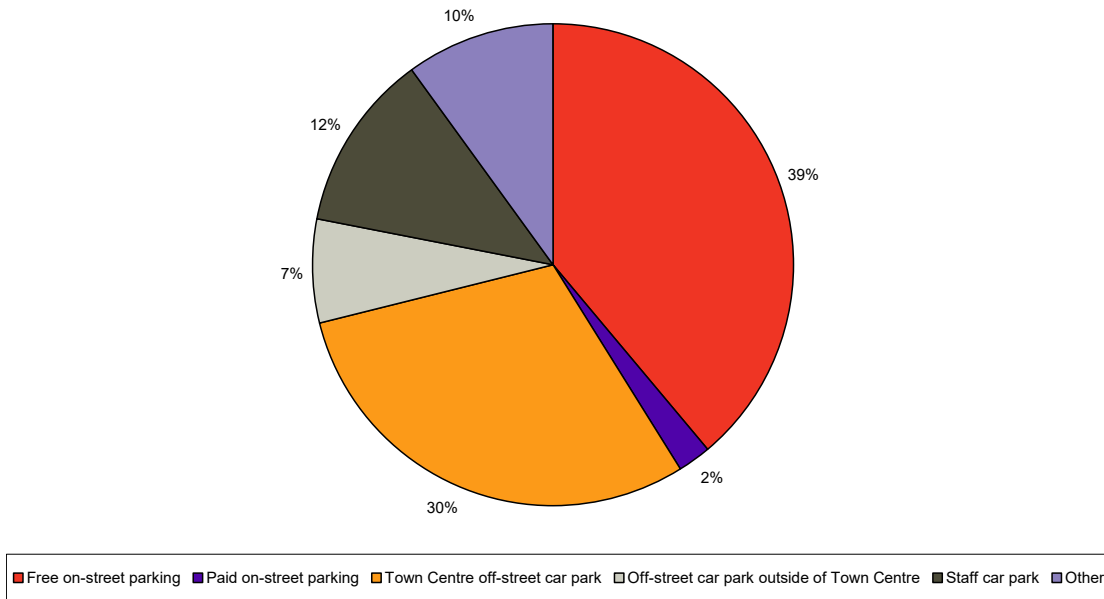


Note: Totals equal more than 100% due to multiple responses

#### 4.4 Travel by Car

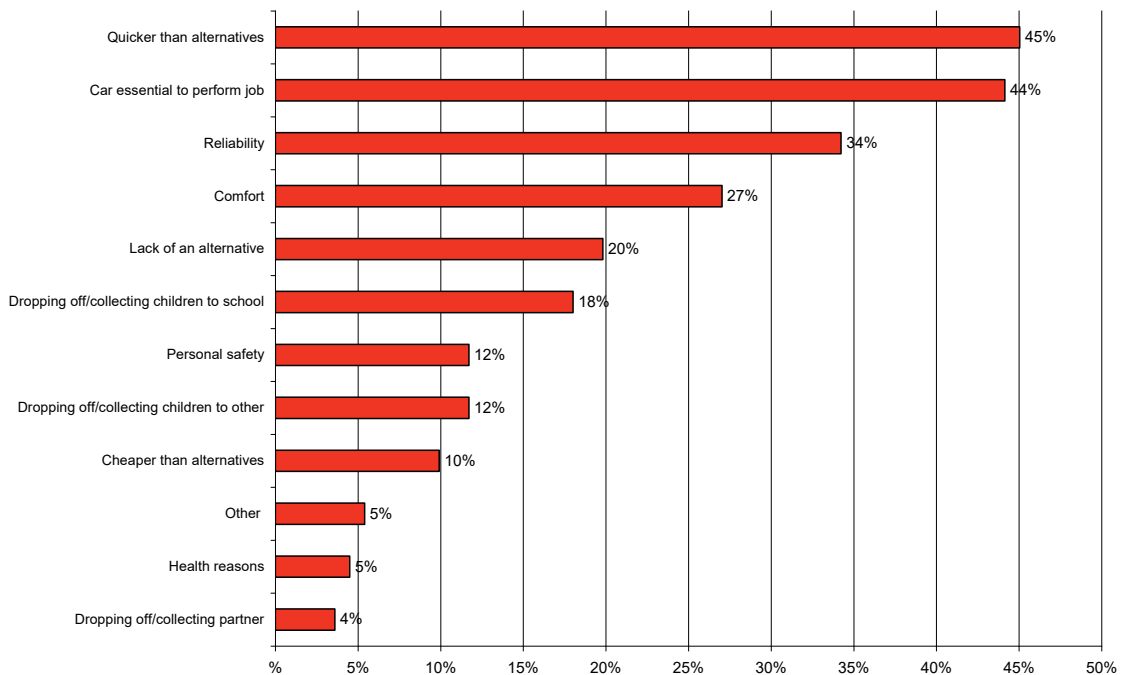
4.4.1 Respondents who stated that they either mostly or occasionally travelled as a car driver were asked to specify where they usually parked. Of the 88 respondents who specified, the graph below shows that 39% (n=42) parked in free on-street parking, while 30% (n=32) said they parked in a town centre off-street car park. Other locations included at a **friend's** house, Dunnes, at home, in a multi-storey car park, and in a shopping centre car park.

**Figure 4.4 Location of Parked Car**



4.4.2 Respondents were also asked the reason that they used their car for travelling. Almost half of respondents (45%, n=50) said that it was quicker than alternatives, 44% (n=49) said that a car was essential to perform their job, and 34% (n=38) stated it was because it was reliable. This is detailed in the figure below.

**Figure 4.5 Reasons for using car to travel**



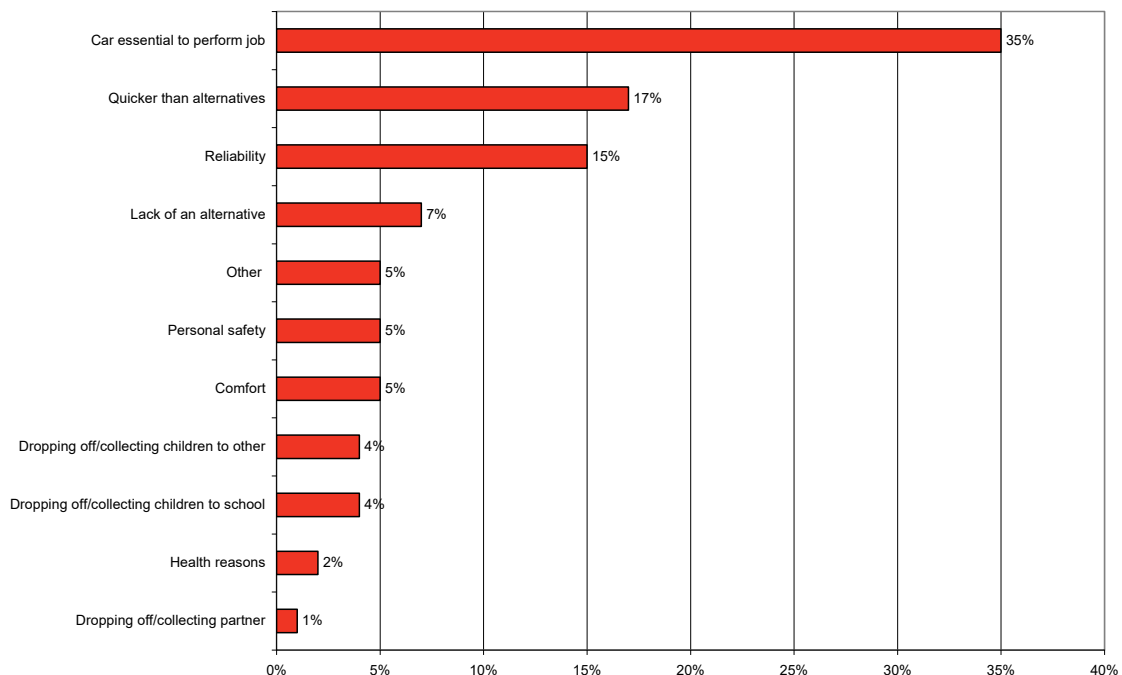
Note: Totals equal more than 100% due to multiple responses

#### 4.4.3 Other responses included:

- access to other areas not covered by public transport;
- carrying shopping and passengers;
- easier to manage files and computer;
- for occasional out of town meetings;
- caring for my elderly relative; and
- too dangerous to cycle.

4.4.4 Of all the reasons why respondents use a car to travel, they were asked what they consider to be the most important reason. The graph below shows that over a third of respondents (36%, n=38) stated that this was because their car was essential to perform their job.

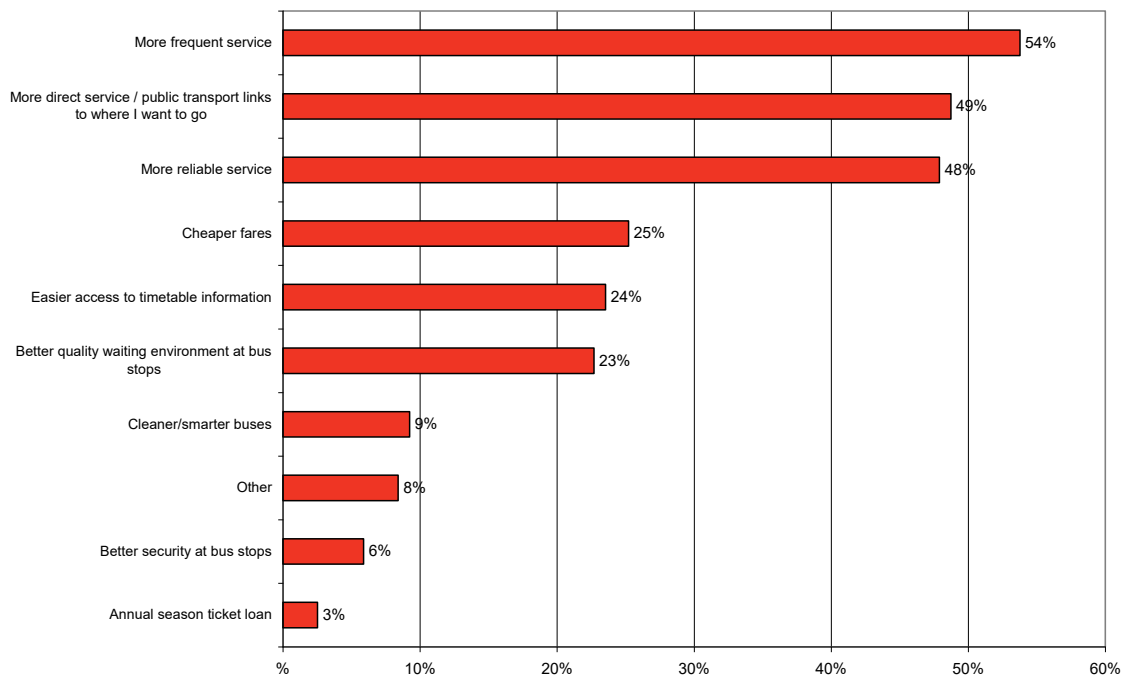
**Figure 4.6 Most important reason for using car to travel**



## 4.5 Travel by Public Transport, Cycle or Walking

### Encouraging bus use

4.5.1 Respondents were asked which of the following improvements would most encourage them to use the bus more. Over half of respondents (54%, n=64) said a more frequent service would encourage them to use the bus more, 49% (n=58) said a more direct service / public transport links to where they want to go, and 48% (n=57) said a more reliable service. This is shown in the graph below.

**Figure 4.7 Improvements that would encourage bus use**

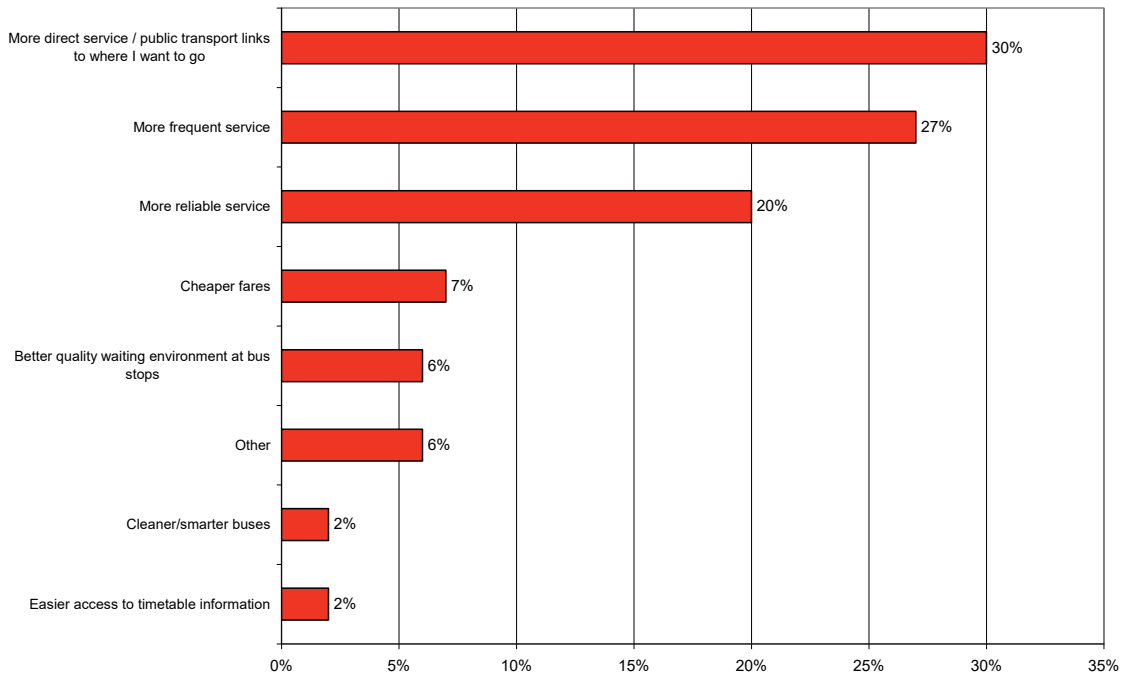
Note: Totals equal more than 100% due to multiple responses

#### 4.5.2 Other responses included:

- shorter bus journeys;
- estimated time of arrival information;
- better location of bus stops;
- parking nearer to bus stops; and
- able to guarantee a seat on the bus.

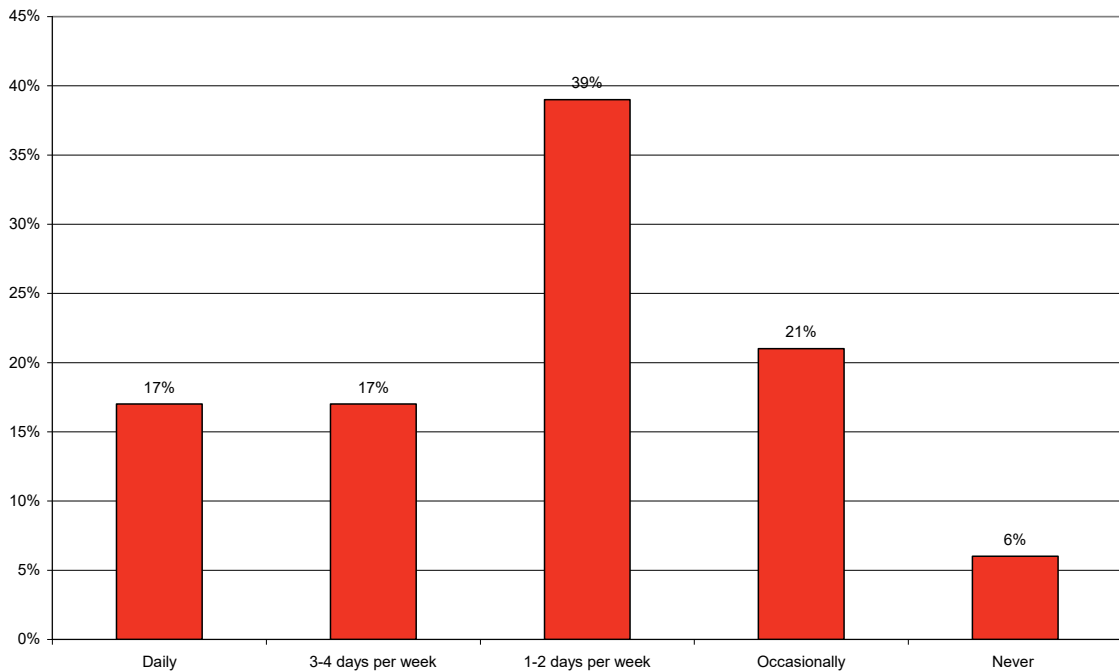
#### 4.5.3 Of these improvements, respondents were asked what they considered to be the most important improvement. Of the 113 respondents who specified, the graph below shows that 30% (n=34) said a more direct service / public transport links to where they want to go would be the most important improvement, 27% (n=30) said a more frequent service, and 20% (n=23) said a more reliable service.

**Figure 4.8 Most Important improvement that would encourage bus use**



4.5.4 If the improvements were made, respondents were asked how often they would consider using the bus. Of the 119 people who answered the question, the graph below shows that 39% (n=46) said one - two days per week, while 21% (n=25) said occasionally.

**Figure 4.9 Frequency of using the bus if improvements were made**





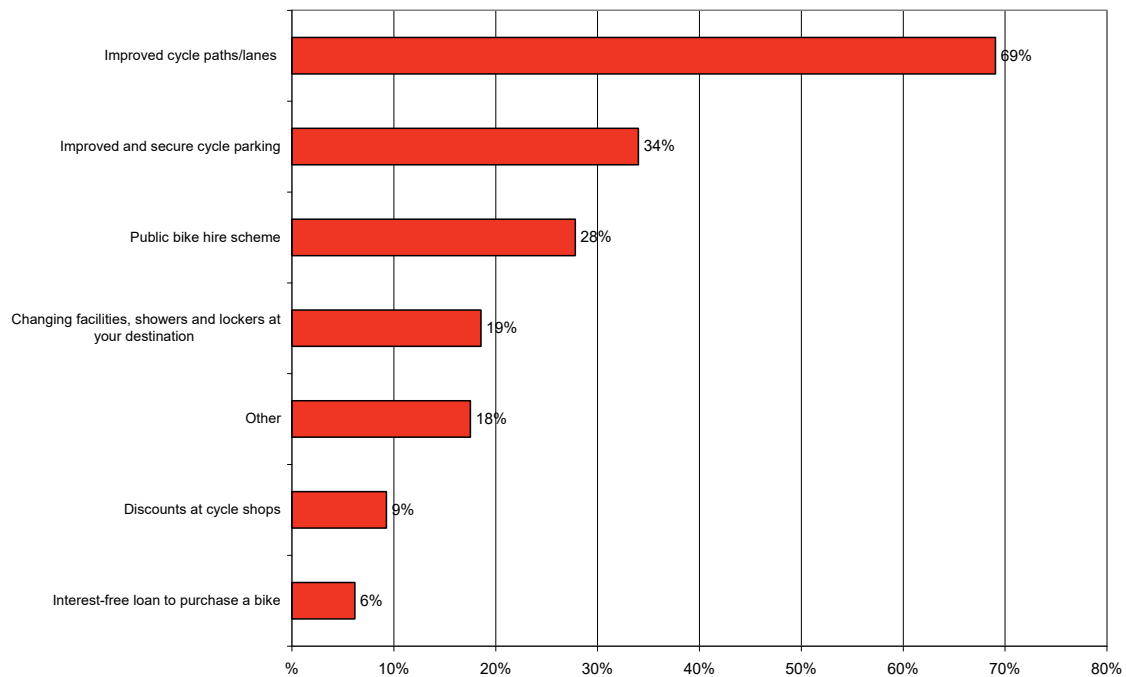
4.5.5 Of those who said never, responses included:

- do not like the bus;
- when travelling would always be picking up/dropping off children;
- home is too far from a bus stop;
- respondents has a disability which would enable them to use a bus; and
- there is no bus rote where the respondent wants to go.

### Encouraging cycle use

4.5.6 Respondents were also asked what improvements would encourage them to cycle more. Over two thirds of respondents (70%, n=67) said improved cycle paths/lanes would encourage them to cycle more. A third of respondents (34%, n=33) said improved and secure cycle parking, and 28% (n=27) said a public bike hire scheme. This is detailed in the graph below.

**Figure 4.10 Improvements that would encourage cycle use**



Note: Totals equal more than 100% due to multiple responses

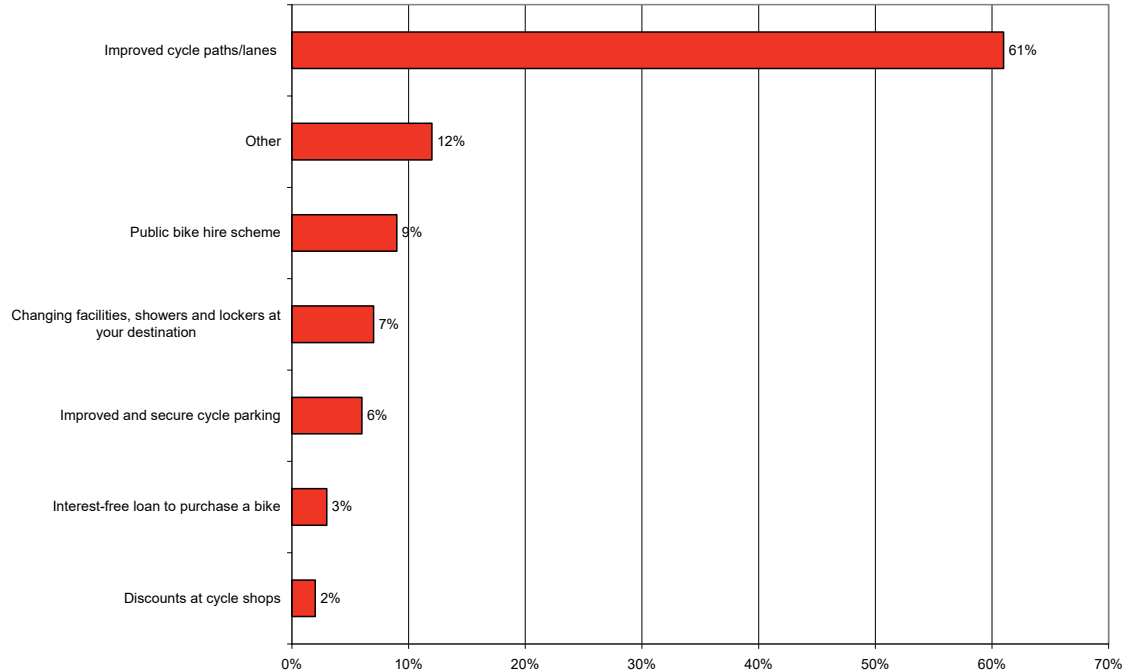
4.5.7 Other responses included:

- safer cycling routes;
- better weather;
- bike to work scheme with employer;
- a less hilly area;
- less air pollution; and

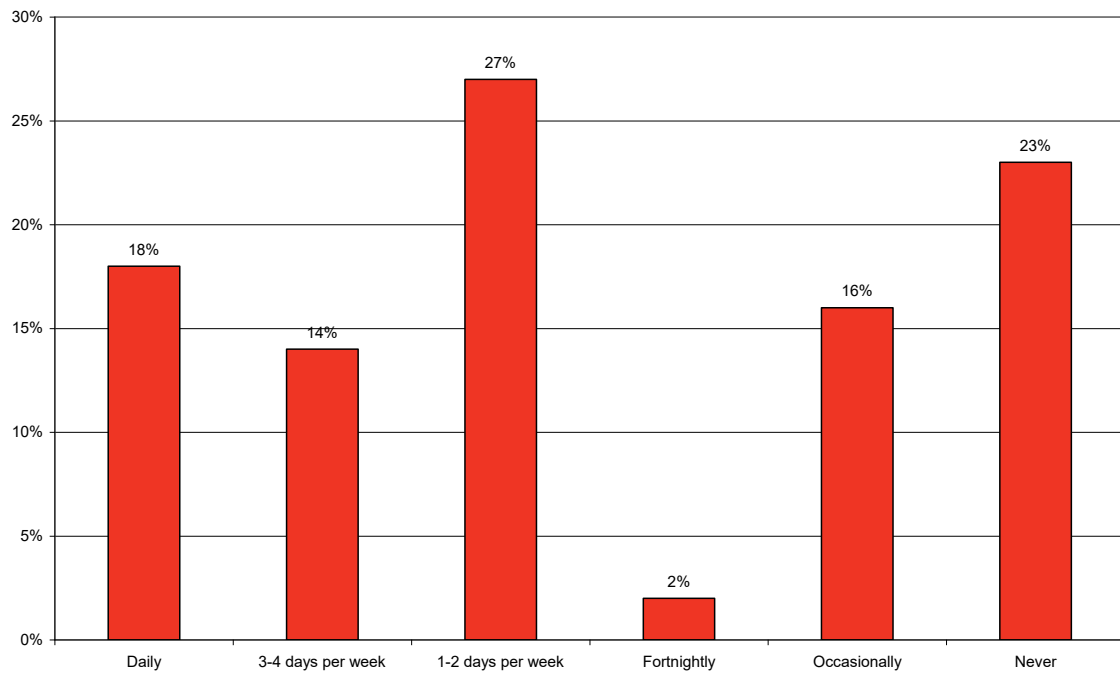
- none: disabled, elderly, poor health, etc.

4.5.8 Respondents were then asked to specify what they thought was the most important improvement. Of the 90 respondents who specified, the figure below shows that 61% (n=55) said improved cycle paths/lanes were the most important improvement.

**Figure 4.11 Most important improvement that would encourage cycle use**



4.5.9 If the improvements were made, the figure below shows the responses of the 103 respondents who specified how often they would then consider cycling. Over a quarter of respondents (27%, n=28) said one - two days per week, while almost a quarter said that they would never consider cycling.

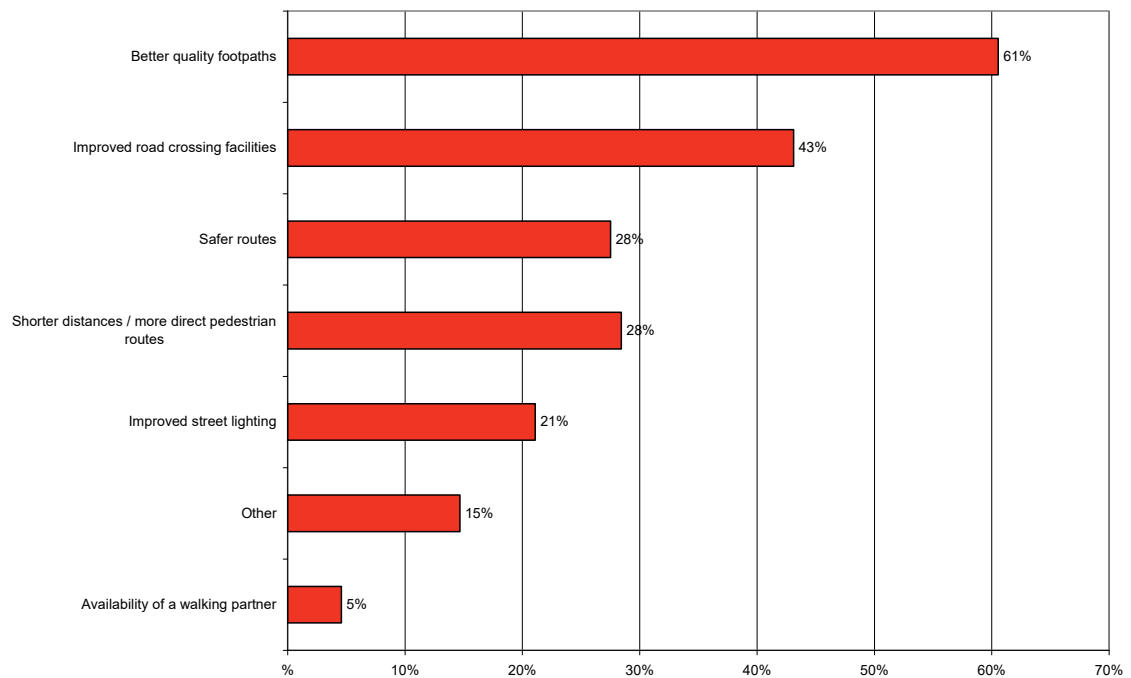
**Figure 4.12 Frequency of cycling if improvements were made**

4.5.10 Of those respondents who said never, reasons for stating this included:

- age;
- bad weather;
- they have a disability;
- do not like cycling;
- poor health;
- traffic is too heavy/busy to cycle;
- area is too hilly;
- travel with children so unable to take them on a bike also; and
- do not own a bike.

### Encouraging walking

4.5.11 Respondents were also asked what improvements would have to be made to encourage them to walk more. The most frequently cited improvements were better quality footpaths (61%, n=66) and improved road crossing facilities (43%, n=47). This is shown in the graph below.

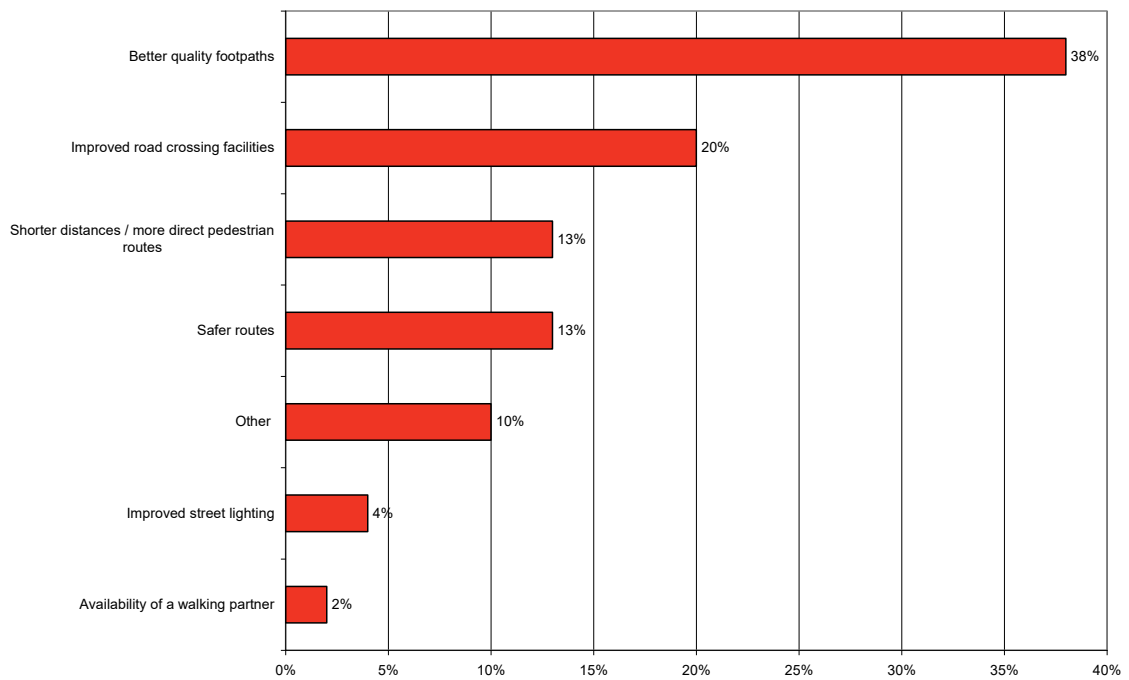
**Figure 4.13 Improvements that would encourage walking**

Note: Totals equal more than 100% due to multiple responses

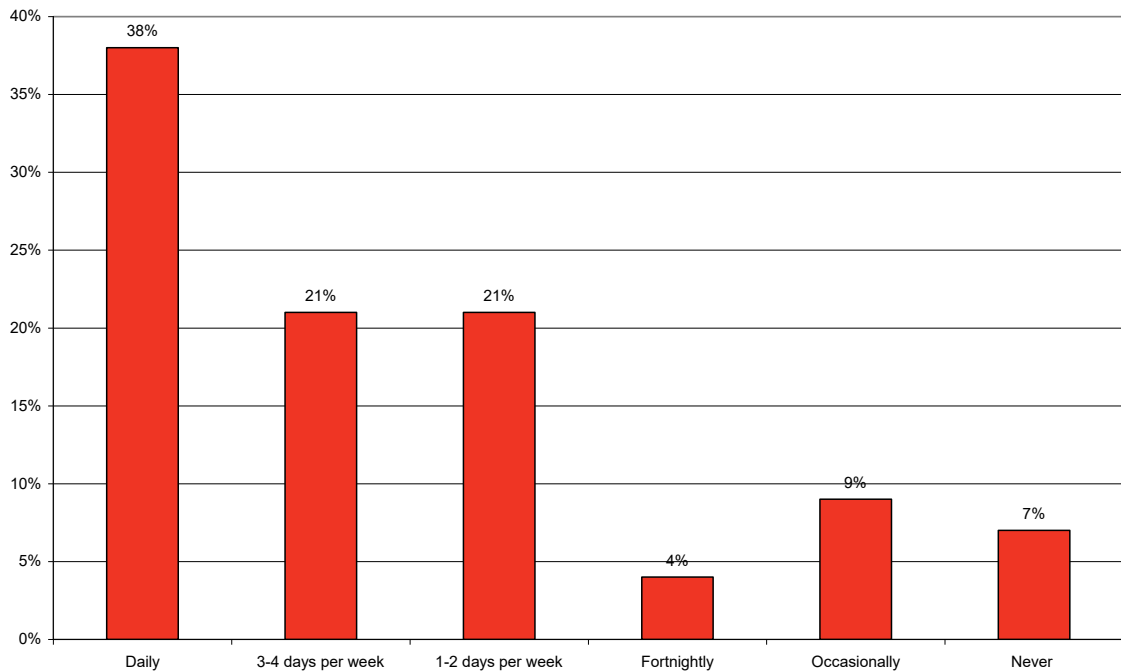
4.5.12 Other improvements were considered to be:

- better weather;
- dedicated walk paths;
- fewer cars so more pleasant walking environment;
- lack of dog fouling; and
- a less hilly area.

4.5.13 When asked what the most important improvement is, of the 105 respondents who specified, 38% (n=40) said better quality footpaths, while 20% (n=21) said improved road crossing facilities. This is detailed in the figure below.

**Figure 4.14 Most important improvement that would encourage walking more**

4.5.14 Of the 112 respondents who specified if the above improvements were made, how frequently they would walk more, 38% (n=43) said daily. A further 21% (n=24) said one - two days per week, while 21% (n=23) also said three - four days per week. This is shown in the graph below.

**Figure 4.15 Frequency of walking if improvements were made**

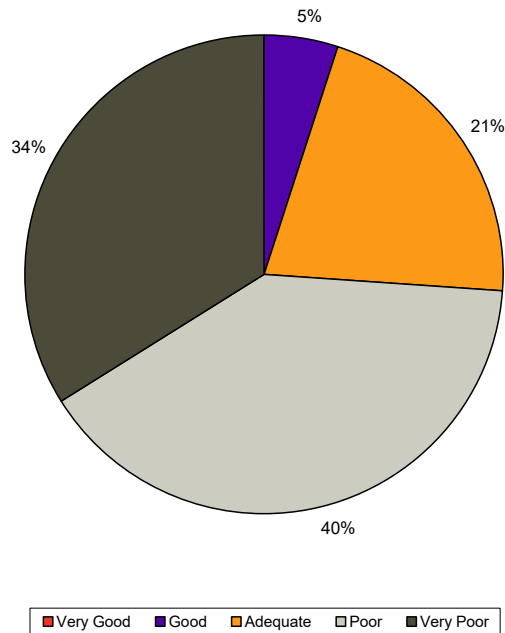
4.5.15 Of the respondents who said never, their reasons included:

- the distance to the destination is too far to walk;
- the weather is too poor to walk; and
- respondent has a disability which prevents them from walking.

#### 4.6 Transport Infrastructure

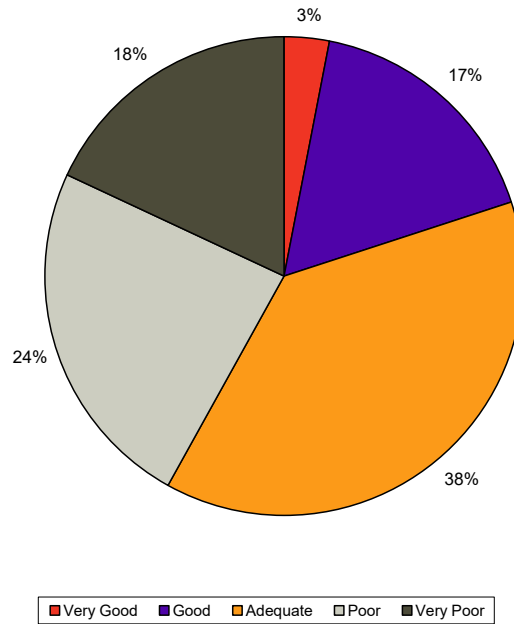
4.6.1 Respondents were asked to rate the general traffic conditions in Douglas. The graph below shows that of the 121 respondents who answered the question, 40% (n=48) said that the general traffic conditions were poor, with a further 34% (n=41) considering that they were very poor. Only five per cent of respondents (n=6) said that they thought the general traffic conditions in Douglas were good.

**Figure 4.16 Rating of general traffic conditions in Douglas**



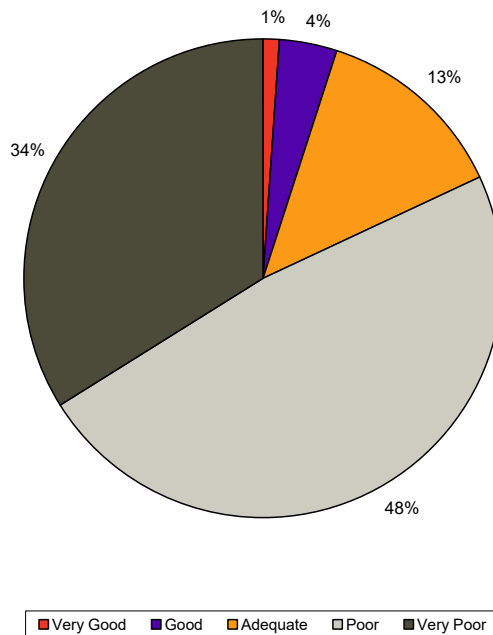
4.6.2 When considering the pedestrian infrastructure in Douglas, of the 120 respondents who answered the question, 38% (n=45) of respondents said they thought it was adequate. While around 20% (n=24) of respondents thought that the pedestrian infrastructure was either very good or good, 42% (n=51) of respondents said they thought it was either very poor or poor. This is detailed in the figure below.

**Figure 4.17 Rating of pedestrian infrastructure in Douglas**



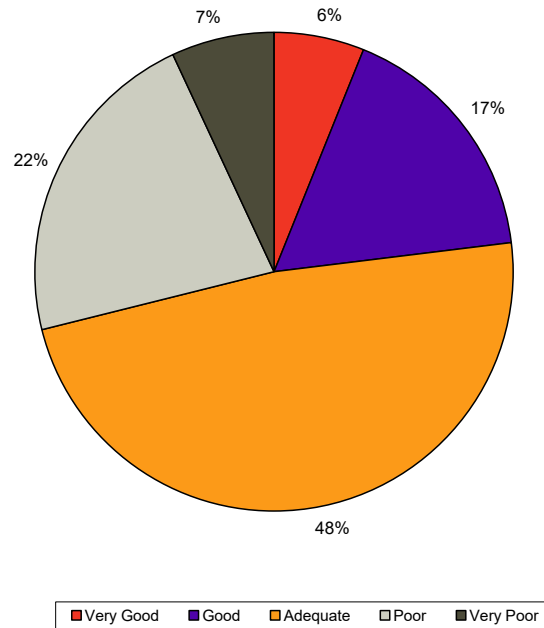
4.6.3 When considering the cycle infrastructure in Douglas, of the 114 people who answered the question, almost half of respondents (48%, n=54) said that they thought it was poor, with a further 34% (n=39) stating that it was very poor. Only one respondent thought that the cycle infrastructure was very good, while five respondents thought it was good. This can be seen in the graph below.

**Figure 4.18 Rating of cycle infrastructure in Douglas**



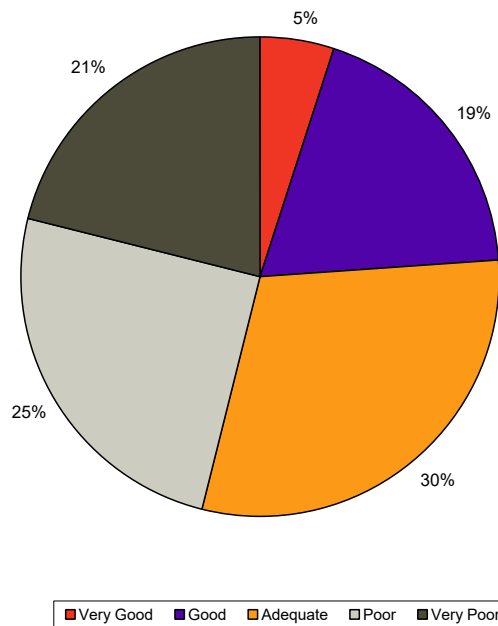
- 4.6.4 When asked how respondents would rate the public transport provision in Douglas, of the 120 respondents who answered the question, 48% (n=58) of respondents said that they felt it was adequate. A further 23% (n=27) said they thought it was either very good or good, while 29% (n=35) said that they thought it was either very poor or poor. The graph below details these responses.

**Figure 4.19 Rating of public transport provision in Douglas**



- 4.6.5 All 122 respondents rated the car parking provision in Douglas, the responses of which are shown in the graph below. Almost a quarter (24%, n=29) stated that it was either very good or good, while almost half (46%, n=56) stated that it was either very poor or poor. A further 30% (n=37) said they thought the car parking provision was adequate.



**Figure 4.20 Rating of car parking provision in Douglas**

#### 4.7 Further Comments

4.7.1 Finally, respondents were asked if there were any specific transport issues in the Douglas area that are of concern. The comments received in this section were varied and can be summarised under the following headings:

- Roads and congestion;
- Junctions
- Parking;
- Speeds;
- Journey times;
- Public transport;
- Pedestrian issues;
- Cycling issues;
- Land use issues; and
- Other

#### Roads / Traffic Congestion

4.7.2 Some of the comments and issues raised relating to the local road network are:

- Traffic / congestion is heavy during peak periods and school runs. Conditions are particularly poor on Douglas Road, South Douglas Road, Well Road, Douglas West, Rochestown Road,

The Topaz Junction, Kinsale Roundabout from Frankfield, Douglas Shopping Centre, Donnybrook Hill and Grange Road.

- School runs add considerably to traffic congestion a dedicated shuttle bus service for students should be introduced, or **perhaps an earlier opening time for schools that doesn't** coincide with job starting times.
- Pedestrian phases at lights are excessive and cause increased delays.
- There should be alternative routes for through traffic to and from Rochestown, Maryborough and Carrigaline etc. to alleviate congestion on Douglas Road and in Douglas Village. A new circulatory system, or one way system, which moves traffic from the core of the village is badly needed.
- A BSM report in 2000 proposed a link road to the west of Douglas. Also a new east – west link might be needed as the current east –west link is too close to the village centre.
- Could the R160 be routed under the motorway and across Marsh leading to other roads to Cork City instead of traffic being routed down the Douglas Road?
- Road markings and surfaces as well as signage, in general, are poor.
- Roundabouts should be replaced by traffic lights to reduce congestion and increase safety for pedestrians, particularly at the Fingerpost Roundabout.
- Roundabouts should be left in place as traffic flows more freely than at signalised junctions.
- A vehicle underpass to the east of the village could remove traffic from the village and encourage a more pedestrian and cyclist friendly environment.
- A link road from West Douglas to the South Ring Road is desperately needed to relieve traffic congestion in Douglas and Donnybrook.
- There is no road hierarchy in Douglas.
- There is some through traffic in Shamrock Lawn and delays exiting this estate.
- Well Road should be made one way outbound.
- Traffic is currently illegally exiting Woodview onto Douglas Road.
- Rochestown Road from the Fingerpost Roundabout to the Rochestown Hotel is very narrow. It should be widened and realigned.
- Serious problem with West Douglas St one way system. Only buses should be allowed to come down West Douglas St.
- Ideally a road should be constructed to run behind Douglas Court Shopping Centre and link up with main Rochestown Road.
- Access to Douglas Court causes tail back at peak hours.
- Traffic calming is required at entrance to Cork County Council Housing Castletreasure, Donnybrook. The wide estate entrance/exit is used by boy racers doing tyre donuts.

### Junctions

- There is very poor visibility at the exit of Alderbrook and the Frankfield Road. The two lane approach to Ballycureen Road should be extended back to Alderbrook.

- A dedicated lane for traffic turning left travelling west from the Topaz Garage should be introduced. The wide footpath at this point provides the space for this. Mixing northbound and westbound traffic results in northbound traffic blocking westbound traffic when the left turn filter light comes on.
- The roundabout at South Douglas Road/Willow Park/the south ring road slip off ramp experiences large delays. It can sometimes take up to 20 minutes to exit Willow Park.
- The signalised junction at Church Road and Donnybrook Hill has large delays and sometimes **the lights don't work properly, resulting in a situation where traffic on Church Road doesn't** get a green light.
- Traffic signal sequencing and synchronisation are not functioning efficiently at a number of junctions including:
  - the Topaz junction,
  - Well Road,
  - Frankfield Hill,
  - Donnybrook Hill,
  - South Douglas Road and N40 on Ramp,
  - Kinsale roundabout.
- Traffic Gardaí or signalisation could help keep traffic moving during busy school times on the busier junctions.

### Land Use Issues

- There is too much traffic from the over built areas around Douglas. There have been far too many houses built in the Douglas area in the last twenty years, especially evident on the Rochestown road which experiences very long tail backs in the AM peak. This is due to the fact the numerous houses were built with no improvements to the one road they all use into Douglas.
- The Douglas Gymnastic Club, which is a voluntary community based sporting organisation has grown quite large (over 600 members) and requires its own site to accommodate this youth focused community-based activity. As the club does not have any significant financial resources, the land would need to be made available from a local authority in the area e.g. Cork County Council or Cork City Council.
- There is a lack of land for future industrial developments such as direct access to the harbour.
- The Topaz garage location is not ideal as it adds to congestion at the junction and is an unsuitable landmark building in Douglas. Would it be possible to move this to a more suitable location and replace with a public open space or more suitable development?
- Preserve existing green areas within Douglas area – estates and parks. Let Douglas village **keep what's left of its heart**. More recreation areas e.g. Vernon Mount would be an improvement.
- The scale of retail floor space both existing and which has been granted planning permission has resulted in the poor traffic conditions seen today. Dominance of car based infrastructure has detracted from the core village area and greatly affected the character of the same.

### Public Transport

- There are capacity issues with buses serving Douglas (6 & 7). These buses tend to fill up very quickly during peak times and leave no seats for some passengers. Maybe double deck buses would help.
- Some bus stops are placed in dangerous locations and poorly marked. A bus station / hub should be created in Douglas.
- Earlier start times for the buses serving Douglas would be helpful
- Some areas such as Mount Oval are poorly served by public transport.
- Plans should be made for an alternative light rail system when oil is no longer a suitable fuel.
- A park and ride facility should be provided.
- Could the buses serving Douglas be re-routed to avoid congested areas? Route 6 could use the N27 and Kinsale Roundabout. The number 7 bus could potentially use the new link road at the shopping centre and avoid Douglas Village which is a bottle neck.
- A dedicated school bus service should be put in place serving the local primary and secondary schools.
- Bus lanes should be continuous on Grange Road and Frankfield Road to ensure the reliability of the service.
- The bus service in Douglas is unreliable and frequently runs up to 20 minutes late especially on the Green Route.
- Green Route needs greater priority to allow easier morning rush hour travel.

### Parking

- Paid on-street parking is a bad idea and will route traffic towards Tesco and Dunnes car parks.
- The introduction of paid parking outside schools could lead to potentially chaotic and dangerous situations at drop off and pick up times.
- There is a lack of parking in some areas especially on perimeter.

### Speed

- Nobody seems to keep to speed limits and there are no reminder signs on most of the roads in Douglas. Maryborough Road and Douglas Village at night have problems in respect of speeding.
- Speed limits need to be enforced.

### Pedestrian Issues

- Footpath provision and the pedestrian environment in general is poor. Especially so on Maryborough Hill where paths are very narrow.
- The pedestrian facilities around Well Road and Topaz junction are particularly bad. No thought has been given to pedestrians when designing these junctions.
- Better street lighting is needed on footpaths in Douglas.
- More off road walkways should be provided in Douglas. E.g. at Domans, Calderwood or Mangala.
- The centre of Douglas village should be pedestrianised or made more pedestrian friendly creating an improved public realm and link with East Village and between the two shopping centres.
- There is a lack of pedestrian crossing points in Douglas.
- The zebra crossing outside McDonalds does not link with shopping centre entrance.
- The development of a cycleway/walkway from Grange Road through Vernon Mount Valley and over the N25 (N40) using a new bridge. This would give connectivity from Grange and Frankfield to 1) Douglas and on to Rochestown Road, 2) to Turners Cross via a new park at the former landfill and 3) east to Togher.
- Schools should encourage children to walk and cycle to school which would eliminate a lot of peak hour traffic.

### Cycling

- The cycling environment is poor in Douglas. Better laid out and marked cycle lanes are needed. There are no safe cycle routes from surrounding residential areas into Douglas or from Douglas to Cork City. Cycle lanes should be provided on all radial routes into Douglas.
- A cycle lane should be provided along the Rochestown road, which is currently very dangerous for cyclists.
- Cyclists need better protection from general traffic.
- It is currently not safe for children to cycle to / from school etc. Safe cycle lanes to and from schools should be provided.
- More secure and covered parking provision for bicycles is needed.
- Better provision of cycle lanes and routes could help tourism. For example a cycle route from Crosshaven to Carrigaline (existing) then on to Douglas and Cork City.
- The widening of footpaths on Donnybrook Hill has narrowed the roads to such a degree that it is dangerous for cyclists. Cycle lanes are needed here as a drainage ditch on one side of the road leaves it very unsafe for cyclists. Cycle lanes for cyclists climbing Frankfield Hill is also required.
- The lack of cycle lanes on Maryborough hill can cause traffic to back up as they are unable to pass cyclists at some points along this road, especially during busy periods.

### Other

- Douglas village and environs falls between two local authorities. Could the local authority boundaries be relocated to make Douglas village and suburbs within one Local Authority area?
- Douglas should come under the control of Cork City Council which has a dedicated traffic department.
- Efforts to reduce traffic entering Douglas by reducing road space for car traffic should be discouraged. This will lead to more congestion as people are unlikely to switch to other modes of travel as public transport and walking/ cycling are not practical for most journeys in the area.
- There is a lack of enforcement of driving laws e.g. speed limits and especially drivers using mobile phones.

## 4.8 Conclusions

- 4.8.1 All respondents travelled within the Douglas area, with many travelling in Douglas daily. The most frequently cited reasons for travelling within Douglas were to go shopping, to travel through to other destinations, to go out in the evening, and to visit friends/family.
- 4.8.2 Most respondents travelled as a car driver, although other modes used occasionally were bus and walking. When travelling as a car driver, respondents usually parked in free on-street parking or in a town centre off-street car park. Respondents stated they travelled as a car driver because it was quicker than alternatives, a car was essential to perform their job, and because it was reliable, with the most important reason being cited as their car was essential to perform their job.
- 4.8.3 When asked which of the following improvements would most encourage them to use the bus more, around half said a more frequent service, a more direct service / public transport links to where they want to go, and a more reliable service. A more direct service / public transport links to where they want to go was cited as the most important improvement. If the improvements were made, most respondents said that they would travel by bus one - two days per week or occasionally.
- 4.8.4 Respondents were also asked what improvements would encourage them to cycle more. Over two thirds of respondents said improved cycle paths/lanes, while a third said improved and secure cycle parking. The most important improvement was cited as improved cycle paths/lanes with over a quarter stating that they would then consider cycling one - two days per week.
- 4.8.5 Respondents were also asked what improvements would have to be made to encourage them to walk more. The most frequently cited improvements were better quality footpaths and improved road crossing facilities, with the most important improvement being cited as better quality footpaths. If the improvements were made, around a third of respondents said they would walk daily, while almost a quarter said one - two days per week, with a further quarter saying three - four days per week.
- 4.8.6 Respondents were asked to rate the general traffic conditions in Douglas. Almost a quarter rated the general traffic conditions as very poor or poor. When considering the pedestrian infrastructure in Douglas, over a third of respondents said they thought it was adequate, while 42% thought it

was either very poor or poor, and a fifth thought it was either very good or good. When considering the cycle infrastructure in Douglas, almost half of respondents said that they thought it was poor, with a further 34% stating that it was very poor. When asked how respondents would rate the public transport provision in Douglas, almost half said that they felt it was adequate, with around a quarter stating they thought it was either very good or good, and a further quarter stating either very poor or poor. With reference to the car parking provision in Douglas, almost a quarter stated that it was either very good or good, while almost half stated that it was either very poor or poor, and just under a third said it was adequate.

- 4.8.7 Overall, respondents who most frequently used their cars to travel in and around Douglas considered that a number of improvements would need to be made to the general traffic conditions, pedestrian and cycle infrastructure, and public transport provision before they would consider using public transport, walking, or cycling more often. If these improvements were made, respondents stated they would use these more sustainable modes anything from occasionally to three - four days per week.

## 5 Summary and Conclusions

### 5.1 Conclusion

5.1.1 A comprehensive and wide ranging public consultation process has been carried out for the Douglas and Land Use Strategy. This process comprised a number of different phases including:

- A public exhibition;
- Key stakeholder consultation;
- Schools consultation: and
- An on line travel survey.

### 5.2 Public Exhibition and Key Stakeholders Consultation

5.2.1 A public exhibition was carried out on the 17 April in the Rochestown Park Hotel. The purpose of the exhibition was to make people aware of the study and to invite them to make submissions and to inform us of any issues or concerns they may have.

5.2.2 Key stakeholders in the study area were contacted in writing and invited to make submissions to the DLUTS team in relation to any issues they may have, proposed solutions or future plans for the area.

5.2.3 After carrying out the thorough review of all public and private stakeholder submissions received we have established that the main concerns of the stakeholders in Douglas relate to;

- Traffic congestion especially during peak periods;
- School traffic causes major congestion near schools in the AM peak;
- Traffic signals in the study area need to be optimised to run more efficiently;
- A number of junctions in the village centre including the Topaz Junction and Donnybrook Hill are over capacity during peak periods;
- There is a need for more public walkways and cycle ways in Douglas; and
- There is a need for more public amenities and facilities in Douglas.

### 5.3 Schools Consultation

5.3.1 A comprehensive consultation process was carried out with all the schools within and around the study area. Each of the schools was contacted in writing and invited to complete a specially designed questionnaire relating to traffic and travel patterns in the school. Each of the local schools within the study area were also interviewed by a member of the DLUTS team.

5.3.2 The following were outlined as the main issues relating to the schools in the study area:

- The majority of pupils travel to school by car;
- Pick up and drop off activities at schools results in traffic disruption and contributes to congestion;



- There is potential to increase the rate of cycling if the issues regarding safety are addressed;
- There are some issues which affect access to schools for pedestrians. A lack of pedestrian footpaths in some locations restricts access. There are a number of local schools which do not have pedestrian crossing facilities near the entrance to the school;
- There is scope to improve the planning and management of travel to school;
- Most of the local schools participate in the Green Schools Programme and, though only one has so far implemented travel initiatives under the programme, a number of others are intending to do so in the near future; and
- **Consultation with local schools suggests that there is potential to organise 'Park and Stride' schemes to address issues with pick up and drop off.**

#### 5.4 On Line Survey

- 5.4.1 An online survey was instigated to establish the travel patterns and behaviour of people living within the study area. Residents were encouraged to fill out an online questionnaire via advertisements in local newspapers and on the radio.
- 5.4.2 Overall, car was the most used mode of travel by respondents to the online survey. Most respondents used their cars to travel in and around Douglas for shopping or through Douglas to other locations.
- 5.4.3 The most important improvements, which respondents said would encourage them to walk, cycle and use the bus more were;

- Improvements in the provision of cycle paths;
- Improvements in the conditions of footpaths and walkways; and
- More frequent and direct bus services.

- 5.4.4 Most respondents considered that a number of improvements need to be made to the general traffic conditions. 25% of respondents rated the general traffic conditions in Douglas as poor or very poor. 42% thought that pedestrian facilities were poor or very poor and 84% thought that provisions for cyclists were either poor or very poor.

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# Appendix A – Public Consultation Exhibition Material

# Douglas Land Use and Transportation Strategy



## 1<sup>st</sup> Public Consultation Exhibition

Venue: Rochestown Park Hotel

Date: 17<sup>th</sup> April 2012

Time: 3pm to 9pm

Cork County Council is currently developing the Douglas Land Use and Transportation Strategy. The vision for the strategy is:

***To secure a successful vibrant urban centre with a more efficient transport network for Douglas that provides an improved public realm, reduces congestion, encourages greater levels of walking & cycling, and improves the quality of life for the community, thereby enabling sustainable future growth***

This is an important opportunity for you to inform the strategy and to let us know your views on:

- current traffic conditions in and around Douglas;
- local transportation issues;
- how do you see Douglas developing?; and
- what potential solutions you think should be explored?

MVA Consultancy has been commissioned to assist Cork County Council in the preparation of the strategy. Representatives from Cork County Council and MVA Consultancy will be in attendance at the public consultation meeting.

If you cannot attend the public consultation exhibition and would like to participate in the consultation process, please email your comments to Sinéad Canny ( [scanny@mvaconsultancy.com](mailto:scanny@mvaconsultancy.com) ) or write to Sinéad at MVA Consultancy, 1<sup>st</sup> Floor, 12/13 Exchange Place, IFSC, Dublin 1.

Log on to Cork County Council's website ([www.corkcoco.ie](http://www.corkcoco.ie)) for updates on consultation activities. Closing date for submissions on the 1<sup>st</sup> public consultation is the 11<sup>th</sup> May 2012.

# Douglas Land Use and Transportation Strategy

## 1<sup>st</sup> Public Consultation Exhibition

Venue: Rochestown Park Hotel

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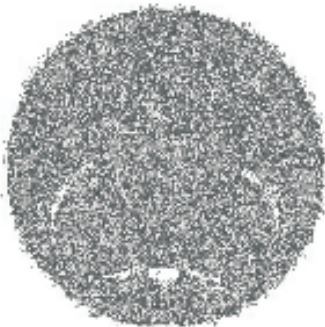
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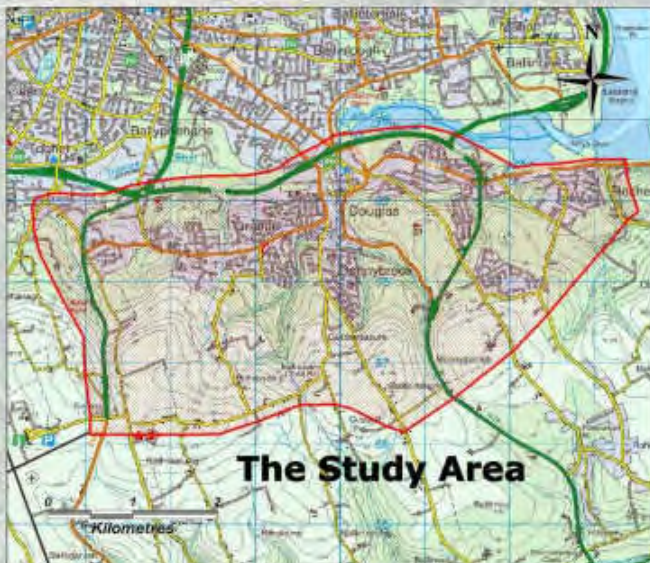
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# Douglas Land Use and Transportation Strategy

## Introduction

Cork County Council is preparing the Douglas Land Use and Transportation Strategy, DLUTS. The overall aim of the strategy is to ensure that there is an integrated approach to land use and transportation planning for the Douglas Area. MVA Consultancy has been commissioned by Cork County Council to assist in the preparation of the Strategy.

### DLUTS Study Area



This is the 1st public consultation exhibition.

This is your opportunity to inform the strategy.

Let us know your views on:

- how do you see Douglas developing?
  - what potential solutions you think should be explored?
  - how are current traffic conditions in and around Douglas?
  - what local transportation issues are important to you?

DLUTS will deliver:

*a successful vibrant urban centre*

**mva**consultancy



# Douglas Land Use and Transportation Strategy

## The Vision

To secure a successful vibrant urban centre with a more efficient transport network for Douglas, that provides an improved public realm, reduces congestion, encourages greater levels of walking & cycling, and improves the quality of life for the community, thereby enabling sustainable future growth



Encourage greater levels of walking & cycling



Reduce congestion by providing for sustainable transport



Improved public realm



More efficient transport network

DLUTS will deliver:

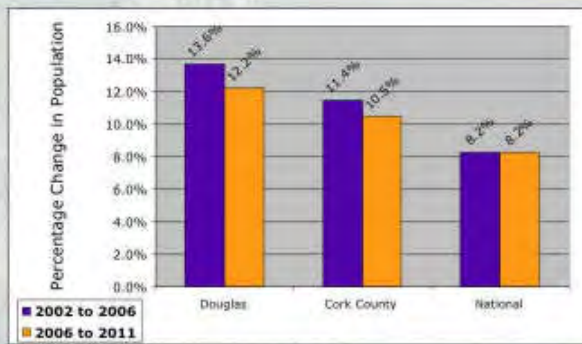
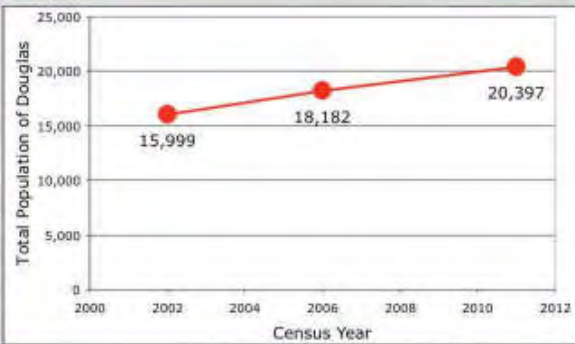
*a more efficient transport network*

mvaconsultancy

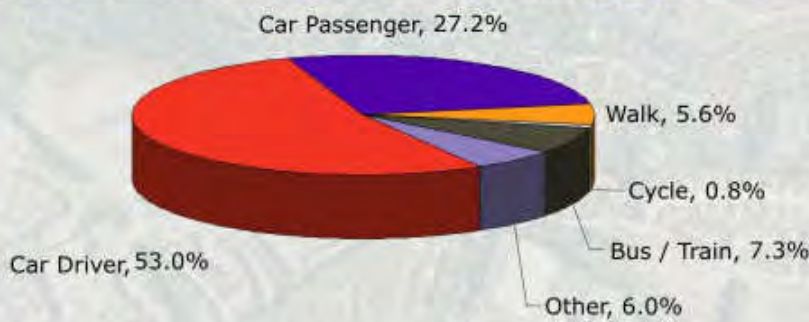


# Douglas Land Use and Transportation Strategy

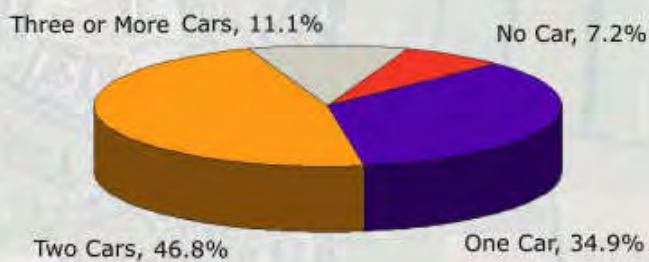
## Douglas Today



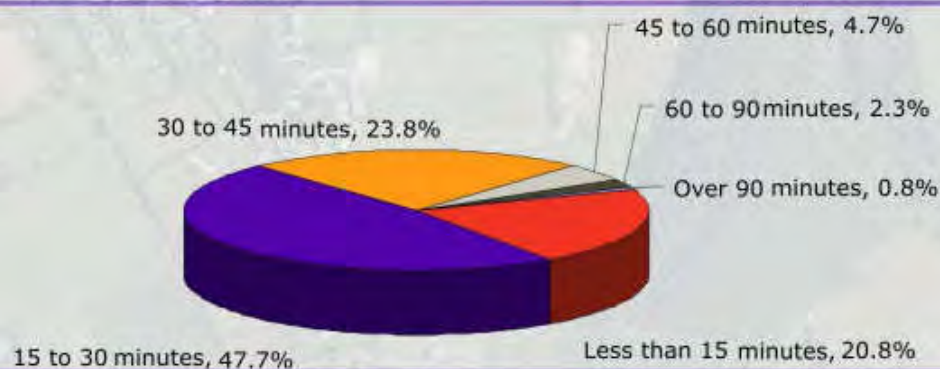
### Population



### Mode Choice



### Car Ownership



### Journey Time to Work and Education

DLUTS will deliver:

*less congestion, greater levels of walking & cycling* mvaconsultancy





# Douglas Land Use and Transportation Strategy

## Developing Objectives

<b>Economy</b>	<ul style="list-style-type: none"><li>▶ to improve the vitality of the Douglas Area</li><li>▶ to provide for the future development of a mixed use, high quality urban centre in Douglas</li><li>▶ to stimulate economic growth and employment in Douglas</li><li>▶ to make it easier to get around, through and into the Douglas Area</li></ul>
<b>Health &amp; Safety</b>	<ul style="list-style-type: none"><li>▶ to increase the level of activity of people living and working in the Douglas Area</li><li>▶ to reduce the number of accidents and injuries on the road</li><li>▶ to protect vulnerable road users, e.g. children, older people, people with disabilities, etc.</li></ul>
<b>Environment</b>	<ul style="list-style-type: none"><li>▶ to improve the attractiveness of the public realm</li><li>▶ to reduce the impact of noise, vibration and emissions generated by heavy traffic</li><li>▶ to provide for sustainable development</li></ul>
<b>Integration, Accessibility &amp; Social Inclusion</b>	<ul style="list-style-type: none"><li>▶ to enhance the integration between land use (houses, businesses, schools, shops, etc.) and transport</li><li>▶ to provide better access for pedestrians, cyclists, bus passengers, car users and delivery vehicles</li><li>▶ to make it easier to switch from one mode to another (e.g. to walk or cycle to the bus)</li></ul>

DLUTS will deliver:

*sustainable future growth*

**mva**consultancy



# Douglas Land Use and Transportation Strategy

We Want to Hear Your Views



- ☛ What role does Douglas play in your life?
- ☛ How can Douglas be improved for you?
- ☛ What current planning issues affect you?
- ☛ What do you think of the current transport network in the Douglas Area?
- ☛ Are there transport issues that you think should be addressed?



DLUTS will deliver:

*an improved public realm*

mvaconsultancy



# Douglas Land Use and Transportation Strategy

## Next Steps

- ▶ Understanding the Existing Land Use and Transport Network - Identifying Issues
- ▶ Consultation with Stakeholders: e.g. local schools, transport agencies
- ▶ Land Use and Transport Modelling
- ▶ Future Development Options and Testing
- ▶ Recommendations for Change - Land Use and Transportation Proposals
- ▶ Further Consultation in July
- ▶ Final Report by end 2012



- ▶ Have you completed a questionnaire? Fill in one now or log on to [www.corkcoco.ie](http://www.corkcoco.ie) to complete the questionnaire electronically.
- ▶ Dates for your diary:
  - ▶ 11<sup>th</sup> May: Closing date for submissions on 1<sup>st</sup> public consultation
  - ▶ 10<sup>th</sup> July: 2<sup>nd</sup> Public Consultation Exhibition
  - ▶ 26<sup>th</sup> July: Closing date for submissions on 2<sup>nd</sup> public consultation

May

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

June

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

July

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

DLUTS will deliver:

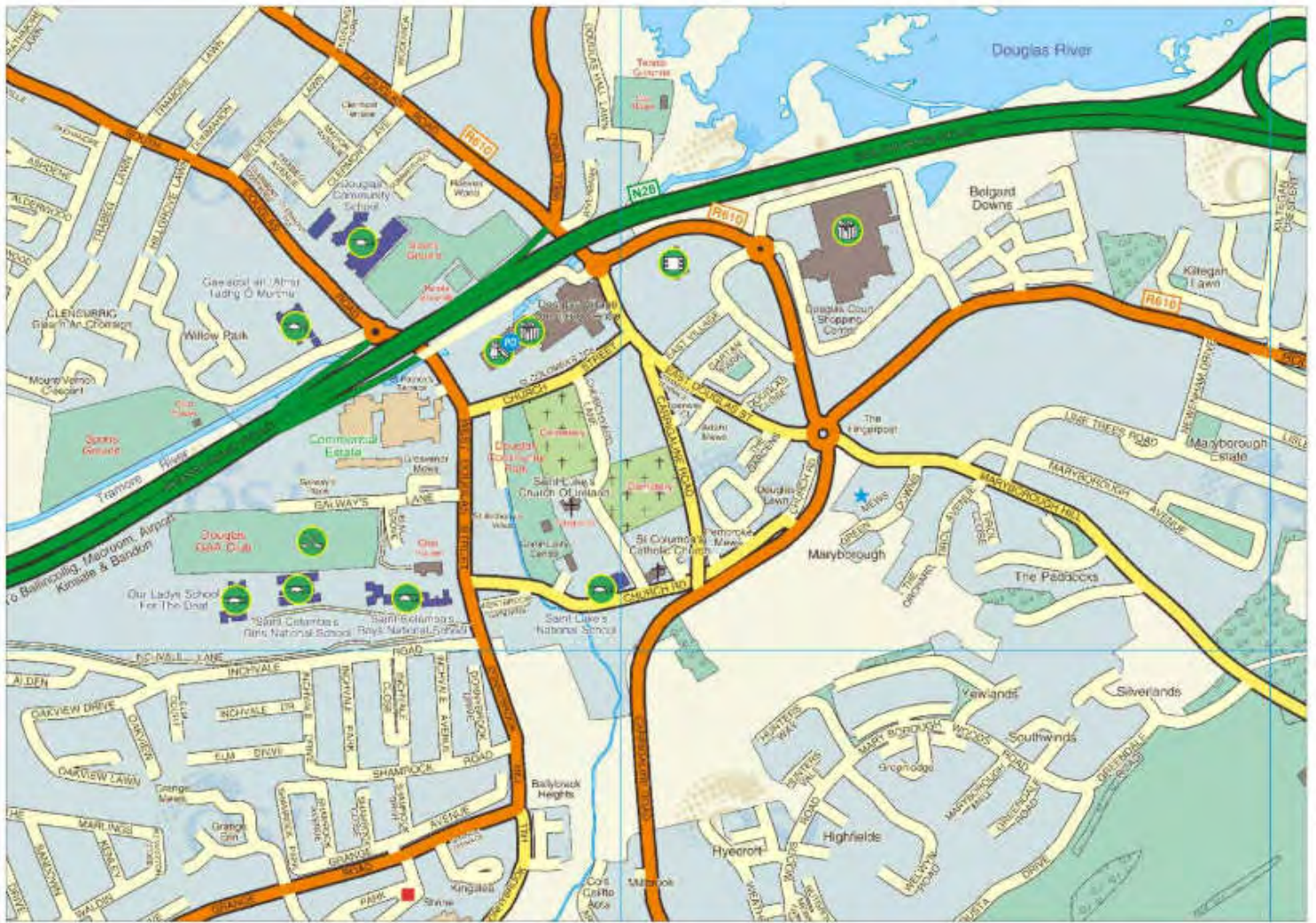
*improved quality of life*

mvaconsultancy



# Douglas Land Use and Transportation Strategy

## Central Douglas Street Map



# Appendix B – Public Consultation Questionnaire



# Douglas Land Use and Transportation Strategy

## 1st Public Consultation - Questionnaire

All information that you provide will be used in the strictest confidence. We fully adhere to the Data Protection Act and your details will be treated in the strictest confidence. They will only be used for the purposes of developing the travel plan, no individual will be identified in the reporting, and your details will not be passed to any third party.

We sincerely thank you for taking the time to participate in the 1<sup>st</sup> public consultation for the Douglas Land Use and Transportation Strategy.

### SECTION A: ABOUT YOURSELF

**A1 Where do you live?** \_\_\_\_\_

(e.g. Douglas, Grange, Donnybrook or Rochestown)

**A2 Gender**

(1) Male

(2) Female

**A3 Age**

(1) Under 25

(2) 25 – 34

(3) 35 – 44

(4) 45 – 55

(5) Over 55

**A4 Do you drive?**

(1) Yes

(2) No

**A5 Do you own or have access to a bicycle?**

(1) Yes

(2) No

**A6 How often do you travel within the Douglas area?**

(1) Daily

(2) 3-4 days per week

(3) 1-2 days per week

(4) Fortnightly

(5) Occasionally

(6) Never (please state why)

\_\_\_\_\_

**A6b Why do you travel within the Douglas Area? (tick up to three)**

(1) Going to work within Douglas

(2) School run

(3) Shopping

(4) Visiting friends / family

(5) Accessing health facilities (e.g. doctors)

(6) Accessing social and recreational facilities during the day

(7) Going out in the evening (e.g. to restaurants, public houses)

(8) Travelling through to other destinations

(9) Other (please specify)

\_\_\_\_\_

**A7 Do you have a health problem or disability that affects your choice of travel?**

(1) Yes

(2) No

**A8 Which of these options best describes you?**

(1) Working Full-time

(2) Working Part-time

(3) Full-time student

(4) Part-time student

(5) Unemployed

(8) Unable to work due to illness / disability

(7) Retired

(8) Looking after home / family

(9) Other (please describe)

\_\_\_\_\_

**SECTION B: ABOUT YOUR JOURNEY TO WORK or EDUCATION**

If you are working or studying (i.e. ticked answer 1, 2, 3 or 4 to question A8), please complete this section. Otherwise go straight to section C

**B1 Where do you work / study?**

Town / Location

**B2 What hours do you usually work or attend an educational facility (e.g. 09:00 to 17:00)?**

From  To

**SECTION C: HOW DO YOU TRAVEL?**

**C1 What transport mode do you use most often (please tick one)?**

- (1) Bus
  - (2) Train
  - (3) Bicycle
  - (4) Walk
  - (5) Taxi
  - (6) Car driver
  - (7) Car passenger
  - (8) Motorbike/moped
  - (9) Other (please specify)
- 

**C2 Which of the following do you occasionally use instead of you main mode of transport (tick all that apply)?**

- (1) Bus
  - (2) Train
  - (3) Bicycle
  - (4) Walk
  - (5) Taxi
  - (6) Car driver
  - (7) Car passenger
  - (8) Motorbike/moped
  - (9) Other (please specify)
- 
- (10) None

**SECTION D: TRAVEL BY CAR**

If you answered 'car driver' to C1 or C2, please complete this section. Otherwise go straight to section E

**D1 Where do you usually park when travelling to the Douglas area?**

- (1) Free on-street parking
  - (2) Paid on-street parking
  - (3) Town Centre off-street car park
  - (4) Off-street car park outside of Town Centre
  - (5) Staff car park
  - (6) Other (please specify)
- 

**D2 Why do you use a car to travel? (tick up to three)**

- (1) Car essential to perform job
  - (2) Dropping off/collecting children to school
  - (3) Dropping off/collecting children to other
  - (4) Dropping off/collecting partner
  - (5) Health reasons
  - (6) Lack of an alternative
  - (7) Cheaper than alternatives
  - (8) Reliability
  - (9) Comfort
  - (10) Personal safety
  - (11) Quicker than alternatives
  - (12) Other (please specify)
- 

**D3 Which of the above is the most important reason?**

Please insert number from list

**SECTION E: TRAVEL BY PUBLIC TRANSPORT, CYCLE OR WALKING**

**E1 Which of the following improvements would most encourage you to use the bus more?**

- (1) More direct service / public transport links to where I want to go
  - (2) More frequent service
  - (3) More reliable service
  - (4) Cleaner/smarter buses
  - (5) Cheaper fares
  - (6) Annual season ticket loan
  - (7) Better quality waiting environment at bus stops
  - (8) Better security at bus stops
  - (9) Easier access to timetable information
  - (10) Having my journey planned for me
  - (11) Other (please state)
- 

**E2 Which is the most important improvement?**

Please insert number from list above

**E3 If the above improvements were made, how often would you consider using the bus?**

- (1) Daily
  - (2) 3-4 days per week
  - (3) 1-2 days per week
  - (4) Fortnightly
  - (5) Occasionally
  - (6) Never (please state why)
- 

**E4 Which of the following improvements would encourage you to cycle more?**

- (1) Improved cycle paths/lanes
  - (2) Improved and secure cycle parking
  - (3) Changing facilities, showers and lockers at your destination (e.g. at work)
  - (4) Interest-free loan to purchase a bike
  - (5) Public bike hire scheme
  - (6) Discounts at cycle shops
  - (7) Other (please state)
- 

**E5 Which is the most important improvement?**

Please insert number from list above

**E6 If the above improvements were made, how often would you consider cycling?**

- (1) Daily
  - (2) 3-4 days per week
  - (3) 1-2 days per week
  - (4) Fortnightly
  - (5) Occasionally
  - (6) Never (please state why)
- 

**E7 Which of the following improvements would encourage you to walk more?**

- (1) Better quality footpaths
  - (2) Safer routes
  - (3) Improved street lighting
  - (4) Improved road crossing facilities
  - (5) Shorter distances / more direct pedestrian routes
  - (6) Availability of a walking partner
  - (7) Other (please specify)
- 

**E8 Which is the most important improvement?**

Please insert number from list above



- E9** If the above improvements were made, how often would you consider walking?
- (1) Daily
  - (2) 3-4 days per week
  - (3) 1-2 days per week
  - (4) Fortnightly
  - (5) Occasionally
  - (6) Never (please state why)
- \_\_\_\_\_

**SECTION F: TRANSPORT INFRASTRUCTURE**

- F1** How would you rate general traffic conditions in the Douglas area?
- (1) very good
  - (2) good
  - (3) adequate
  - (4) poor
  - (5) very poor

- F2** How would you rate pedestrian infrastructure in the Douglas area?
- (1) very good
  - (2) good
  - (3) adequate
  - (4) poor
  - (5) very poor

- F3** How would you rate cycle infrastructure in the Douglas area?
- (1) very good
  - (2) good
  - (3) adequate
  - (4) poor
  - (5) very poor

- F4** How would you rate public transport provision in the Douglas area?
- (1) very good
  - (2) good
  - (3) adequate
  - (4) poor
  - (5) very poor

- F5** How would you rate car parking provision in the Douglas area?
- (1) very good
  - (2) good
  - (3) adequate
  - (4) poor
  - (5) very poor

**SECTION G: Issues of Concern to You**

Are there any specific transport issues in the Douglas area that are of concern to you?

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# Appendix C – Schools Consultation Questionnaires



### Primary School Travel Survey

MVA Consultancy has been appointed by Cork County Council to advise on Traffic and Transport matters within the Douglas Area as part of the Douglas Land Use and Transportation Study. Part of remit is to develop a strategy for improved access to schools within Douglas and to understand transport demand to nearby schools that attract students from the Douglas Area.

I would be grateful if you could assist us by completing this questionnaire and tick the boxes where appropriate based upon your **school's location and characteristics**. If you need more space to respond, please use another piece of paper with the question number.

Should you have any questions or wish to discuss any transport related concern related to the Douglas Land Use and Transportation Strategy please do not hesitate to give me a call on 01 542 6000. Thank you for your cooperation and assistance.

Kind regards, Sinéad Canny, Principal Consultancy, MVA Consultancy Ireland.

Your Name: \_\_\_\_\_

Position: \_\_\_\_\_

School Address: \_\_\_\_\_

#### 1 SITE DESCRIPTION & OPERATIONAL DETAILS

1.1 What is the main surrounding land use around the school? (tick all that apply)

Residential

Offices/High Street

Industrial

Other (please describe)

\_\_\_\_\_

1.2 What is the total number of pupils in your school? \_\_\_\_\_

1.3 What is the total number of full-time employees in your school? \_\_\_\_\_

1.4 What is the total number of part-time employees in your school? \_\_\_\_\_

1.5 What are the school hours? (please use 24hr clock) \_\_\_\_\_

1.6 What are the opening hours of the school buildings? (please use 24 hr clock) \_\_\_\_\_

1.7 Are lockers and/or storage facilities available to staff/pupils who cycle or walk to work?

Yes

No

1.8 How many lockers are available in total? \_\_\_\_\_



**2 TRAVEL INFORMATION**

2.1 Is there a Travel Plan Co-ordinator or a post with specific responsibilities for the development of a travel plan?

Yes (please specify)  No  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

2.2 Does your school participate in the Green Schools Programme?

Yes  No

2.3 Has your school implemented any initiatives under the Green Schools Programme to address travel to school?

Yes (please specify)  No  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

2.4 Is travel information available from any of the following sources (tick all that apply)?

Staff Travel Guide  School's internet site  
 School's intranet site  Other (please describe)  
 \_\_\_\_\_

2.5 Is (or previously was) personalised travel planning available for staff?

Yes  No



**3 CAR USE**

3.1 Is there a car park for the school's own use?  Yes  No

3.2 Where is the car park located?  On-site  Off-site

3.3 What is the annual cost to the school? \_\_\_\_\_

3.4 How many spaces are available to the school? \_\_\_\_\_

3.5 How many spaces in the car park are dedicated to?

- |                                   |              |
|-----------------------------------|--------------|
| ___ Employees                     | ___ Pupils   |
| ___ Drop-off                      | ___ Visitors |
| ___ Car-sharers                   | ___ Disabled |
| ___ Other (please describe) _____ |              |

3.6 How are the parking spaces managed?

- |  |   |
|--|---|
| <input type="checkbox"/> Free for all                  | <input type="checkbox"/> Needs based      |
| <input type="checkbox"/> Seniority                     | <input type="checkbox"/> Allocated spaces |
| <input type="checkbox"/> Other (please describe) _____ |   |

3.7 What are the car parking charges?

- |                                    |                                  |
|------------------------------------|----------------------------------|
| <input type="checkbox"/> No charge | <input type="checkbox"/> € _____ |
|------------------------------------|----------------------------------|

3.8 How often does the demand for car parking exceed capacity?

- |                                     |                                       |
|-------------------------------------|---------------------------------------|
| <input type="checkbox"/> Never      | <input type="checkbox"/> Occasionally |
| <input type="checkbox"/> Frequently | <input type="checkbox"/> Constantly   |

3.9 Is overspill parking observed in surrounding roads?

- |                             |   |
|-----------------------------|---|
| <input type="checkbox"/> No | <input type="checkbox"/> Yes (please explain) |
|-----------------------------|---|

\_\_\_\_\_

3.10 Is there a designated drop off area at the school?

- |                             |  |
|-----------------------------|--|
| <input type="checkbox"/> No | <input type="checkbox"/> Yes (please describe) |
|-----------------------------|--|

\_\_\_\_\_

3.11 Are there traffic congestion/access problems on external roads due to drop off activity?

- |                             |   |
|-----------------------------|---|
| <input type="checkbox"/> No | <input type="checkbox"/> Yes (please explain) |
|-----------------------------|---|

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



**4 CYCLING**

4.1 Is the site accessible by external cycle routes/lanes?  Yes  No

4.2 Is there cycle parking?  Yes  No

4.3 If yes, how many cycle spaces are provided? \_\_\_\_\_

4.4 If yes, where are the cycle racks located? \_\_\_\_\_

4.5 Are the cycle racks.....? (tick only one box per line)

	Yes	No	Some
Covered?			
Secure?			
Lit?			
Overlooked by CCTV?			
Near building entrance (s)			

4.6 Is cycle training provided?  Yes  No

4.7 Have any initiatives been implemented to encourage cycling (e.g. COW: Cycle on Wednesday's or Cycle Once a Week)?

No  Yes (please explain) \_\_\_\_\_  
\_\_\_\_\_

4.8 Is a cycle loan/tax free scheme available to employees?

No  Yes (please explain) \_\_\_\_\_  
\_\_\_\_\_



**5 PEDESTRIANS**

5.1 Are the on-site footpaths....?(tick only one box per line)

	Yes	No	Some
Covered?			
Secure?			
Lit?			
Overlooked by CCTV?			
Near building entrance (s)			

5.2 Are there any access difficulties for pedestrians?

No  Yes (please explain) \_\_\_\_\_  
 \_\_\_\_\_

5.3 Are there adequate pedestrian crossing facilities in the vicinity of the school?

No  Yes (any outstanding issues / areas of concern - please outline) \_\_\_\_\_  
 \_\_\_\_\_

5.4 Do lollipop ladies / men serve the school?

No  Yes (please provide details of numbers and hours of work)  
 \_\_\_\_\_  
 \_\_\_\_\_

5.5 Have there been any Safer Routes to School Assessment or similar for pedestrians?

No  Yes (any outstanding issues / areas of concern - please outline) \_\_\_\_\_  
 \_\_\_\_\_

5.6 Are there any Walking Bus schemes organised for home to school trips?

No  Yes (please explain) \_\_\_\_\_  
 \_\_\_\_\_

5.7 Are there any Walking Bus schemes or similar organised for activities during the school day?

No  Yes (please explain) \_\_\_\_\_  
 \_\_\_\_\_



**6 PUBLIC TRANSPORT**

6.1 Is the season ticket/loan available to staff?

No  Yes (please explain) \_\_\_\_\_  
 \_\_\_\_\_

6.2 Is there a bus stop near the site?

Yes  No

6.3 Which services currently serve these bus stops? \_\_\_\_\_

6.4 About the bus stop... (tick only one box per line)

	Yes	No	N/A
Are there any shelters?			
Are they clean?			
Are they well lit?			
Is there timetables/live travel information?			
Are there seats?			

6.5 Is the school served by dedicated school bus services?

Yes  No

6.6 If yes, approximately how many Pupils use this option? \_\_\_\_\_

6.7 If yes, please provide details (including timetables, pick up points, etc.)

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

6.8 Are there any Park & Ride facilities which could be used to access the site?

No  Yes (please describe services) \_\_\_\_\_  
 \_\_\_\_\_





## 7 DELIVERIES

7.1 How many deliveries are made on site each week? \_\_\_\_\_

7.2 Are deliveries arranged at times other than peak arrival and departure times?

No  Yes (please explain) \_\_\_\_\_  
\_\_\_\_\_

## 8 POLICIES

8.1 Does school policy identify general conditions for STAFF regarding travel to and from school?

No  Yes (please explain) \_\_\_\_\_  
\_\_\_\_\_

8.2 Does school policy identify general conditions for PUPILS regarding travel to and from school?

No  Yes (please explain) \_\_\_\_\_  
\_\_\_\_\_

8.3 Are any members of staff required to have access to a car during the working day?

No  Yes (please explain) \_\_\_\_\_  
\_\_\_\_\_



## Secondary School Travel Survey

MVA Consultancy has been appointed by Cork County Council to advise on Traffic and Transport matters within the Douglas Area as part of the Douglas Land Use and Transportation Study. Part of remit is to develop a strategy for improved access to schools within Douglas and to understand transport demand to nearby schools that attract students from the Douglas Area.

I would be grateful if you could assist us by completing this questionnaire and tick the boxes where appropriate based upon your **school's location and characteristics**. If you need more space to respond, please use another piece of paper with the question number.

Should you have any questions or wish to discuss any transport related concern related to the Douglas Land Use and Transportation Strategy please do not hesitate to give me a call on 01 542 6000. Thank you for your cooperation and assistance.

Kind regards, Sinéad Canny, Principal Consultancy, MVA Consultancy Ireland.

Your Name: \_\_\_\_\_

Position: \_\_\_\_\_

School Address: \_\_\_\_\_

### 1 SITE DESCRIPTION & OPERATIONAL DETAILS

1.1 What is the main surrounding land use around the school? (tick all that apply)

Residential

Offices/High Street

Industrial

Other (please describe)

\_\_\_\_\_

1.2 What is the total number of pupils in your school? \_\_\_\_\_

1.3 What is the total number of full-time employees in your school? \_\_\_\_\_

1.4 What is the total number of part-time employees in your school? \_\_\_\_\_

1.5 What are the school hours? (please use 24hr clock) \_\_\_\_\_

1.6 What are the opening hours of the school buildings? (please use 24 hr clock) \_\_\_\_\_

1.7 Are lockers and/or storage facilities available to staff/pupils who cycle or walk to work?

Yes

No

1.8 How many lockers are available in total? \_\_\_\_\_



**2 TRAVEL INFORMATION**

2.1 Is there a Travel Plan Co-ordinator or a post with specific responsibilities for the development of a travel plan?

Yes (please specify) \_\_\_\_\_  No  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

2.2 Is travel information available from any of the following sources (tick all that apply)?

Staff Travel Guide                       School's internet site  
 School's intranet site                       Other (please describe)  
 \_\_\_\_\_

2.3 Is (or previously was) personalised travel planning available for staff?

Yes                       No

**3 CAR USE**

3.1 Is there a car park for the school's own use?                       Yes                       No

3.2 Where is the car park located?                       On-site                       Off-site

3.3 What is the annual cost to the school? \_\_\_\_\_

3.4 How many spaces are available to the school? \_\_\_\_\_

3.5 How many spaces in the car park are dedicated to?

\_\_\_ Employees                      \_\_\_ Pupils  
 \_\_\_ Drop-off                      \_\_\_ Visitors  
 \_\_\_ Car-sharers                      \_\_\_ Disabled  
 \_\_\_ Other (please describe) \_\_\_\_\_

3.6 How are the parking spaces managed?

Free for all                       Needs based  
 Seniority                       Allocated spaces  
 Other (please describe) \_\_\_\_\_



3.7 What are the car parking charges?  
 No charge       € \_\_\_\_\_

3.8 How often does the demand for car parking exceed capacity?  
 Never       Occasionally  
 Frequently       Constantly

3.9 Is overspill parking observed in surrounding roads?  
 No       Yes (please explain)  
 \_\_\_\_\_

3.10 Is there a designated drop off area at the school?  
 No       Yes (please describe)  
 \_\_\_\_\_

3.11 Are there traffic congestion/access problems on external roads due to drop off activity?  
 No       Yes (please explain)  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**4 CYCLING**

4.1 Is the site accessible by external cycle routes/lanes?       Yes       No

4.2 Is there cycle parking?       Yes       No

4.3 If yes, how many cycle spaces are provided? \_\_\_\_\_

4.4 If yes, where are the cycle racks located? \_\_\_\_\_

4.5 Are the cycle racks.....? (tick only one box per line)

	Yes	No	Some
Covered?			
Secure?			
Lit?			
Overlooked by CCTV?			
Near building entrance (s)			



4.6 Is cycle training provided?  Yes  No

4.7 Have any initiatives been implemented to encourage cycling?  
 No  Yes (please explain) \_\_\_\_\_  
 \_\_\_\_\_

4.8 Is a cycle loan/tax free scheme available to employees?  
 No  Yes (please explain) \_\_\_\_\_  
 \_\_\_\_\_

**5 PEDESTRIANS**

5.1 Are the on-site footpaths....?(tick only one box per line)

	Yes	No	Some
Covered?			
Secure?			
Lit?			
Overlooked by CCTV?			
Near building entrance (s)			

5.2 Are there any access difficulties for pedestrians?  
 No  Yes (please explain) \_\_\_\_\_  
 \_\_\_\_\_

5.3 Are there adequate pedestrian crossing facilities in the vicinity of the school?  
 No  Yes (any outstanding issues / areas of concern - please outline) \_\_\_\_\_  
 \_\_\_\_\_

5.4 Do lollipop ladies / men serve the school?  
 No  Yes (please provide details of numbers and hours of work)  
 \_\_\_\_\_  
 \_\_\_\_\_



5.5 Have there been any Safer Routes to School Assessment or similar for pedestrians?

No  Yes (any outstanding issues / areas of concern - please outline) \_\_\_\_\_  
 \_\_\_\_\_

**6 PUBLIC TRANSPORT**

6.1 Is the season ticket/loan available to staff?

No  Yes (please explain) \_\_\_\_\_  
 \_\_\_\_\_

6.2 Is there a bus stop near the site?

Yes  No

6.3 Which services currently serve these bus stops? \_\_\_\_\_

6.4 About the bus stop... (tick only one box per line)

	Yes	No	N/A
Are there any shelters?			
Are they clean?			
Are they well lit?			
Is there timetables/live travel information?			
Are there seats?			

6.5 Is the school served by dedicated school bus services?

Yes  No

6.6 If yes, approximately how many Pupils use this option? \_\_\_\_\_

6.7 If yes, please provide details (including timetables, pick up points, etc.)

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

6.8 Are there any Park & Ride facilities which could be used to access the site?

No  Yes (please describe services) \_\_\_\_\_  
 \_\_\_\_\_



## 7 DELIVERIES

7.1 How many deliveries are made on site each week? \_\_\_\_\_

7.2 Are deliveries arranged at times other than peak arrival and departure times?

No  Yes (please explain) \_\_\_\_\_  
\_\_\_\_\_

## 8 POLICIES

8.1 Does school policy identify general conditions for STAFF regarding travel to and from school?

No  Yes (please explain) \_\_\_\_\_  
\_\_\_\_\_

8.2 Does school policy identify general conditions for PUPILS regarding travel to and from school?

No  Yes (please explain) \_\_\_\_\_  
\_\_\_\_\_

8.3 Are any members of staff required to have access to a car during the working day?

No  Yes (please explain) \_\_\_\_\_  
\_\_\_\_\_

# Appendix D – Stakeholder Consultation Letter



Name  
Address 1  
Address 2  
Address 3

**Sinéad Canny**  
Phone +353 (0)1 542 6000  
Email scanny@mvaconsultancy.com

03 April 2012

Our Ref: C81366

Dear (stakeholder)

## **Douglas Land Use and Transportation Strategy Stakeholder Consultation**

MVA Consultancy has recently been appointed by Cork County Council to undertake the Douglas Land Use and Transportation Study (DLUTS). The vision for the strategy is to secure a successful vibrant urban centre with a more efficient transport network for Douglas that provides an improved public realm, reduces congestion, encourages greater levels of walking & cycling, and improves the quality of life for the community, thereby enabling sustainable future growth. The study will make recommendations on the short, medium and long term interventions required to improve the environment for general traffic, cyclists, pedestrians and public transport vehicles. In undertaking this study, we are consulting with a range of transport and local stakeholder groups. In this respect, we would like to ascertain your views at this preliminary stage in the study. We would appreciate your views under the following general headings:

- current traffic conditions in and around Douglas;
- local transportation issues;
- your organisation's plans as they relate to Douglas;
- how do you see Douglas developing?
- what potential solutions you think should be explored?

It is intended that this study will be completed over an 8 to 9 month period, concluding in December 2012. In order for the views of your group/ organisation to be taken on board by this study, it is necessary that we receive your input by the 11<sup>th</sup> of May 2012.

Please respond in writing to me at:

MVA Consultancy Ltd,  
1<sup>st</sup> Floor, 12/ 13 Exchange Place,  
IFSC,  
Dublin 1.

I look forward to hearing from you shortly in relation to this matter.

Yours faithfully

**Sinéad Canny**, Principal Consultant, MVA Consultancy Ireland  
cc Ian Byrne, General Manager, MVA Consultancy Ireland

# Evaluating Performance

Douglas Land Use and Transportation Strategy  
2<sup>nd</sup> Public Consultation Draft Report

Prepared for Cork County Council

August 2012

## Document Control

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## Distribution

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# 1 Introduction

## 1.1 Background

- 1.1.1 At the outset of the Douglas Land Use and Transport Strategy (DLUTS) an extensive public and stakeholder consultation was undertaken. Furthermore, a second round of consultation was undertaken in July 2012. This report provides an overview of the written responses relating to land use, traffic and transportation issues received by MVA Consultancy during the 2<sup>nd</sup> phase of the public consultation process.
- 1.1.2 The consultation process forms an important component of the development of the DLUTS as the responses play a key role in developing a detailed understanding of the current issues affecting Douglas and its environs. The consultation process also provides an insight into potential solutions to these issues and a view as to how Douglas should develop in terms of land use and associated transport improvements. In general, stakeholder and public consultation and consultation with schools and public transport operators is required for the following reasons:
- Local stakeholders have an in-depth understanding of local issues, given that they experience these conditions on a daily basis. It is therefore crucial to gain an understanding of these issues at an early stage in the study, so that opportunities to address these issues can be considered. Furthermore, public representatives and local community groups are best placed to relay the views of local residents for consideration as part of this study;
  - Local businesses are impacted by traffic conditions as a result of general traffic congestion, which increases the costs (and reduces the attractiveness) of accessing their premises to do business. This is particularly true for businesses in the retail industry, where alternative competing locations are generally available. Deliveries are also impacted by general traffic congestion, as is the availability of conveniently located areas to perform these activities. It is important that these issues are understood in the context of making traffic study recommendations;
  - Greater insight is provided, from the day to day users of the road network, in terms of the impact on all road users (i.e. car drivers, public transport users, cyclists and pedestrians and vulnerable road users) of current traffic conditions and existing traffic management arrangements in the Douglas area;
  - General traffic congestion impacts on bus operations by reducing bus operating speeds and making it increasingly difficult to operate bus services in a reliable manner. Furthermore it erodes the attractiveness of using bus services; further increasing levels of general traffic congestion. Consultation with bus operators facilitates an understanding of bus operating conditions in the study area, and an identification of any measures to improve operations to improve the operation of existing bus services; and
  - Traffic associated with school drop-off and pick-up by car can significantly contribute to general traffic congestion in Douglas particularly during the morning peak period. It is therefore crucial that this group of stakeholders are consulted so that issues associated with access arrangements to schools are understood.

## 1.2 Consultation Process

- 1.2.1 The 2<sup>nd</sup> public consultation process carried out for DLUTS involved a public exhibition and following on from this direct correspondence was received from a number of local stakeholders in the study area.

### Public Exhibition

- 1.2.2 On the 24<sup>th</sup> July 2012 a second public exhibition was held in the Rochestown Park Hotel between the hours of 15:00 and 21:00. Members of the public were invited to attend and the event was advertised in local newspapers and on local radio. The purpose of this exhibition was to present the findings of the baseline analysis and to give members of the public and stakeholders a further opportunity to give their opinions on DLUTS.
- 1.2.3 Similar to the 1<sup>st</sup> Public Exhibition the event was hosted by eight members of the DLUTS team from both Cork County Council and MVA consultancy. Visitors who attended were invited to view a number of presentation boards which outlined the existing Retail, Land Use, Urban Design, Environmental and Traffic Conditions in Douglas as well as Emerging Themes and Next Steps for the project. Visitors were encouraged to talk to members of the DLUTS team and discuss any issues or concerns in relation to the study with them.
- 1.2.4 The exhibition was well attended, with a constant flow of visitors throughout the day. In total over 130 people attended the exhibition.

### Stakeholders Submissions

- 1.2.5 Those stakeholders who prepared submissions following the 2<sup>nd</sup> consultation public exhibition include:
- MHW on behalf of Anna O'Toole;
  - MHW on behalf of O'Brien & O'Flynn;
  - MHW on behalf of St. Patricks Mills;
  - Shipton Group;
  - Douglas Golf Club;
  - Emer Haugh; and
  - Rodger Daunt.

## 1.3 Structure of Report

- 1.3.1 The remainder of this report will be structured as follows:

### Chapter 2 - Submissions Received

- This chapter summarises all the submissions made by the aforementioned stakeholders following the 2<sup>nd</sup> public consultation meeting.

### Chapter 3 – Summary of Responses and Conclusions

- Chapter Three summarises and highlights key issues and findings from the 2<sup>nd</sup> public consultation process.

## 2 Submissions Received

### 2.1 Introduction

- 2.1.1 This chapter outlines and summarises the submissions received from private stakeholders following the 2<sup>nd</sup> consultation meeting.
- 2.1.2 This process forms an important part of the study as the responses play a key role in developing a detailed understanding of the current issues affecting Douglas and of potential solutions to these issues.

### 2.2 Submissions from Local Stakeholder Organisations

- 2.2.1 Local land owners and private individuals were encouraged to make submissions with any relevant issues as part of the 2<sup>nd</sup> consultation process.
- 2.2.2 Approximately three - four weeks was allowed for the receipt of submissions in relation to the study. Written submissions have been received from the following private stake holders:
- MHW on behalf of Anna O'Toole;
  - MHW on behalf of O'Brien & O'Flynn;
  - MHW on behalf of St. Patricks Mills;
  - Shipton Group;
  - Douglas Golf Club;
  - Emer Haugh; and
  - Rodger Daunt.
- 2.2.3 The key aspects of these submissions have been summarised and are presented below in Tables 2.1 to 2.7.

**Table 2.1 Submission from Anna O'Toole – Ballybrack House**

<b>Stakeholder Name:</b>	<b>Anna O'Toole – Ballybrack House</b>
<b>Comments:</b>	<p>We attended the second public exhibition held on 24 July at Rochestown Park Hotel and noted the display of the results of the detailed survey work undertaken to date.</p> <p>The landowners made a submission to the first phase of public consultation in April 2012. The landowners wish to remain active participants in the DLUTS process as it reaches its critical phase and request that the previous submission is taken into consideration when land use and transport options are being decided upon.</p>



**Table 2.2 Submission from O'Brien and O'Flynn Contractors**

<b>Stakeholder / Organisation Name:</b>	<b>O'Brien and O'Flynn Contractor</b>
<b>Identified Issues / Problems:</b>	While Douglas is well served in terms of commercial and community facilities, it is currently very poorly served in terms of amenities and open space.
<b>Proposed Solutions:</b>	The potential of our clients' lands in Maryborough Woods to address this deficiency should be acknowledged or explored. The rezoning of our clients' lands for a mix of open space and residential use is considered a more appropriate land use approach for this part of Douglas and most importantly will make it feasible for our client to provide a new 12 acre town park for the Douglas area.
<b>Stakeholder Plans for Study Area:</b>	It is proposed to zone two "pockets" of residential land totalling 9.6 acres. These two sites have been very carefully chosen so that any development on them is screened from long distance views. The zoning of these two sites will enable our client to provide a new 12 acre town park on the remaining lands. Without these residential zonings it will not be viable to provide such a substantial amenity for the Douglas area.
<b>Other Comments:</b>	This is a follow up submission to a previous submission to the first consultation process.

**Table 2.3 Submission from St Patrick's Mills**

<b>Stakeholder / Organisation Name:</b>	<b>St Patrick's Mills</b>
<b>Stakeholder Plans for Study Area:</b>	<p>This submission, as per the previous submission, <b>proposes to zone the lands at St Patrick's Mills for Town Centre use to help the council's retail and employment needs for the Douglas area as set out in CASP and the outline Strategy for the Carrigaline Electoral Area.</b></p> <p>As pointed out in our previous submissions, <b>our clients' site in St. Patricks Mills provides an important opportunity to provide an alternative and unique town centre and retail experience based upon a "street orientated" and more pedestrian friendly environment based around the existing built heritage that exists within St. Patricks Mills. To date the existing town centre and retail environment in Douglas has been based on "shopping mall" type developments based around large convenience and comparison anchor retail units – our clients' site will provide a welcome alternative to this.</b></p> <p><b>We are proposing that all of our clients' lands be zoned for "Town Centre" to include a mix of uses including retail, office, employment, residential, restaurants/ cafes and community facilities.</b></p>
<b>Other Comments:</b>	<p>This is a follow up submission to a previous submission to the first consultation process.</p>

**Table 2.4 Submission from Shipton Group**

<b>Stakeholder / Organisation Name:</b>	<b>Shipton Group</b>
<b>Comments:</b>	
<p>This is a follow up submission to a previous submission to the first consultation process.</p> <p>This submission is a very detailed commentary of the public consultation boards used in the 2<sup>nd</sup> consultation process (Appendix B). The key points of which are summarised below.</p> <ol style="list-style-type: none"> <li>1. Through traffic is significant</li> <li>2. Shipton query the details of the land use summary provided on Information Board 6</li> <li>3. Shipton disagree that the study area is susceptible to flood risk</li> <li>4. Shipton highlight that their security personnel are required to deal with an overspill of anti social behaviour occurring in the park adjacent to Ballybrack River</li> <li>5. Shipton suggest the benefits of introducing an enhanced route running north-south through Douglas Community Park</li> <li>6. Proposal of creating a high density development to shelter noise and traffic along the East Douglas Relief Road may not be appropriate</li> <li>7. Shipton request that Douglas LUTS include recommendations that will discourage the quantity of through traffic within Douglas and promote Douglas as an employment location to discourage unsustainable travel patterns</li> <li>8. Shipton note the success of the recently introduced pay parking</li> <li>9. Traffic associated with schools located in the north of Douglas travels through the village from the south</li> <li>10. Douglas suffers from a lack of daytime activity due to the low density of office space and employment that exists there</li> <li>11. Some of the traffic counts higher than expected</li> <li>12. West Douglas Street should be one way north with a wider footpath and some parking with a similar road though the Park going south</li> <li>13. The notion of re-branding and marketing Douglas is key</li> <li>14. There needs to be greater control on the junctions around the town in order to ensure maximum capacity can be catered for at peak times</li> <li>15. It is most unfortunate and unfair that the retail figures used in earlier boards now form the basis for the conclusion that no new retail development will take place before 2022. The confusing inclusion of leisure and other floor area uses has led to the notion that the developed retail floor space is excessive, available and suitable for the market.</li> <li>16. The Smart Mix option for future development concepts is clearly the most practical solution. Development proposals need to be considered in the context of a coherent and well considered access strategy and road network that addresses existing congestion issues</li> <li>17. Detailed analysis of the catchment to the north of Douglas should be included</li> </ol>	

**Table 2.5 Submission from Douglas Golf Club**

<b>Stakeholder / Organisation Name:</b>	<b>Douglas Golf Club</b>
<b>Comments:</b>	
<p>This is a follow up submission to a previous submission to the first consultation process.</p> <p>We have reviewed the posters as presented at the exhibition and are horrified by the scenarios presented for evaluation. In particular, we are shocked at the concept which assumes the relocation of the Douglas GAA playing fields and three schools into an education and sports <b>campus on the Douglas Golf Course (referred to in the exhibition as the "High Density Concept")</b>. As we outlined previously, our lands are fully utilised in providing 18 holes of golf and related clubhouse facilities etc. Any requirement to cede land for an alternative use would render these facilities unplayable for 18 holes of golf. As we outlined in our previous submission, Douglas Golf Club has no alternative lands to extend or redevelop.</p>	

**Table 2.6 Submission from Emer Haugh**

<b>Stakeholder / Organisation Name:</b>	<b>Emer Haugh</b>
<b>Comments:</b>	
<p>The present traffic situation is chaotic and totally unacceptable. Why is so much traffic coming through "Topaz" corner? We have a ring road yet we have very heavy traffic coming through this junction at all times of the day. The junction is not capable of dealing with all these vehicles and traffic jams build up in all directions. There has been too much building in the general area without adequate road infrastructure. The noise level from the ring road is very disturbing. To propose to "buffer" this noise by building high rise developments is a sick joke and is totally unsuited to this suburban area. We have far too much empty retail space in the area and it ruins the atmosphere. We do not need any more retail; in fact the over-development of the Douglas Shopping Centre has made the village very ugly. We need better standards of planning and building in the interests of the people rather than property developers.</p>	

**Table 2.7 Submission from Rodger Daunt**

<b>Stakeholder / Organisation Name:</b>	<b>Rodger Daunt</b>
<b>Identified Issues / Problems:</b>	In my opinion, the entire Tramore River drainage system should be reviewed to prevent the reoccurrence of recent events.
<b>Proposed Solutions:</b>	The replacement of the existing culverts with an open channel, designed for flood conditions, would ensure that the watercourse could be effectively maintained without the need for debris filters.
<b>Stakeholder Plans for Study Area:</b>	A bridge at 'Burton On The Water' in the Cotswolds, UK, is an example of good practise. This town has a population similar to Carrigaline or Douglas and also similarly is built on a marsh by a river. The development has been kept a reasonable distance back from the river which not only allows for river overspill but provides an attractive amenity. In addition, the bridge form is an elevated arch which rises above the surrounding flood plain. Thus the bridge causes very little flow restriction to the river when in flood.

### 2.3 Stakeholder Consultation Summary

2.3.1 By the end of the 2<sup>nd</sup> public consultation process a significant number of submissions were received and a review of these submissions identified the following main areas of concern:

- Landowners wish to remain active participants of DLUTS;
- Landowners both agree and disagree with land use proposals included in DLUTS and some request rezoning of their lands;
- Traffic congestion especially during peak periods;
- Through traffic needs to be addressed;
- Traffic signals in the study area need to be optimised to run more efficiently;
- There is a need for more public walkways and cycle ways in Douglas; and
- There is a need for more public amenities and facilities in Douglas.

## 3 Summary and Conclusions

### 3.1 Conclusion

3.1.1 A comprehensive and wide ranging public consultation process has been carried out for the Douglas and Land Use and Transport Strategy. This process comprised a number of different phases including:

- A public exhibition; and
- Local stakeholder consultation.

### 3.2 Public Exhibition and Local Stakeholders Consultation

3.2.1 A second public exhibition was carried out on the 24 July in the Rochestown Park Hotel. The purpose of this exhibition was to present the findings of the baseline analysis and to give members of the public and stakeholders a further opportunity to give their opinions on DLUTS.

3.2.2 Local stakeholders in the study area made submissions to the DLUTS team following the 2<sup>nd</sup> public consultation meeting, in relation to any issues they may have, proposed solutions or future plans for the area.

3.2.3 After carrying out the thorough review of all private stakeholder submissions received it was established that the main concerns of the stakeholders in Douglas relate to;

- Landowners wish to remain active participants of DLUTS;
- Landowners both agree and disagree with land use proposals included in DLUTS and some request rezoning of their lands;
- Traffic congestion especially during peak periods;
- Through traffic needs to be addressed;
- Traffic signals in the study area need to be optimised to run more efficiently;
- There is a need for more public walkways and cycle ways in Douglas; and
- There is a need for more public amenities and facilities in Douglas.

**MVA Consultancy provides advice on transport, to central, regional and local government, agencies, developers, operators and financiers.**  
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# Appendix A – Consultation Advertisement Poster



# Douglas Land Use and Transportation Strategy



## 2<sup>nd</sup> Public Consultation Exhibition

Venue: Rochestown Park Hotel

Date: 24<sup>th</sup> July 2012

Time: 3pm to 9pm

Cork County Council is currently developing the Douglas Land Use and Transportation Strategy. The vision for the strategy is:

*To secure a successful vibrant urban centre with a more efficient transport network for Douglas that provides an improved public realm, reduces congestion, encourages greater levels of walking & cycling, and improves the quality of life for the community, thereby enabling sustainable future growth*

This is an important opportunity for you to inform the strategy and to let us know your views on the findings from the:

- baseline land use survey undertaken for the Douglas area;
- baseline traffic surveys covering all road users;
- urban design assessment of Douglas Village;
- online travel questionnaire;
- public & stakeholder consultation process;

Also being presented at the exhibition for your consideration are:

- The **Evaluation Framework** to be used to develop the land use and transportation strategy;
- **Issues and Emerging Themes** for land use, urban design and transport; and
- **Next Steps and timeline** for developing the strategy.

MVA Consultancy has been commissioned to assist Cork County Council in the preparation of the strategy. Representatives from Cork County Council and MVA Consultancy will be in attendance at the public consultation meeting.

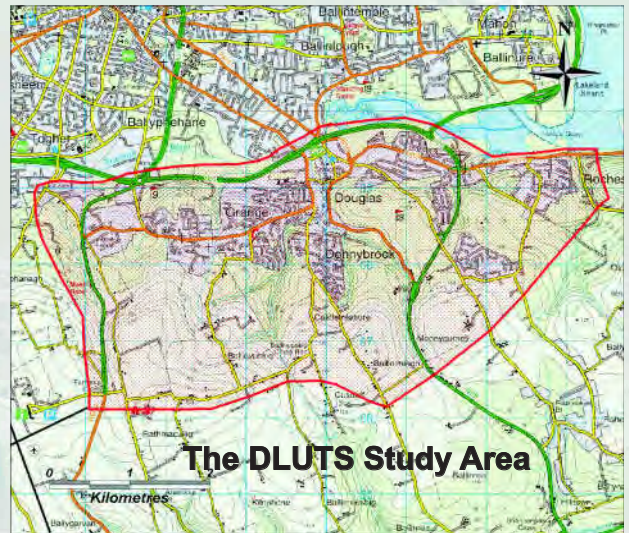
If you cannot attend the public consultation exhibition and would like to participate in the consultation process, please email your comments to Sinéad Canny ( [scanny@mvaconsultancy.com](mailto:scanny@mvaconsultancy.com) ) or write to Sinéad at MVA Consultancy, 1<sup>st</sup> Floor, 12/13 Exchange Place, IFSC, Dublin 1.

Log on to Cork County Council's website ([www.corkcoco.ie](http://www.corkcoco.ie)) for updates on consultation activities. Closing date for submissions on the 2<sup>nd</sup> public consultation is the 10<sup>th</sup> August 2012.

## Appendix B – Exhibition Posters

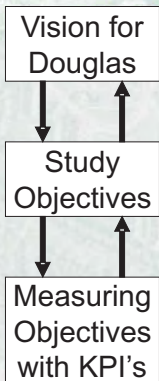
# 1. Introduction

Cork County Council is preparing the Douglas Land Use and Transportation Strategy, DLUTS. The overall aim of the strategy is to ensure that there is an integrated approach to land use and transportation planning for the Douglas Area. MVA Consultancy has been commissioned by Cork County Council to assist in the preparation of the Strategy.



## The Vision:

To secure a successful vibrant urban centre with a more efficient transport network for Douglas, that provides an improved public realm, reduces congestion, encourages greater levels of walking & cycling, and improves the quality of life for the community, thereby enabling sustainable future growth

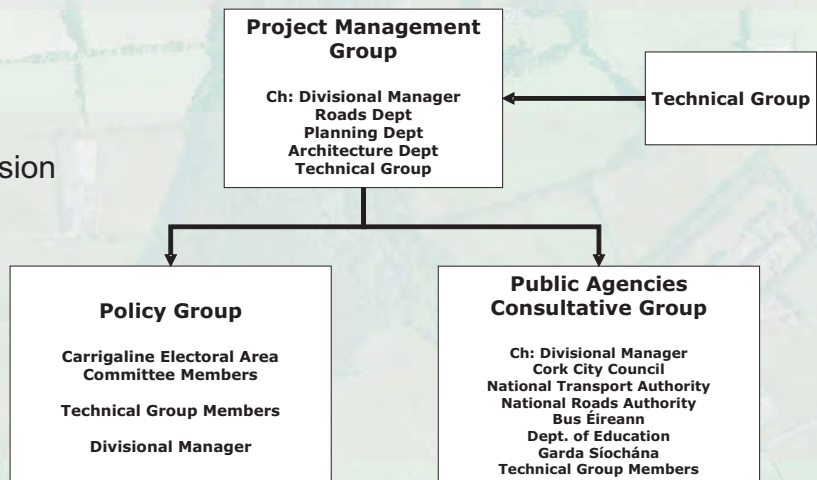


The achievement of the Vision is determined or measured through study objectives. These study objectives will be classified under the following headings:

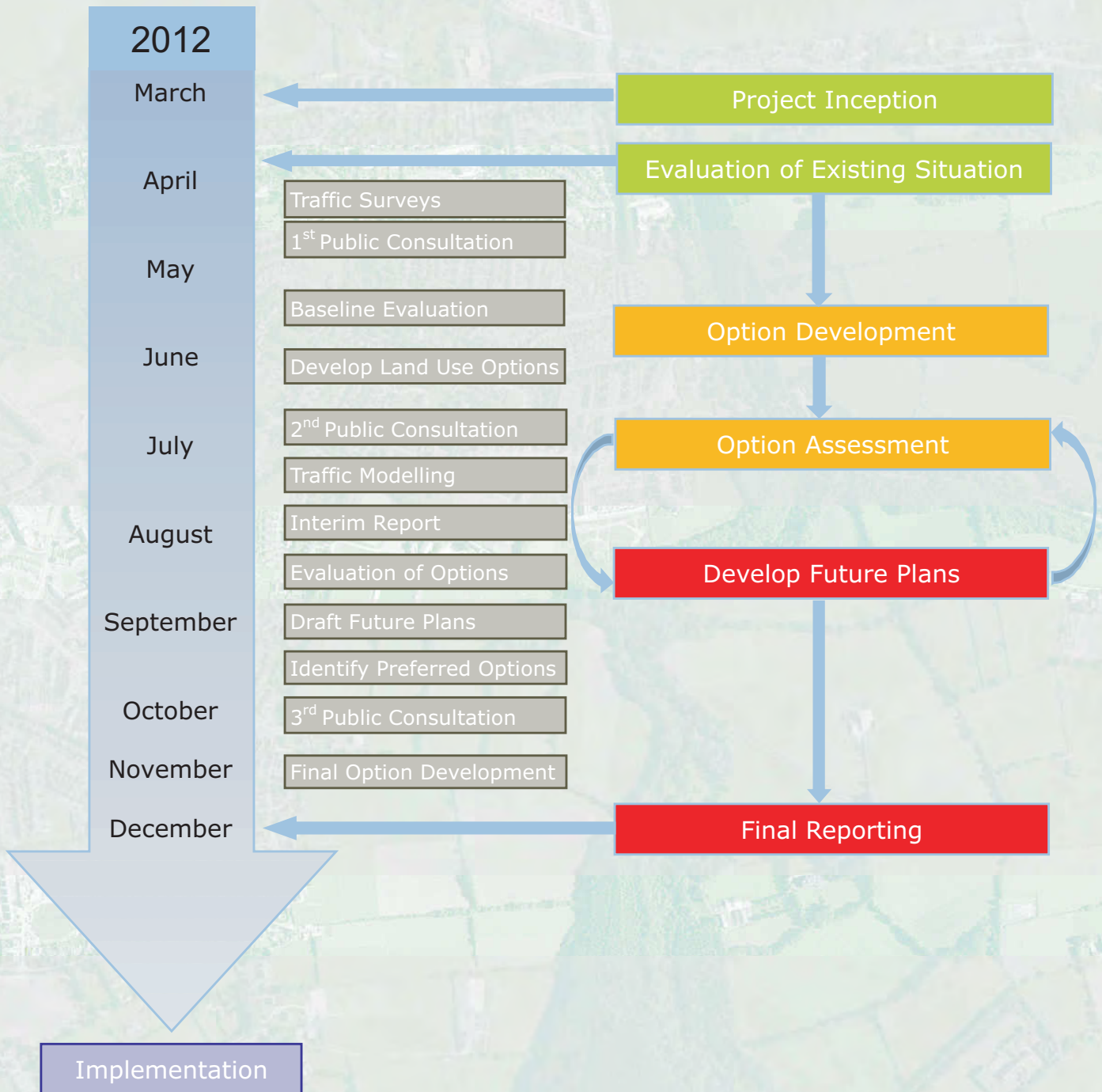
- ▶ Economy
- ▶ Safety
- ▶ Environment
- ▶ Integration
- ▶ Accessibility & Social Inclusion

The performance of each objective is measured using key performance indicators

The Team Structure aiming to realise the Vision



## 2. Progress Flow Chart

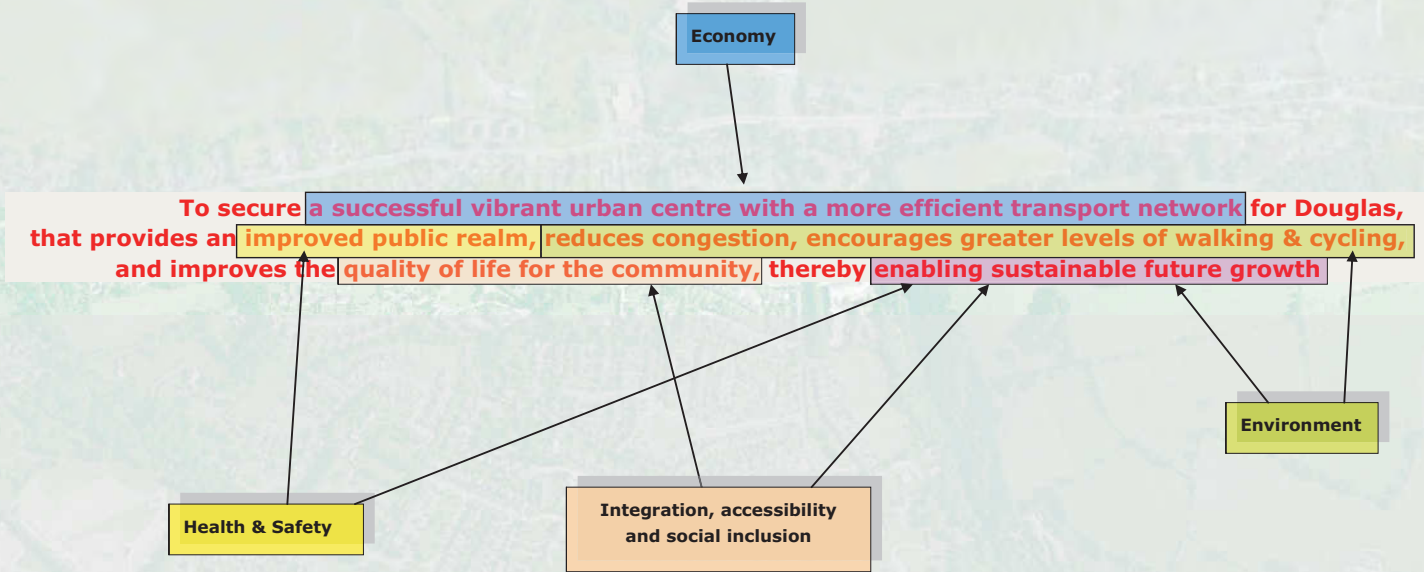


## 3. Exhibition Content

1. Introduction - Where, What, How, and Who?
2. Progress Flow Chart
3. Exhibition Content
4. Evaluation Framework
5. Population & Existing Land Use
6. Retail Land Use & Diversity Survey
7. Built Heritage and Environmental Issues
8. Urban Design Audit - Constraints
9. Urban Design Audit - Desire Lines
10. Urban Design Audit - Opportunities
11. Urban Design Audit - Potential
12. Travel Questionnaire - Who? How? and Why?
13. Travel Questionnaire - Detailed Analysis
14. Public & Stakeholder Consultation
15. Public & Stakeholder Consultation
16. Traffic Survey - CSO Data
17. Traffic Survey - Results
18. Traffic Survey - Sustainable Modes
19. Emerging Themes - Land Use
20. Emerging Themes - Urban Design
21. Emerging Themes - Transport
22. Scenarios for Evaluation
23. Modelling Land Use & Transportation
24. Next Steps

# 4. Evaluation Framework

## Linking the DLUTS Vision with Broad Objectives



No.	Objectives	Key Performance Indicators (KPI)
<b>Economic Evaluation Framework</b>		
1	Improve the economic vibrancy of Douglas Village	Additional floor space by land use type in square metres
2	Provide for the future sustainable development of a mixed use high quality urban centre	* Low (Mx) **Medium ***High
3	Support Improved Economic Competitiveness	Network wide delay / queues of the road network Ratio of flow to capacity at key junctions (%) Journey times of key routes (kph)
4	Support economic growth and employment in Douglas	Number of additional jobs (% Change)
5	Provide additional housing, retail, social, community and recreation facilities	Number of additional units by type (% Change)
6	Reduce cost of travel	Cost of fuel consumed for travel (cost per litre/km)
7	Regenerate Douglas Village via increased inward investment	* Low (inward investment) **Medium ***High

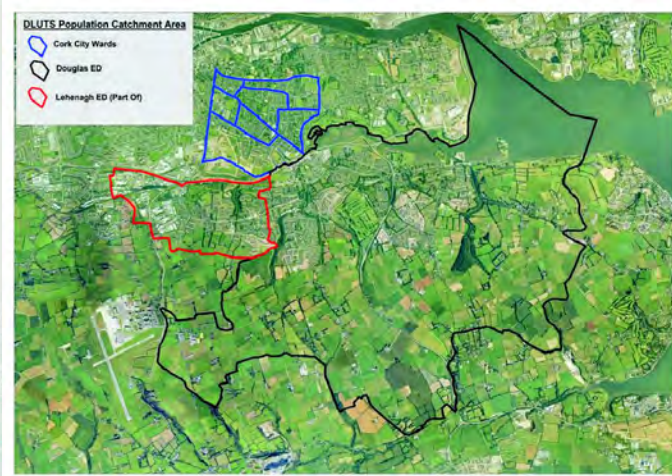
No.	Objectives	Key Performance Indicators
<b>Health &amp; Safety Evaluation Framework</b>		
1	Encourage a healthy lifestyle for all people living and working in the Douglas Area	Length of Cycle Network in kilometres Mode share of walking and cycling (%)
2	Protect the vulnerable road users e.g. children, older people, people with disabilities	Number of Pedestrian Crossing points (% change)
3	Reduce health risks	Change in Vehicle emissions particularly those that cause higher health risks
4	Improve overall safety of all road users	Reduced network speeds in sensitive areas (kph) Pedestrian friendly shared space areas measured in sq m (% change)

No.	Objectives	Key Performance Indicators
<b>Integration, Accessibility &amp; Social Inclusion Evaluation Framework</b>		
1	Develop integration between transport modes	Reduced Car Dependency (%)
2	Increase accessibility to land use opportunities and services for all (employment, retail, leisure)	Average trip length by mode in Douglas Area Density around public transport corridors / nodes / walking and cycling networks
3	Provide better access for pedestrians, cyclists, bus passengers, car users and delivery vehicles	Mode shift towards walking, cycling and public transport Reduced vehicular journey times
4	Improve connectivity and safe circulation within Douglas Village	Reduced car speeds in sensitive areas Bus Priority (length of bus lane provision)

No.	Objectives	Key Performance Indicators (KPI)
<b>Environmental Evaluation Framework</b>		
1	Reduce the impact of noise, vibration and emissions generated by traffic movements	Greenhouse Vehicle Emissions (CO2) Traffic Flow through sensitive areas (AADT)
2	Improve quality of life for the community	Traffic Flow on key routes through Douglas (AADT)
3	Protect and enhance the existing residential and amenity	% Change in existing residential and amenity area
4	Support Smarter Travel, a more sustainable transport & traffic system and reduce car dependency	Walking & Cycling and Public Transport Mode Share (%)
5	Improve the Public Realm in Douglas Village	* Poor-Average (Improvement) **Average-Good ***Good-High
6	Minimize reductions in green areas and cultural sites inherited from the past	* %/ha of open space (passive and active) provision ** %/ha of loss of habitat, *** loss of designated buildings/sites

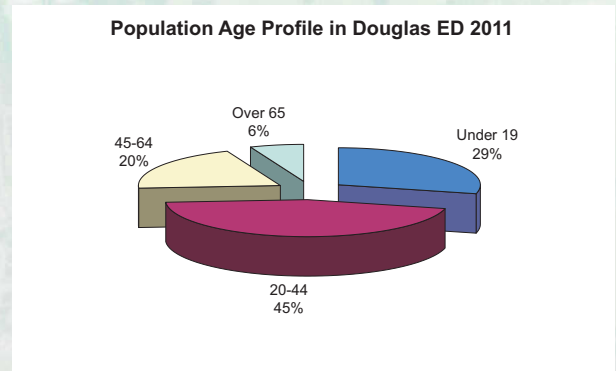


# 5. Population & Existing Land Use

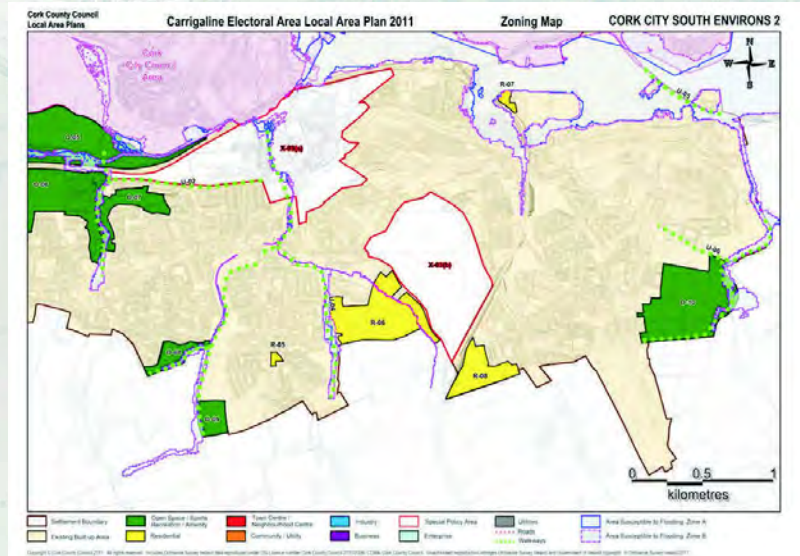


- Population Catchment Area comprises Douglas ED, part of Lehenagh ED and 7 wards of Cork City
- Population of catchment Area in 2011 is 36,188
- There has been a 12.2% increase in population in Douglas ED since 2006
- 45% of the population is aged between 20-44 years old

	2006	2011	Growth
Douglas ED	18,182	20,397	2,215
Lehenagh DED (part of)	N/A	5,932	
7 Wards of City Council	10,291	9,859	-432
<b>Total Population Catchment</b>		<b>36,188</b>	



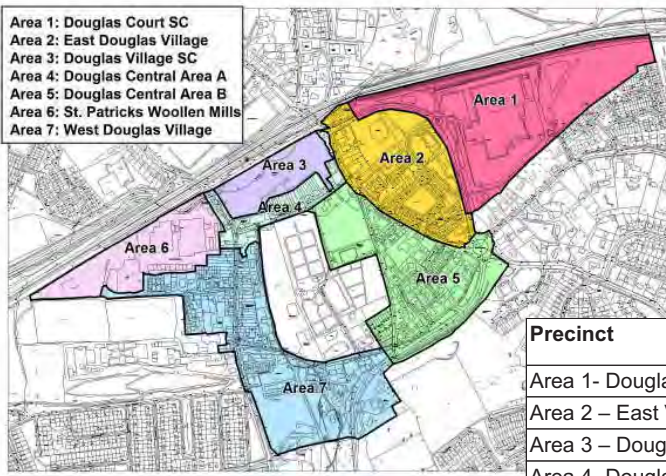
- Majority of land uses in catchment area are residential
- Existing housing stock of 15,066 houses in catchment area
- 437 houses are situated within the town centre of Douglas
- Currently the primary use or reason to travel to Douglas is Retail
- Significant open space and community facilities provision within the study area i.e. schools, Douglas GAA, Community Park, and cemeteries
- There is a requirement for a Multi Use Games Area/Building



# 6. Retail Land Use & Diversity Survey

Retail Areas Map

- Area 1: Douglas Court SC
- Area 2: East Douglas Village
- Area 3: Douglas Village SC
- Area 4: Douglas Central Area A
- Area 5: Douglas Central Area B
- Area 6: St. Patrick's Woollen Mills
- Area 7: West Douglas Village

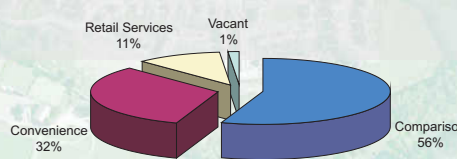


- Douglas is a major urban district (retail) centre in Cork
- Each of the 7 retail areas shows a different mix of floor space retail uses
- Overall, 20% of the retail floor space in vacant

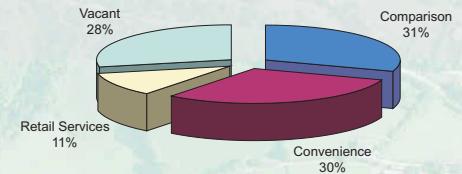
Precinct	Comparison	Convenience	Retail	Vacant	TOTAL
Area 1- Douglas Court SC	5,380	3,160	1,058	135	9,733m <sup>2</sup>
Area 2 – East Village	729	771	6,458	1,447	9,405m <sup>2</sup>
Area 3 – Douglas Village SC	4,355	4,357	1,607	4,097	14,416m <sup>2</sup>
Area 4- Douglas Central A	193	0	3,557	197	3,947m <sup>2</sup>
Area 5- Douglas Central B	218	30	3,161	206	3,614m <sup>2</sup>
Area 6 – St Patrick's Woollen Mills	2,081	425	1,442	2,862	6,810m <sup>2</sup>
Area 7- Douglas West	668	233	1,865	1,152	3,918m <sup>2</sup>
<b>TOTAL</b>	<b>13,624</b>	<b>8,975</b>	<b>19,148</b>	<b>10,096</b>	<b>51,843m<sup>2</sup></b>

- Douglas has four main retail shopping centres: Douglas Court, Douglas Village Shopping Centre, St. Patrick's Woollen Mills and East Village.
- Woollen Mills has the highest vacancy level but provides specialist showroom type retail
- Each retail area has a different mix of retail floor space.
- Other comparison shops (24%)

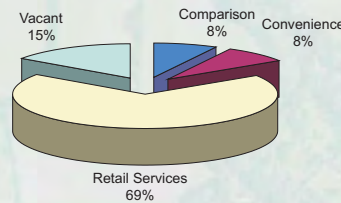
Area 1- Douglas Court SC



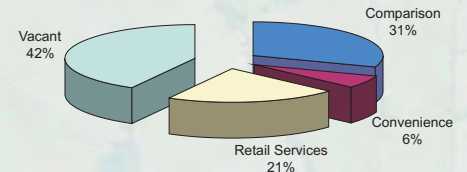
Area 3 – Douglas Village SC



Area 2 – East Village



Area 6 – St Patrick's Woollen Mills



## Diversity of Use

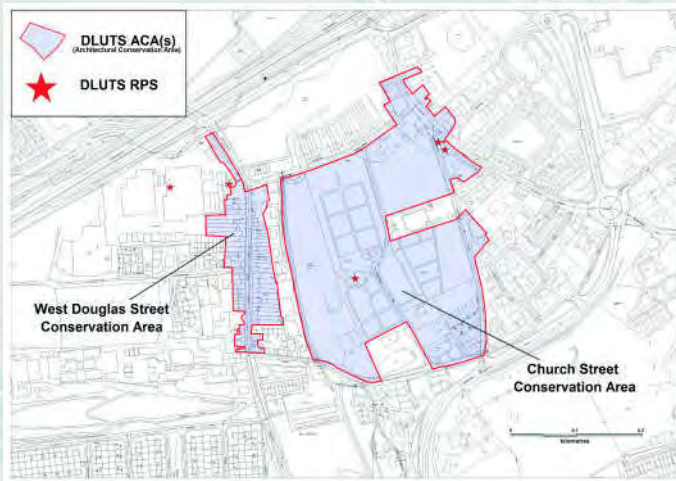
Type of Use	No. of Outlets	Percentage (%)
Comparison	86	24
Convenience	26	7
Retail Service	44	12
Leisure Service	48	13
Other Retail Service	-	-
Financial & Business Service	39	11
Health & Medical	30	8
Public Service	14	4
Religious Service	2	1
General Office Use	0	-
Overall Vacancy	74	20
<b>Total</b>	<b>363</b>	<b>100</b>

- Good diversity of retail floor space with three major super markets. Each retail area has a different mix of retail floor space
- Majority of retail outlets are owned and run by small independent businesses
- There is no general office floor space in Douglas resulting in a lack of day time population, vibrancy in the Village Centre etc.
- Vibrancy and vitality in Douglas has declined with lower footfalls and higher vacancy rates.





# 7. Built Heritage & Environmental Issues



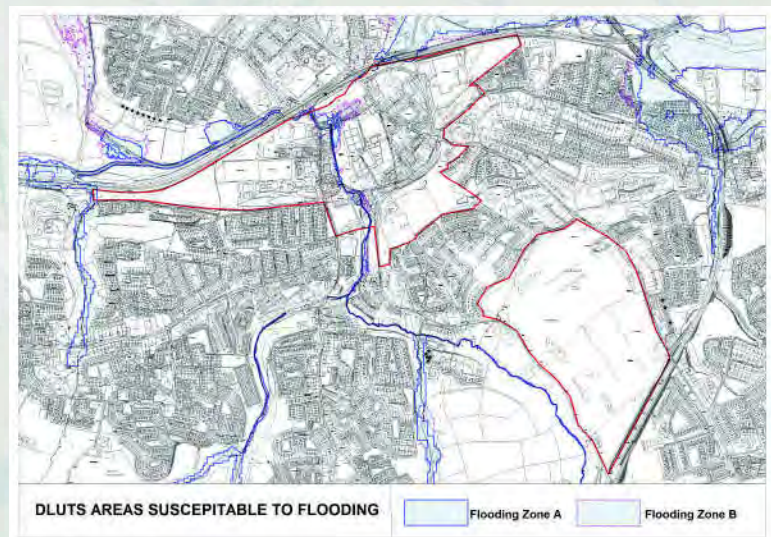
## Built Heritage:

- Rich built and archaeological heritage in central Douglas
- Prime attraction in St Luke's church
- Accessibility to Heritage and Environmental Sites for pedestrians and cyclists needs to be improved



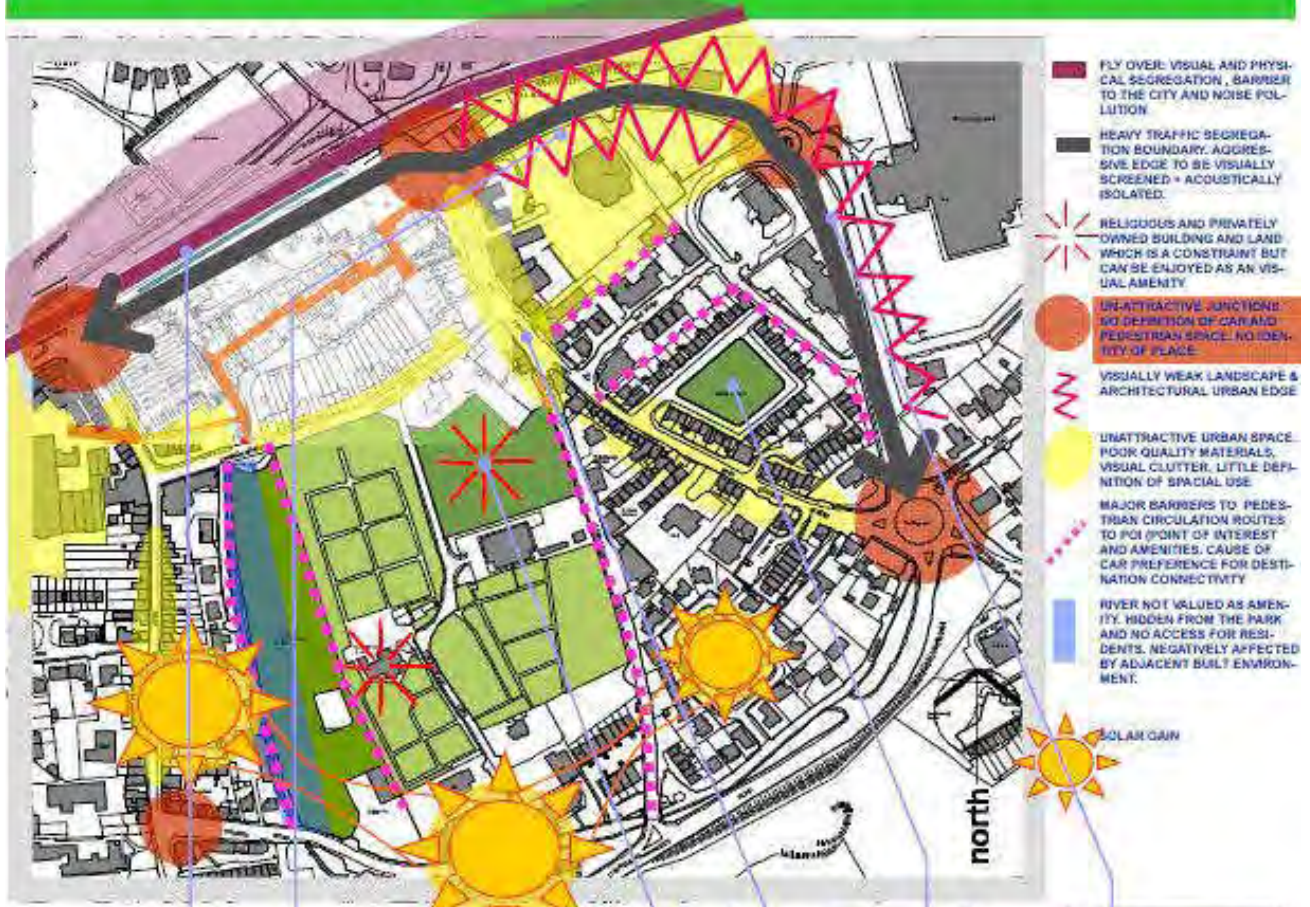
## Environmental Issues:

- Ecological corridor up the Ballybrack river and Maryborough valley
- Douglas Estuary is a designated Special Protected Area (SPA) for birdlife
- Parts of the Study Area are susceptible to Flood Risk



# 8. Urban Design Audit

# constraints



FLY OVER: VISUAL SEGREGATION, BARRIER TO CITY AND NOISE



GREEN PRIVATE SPACE AND CHURCH AS BOTH CONSTRAINT AND AMENITY



UNATTRACTIVE URBAN SPACE



CUL DE SAC HOUSING ESTATE AS PEDESTRIAN BARRIER



VISUALLY WEAK LANDSCAPE & ARCHITECTURAL URBAN EDGE



UNATTRACTIVE JUNCTIONS



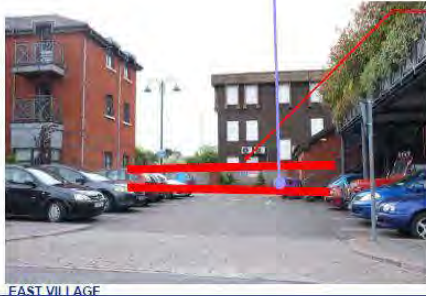
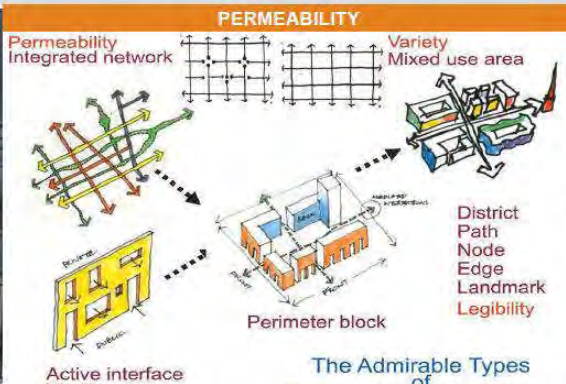
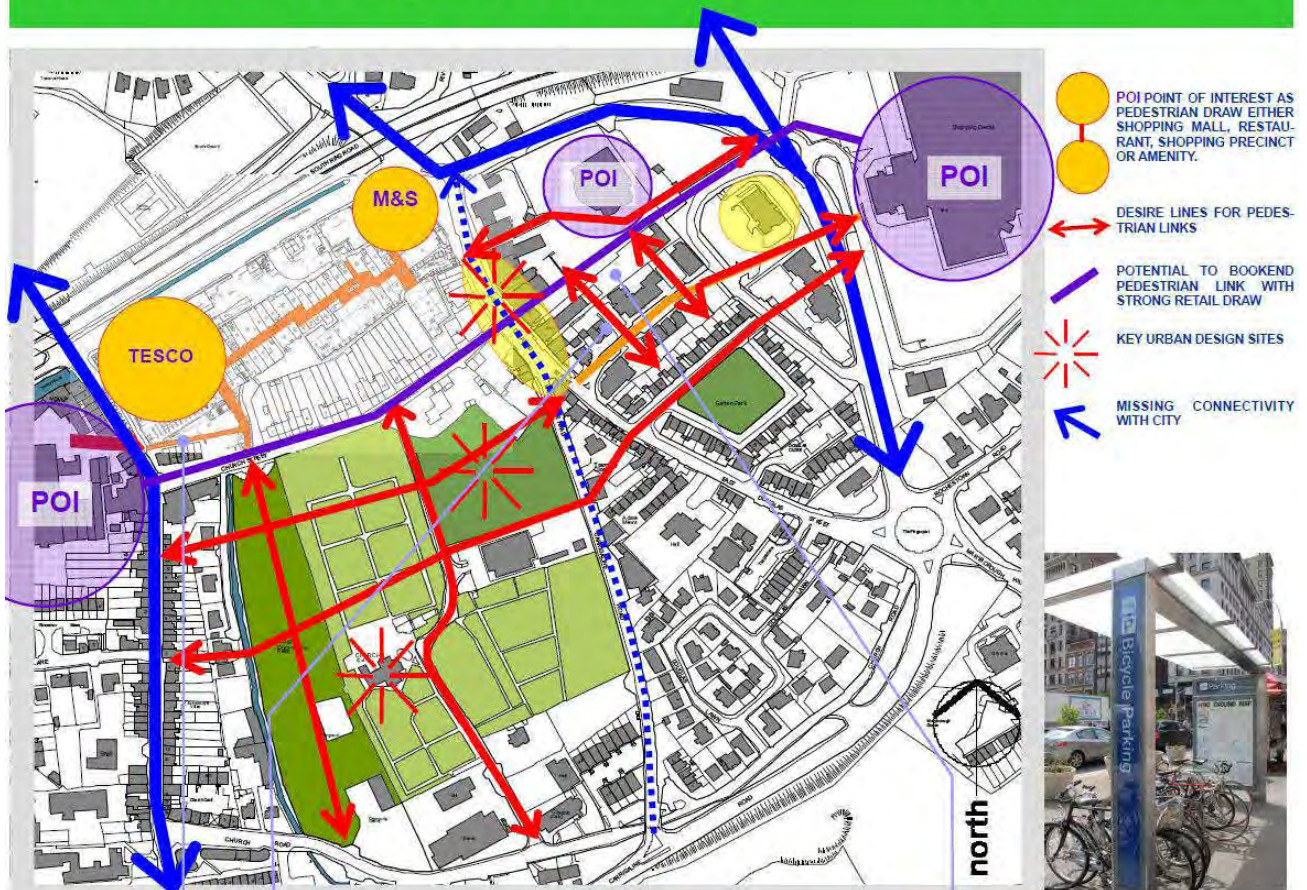
HEAVY TRAFFIC SEGREGATION BOUNDARY

Douglas Land Use & Transportation Strategy

mvaconsultancy  
Cork County Council

# 9. Urban Design Audit

# desire lines



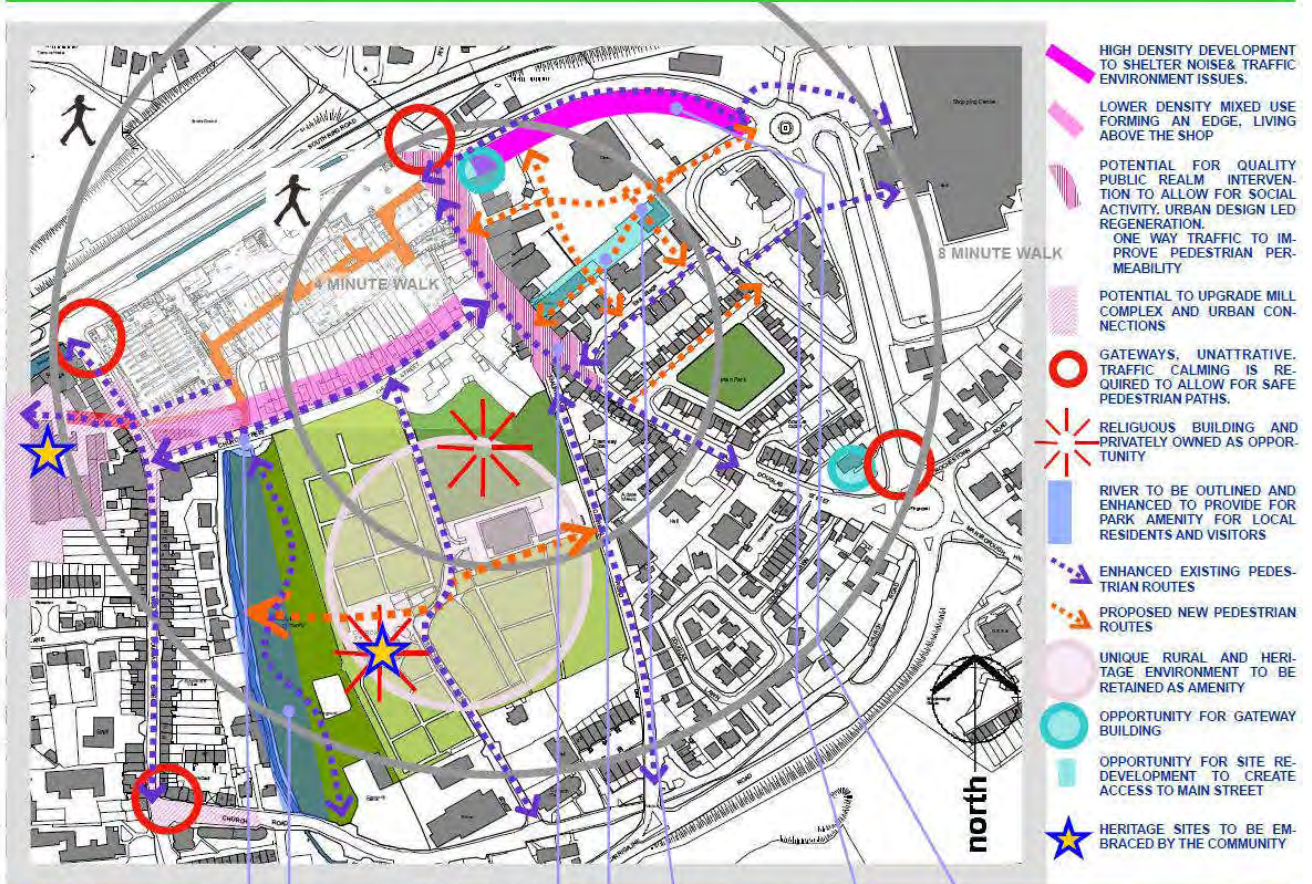
Douglas Land Use & Transportation Strategy

mvaconsultancy  
Cork County Council



# 10. Urban Design Audit

# opportunities



REDEVELOPMENT OF PARK AS PUBLIC AMENITY AND RECREATION SPACE



OPPORTUNITY FOR SITE REDEVELOPMENT TO CREATE ACCESS TO MAIN STREET



HIGH DENSITY DEVELOPMENT TO SHELTER NOISE & TRAFFIC



STREET AS RECREATIONAL SPACE



STREETScape INTERVENTION ON MAIN STREET TO



QUALITY PEDESTRIAN SPACE



POSITIVE UTILISATION OF 'LEFTOVER' SPACE

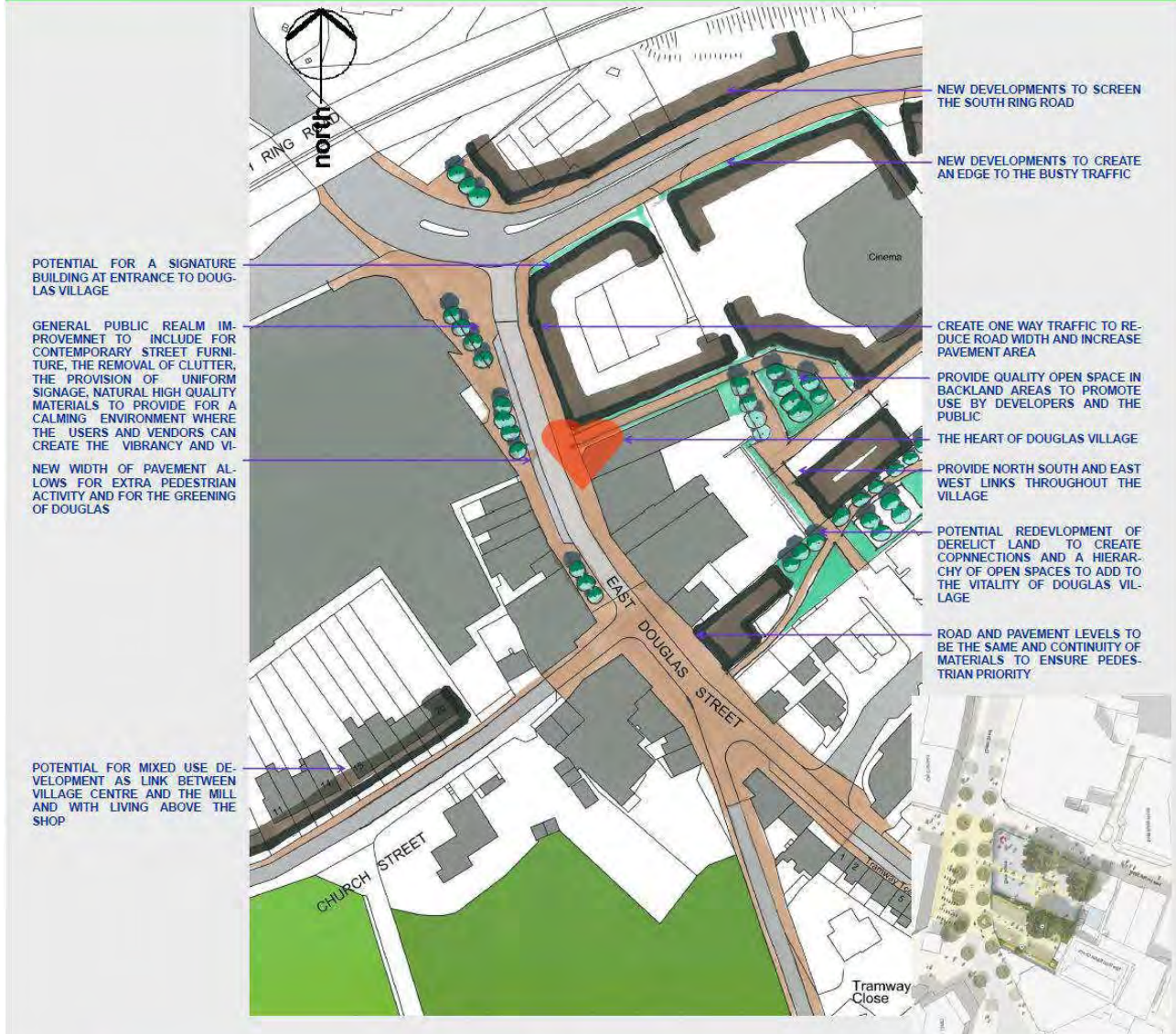
Douglas Land Use & Transportation Strategy

mvaconsultancy  
Cork County Council



# 11. Urban Design Audit

# potential



Douglas Land Use & Transportation Strategy

mvaconsultancy  
Cork County Council



mvaconsultancy

# 12. Travel Questionnaire - Who? How? and Why?

## Summary of Responses:

- ▶ 122 responses (73 male / 47 female)
- ▶ 84% travel daily within Douglas

### Age Profile of Respondents:

- ▶ 4% aged less than 25 years
- ▶ 16% aged between 25-34 years
- ▶ 23% aged between 35-44 years
- ▶ 19% aged between 45-54 years

### Working Profile of Respondents:

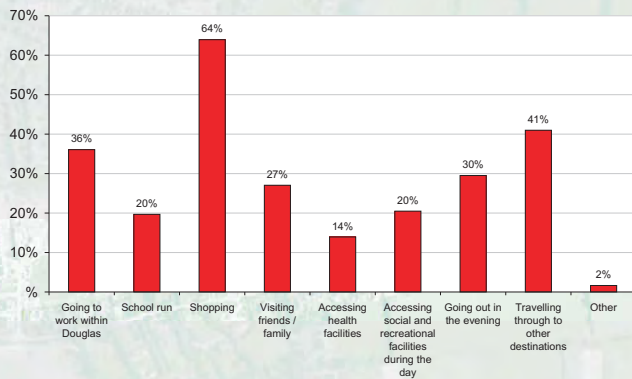
Working Full-time	56 %
Working Part-time	14 %
Full-time student	5 %
Unable to work due to illness / disability	1 %
Retired	16 %
Looking after home / family	8 %
<b>Total</b>	<b>100 %</b>

### Residence of Respondents:

Location	Percentage	Location	Percentage
Ballinlough	1	Hettyfield	2
Ballinrea Road	1	Killorglan	1
Ballygarvan	1	Maryborough Hill	3
Ballyphehane	2	Midleton	1
Carrigaline	2	Montstown	1
Cobh	1	Not specified	12
Cork	1	Passage West	1
Donnybrook	12	Rochestown	18
Douglas	30	Top of Scairt Hill, Westgrove	1
Frankfield	4	Turners Cross	1
Grange	6	Youghal	1
Grange Heights	2	<b>Total</b>	<b>100%</b>

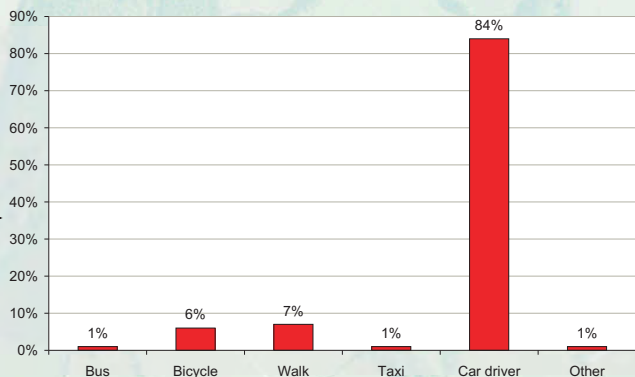
### Hours Attending Work / Education

	From	To
4:00-5:59	1 %	1 %
6:00-7:59	4 %	0 %
8:00-9:59	88 %	0 %
10:00-11:59	5 %	0 %
12-13:59	2 %	6 %
14:00-15:59	0 %	2 %
16:00-17:59	0 %	43 %
18:00-19:59	0 %	44 %
20:00-21:59	0 %	2 %
<b>Total</b>	<b>100 %</b>	<b>100 %</b>

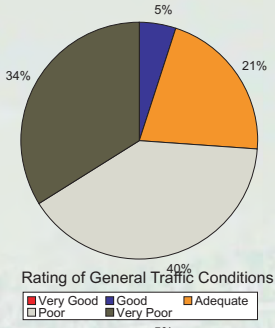


### Why Respondents Travel within Douglas

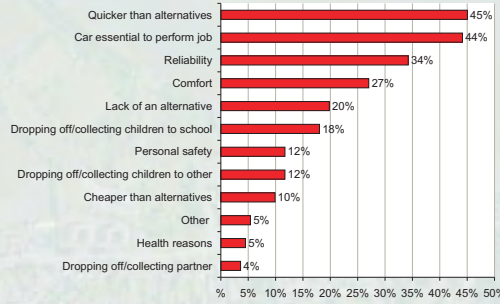
### How Respondents Travel within Douglas



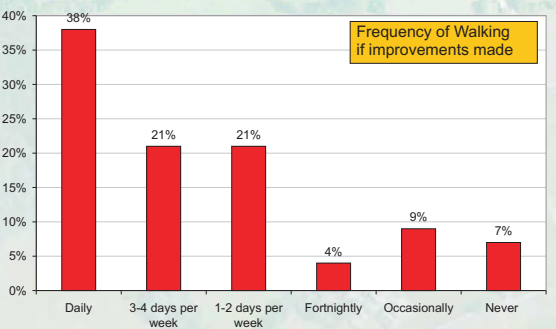
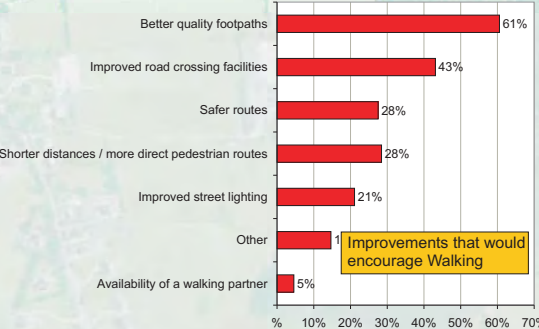
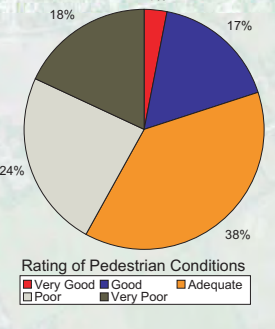
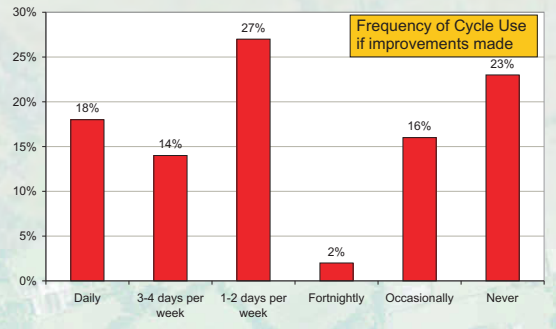
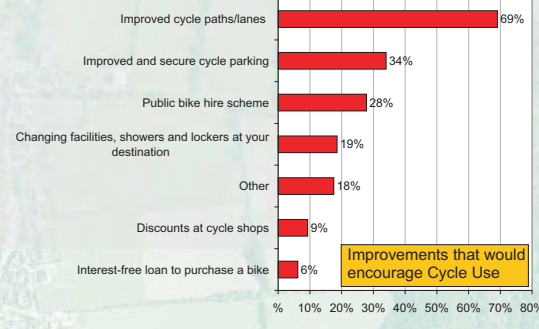
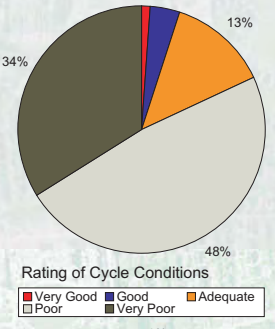
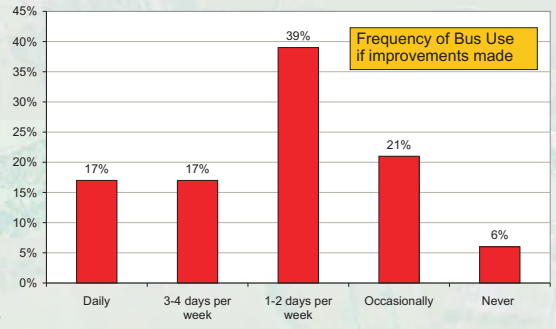
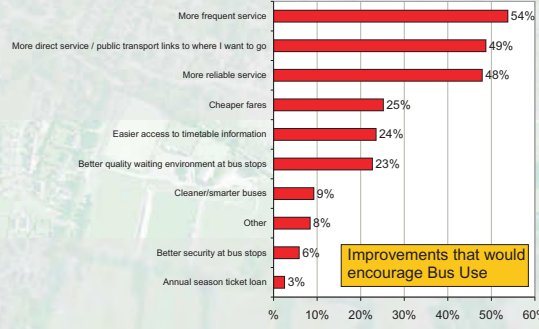
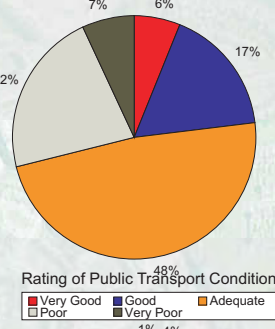
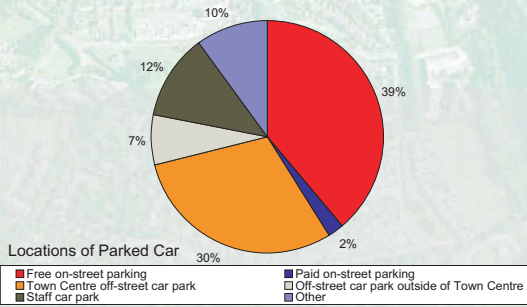
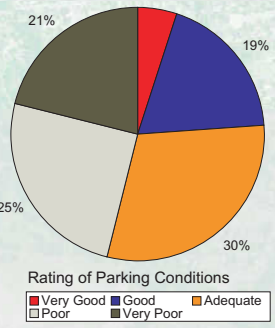
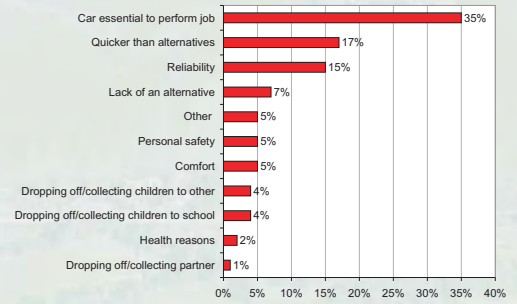
# 13. Travel Questionnaire - Detailed Analysis



Reasons for using Car



Most Important Reason for using Car



# 14. Public & Stakeholder Consultation

Group, organisation or individual consulted	Method of consultation	Number contacted	Response
Local Sport groups	Contacted by letter and invited to respond by letter or email.	6	2 submissions received
Local community groups	Contacted by letter and invited to respond by letter or email.	4	2 submissions received
Religious stakeholder organisations	Contacted by letter and invited to respond by letter or email.	3	0 submissions received
Local Schools (including primary and secondary and Dept of Education)	Contacted by letter and in person and invited to respond by letter or email.	23	16 submissions received
Health Organisations	Contacted by letter and phone call and invited to respond by letter or email.	2	0 submissions received
Business representatives (Douglas Chamber of Commerce)	Contacted by letter and phone call and invited to respond by letter or email.	1	1 submission received
Transport stakeholders	Contacted by letter and phone call and invited to respond by letter or email.	5	4 Submissions received
Local Land owners and private individuals	Invited to make submissions at public consultation meeting and in adverts in local media	Open invitation	9 Submissions received
<b>Total</b>		<b>43</b>	<b>33</b>

## Submissions Received From:

Stakeholders & Public Groups	Individuals & Landowners
Bus Éireann	Anna O'Toole
Cork Taxi Drivers Association	Ciaran O'Callaghan
Department of Education	Dan and Margaret O'Mahony
Douglas Business Association	Deirdre Whelan
Douglas Community Association	Dennis O'Regan
Douglas Golf Club	Michael Dowling
Douglas Gymnastics Club	O'Brien & O'Flynn Contractors
Dublin Airport Authority	Shipton Group
Grange Frankfield Partnership	St Patrick's Mills
National Roads Authority	

## Summary of Issues Raised

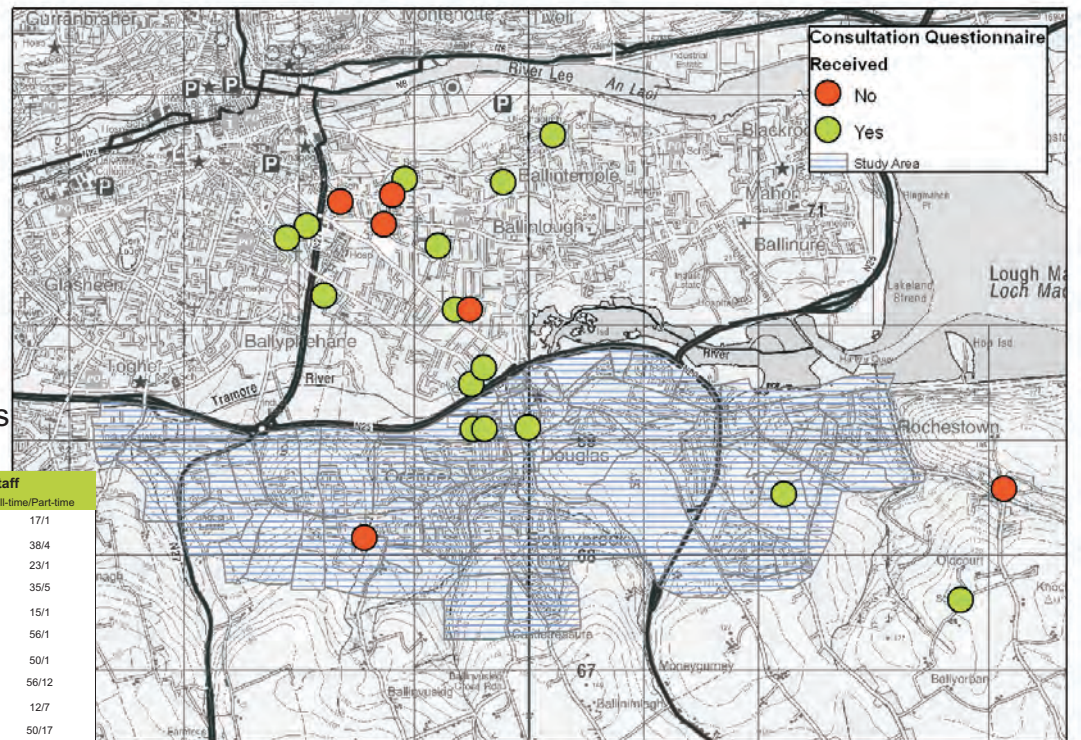
- People do not want any new development until the traffic situation is improved;
- Traffic Congestion especially during peak periods;
- Schools Traffic causes major congestion near schools in the AM peak;
- Traffic Signals in the study area need to be optimised to run more efficiently;
- A number of junctions in the village centre including the Topaz Junction and Donnybrook Hill are over capacity during peak periods;
- There is a need for more public walkways and cycleways in Douglas; and
- There is a need for more public amenities and facilities in Douglas.



# 15. Public & Stakeholder Consultation

## Characteristics of Schools who Responded

School	Description	Pupils Staff	
		Full-time/Part-time	
Ballintemple National School	Primary School	216	17/1
Bunscoil Christ Ri	Primary School	574	38/4
Gaelscoil na Dúglaise	Primary Gaelscoil	355	23/1
Scoil Bhríde Eglantine	Primary School	553	35/5
Scoil Phádraig Naofa	Primary School	244	15/1
St Anthony's BNS	Primary School (Boys)	788	56/1
St Columba's BNS	Primary School (Boys)	507	50/1
St Columba's GNS	Primary School (Girls)	515	56/12
St Lukes National School	Primary School	217	12/7
Ashton School	Secondary School	500	50/17
Christ King Girls	Secondary School (Girls)	1011	70/20
Colaiste Christ Ri	Secondary School	640	51/7
Douglas Community School	Secondary School (Boys)	570	50/50
St Mary's Special School	Special School	61	17/4
School of the Devine Child	Special School	22	10/10



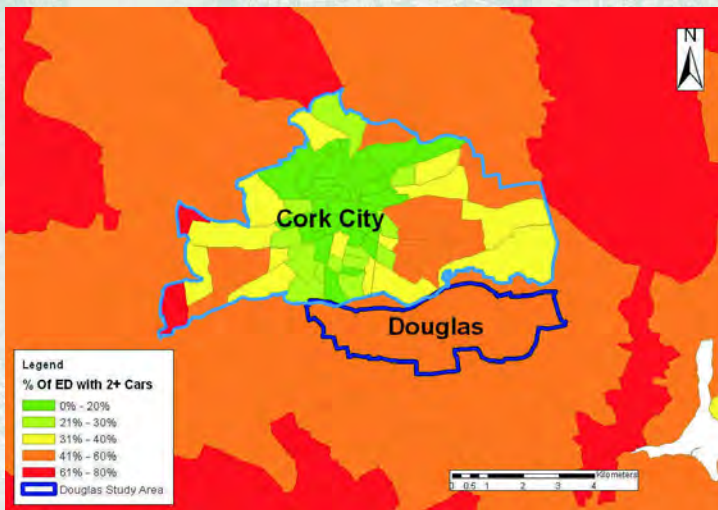
## Summary of School Issues Raised

- The majority of pupils travel to school by car;
- Pick up and drop off activities at schools results in traffic disruption and contributes to congestion;
- There is potential to increase the rate of cycling if the issues regarding safety are addressed;
- There are some issues which affect access to schools for pedestrians. A lack of pedestrian footpaths in some locations restricts access. There are a number of local schools which do not have pedestrian crossing facilities near the entrance to the school;
- There is scope to improve the planning and management of travel to school;
- Most of the local schools participate in the Green Schools Programme and, though only one has so far implemented travel initiatives under the programme, a number of others are intending to do so in the near future; and
- Consultation with local schools suggests that there is potential to organise 'Park and Stride' schemes to address issues with pick up and drop off.

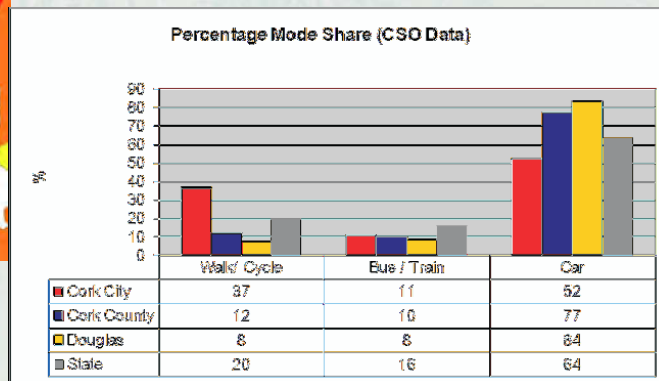
# 16. Traffic Surveys - CSO Data



Existing Road Network

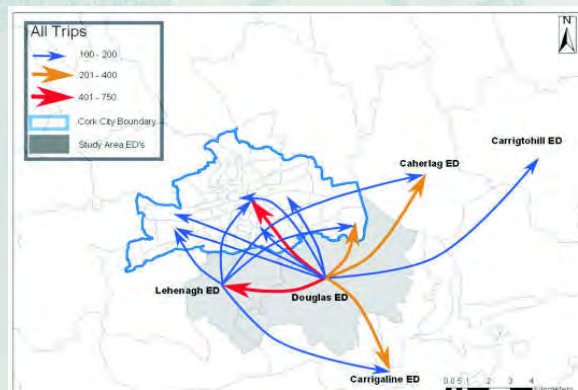


Car Ownership Levels and Mode Share

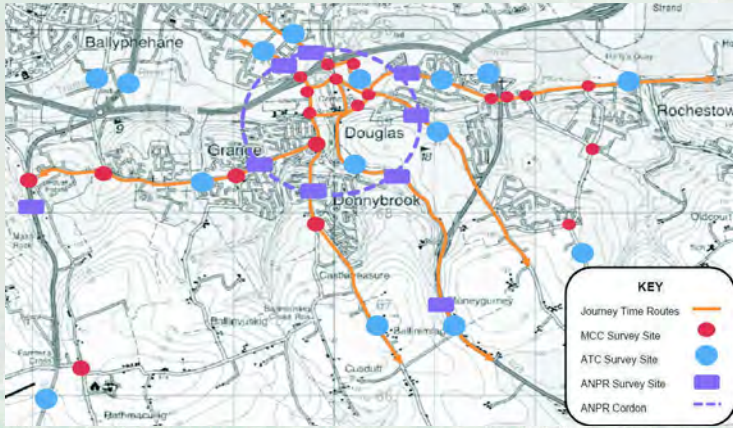


Journey Time	Cork County	Cork City	Douglas
Under 15 minutes	39.2%	41.5%	23.0%
15 to 30 minutes	31.3%	39.6%	47.6%
30 to 45 minutes	18.3%	14.3%	22.0%
45 to 60 minutes	5.8%	2.5%	4.4%
60 to 90 minutes	4.3%	1.6%	2.3%
Over 90 Minutes	1.1%	0.5%	0.7%

Journey Times and Desire Lines

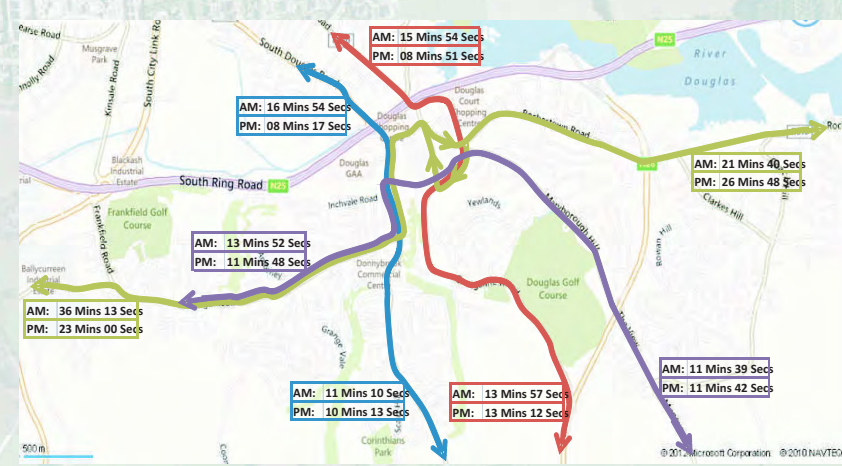
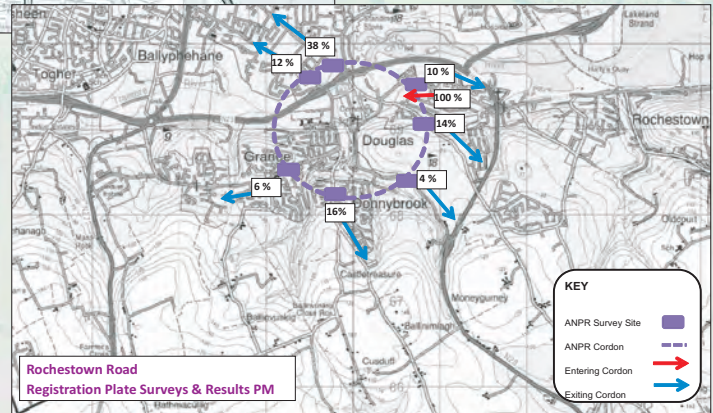
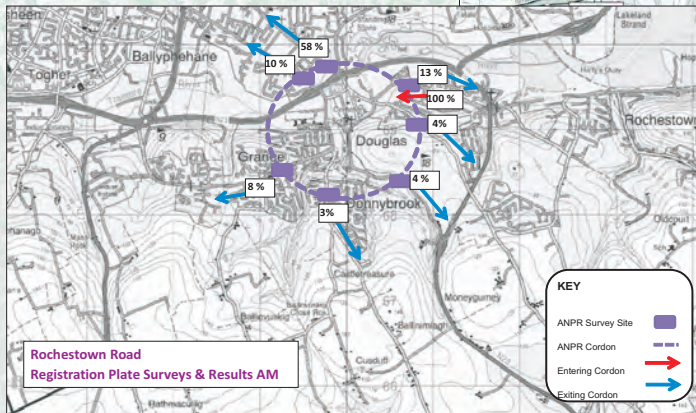
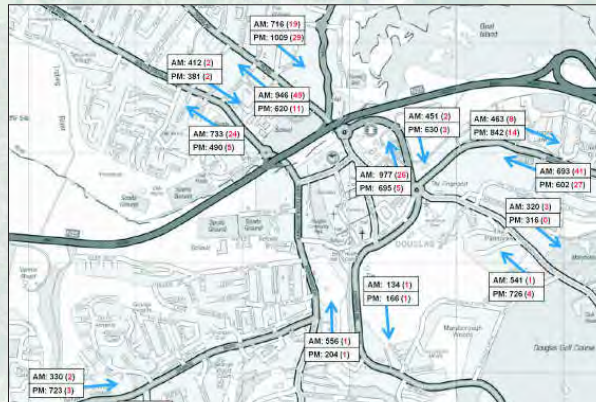


# 17. Traffic Surveys - Results



- ▶ Classified junction turning count surveys (21 locations)
- ▶ Registration plate surveys (9 locations)
- ▶ Journey time surveys (4 routes, each way)
- ▶ Automated traffic counters (ATCs) over seven survey days (15 locations)
- ▶ Link Counts, surveying pedestrian and Cyclist flows (16 locations)

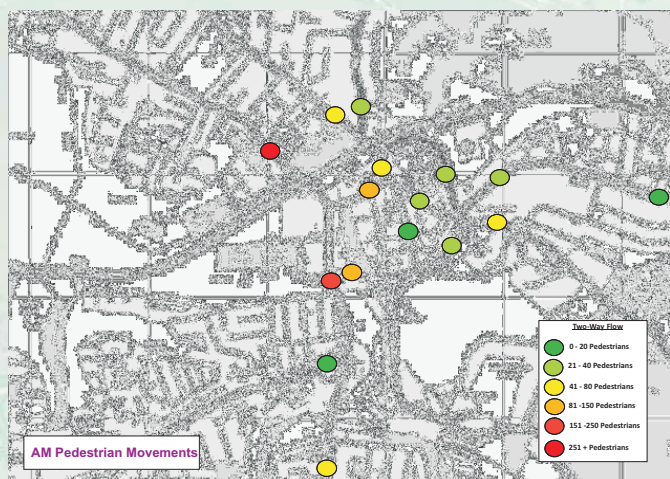
Sample ATC Survey and Reg Plate Survey Results



Journey Times through Douglas Village



# 18. Traffic Surveys - Sustainable Modes



## Pedestrians

Highest footfall is on South Douglas Road in the AM peak



## Pedestrians

Highest footfall is outside the Douglas Village Shopping Centre in the PM peak



## Cyclists

### AM Peak

- Highest count – 18 on South Douglas Road towards Cork City
- Next highest – 14 on Douglas Road towards Cork City

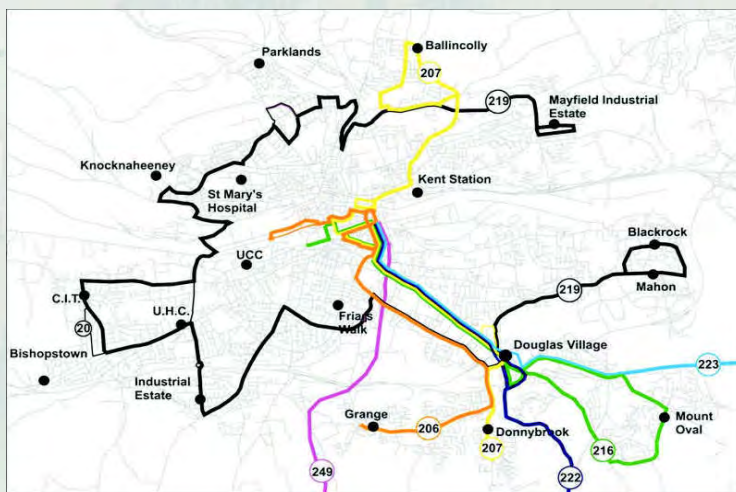
### PM Peak

- Similar to AM Peak in opposite direction

## Bus Services

Douglas is well connected to Cork City Centre by a number of relatively frequent bus services.

Bus Stop infrastructure is inconsistent throughout Douglas and could be improved in places.



# 19. Emerging Themes - Land Use

## Key Land Use Issues for Douglas:

- High population growth in Douglas (12,2% since 2006)
- Falling household size in parts of the study area creates demand for new growth
- High proportion of economically active population (aged 20-44)
- Uncoordinated **piecemeal development** in town centre
- Noise pollution from N40 through the town centre
- Barriers to **connectivity** between land uses
- Mostly individually owned businesses in Douglas
- Part of the town centre susceptible to flood risk
- Poor **vibrancy** due to lack of daytime population in town centre
- Good **mix** of residential, community, retail and amenity land uses in Douglas
- Usually high vacancy and lower footfalls contribute to loss of vitality
- Potential for connectivity between Douglas town centre and the city centre
- Improvements in **access** to the town centre from housing areas
- Rich built and natural heritage for preservation

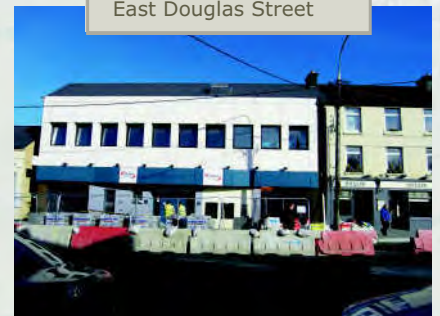
Pedestrian Connectivity -  
Douglas Village Shopping Centre



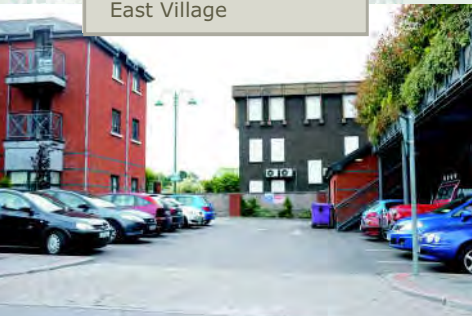
Diversity of Shopping -  
West Douglas Street



High Vacancy Rate -  
East Douglas Street



Barriers to Connectivity -  
East Village



Heritage & Recreation -  
Communitiy Park



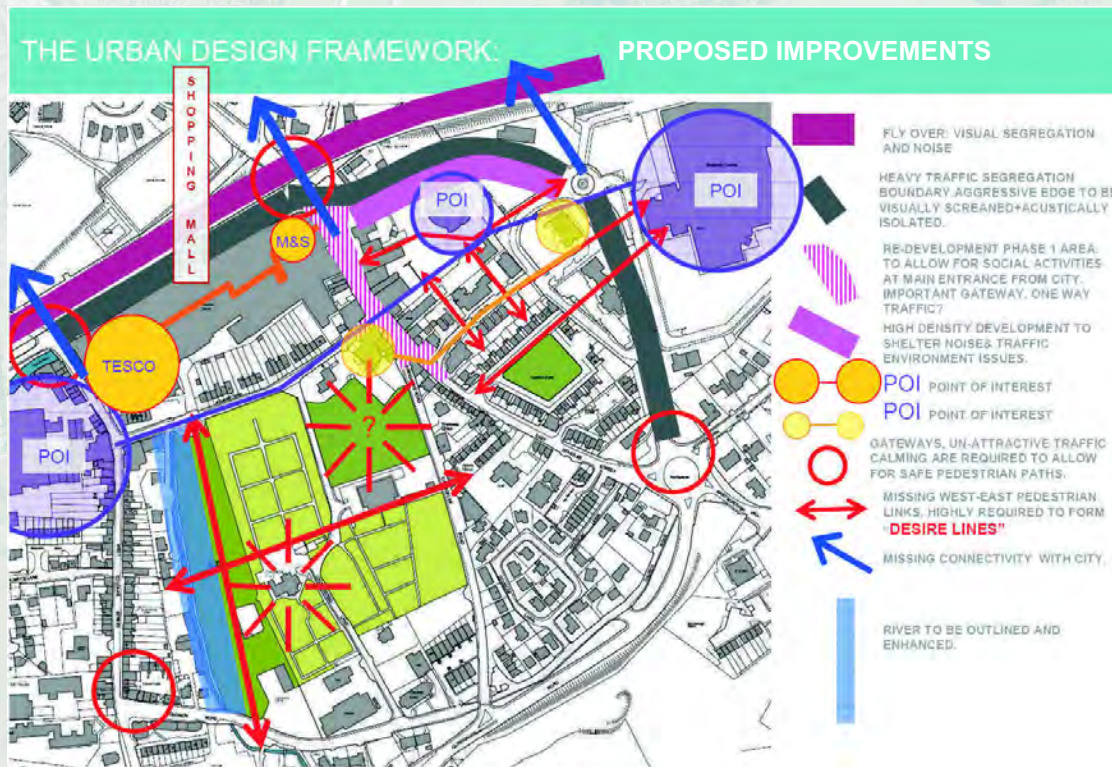
Recreation -  
Ballybrack River



# 20. Emerging Themes - Urban Design

## Key Urban Design Issues for

- Add points here using key words like:
- **permiability**
- **access**
- **sustainable**
- **local**
- **vibrancy**



# 21. Emerging Themes - Transport

## Key Transport Issues for Douglas:

- Poor **permeability**
- Pedestrian 'desire lines' not catered for
- Very low mode share by **sustainable** modes
- High level of **through traffic** during peak periods
- Car mode share to school is very high
- Car ownership very high
- Trip distribution pattern varied (difficult to serve by public transport)
- East west movement through Douglas very slow (by car)
- **Pedestrian / cycling facilities** very poor reflected in mode share results
- Many **severance** issues inhibiting movement by sustainable modes
- Poor signage
- Road hierarchy not obvious to road users
- Many junctions require changes
- Network requires **strategic to local rationalisation** in terms of road hierarchy and modal priority

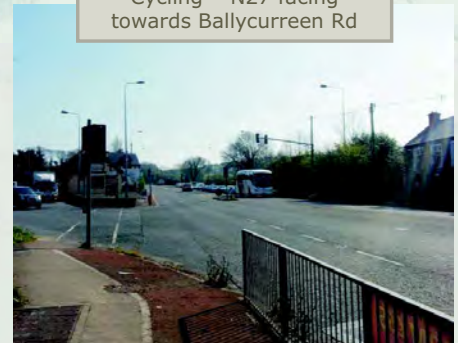
Poor Surfacing – East Douglas Street



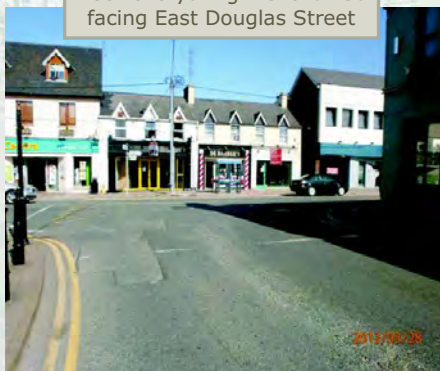
Parking – Church Road Facing West Douglas Street



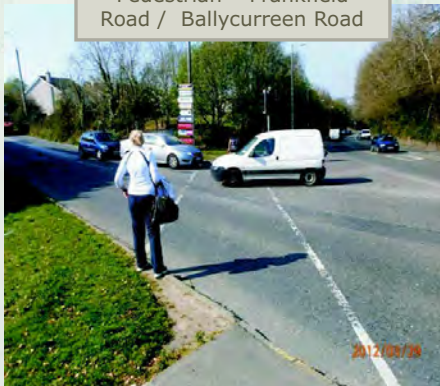
Cycling – N27 facing towards Ballycurreen Rd



Poor everything - Church St facing East Douglas Street



Pedestrian – Frankfield Road / Ballycurreen Road

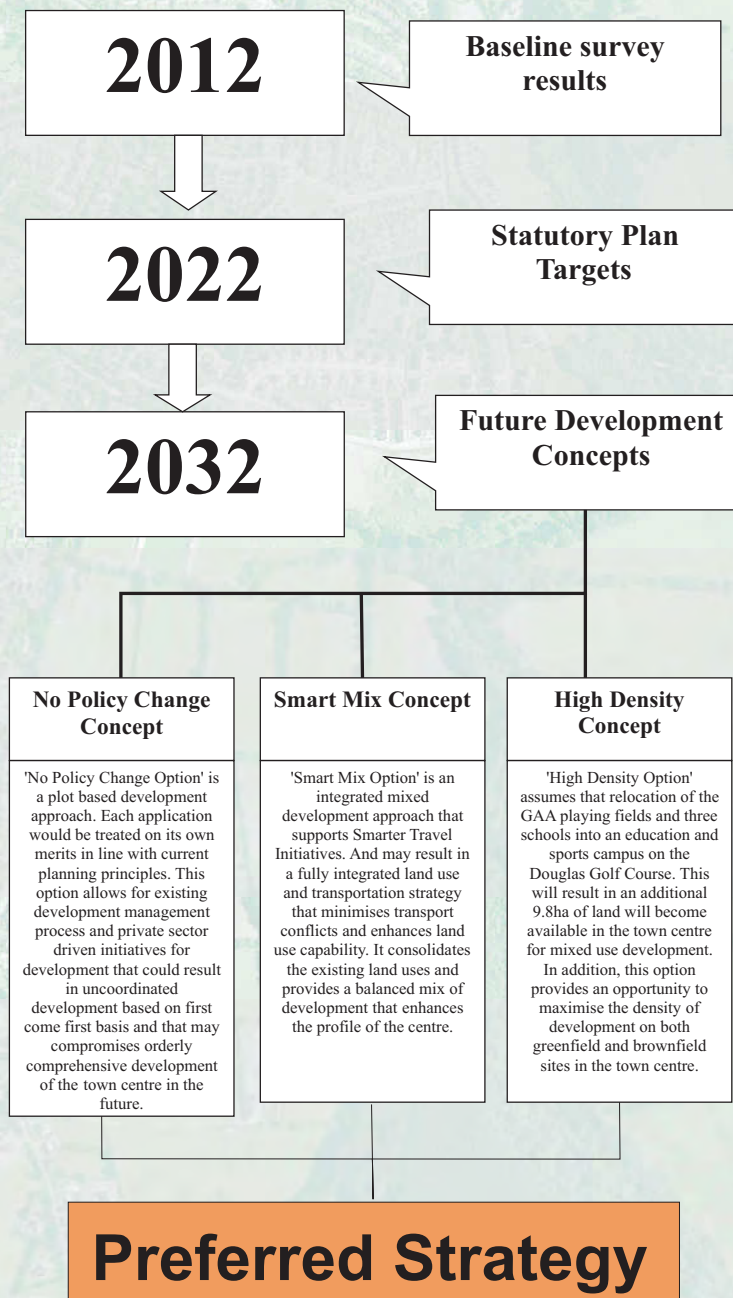


Wrong Priority – East Douglas Street facing R610



# 22. Scenarios for Evaluation

- All population and economic targets of statutory plans will be adhered to up to 2022
- Economic indicators show that no new retail development (other than filling vacancy) will take place before 2022
- After 2022, new development will need to be guided by three different concepts.





# 23. Modelling Land Use & Transportation

## Traffic Modelling

### Zonal plan of Douglas Traffic Model



- ▶ The Douglas Traffic Model consists of 101 model Zones.
- ▶ Each Zone represents a specific land use and all major trip generators in the Study Area are represented by an individual zone.

▶ A detailed traffic Model called the Douglas Traffic Model has been developed as part of the DLUTS Study.

▶ The Douglas Traffic Model represents the movement of traffic in Douglas and its environs for a typical AM and PM peak period.

### Traffic Model Network



## Multi-Modal Modelling

### Omni-Trans Network



▶ The CASP Omni-Trans Model incorporates City and County wide data on Land Use and Future Development.

▶ It also incorporates the ability to assess mode shifts among Car, Public Transport and Walking Cycling.

▶ This Model will be used to assess the strategic (mode shift, etc) implications of any future policy and land use changes in Douglas and the wider Cork City and County area.

# 24. Next Steps



This is the 2nd public consultation exhibition.

This is your opportunity to inform the strategy.

Let us know your views on:

- ☛ how do you see Douglas developing?
- ☛ what potential solutions you think should be explored?
- ☛ how are current traffic conditions in and around Douglas?
- ☛ what local transportation issues are important to you?



If you would like to participate in the consultation process, please

**email** your comments to Sinéad Canny  
([scanny@mvaconsultancy.com](mailto:scanny@mvaconsultancy.com) )

or

**write** to Sinéad at  
MVA Consultancy, 1<sup>st</sup> Floor, 12/13 Exchange Place, IFSC, Dublin 1.



Log on to Cork County Council's website ([www.corkcoco.ie](http://www.corkcoco.ie)) for updates on consultation activities.

Closing date for submissions on the 2<sup>nd</sup> public consultation is the **10<sup>th</sup> August 2012.**



## Appendix 2 – Traffic Modelling Reports

# DLUTS – Final Report

## Appendix 2 – Model Validation Report

Report for Cork County Council

October 2012



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## Distribution

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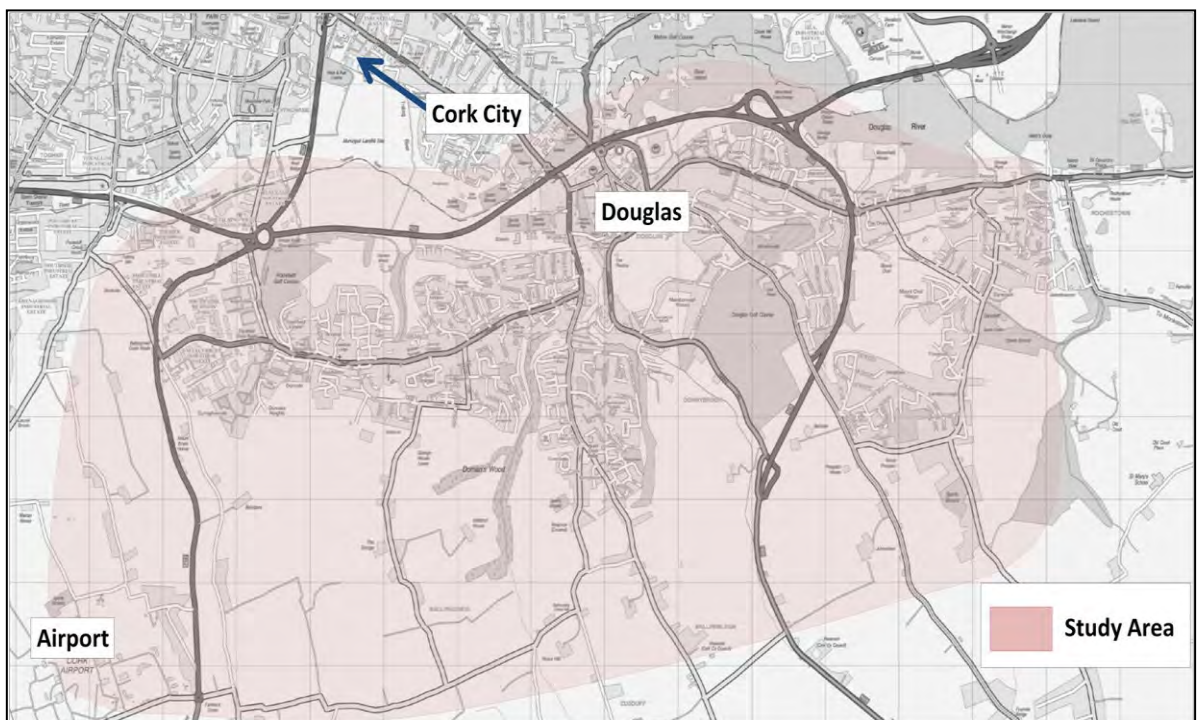
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# 1 Background

## 1.1 Introduction

- 1.1.1 MVA Consultancy was appointed by Cork County Council to prepare a Land Use and Transportation strategy for Douglas Village and its environs (DLUTS). The study area is shown, below, in Figure 1.1.
- 1.1.2 The initial task in developing a land use and transport strategy is the determination of current traffic management arrangements in the Douglas area and the respective conditions experienced by each classification of road user. This will then inform the adequacy of the current traffic management arrangements, and assist in determining the interventions required to address any issues identified.
- 1.1.3 As part of the assessment, a detailed traffic model was developed for the study area and is called the Douglas Traffic Model (DTM). The DTM represents the movement of vehicular traffic in Douglas and its environs for a typical AM Peak and PM Peak period for a base year of 2012.

**Figure 1.1 Study Area**





## 1 Background

### 1.2 Report Overview

1.2.1 In this report we describe the model development process used for the base year DTM, including a detailed description of the calibration process and validation statistics. Also described is the type of traffic modelling software used and the methodology used to develop the base year DTM.

1.2.2 At this stage a definition of what is actually meant by Calibration and by Validation should be given, as follows:

- **Calibration** involves the correction of network and demand errors to reduce discrepancy between measured data and modelled outputs. For the purposes of forecasting it is assumed that the parameters changed during calibration remain constant over time.
- **Validation** tests the ability of the model to predict observed travel behaviour. Validation involves testing some independent count data against flows obtained from the calibrated model.

1.2.3 The following sources on traffic model calibration/validation guidance have been used to inform the model development process and model robustness and reporting:

#### Model Calibration and Validation Guidance

- Highway Capacity Manual 2000 (US);
- DMRB Volume 12 Section 2 Part 1 (UK);
- National Roads Authority Project Appraisal Guidelines, Appendix 3, Traffic Modelling;
- National Transport Authority validation criteria; and
- SATURN manual validation guidelines.

### 1.3 Report Structure

#### Chapter 2 - DTM Description

In Chapter Two we give a high level overview of the modelling software platform employed and model dimensions such as the study area, time periods and vehicle types modelled within the DTM.

#### Chapter 3 – DTM Development

In Chapter Three the DTM development process is described in detail. We describe the survey data used to calibrate the DTM and how the road network in the Douglas area is redefined to the appropriate level of detail required by the transport assessment.

#### Chapter 4 – Demand Data Development

In Chapter Four we describe our use of the census data used to develop suitable trip matrices.

**Chapter 5 - DTM Calibration Process and Results**

Chapter Five outlines the calibration process adopted and the accuracy achieved. The calibration methods employed to ensure the DTM is 'fit for purpose' are presented.

**Chapter 6 – DTM Validation**

Chapter Six presents the validation statistics which demonstrate that the DTM is a suitable and robust tool to be used for the transport assessment of the Douglas area. The validation uses independent count and journey time data sets.

**Chapter 7 - Conclusions**

Finally, Chapter 7 summarises and concludes the main points in the report.

## 2 DTM Description

### 2.1 Introduction

2.1.1 This Chapter describes the DTM with reference to the various aspects below.

- Modelling software platform used;
- Extent of the model area;
- Time periods modelled;
- Vehicle types modelled; and
- The appropriateness of this model for the analysis required by the Transport Study.

### 2.2 Model Software Platform: SATURN

2.2.1 The model software used is the SATURN (Simulation Assignment of Traffic to Urban Road Networks) suite of transportation modelling programs.

2.2.2 SATURN has 6 basic functions:

- 1) As a combined traffic simulation and assignment model for the analysis of road-investment schemes ranging from traffic management schemes over relatively localised networks (typically of the order of 100 to 200 nodes) through to major infrastructure improvements where models with over 1000 junctions are not infrequent;
- 2) **As a “conventional” traffic assignment model for the analysis of much larger networks** (e.g., up to 6000 links in the standard PC version, 37500 in the largest)
- 3) As a simulation model of individual junctions;
- 4) As a network editor, data base and analysis system;
- 5) As a matrix manipulation package for the production of, for example, trip matrices; and
- 6) As a trip matrix demand model covering the basic elements of trip distribution, modal split, etc.

### 2.3 DTM Overview and Dimensions

#### Determination of Modelled Time Periods

2.3.1 The standard model time period for traffic simulation and assignment models is one hour as per the guidelines listed in Section 1.2.3 above. At the outset of this project it was assumed that the DTM would also be a one hour model and initial model development and data collection was carried out based on this assumption. However at the point where we had developed a good information base in terms of traffic movements, patterns and journey times it became obvious that a one hour model was not suitable for the DTM.

2.3.2 Based on the traffic patterns that emerged from our initial analysis and data collection it emerged that there were issues regarding the following:

- POWCAR Journey Times: Assessment of POWCAR journey times revealed that the majority of journeys in Cork and Douglas were less than thirty minutes in duration.
- Departure Times: Assessment of departure times revealed that there was a large variance within the hour in terms of departure times. Our analysis revealed that the morning peak of departures was not spread over one hour but concentrated within a half an hour period.
- Observed Journey Times: MVA carried out a journey time assessment on four specified routes (described in detail in Chapter 6). These independent tests supported the shorter half hour peak within Douglas.
- POWCAR Trip Distances: Journey distances in Douglas were notably shorter which would create an impact on journey time and departure time.
- School Trips: The Majority of Schools in the Douglas Area start at 08:30 with the rest beginning at 08:50. The result of this is that the majority of School trips, which are a significant contribution factor to congestion in Douglas, take place between 08:00 and 08:30.
- Observed queues lengths and queue dissipation times through the area.

2.3.3 The combination of shorter journey times, early school start times and concentrated departure times needed to be replicated in the model. Had our survey data been evenly spread over a one hour peak period our model would have provided unrealistic traffic statistics – particularly queue lengths and journey times.

2.3.4 To realistically represent the delay that occurs in Douglas the decision was made based on the above findings to develop a half hour traffic model which would represent the actual network delay that occurs in the system which is more representative of peak period conditions experienced in the Douglas Area. In essence this would allow us to capture all movements (home to work and home to school) during the peak and replicate the areas impacted most by congestion in Douglas.

2.3.5 The DTM was developed and calibrated and validated, therefore, to represent the following half hour time periods:

- AM Morning peak period: 08h00 to 08h30; and
- PM Evening peak period: 17h30 to 18h00.

## 2 DTM Description

- 2.3.6 To represent the latest traffic movements within the Douglas Area for 2012, a series of surveys were conducted in April 2012. These surveys are described in detail in the network development (see Section 3).
- 2.3.7 The trip demand matrix representing a base year of 2012 was developed for the DTM using this survey data. The demand matrices are segregated into two vehicle types (or user classes), as follows:
- User Class One - Cars and light Goods Vehicles (LGVs). All cars and two axle trucks or other type commercial vehicles are considered LGVs; and
  - User class Two - **Heavy Goods Vehicles (HGV's)**. This user class is comprised of goods vehicles with 3 or more axles.
- 2.3.8 Bus flows in the Douglas area are also included as fixed flows in the modelled road network. Although there is no mode transfer calculated from car trips to bus trips, the road space occupied by the buses is taken account of in the traffic model by reducing the available road capacity.

### 2.4 Douglas Traffic Model Area

- 2.4.1 The modelled area under consideration as part of the Douglas traffic assessment is shown in Figure 1.1. The road network contained within the red border is included as part of the DTM local model. The area taken into consideration for the construction of this model expands well beyond the study area and takes into account movements originating both within Cork County and City. Chapter 4 explains in detail the extent of our model zones and how we developed our origin-destination matrix.
- 2.4.2 The model area delineated in red has also been chosen to allow for testing the expansion of **Douglas' road network in future model years.**

#### Appropriateness of DTM for the Douglas Area Traffic Assessment

- 2.4.3 For any model it is important to demonstrate that it is an appropriate tool for assessing the full range of traffic impact assessment types it is designed for. It is planned that the Douglas Traffic Model will be used to assess the impact of both local and strategic interventions. It is therefore crucial that the traffic model incorporates the level of detail required for localised analysis and that it demonstrates the anticipated responses to interventions upon their realisation.
- 2.4.4 This Validation Report will demonstrate that the DTM is an appropriate model for the Douglas Transportation Study by:
- Detailing that the model calibration achieved is of an acceptable standard; and
  - Validating the calibrated model against measured journey times not used in the calibration.
- 2.4.5 Within the context of the range of analysis required of the model it must be understood that there is no one source that establishes the validation requirements of a general purpose model. Each such model must be considered with the context for which it will be used and

## 2 DTM Description

validated accordingly, without sacrificing any of the desirable responses listed above in return for the perfect reproduction of observed volumes on link flows.

## 3 DTM Network Development

### 3.1 Introduction

3.1.1 The goal in developing the DTM was to develop a traffic model that accurately reflects current traffic conditions in the Douglas area for the 2012 base year and to a sufficient level of detail to allow assessments to be made on both local and strategic interventions. To achieve this goal the model must be defined in terms of road network and trip demand representation.

3.1.2 Accurate survey information that describes the road network and traffic observations are crucial inputs to the calibration and validation process. At the outset of the calibration process the following data inputs were obtained:

- Road Network Data: Initial base network data was gathered using digital mapping systems such as Google earth to get a high level view of the network. Following this detailed data was gathered from extensive site visits of Douglas. Junction layout details, such as allowed or banned turns, junction priority, and signal phase timings, were collected for all junctions within the simulation network of the DTM.
- Survey Data: Comprehensive surveys were undertaken in Douglas in order to fully understand traffic conditions as they currently exist. The following surveys were undertaken:
  - Classified junction turning count surveys (21 no. locations, from 07:00 to 10:00hrs and 16:00 – 19:00hrs. Surveys were undertaken on the 18th April 2012);
  - Automated traffic counters (ATCs) were also used to supplement this data (15 no. locations, continuous from 17th April 2012 to 23rd April 2012);
  - Link Count Surveys were undertaken at 16 locations on the 19th of April 2012 between the hours of 07:00 and 19:00;
  - Registration plate surveys (9 no. locations, from 07:00 to 10:00 and 16:30 – 18:30. Surveys were undertaken on 17th April 2012); and
  - Bi-directional journey time surveys (4 routes, each way AM, and PM Peaks. All undertaken on 18th April 2012).

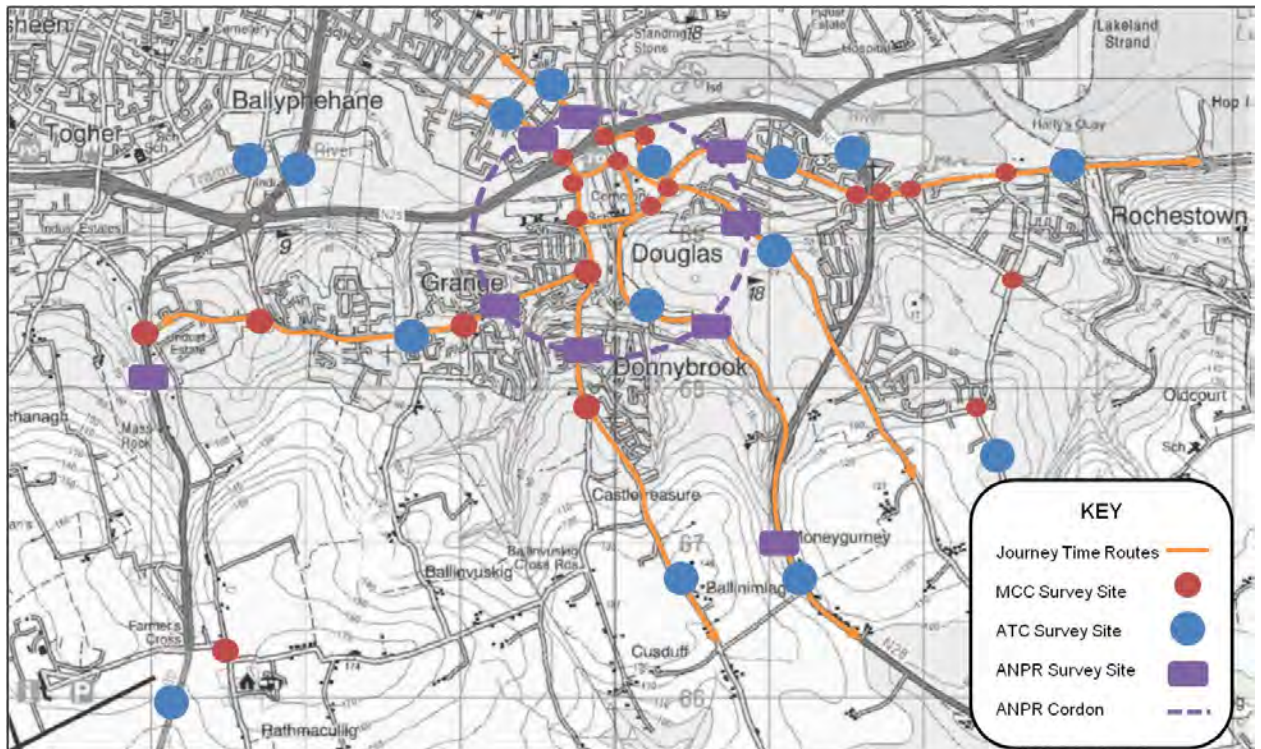
3.1.3 Shown in Figure 3.1 are all the different survey locations. Turning counts are taken at junctions and give us an exact knowledge of movements within a specified junction. This is crucial to identifying key junctions within a network and the actual movements that occur at them.

3.1.4 The locations chosen for the ATC (Automated Traffic Count) surveys create a cordon around Douglas Village centre and record all traffic which enters or exits Douglas Village centre and its environs. Incorporating this information into the DTM will enable an accurate representation of through traffic flows within in the model.

### 3 DTM Network Development

3.1.5 Figure 3.1 below also shows the 9 locations where registration plate (ANPR) surveys were carried out. The registration plate surveys take note of all registration plates entering and leaving the study area and town centre. From this information it is possible to ascertain general travel patterns of traffic entering the study area. For example, we can tell whether a car which entered the study area on a particular road stayed inside the study area or passed through it and on what road that particular car exited the study area.

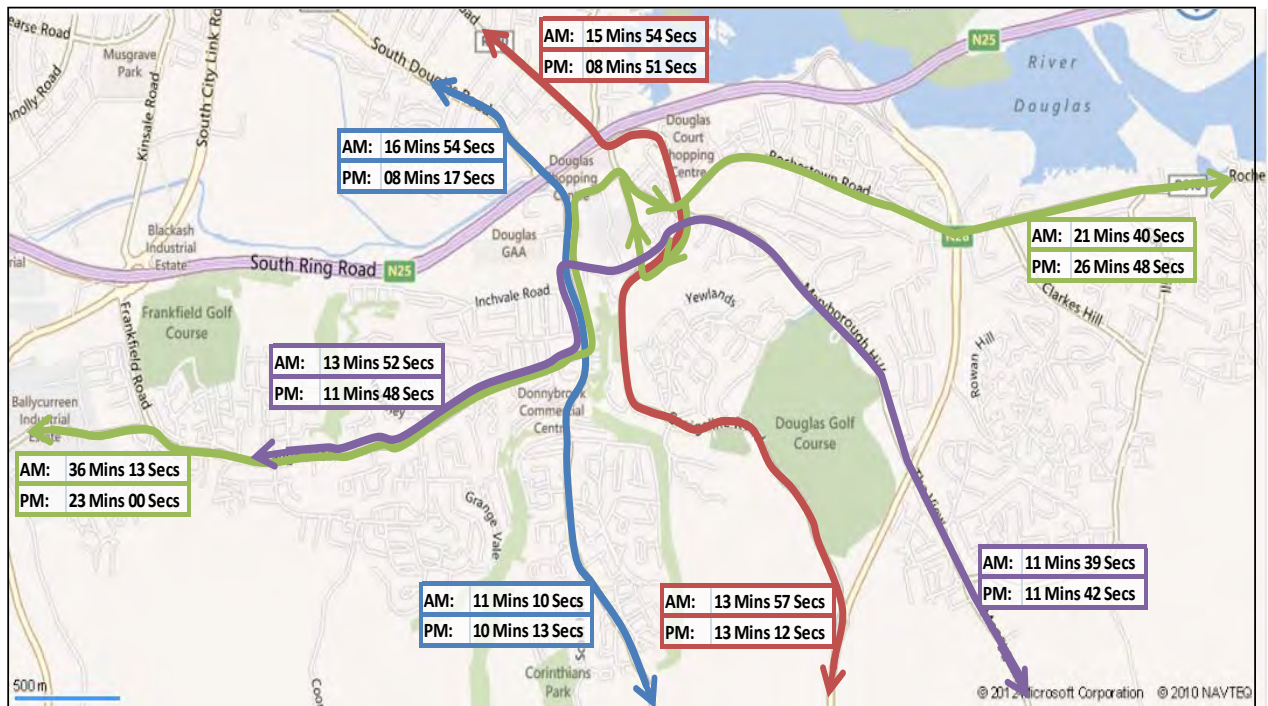
**Figure 3.1 Survey Locations by Type of Data Collection**



3.1.6 The journey time survey routes are shown in below in Figure 3.2. The journey time surveys were taken in both directions for the four routes. Journey times are used to validate modelled journey times against observed to ensure the model is outputting reliable results.



**Figure 3.2 Journey Time Survey Routes with Average Journey Times**



### 3.2 Highway Network Development

- 3.2.1 All the above listed inputs were used when constructing the DTM to ensure it represented as accurately as possible the existing Douglas Road Network.
- 3.2.2 Shown below in Figure 3.3 is the model network as it exists in the DTM. Annotated in the figure are the major roads in the area.

Figure 3.3 DTM Network in the Study Area

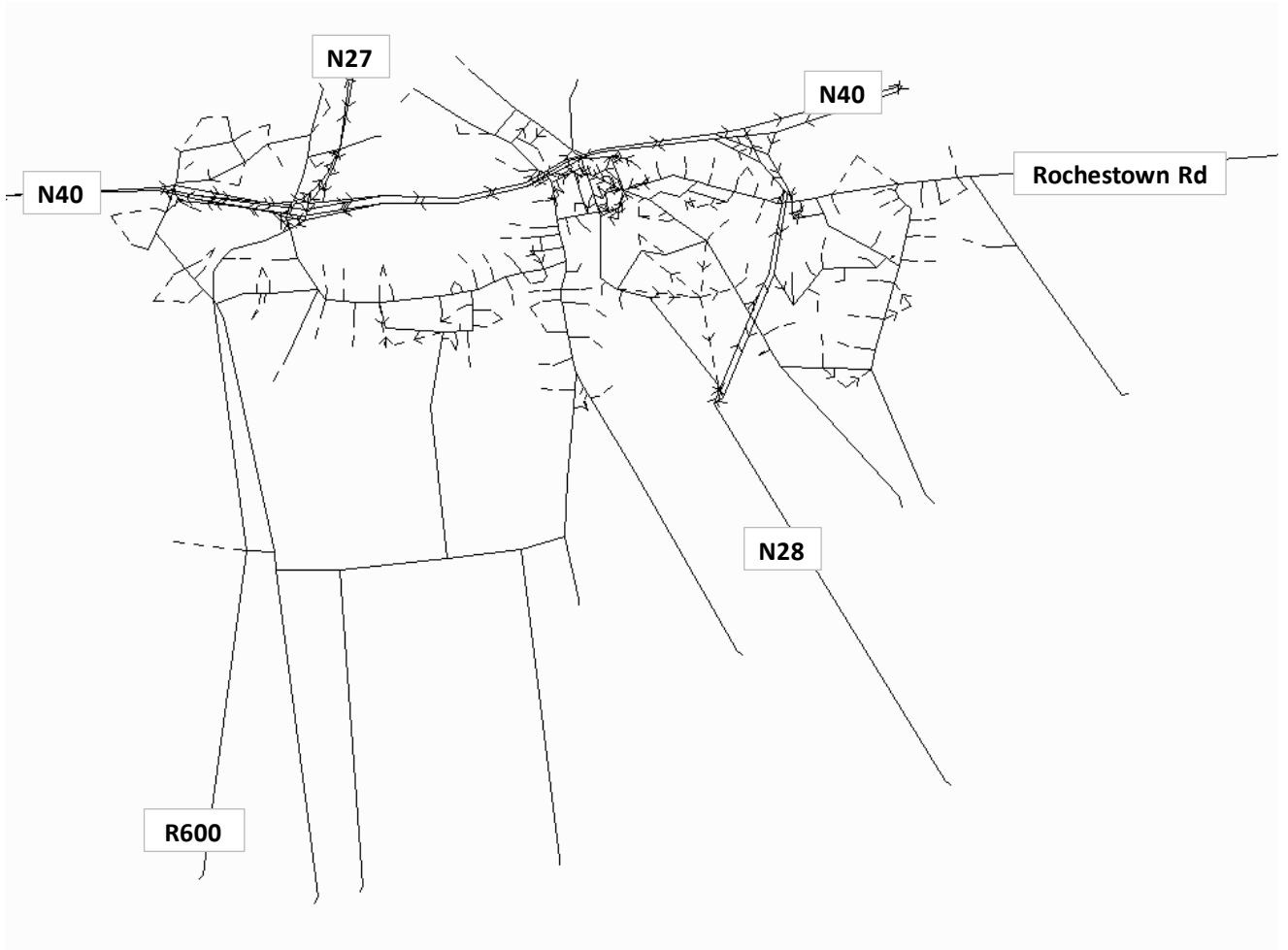


Figure 3.4 DTM Network in Douglas village Centre



### 3 DTM Network Development

- 3.2.3 As can be seen above in Figures 3.3 and 3.4, a very detailed highway network has been developed for the DTM. To ensure full network coverage and route choice all roads have been taken into account from the national primary routes to minor residential streets.
- 3.2.4 A detailed zoning system has been put in place to connect to the network. Major attraction zones such housing estates, shopping centres, schools, car parks and employment locations have all been designated individual zones to provide detail in trip distribution between zones and destination choice.
- 3.2.5 Combined the detailed network and zoning systems interact to provide a high level of detail, choice and accuracy in the model.

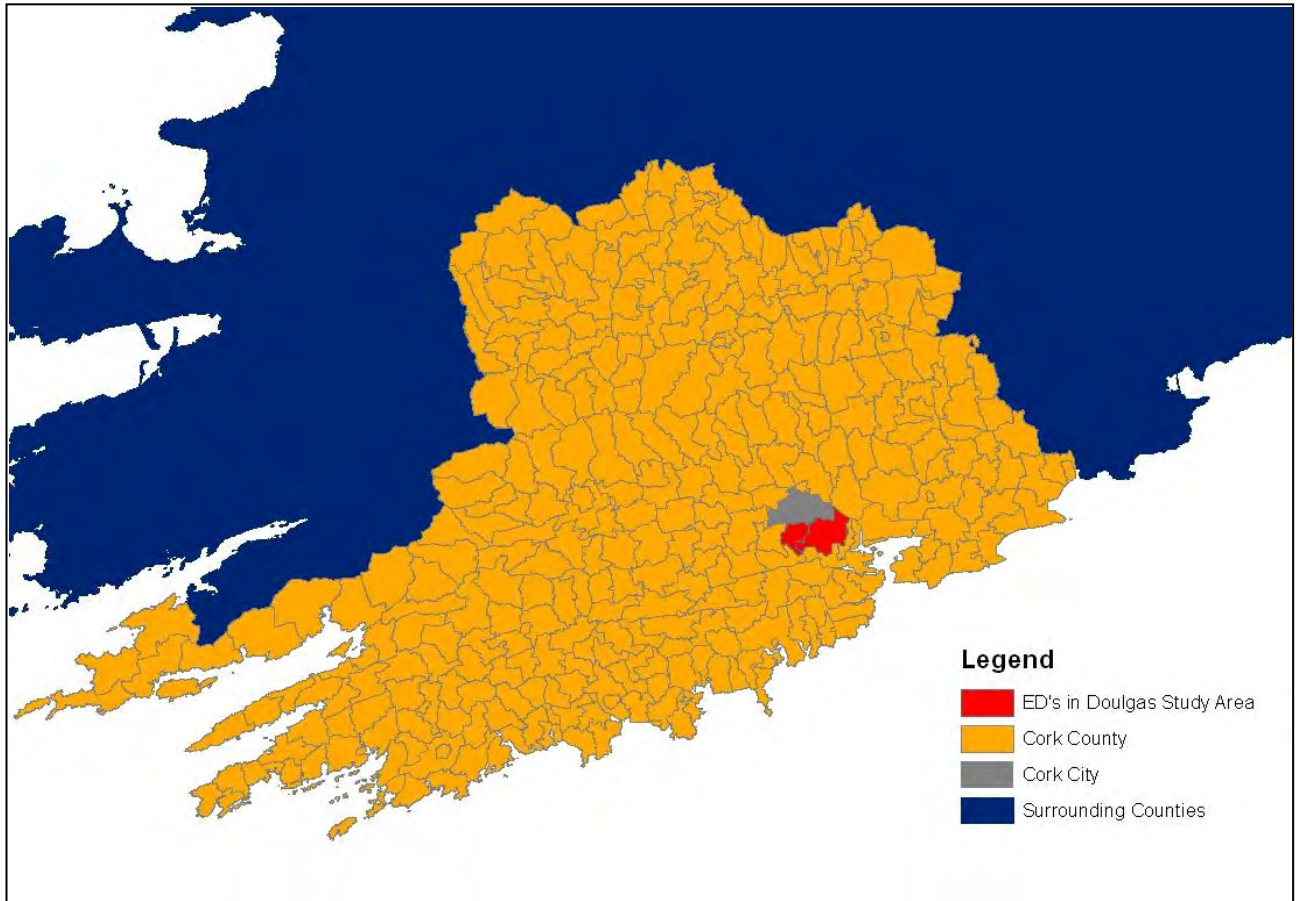
## 4 DTM Trip Matrix Development

### 4.1 Introduction

- 4.1.1 Central to the development of the DTM trip matrices was the use of the Census POWCAR (Place of Work Census Anonymised Records) data. POWCAR data is part of the Census program and provides geo-coded data of all employed persons who undertook a journey to work. This enables us to identify the exact origin and destination of each journey to work along with detailed travel, socio economic and demographic data.
- 4.1.2 This chapter explains how the POWCAR data is used, what we take from the POWCAR database and how we use it to create the initial trip matrices used for the calibration process.

### 4.2 POWCAR Data Set for Douglas

- 4.2.1 The basic form of the POWCAR data when processed is a set of home to work based trip movements by Electoral District.
- 4.2.2 The POWCAR data used for the DTM is derived from the 2006 Census and represents the data set of all trips made to work in Ireland between 07:00 and 09:30 on the day the census was taken. Every person trip made is represented by an I-J record of the trip with the origin and destination being allocated a DED (District Electoral Division) identifier. Each trip record also includes a description of the mode used in making the trip e.g. car, car passenger, bus etc.
- 4.2.3 POWCAR provides, therefore, a fully observed sample of home to work trips at a high level of detail providing x,y coordinates which enable us to identify the location of the trip origin and destination. It was considered that the travel patterns in the area will not have changed significantly since the Census was taken between 2006 and the model base year, 2012. The data provided by POWCAR was used to create the base model and to determine base year mode split proportions.
- 4.2.4 Each trip record also includes a description of the time of day that the trip was made. It also includes information on whether the person had a car available to use for the trip regardless of whether they used car or other modes to make their trip. This information can give an idea of car availability for the selection of trip data extracted.
- 4.2.5 For the Douglas Transportation Study, POWCAR data was extracted for all DEDs in the study area and relevant neighbouring counties.
- 4.2.6 This area is shown below in Figure 4.1, overleaf.

**Figure 4.1 DED's included in Douglas Traffic Model Zonal System**

### 4.3 Zonal Aggregation and Disaggregation

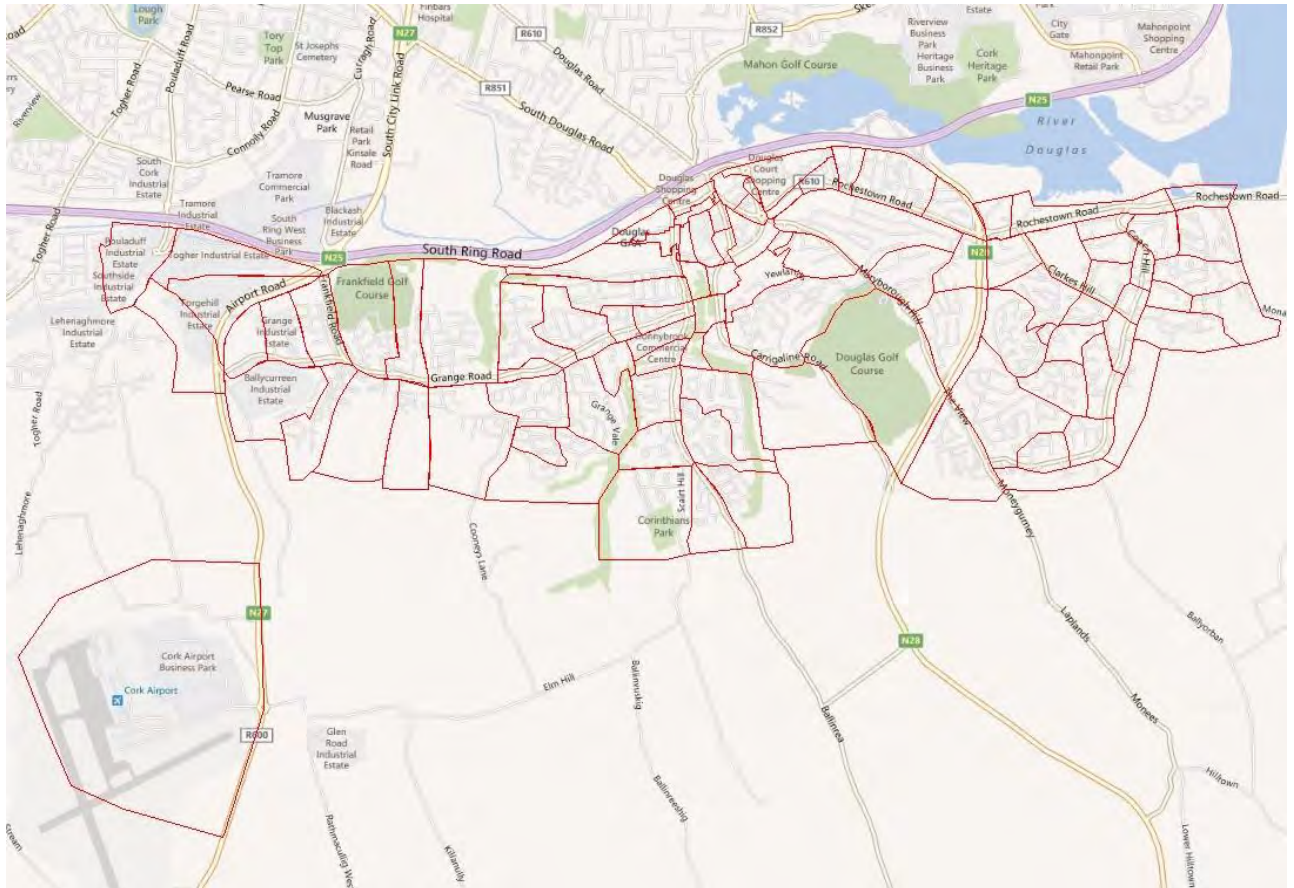
- 4.3.1 Improvements to the network are not helpful unless accompanied by a finer representation of trip demand through the use of smaller zone sizes in the study area. Large zones within the study area are broken up based on the identification of different land uses with the zone. Each land use is then given its own distinct zone to represent a proportion of trips from the disaggregated zone. Trip distribution for each such zone can be determined from either the original zone or a nearby zone.
- 4.3.2 For the areas shown above, POWCAR data was extracted for the 08:00 – 08:30hrs time period to provide origin destination data for the matrices. This covered almost 400 DEDs. The data at DED level needed to be fitted to the model zoning system, which, depending on location, has one of:

- A one to one relationship, i.e., the model zone and DED are the same - no aggregation or disaggregation required;
- A one to many relationship, i.e., one model zone equates to a number of DED zones - aggregation of DEDs required; or
- A many to one relationship, i.e., many model zones equate to one DED zone - disaggregation of DEDs required to fit model zoning system.

## 4 DTM Trip Matrix Development

The DEDs of Douglas and Lehenagh, which make up the Study Area (shown in red in figure 4.1), were processed to fit the finer model zone detail in the DTM. In this area, two DEDs (Douglas and Lehenagh) were disaggregated into 101 model zones. The zonal disaggregation for these two DEDs was based on what was on the ground. This process was enabled by using a large data set received from Cork County Council which detailed the number of residential units and retail units by area in Douglas. By using this and other information, such as GIS mapping and digital aerial photography, all attraction zones such as employment locations, residential estates, schools colleges and shopping areas were identified and allocated a zone. These 101 model zones within the Study Area are illustrated in figure 4.2 below.

**Figure 4.2 Zone Map for Douglas Study Area**



- 4.3.3 The DEDs contained in the study area outside of Douglas, Lehenagh were aggregated to fit the external zones contained in the DTM. For this purpose 398 DEDs in Cork City and County were aggregated into 18 external zones. These zones were aggregated based on their predicted travel patterns, i.e. which roads they would take when entering the Study Area, using the primary road network as a relative boundary. This methodology gives us a logical breakdown for our external zones both visually and in terms of zone loading and distribution.
- 4.3.4 Once the POWCAR data was formatted to fit the zonal system of the DTM, the data was imported into a SATURN matrix format.

## 4 DTM Trip Matrix Development

### 4.4 Pinpoint Zone Allocation

- 4.4.1 As mentioned in the previous section a detailed disaggregation of the two central DEDs was undertaken to ensure a comprehensive zonal system for the model. The allocation of trips to the correct zones was as equally important as the zone disaggregation
- 4.4.2 In order to allocate trips to zones the geo-coded locations of each employment destination were superimposed over a zone map of Douglas. As previously mentioned POWCAR data provides geo-coded origin destination data. Geo-coded locations are addresses which are matched against the An Post Geo Directory. The An Post Geo Directory is a more detailed version of the Irish National grid offering 250Mx250M grid squares instead of 1000Mx1000m national grid squares.
- 4.4.3 This improved detail in work destination allowed us to accurately identify the primary employment attraction zones for which to allocate large numbers of trips during the calibration stages.

### 4.5 Educational Trips

- 4.5.1 Educational trips make up a sizeable portion of movement within the network. Given our trip matrix was made up of employment trips it was important that the educational trips were factored in order to represent this generator of traffic.
- 4.5.2 Education trips were factored in at two stages. Initially during our network development we identified the primary education destinations in Douglas and allocated these locations specific zones. Having specific educational zones within the network would allow us to add in network constraints during the matrix estimation stage. This would ensure that we could allocate sufficient trips to represent educational traffic within the network. Matrix estimation is discussed in greater detail in Chapter Five.

### 4.6 Non-Work Trips

- 4.6.1 Similar to educational trips there are a number of other trip types that needed to be included within the matrix estimation process. Using the same methodology as education trips specific zones were identified and allocated to the car parks of Douglas, major shopping centres and other trip generators such as the Rochestown Park Hotel.

### 4.7 PM Trip Matrix Development

- 4.7.1 As POWCAR data is only available for the AM period an alternative methodology had to be adopted when developing PM peak demand Matrices.
- 4.7.2 As the majority of trips in the PM peak are usually the reverse of AM peak trips (i.e. work to home as opposed to home to work), the PM peak demand matrix was derived by transposing the AM demand matrix. This is a standard modelling technique for developing PM matrices and converts all I-J trips in the AM matrix to J-I trips in the PM matrix and vice versa. This transposed matrix was then further refined using PM peak count information in a Matrix estimation process.

## 4 DTM Trip Matrix Development

- 4.7.3 Further details on the matrix estimation process are explained in the following chapter of this report.

### 4.8 Summary

- 4.8.1 The construction of the base year DTM was simplified and enhanced by use of Census data to accurately reflect the population and employment in each of the model zones. Further census data from 2006 Place of Work - Census of Anonymised Records (POWCAR) provided a detailed breakdown of the trip distribution and mode choice in the Douglas area.
- 4.8.2 All Census data was processed into a matrix format suitable for input to the DTM. Thus, the base year Douglas Traffic Model incorporates a complete and comprehensive data set, and so accurately reflects the existing situation.
- 4.8.3 PM peak demand matrices were developed using a combination of standard modelling techniques including transposing matrices and matrix estimation.



## 5 DTM Calibration Process and Results

### 5.1 Calibration Process

- 5.1.1 Calibration is intended to improve agreement in the DTM between observed and modelled traffic characteristics.
- 5.1.2 Generally, the components of the model that may be adjusted on the demand side are trip distribution and trip production and generation rates. This adjustment usually involves trip matrix estimation.
- 5.1.3 On the supply side (network), modelled junction and link characteristics may be altered if sufficient new information is available to justify changes to the existing network.
- 5.1.4 Other aspects of the calibration are also detailed in this chapter, such as model convergence results, which determine the stability of modelled flows with respect to successive assignment iterations.

#### Initial Calibration Steps

- 5.1.5 As an initial calibration step, all modelled movements with a corresponding turning count were examined to determine if the count exceeded modelled capacity. Remedial steps were then taken to permit realistic flows in the model.
- 5.1.6 Similarly the capacity and speeds of modelled links were also checked to ensure they were broadly in line with survey information.
- 5.1.7 As the DTM was coded based on information gathered during extensive site visits to Douglas, it was felt that the network coded was an accurate and up-to date representation of the existing road network in Douglas so did not need to be altered significantly during the calibration process. As a result of this the most significant calibration adjustments taken were on the demand side, i.e. adjustments to trip distribution and trip production / generation. If required however the following model parameters may be adjusted if there is clear reason for doing so:

#### Network Adjustment Possibilities

- Junction type (Priority, Signalised, Roundabout);
- Road lengths;
- Signal timings;
- Link free flow travel speed;
- The number of approach lanes at each junction arm;
- Traffic lane width per junction approach, and the lane discipline adopted (including prohibited turns);
- Saturation flow through junctions;
- Assumed road capacities;
- Link based flow-delay relationships; and

- Any other traffic management measures that may impact on capacity, such as bus lanes, traffic calming, parking controls and cycle-lanes.

### Network Adjustment Possibilities – Traffic Zones

- Zone co-ordinates; and
- Zone loading points (connections to the network).

## 5.2 Trip Demand Adjustment (Matrix Estimation)

### AM Matrix

- 5.2.1 Trip demand is adjusted according to count data, so that there is an improved agreement between counts and modelled flows. For the AM time period the POWCAR matrix (described in Chapter 4) representing unadjusted demand is fed into a SATURN programme called ME2. This matrix is known as the prior matrix. ME2 then adjusts origin-destination patterns to produce a trip demand matrix that better replicates counts when assigned to the network. When this replication is satisfactory the matrix is said to be calibrated.
- 5.2.2 The prior matrix is adjusted only after all options for improving the network are exhausted. Any matrix adjustment must significantly improve the match between observed and modelled flows, and not introduce more trips into a zone than could realistically be expected. Controls are placed on zones to ensure that the trip demand generated by zones is sensible and in line with census population and employment statistics.

### PM Matrix

- 5.2.3 For the PM time period a transposed AM matrix was used as the Prior matrix in the ME2 Process. As with the AM matrix ME2 then adjusted origin-destination patterns to produce a trip demand matrix that better replicated PM count data when assigned to the network. Again controls were put in place to ensure that trip demand generated was sensible and that a representative number of trips were made to the shopping centres and streets in the Study Area. A number of iterations of the ME2 process were completed until the replication was satisfactory and meets guideline standards.

## 5.3 Matrix Adjustment Constraints

- 5.3.1 A key requirement in the Douglas study area is to ensure the proportion of through trips in the model remains accurate. The algorithm driving the ME2 estimation process tends to reduce such long trips in place of chains of short trips, especially when counts are spread over the entire area.
- 5.3.2 Constraints are therefore placed on the adjustment process to protect the number of movements and distribution of the through trips contained within the original car trip matrix.
- 5.3.3 By restricting such long through trips, the matrix adjustment algorithm is forced to create or re-distribute short trips.
- 5.3.4 A detailed set of constraints were developed using land use information received from Cork County Council. This land use information gave a breakdown of the number of housing units,

## 5 DTM Calibration Process and Results

commercial units, etc in the Study Area, on a zone by zone basis. By applying standard trip rates to the land uses in each model zone it was possible to determine a range of the likely amount of trips that will originate or end in each zone. This likely range of trips was then applied as a zone constraint during the Matrix Estimation process.

5.3.5 Different sets of constraints were used for each time period. In summary:

- AM: HGV constraints on residential areas and unsuitable zones, origin and destination constraints were placed on residential areas for car trips while employment zones were encouraged as destinations; and
- PM: In line with the transposed matrix employment zones received constraints as destinations while residential zones, as origins and destinations. HGV constraints for residential areas were maintained.

### 5.4 Traffic Flow Accuracy Measure: GEH

5.4.1 The GEH statistic is a measure that considers both absolute and proportional differences in flows. Thus for high levels of flow a low GEH may only be achieved if the percentage difference in flow is small. For lower flows, a low GEH may be achieved even if the percentage difference is relatively large. GEH is formulated as:

$$GEH = \sqrt{\frac{(\text{observed} - \text{modelled})^2}{0.5 \times (\text{observed} + \text{modelled})}}$$

The reason for introducing such a statistic is the inability of either the absolute difference or the relative difference to cope over a wide range of flows. For example an absolute difference of 100 pcu/h may be considered a big difference if the flows are of the order of 100 pcu/h, but would be totally unimportant for flows of the order of several thousand pcu/h. Equally a 10% error in 100 pcu/h would not be important, whereas a 10% error in, say, 3000 pcu/h might mean the difference between building an extra road lane or not.

- 5.4.2 In general the GEH parameter is less sensitive to the above statistical biases since a modeller would probably feel that an error of 20 in 100 would be roughly as bad as an error of 90 in 2,000, and both would have a GEH statistic of roughly 2.
- 5.4.3 As a rule of thumb in comparing assigned volumes with observed flows, a GEH parameter of 5 or less would be an acceptable fit, while GEH parameters greater than 10 would require closer attention.
- 5.4.4 Two primary guideline documents, the British Design Manual for Roads and Bridges (DMRB) Volume 12a and the NRA Project Appraisal Guidelines Appendix 3, were used as a basis for assessing the appropriateness of the highway model for traffic appraisal. The DMRB Volume 12a guidelines are a widely accepted standard in Ireland with the NRA basing their guidelines on this document that provides extremely robust validation criteria to which certain types of highway models should adhere.

### DMRB Guidance on GEH Distribution

- 5.4.5 DMRB sets a guideline that 85% of links should have GEH less than 5 (when measured in vehicles per hour). In addition it is commonplace to establish that 90% of assessment links have a GEH of less than 10 and that 100% of validation links have a GEH less than 20.

### 5.5 Link Count Calibration

- 5.5.1 For the calibration process, the corresponding model junction was identified for each turning movement count survey site. Each individual turning movement was used in the calibration and so forcing the ME2 estimation process to derive a trip matrix that would fit each surveyed turning movement.
- 5.5.2 Further on in the validation of the model, these turning movements were aggregated to form link counts which are used to validate the network flows rather than turning movements.
- 5.5.3 The locations for the turning movement counts were outlined previously in Figure 3.1. As can be seen from the map a large proportion of the study area is covered by counts, which gives for a high degree of control in the matrix estimation.
- 5.5.4 Figure 3.1 indicates the locations of the 15 ATC (Automated Traffic Counts) counts used to cordon the primary routes which enter and exit Douglas. Validated external movements using ATC data allowed us to be specific in developing external/Internal movements and when limiting the exact number of movements in and out of Douglas.
- 5.5.5 A large proportion of the model network is therefore controlled for link flows and turning flows, as illustrated in Figure 5.1 below. In total, 99 link counts were used to calibrate each time period.

**Figure 5.1 Link Count Locations within the SATURN Network**



**5.6 Model Fit to Counts (Prior to Calibration)**

5.6.1 An initial test was performed to determine how well the existing disaggregated demand matrices assigned to the DTM replicated observed traffic volumes. Table 5.1 below details the model fit prior to undertaking the calibration process for each of the time periods modelled.

**Table 5.1 Count Validation Statistics (Pre-Calibration)**

GEH	AM	PM
GEH < 5	70	39%
5 < GEH < 10	87	76%
10 < GEH < 20	100	98%
<b>Overall Average GEH</b>	4.1	7.2

5.6.2 The percentage of total traffic at all count locations with a GEH less than 5 is low at 70% in the AM and 39% in the PM, this falls far short of DMRB guidelines.

5.6.3 The remaining course of action to improve the fit between model flows and assigned volumes was therefore to perform controlled adjustments to the prior matrix using matrix estimation techniques (described above in Section 5.2).

**5.7 GEH Statistics for Calibrated DTM**

5.7.1 Table 5.2 below summarises the GEH calibration results for the DTM after the matrix estimation process, for each of the two modelled time periods.

**Table 5.2 Count Validation Statistics (Post-Calibration)**

GEH	AM	PM
GEH < 5	88%	85%
5 < GEH < 10	99%	96%
10 < GEH < 20	100%	100%
<b>Overall Average GEH</b>	2.4	2.5

## 5 DTM Calibration Process and Results

- 5.7.2 The figures demonstrate that an excellent calibration has been achieved in the DTM for the morning and PM peak periods, with both time periods having an overall GEH of over eighty five percent and falling well within DMRB Standards.

### 5.8 Linear Regression of Counts and Modelled Flows

- 5.8.1 DMRB recommends a further check on flow validation: to fit a linear regression line through the origin with observed flow as the independent variable and modelled flow as the dependent variable. The slope and R<sup>2</sup> measure of goodness of fit for the pre-calibration and post-calibration are presented in Table 5.3 and Table 5.4
- 5.8.2 DMRB guidance is that the slope of the regression line is in the range 0.9 to 1.1 and that R<sup>2</sup> is greater than 0.85.

**Table 5.3 Pre-Calibration Count Regression Analysis**

All Trips (PCUs)		
Measure of Fit	AM	PM
Slope	1.0	0.75
R <sup>2</sup>	0.57	0.61

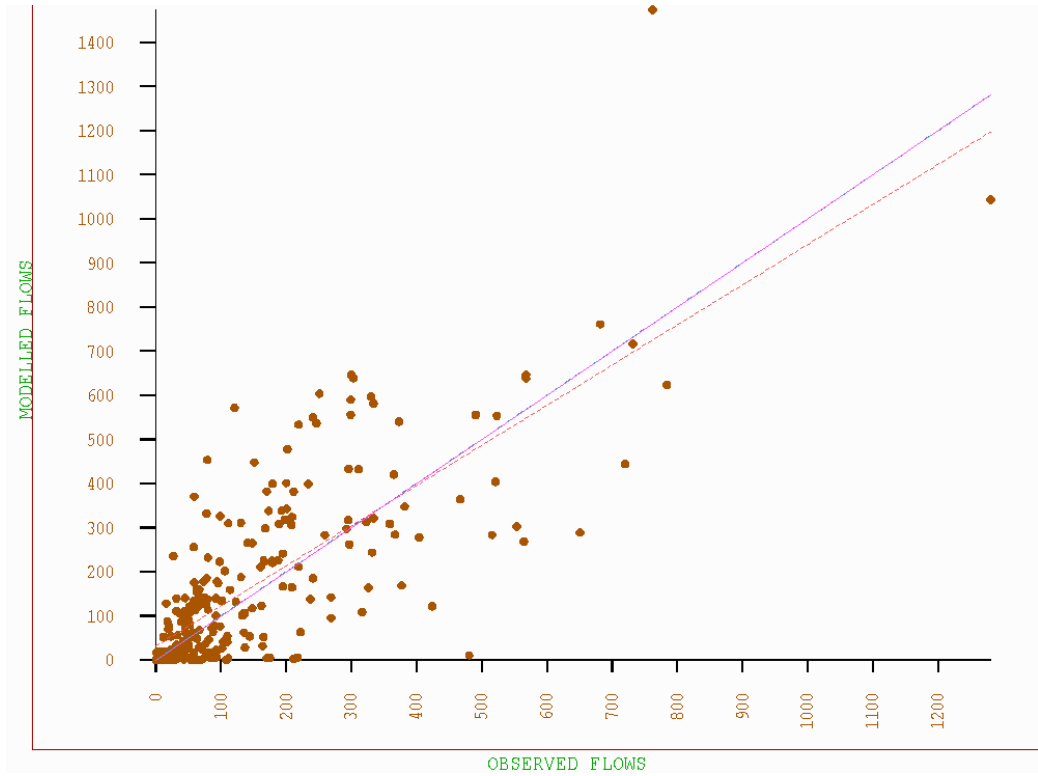
**Table 5.4 Post-Calibration Count Regression Analysis**

All Trips (PCUs)		
Measure of Fit	AM	PM
Slope	0.982	0.95
R <sup>2</sup>	0.92	0.92

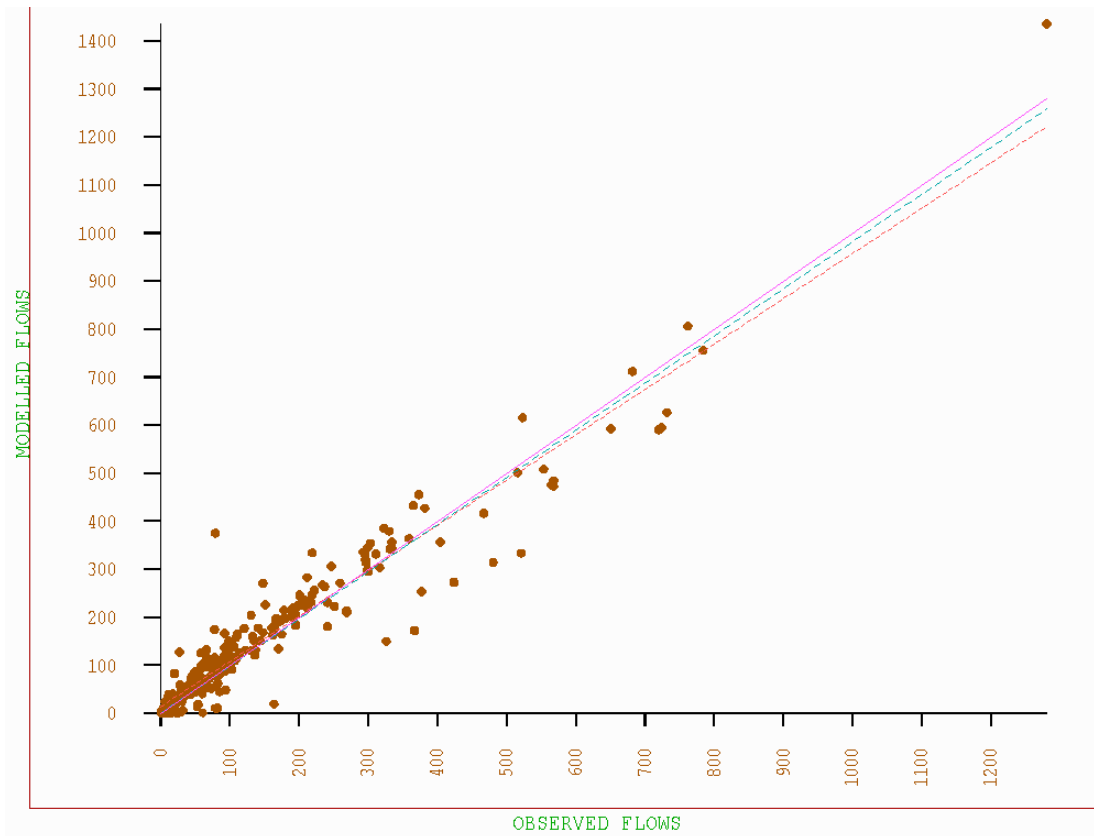
- 5.8.3 Both slope and R<sup>2</sup> criteria are met in the post-calibration regression analysis.
- 5.8.4 The following charts show the correspondence between count and modelled flow data sets, with the best fit linear match plotted on each graph. The two graphs shown are for the prior and post calibration data sets, to show how the relationship between observed and modelled flows is improved by calibration.
- 5.8.5 Figures 5.2 to 5.5 illustrate the fit achieved between the modelled and measured link flow for the pre-calibration and post-calibration trip matrices for each of the time periods modelled.

The data points are distributed closely to the  $y = x$  straight line without any significant outliers. This uniformity is reflected in the  $R^2$  values detailed in Table 5.4 above.

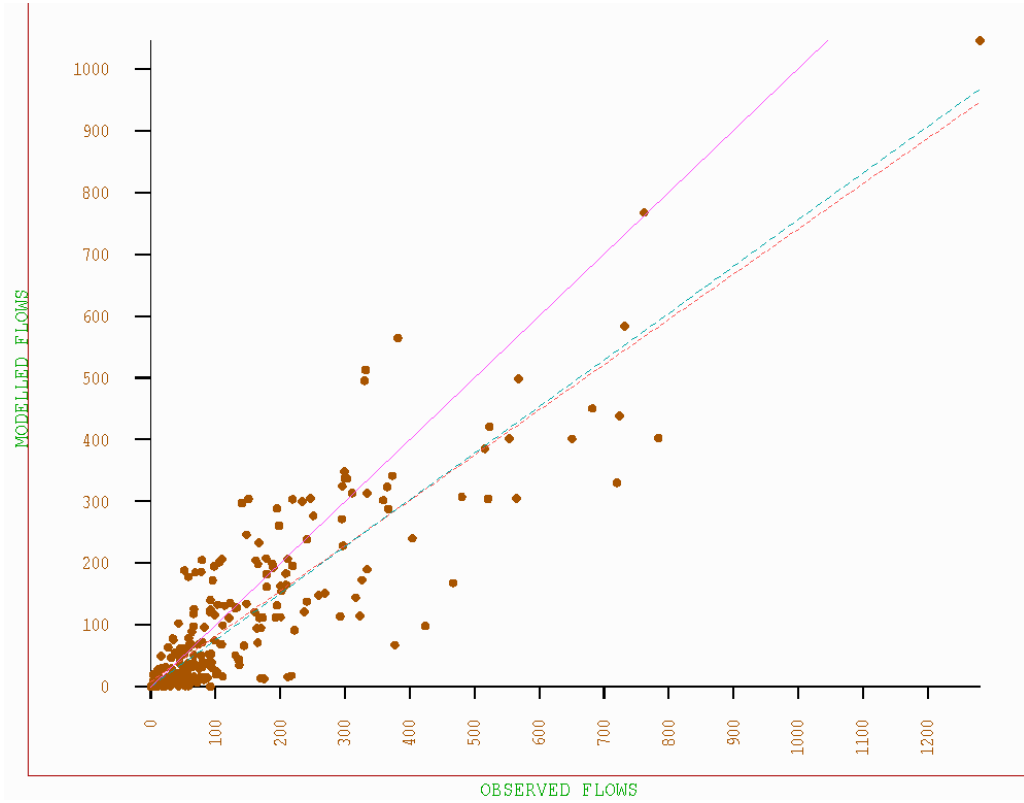
**Figure 5.2 Pre-Calibration Fit of Observed Vs Modelled AM-Peak Flows**



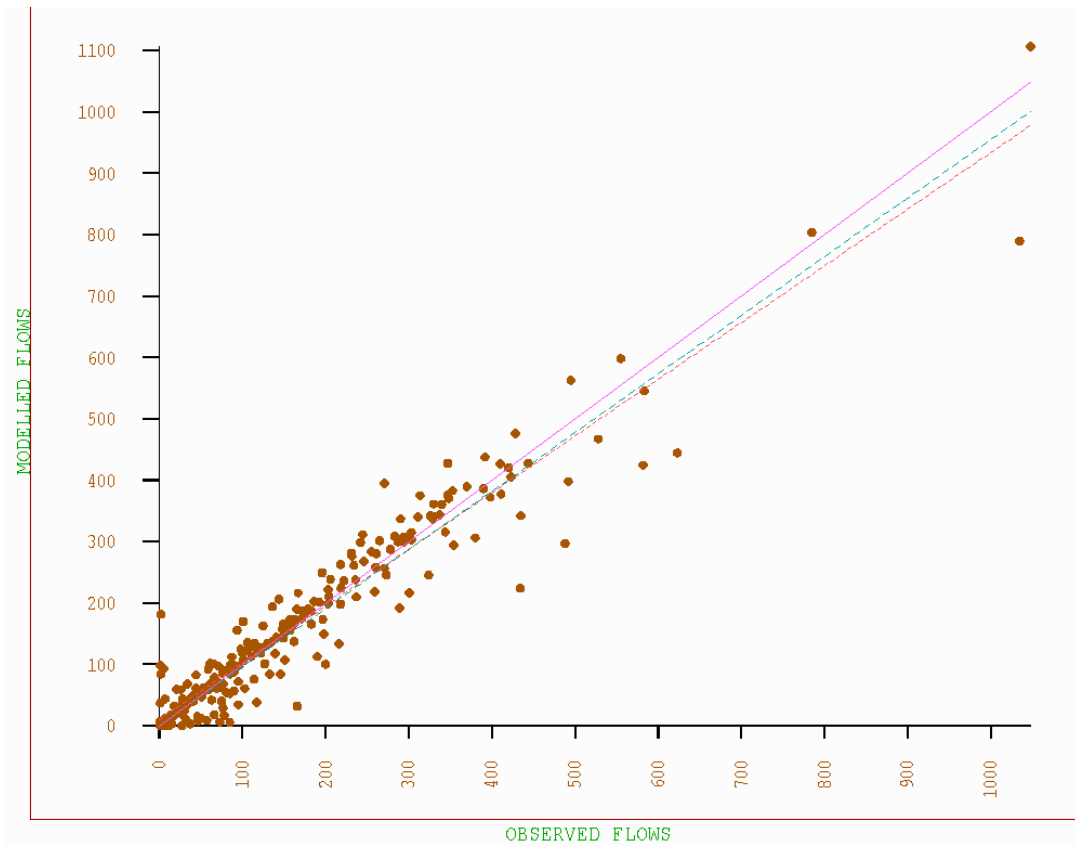
**Figure 5.3 Post-Calibration Fit of Observed Vs Modelled AM-Peak Flows**



**Figure 5.4 Pre-Calibration Fit of Observed Vs Modelled PM-Peak Flows**



**Figure 5.5 Post-Calibration Fit of Observed Vs Modelled PM-Peak Flows**





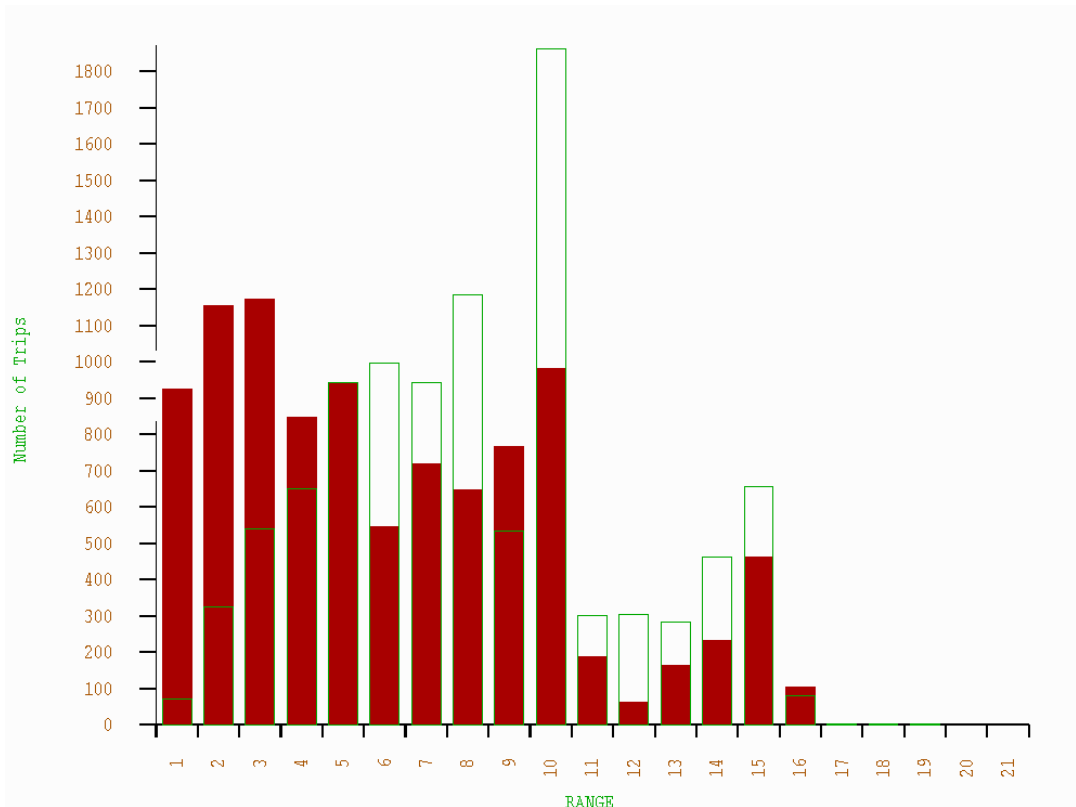
**5.9 Model Convergence**

- 5.9.1 The parameter used by Saturn to monitor the rate of convergence is the percentage of link flows which vary by less than a specified percentage between loop n and loop n-1.
- 5.9.2 The values used in each assignment during calibration are that 98% of links should differ by less than 5% between subsequent iterations.
- 5.9.3 This convergence criterion is achieved for all assignments carried out in calibrating the DTM.

**5.10 Trip Length Distribution**

- 5.10.1 A further calibration step is to compare trip length distributions for the prior and post calibrated matrices to ensure they have not been distorted in any way by the ME2 process.
- 5.10.2 Trip length distribution is compared below for the Light Vehicle matrix for all modelled time periods. The number of trips made is shown on the y-axis. Distance bands are shown on the x-axis.
- 5.10.3 The trip length distribution of the pre (Green Bars) and post-calibration (Red Bars) matrix for Am peak period is shown below in Figure 5.6. The data shows that the ME2 process has added a considerable amount of shorter trips to the matrix and has reduced some longer distance trips. These shorter trips represent trips to school and other non work related trips which would have been absent from the initial prior matrix and so it is considered that the Matrix estimation has worked correctly in this instance and 'infilled' missing education trips that were absent from the original prior matrix.

**Figure 5.6 Distribution of Car Trip Length during the AM Peak**



### 5.11 Summary of Calibration Actions

5.11.1 To improve the agreement between the observed and modelled traffic characteristics a number of calibration steps were taken for the Douglas Traffic Model.

- The first and most significant of these was to carry out a matrix estimation for each of the modelled period matrices to ensure origin-destination patterns in the model were consistent with those observed during traffic count surveys.
- Following on from the matrix estimation process a link count calibration was carried out. During this stage modelled flows for each time period were compared with actual flows for 99 locations. The results of these comparisons (outlined in Table 5.4) show an excellent calibration between modelled and observed flows with all time periods falling well within DMRB and NRA Project Appraisal guidelines.
- Further calibration checks carried out on the Douglas Traffic Model include linear regression analysis and trip length distribution analysis. All of which demonstrated that the Douglas traffic Model is very stable and meets all DMRB criteria for model calibration

# 6 DTM Validation

## 6.1 Introduction

6.1.1 This section sets out additional comparative measures by which the robustness of the calibrated model may be judged. The following model performance characteristics are detailed:

- Comparison of modelled traffic flows to each individual survey location; and
- Comparison of modelled journey times to observed journey times; and

## 6.2 Individual Survey Location Validation

6.2.1 Modelled flows were compared with 99 link flows at the 36 surveyed junctions. These junctions were chosen to provide a wide geographical spread of validation locations around the modelled area of interest.

6.2.2 DMRB presents additional guidelines for traffic flow validation<sup>1</sup>, these are that 85% of links should satisfy the following criteria:

- flows within 50 for links with flow less than 350 vehicles per half hour;
- flows within 15% for links with flow between 350 and 1,350 vehicles per half hour; and
- flows within 200 for links with flow over 1,350 vehicles per hour.

6.2.3 The results in Table 6.1 below were obtained when testing all individual link counts throughout the model under the three criteria set out above.

**Table 6.1 Turning Count Validation - % Links Satisfying Alternative DMRB Criteria**

DMRB Condition	AM	PM
Flow < 350; modelled within 50	92%	86%
350 < Flow < 1350; modelled within 15%	68%	60%
1350 < Flow; modelled within 200	100%	N/A

6.2.4 All of the alternative DMRB criteria are well met for the post-calibration trip matrix.

<sup>1</sup> Note: DMRB conditions have been halved to take into account the DTM half hour model

### 6.3 Journey Time Validation

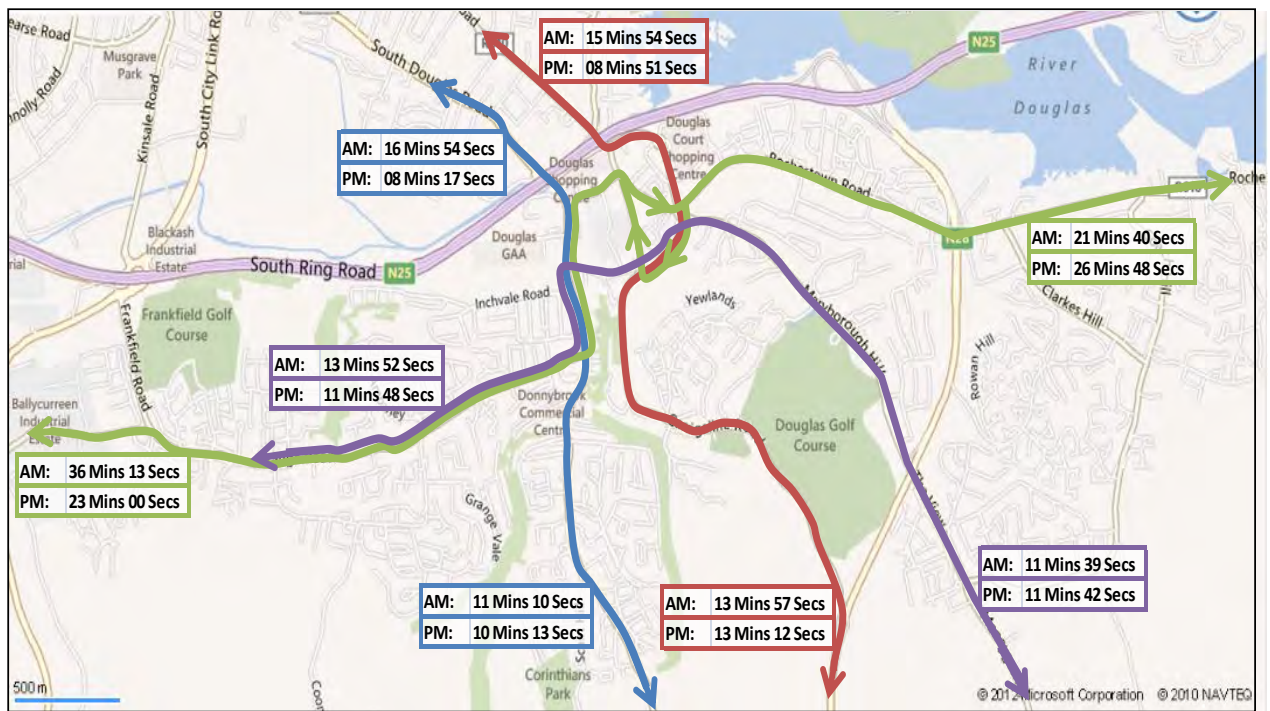
6.3.1 Travel time surveys were commissioned by MVA as part of this study. Survey times were taken along four routes in both directions. Along each route, the journey time was taken at a series of different survey points in order to properly observe the journey time along stages of the route.

6.3.2 The journey time survey routes were as follows:

- Blue Route : South Douglas Road to Ballinrea Road
- Red Route: Douglas Road to N28/ Carrigaline Road;
- Green Route: Forge Hill Industrial Estate to Rochestown Road; and
- Purple Route: Grange Road to Monees

6.3.3 Figure 6.1 below shows the survey routes and the survey stages that were used to record the stage journey times.

**Figure 6.1 Journey Time Survey Routes**



6.3.4 Table 6.2 and Table 6.3 below summarise the journey travel times against the model times for the same routes for each of the modelled time periods.

6.3.5 It should be noted that for certain time periods we have not included a full set of journey time comparisons. The decision to create a half hour model instead of a one hour model limited the number of journey time runs available for comparison. As a result we have omitted occasional results as they do not provide us with a realistic basis for comparison.

**Table 6.2 Observed Vs Modelled Journey Times during the AM Peak**

Route	Observed Time (Seconds)	Modelled Time (Seconds)	% Difference
Blue Route NB	630	660	4.76%
Blue Route SB	464	515	10.99%
Red Route NB	954	963	0.94%
Red Route SB	549	600	9.29%
Green Route EB	1210	1370	13.22%
Green Route WB	2173	1870	13.94%
Purple Route EB	730	663	9.18%
Purple Route WB	1027	998	2.82%
<b>Routes Combined</b>	<b>7737</b>	<b>7639</b>	<b>1.27%</b>

**Table 6.3 Observed Vs Modelled Journey Times during the PM Peak**

Route	Observed Time (Seconds)	Modelled Time (Seconds)	% Difference
Red Route SB	451	473	4.88%
Red Route NB	509	540	6.09%
Blue Route SB	517	565	9.28%
Blue Route NB	785	752	4.20%
Green Route EB	1608	1548	3.73%
Green Route WB	1380	1571	13.84%
Purple Route EB	716	803	12.15%

## 6 DTM Validation

Purple Route WB	721	758	5.13%
<b>Routes Combined</b>	<b>6687</b>	<b>7010</b>	<b>4.83%</b>

6.3.6 The DMRB guidelines advise that modelled journey times should be within 15% of the observed time. Eight out of eight of the routes surveyed in the AM and PM peak satisfy these criteria.

## 7.1 Overview

- 7.1.1 This report documents the development, calibration, and validation of the Douglas Traffic Model (DTM) for a base year of 2012. The area of the model covers Douglas town and hinterlands and is shown above in Figure 1.1.
- 7.1.2 Two time periods were modelled, calibrated and validated. These are the AM peak period from 08:00 to 8:30 and the PM peak period from 17:30 to 17:00.
- 7.1.3 Traffic flow calibration and validation indicates that the correlation between modelled and observed flows is excellent for the Douglas area for all periods modelled.
- 7.1.4 The traffic flow validation of 99 individual link flows is acceptable using both the standard guidelines and the alternative criteria outlined by the DMRB. The regression analysis also indicates that there is no strong bias in the modelled flows.
- 7.1.5 We consider that the highway assignment model is fit for purpose. It represents AM and PM peak period base year traffic conditions well, as demonstrated statistically in Chapters 5 and 6. It provides a robust basis for assessing impacts on the road network with the introduction of large scale developments as:

- The model realistically represents journey times;
- The study area is covered by a large number of counts for both calibration and validation; and
- Regression analysis indicates a high correlation between modelled and observed flows and no strong biases.

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# Technical Note

Project Title:	Douglas Land Use & Transport Study
MVA Project Number:	30004712
Subject:	St Patrick's Roundabout LINSIG Model
Note Number:	3      Version: 1
Author(s):	Gordon Scott
Reviewer(s):	Stephen Campopiano David Conlon
Date:	23 November 2012

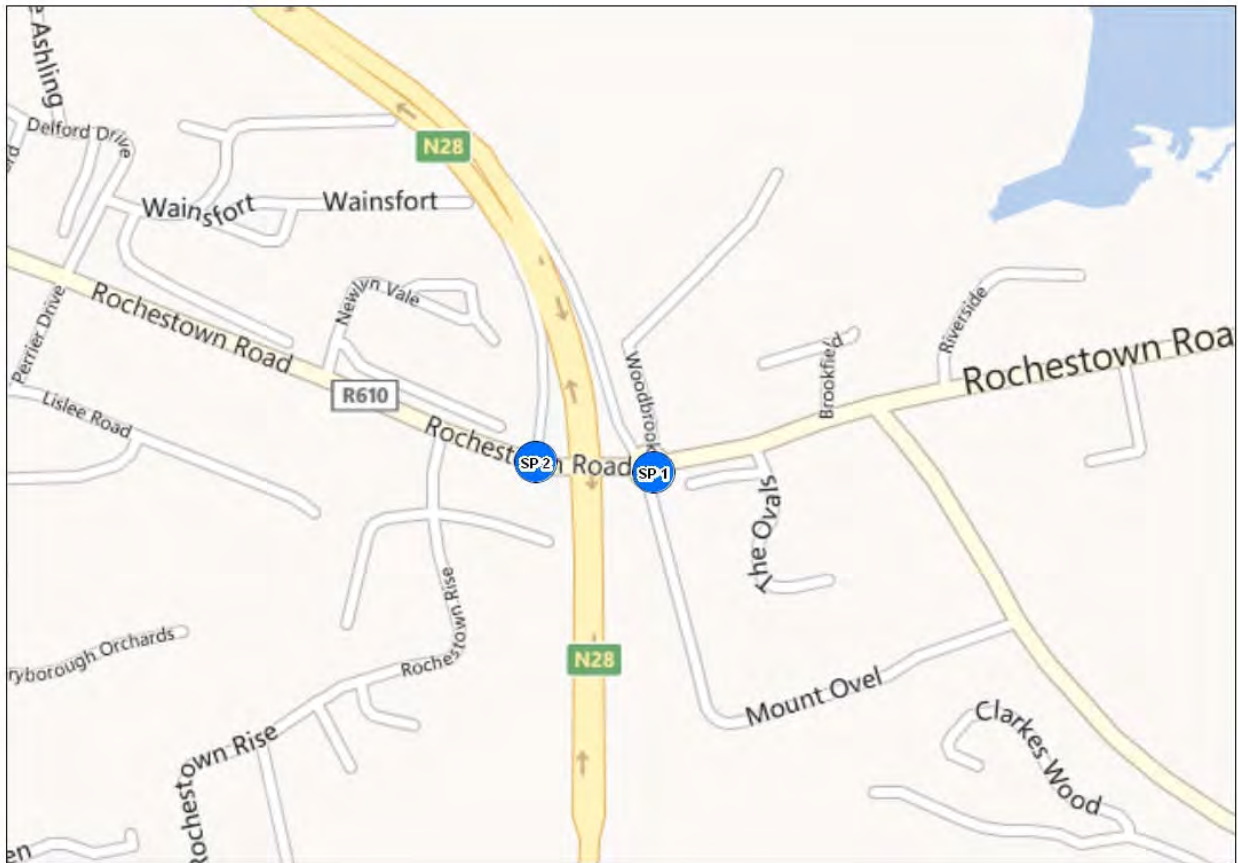
## Detailed Modelled Assessment - DLUTS

### 1 Background

- 1.1 As part of the Douglas Land Use Transport Strategic (DLUTS) model, MVA consultancy has been commissioned to undertake detailed modelling of proposed changes to the local road network and confirm the initial findings of the DLUTS would be reflected when applied to the local Douglas road network.
- 1.2 The model detailed in this note covers two junctions which together form the St Patrick's junction, as shown in Figure 1.1 and listed below:

#### N28 On and Off Ramp and St. Patrick Junction LINSIG Model

- SP1 – R610 Rochestown Road / Mount Ovel / N28 Off Ramp / Woodbrook (St Patrick's Church)
  - SP2 – R610 Rochestown Road / N28 on Ramp
- 1.3 It should be noted that the LINSIG model actually includes a third junction, a signalised pedestrian crossing to the west of SP2, as explained later.



**Figure 1.1 Junctions Analysed**

**Technical Note 1**

- 1.4 A separate note, Technical Note 1, covers the Douglas Village LINSIG Model and Fingerpost junction ARCADY for an area to the west.

**Technical Note 2**

- 1.5 In 2011 WS Atkins produced a Technical Note assessing the performance of the St Patrick's junction in its current layout; an unsignalised roundabout. They found that there were operational difficulties, analysed an option which included linked traffic signals and concluded that this layout would provide significant additional capacity.
- 1.6 In light of this, we produced Technical Note 2 which also considers the junctions as linked traffic signals. The note found that the WSP Linsig Model overpredicted the level of capacity at the junction due to the use of controller streaming, substandard intergreens between stages and underestimation of flows. When the flows and intergreens were updated, a high number of stages meant there was significant lost time / capacity.
- 1.7 We therefore developed a revised version of the model based on a refined junction layout, the major change being merging of the southern minor residential accesses onto the northbound main road (Mount Ovel) rather than having them directly access the St Patrick's junction. This reduced the level of lost time and is possible because flows from these accesses are very low. The introduction of a number of islands within the junction also allowed for indicative arrow stages to be introduced.

## Technical Note 3 Version: 1

- 1.8 Technical Note 2 concluded that our revised proposal for a signal controlled St. Patrick Junction is a potential solution, subject to further investigation.

### Technical Note 3

- 1.9 Due to recent alterations to the St.Patrick's Roundabout, with the addition of an extra lane on the Rochestown Road westbound approach, operational difficulties at this junction have been resolved. A drawing of the layout supplied to us by Cork County Council.
- 1.10 However, with traffic flows predicted to increase, it is uncertain if these operational improvements can be maintained in the medium to long term. Therefore, this note investigates a further option which takes advantage of the additional westbound approach lane and involves creating a signalised roundabout at the St Patrick's junction.

## 2 Traffic Flows

- 2.1 Traffic flows for the peak half hour AM and PM periods in 2022 have been provided, in matrix format, from a SATURN model developed for the area.
- 2.2 Our experience of the road network at this location shows that the half hourly peak flows are unlikely to be maintained over a full hour. The peak period tends to be very pronounced with traffic associated with commuting and local schools condensed into a short period of time.
- 2.3 Therefore, in order to predict the hourly flows we have doubled the half hourly flows provided from SATURN and then reduced them by 20%. We feel this accurately reflects the flows experienced across the full peak hours.
- 2.4 The zones used, and the associated flow matrix, for the LINSIG model are shown in Appendix A.

## 3 Model Development

- 3.1 There are essentially three individual junctions / controllers which make up the St Patrick's junction model. These are the signalised junction with the N28 on-ramp, a signalised pedestrian crossing to the west and a signalised roundabout to the east. We have developed a new LINSIG3 model and while it was developed based upon the original WSP LINSIG2 model, it has been significantly revised to incorporate a seven armed roundabout, of which three are to be signalised:
- Rochestown Road westbound;
  - Rochestown eastbound; and
  - The N28 off-ramp southbound.
- 3.2 The other, unsignalised, arms are:
- Woodbrook (St Patrick's Church access) to the north east;
  - Mount Ovel to the south; and
  - Two separate accesses to residential properties to the south.

- 3.3 By keeping the four minor arms as giveways the intention is to minimise the number of stages and therefore delay. We believe the staging will create sufficient 'gaps' for vehicles from these arms to enter the roundabout and, in fact, it should make access and egress to these arms safer.

#### 4 Network Performance

- 4.1 The performance of each of the LINSIG model is shown in Table 4.1. The full LINSIG outputs are included in Appendix B for each model.

**Table 4.1 Overview of Model Performance**

	2022 AM	2022 PM
Cycle Time (Sec)	75	75
Total Delay (pcyHr)	17.65	24.9
<b>Junction</b>	<b>PRC</b>	<b>PRC</b>
N28 On-ramp	25.9	69.1
Pedestrian Crossing on Rochestown Rd	150.2	73.9
St Patrick's Roundabout	31.7	28.3
<b>Network</b>	<b>25.9</b>	<b>28.3</b>

- 4.2 The table shows that all junctions in the network work well within operational capacity in the AM and PM peaks. In the am period the N28 on-ramp has the lowest practical reserve capacity (25.9%) and this is due to westbound vehicles turning right from Rochestown Road. In the PM period the lowest PRC is at St Patrick's roundabout (28.3%).
- 4.3 Table 4.2 shows the operational performance of the individual arms with the greatest movements and/or operational issues; DoS is Degree of Saturation and MMQ is Mean Maximum Queue.

**Table 4.2 Overview of Performance for Individual Arms**

	2022 AM		2022 PM	
	DoS (%)	MMQ (PCU)	DoS (%)	MMQ (PCU)
<b>St Patrick’s Signalised Roundabout</b>				
Rochestown Road westbound offside lane (ahead/right)	68.3	11.7	66.7	7.8
Rochestown Road westbound nearside lane (ahead/left)	32.2	4.0	24.1	2.1
Rochestown Road eastbound (left/ahead/right)	13.2	1.8	47.3	0.8
N28 southbound off-slip (left/ahead)	64.0	6.0	70.1	11.2
N28 southbound off-slip (ahead/right)	48.4	4.9	66.7	11.1
<b>N28 On-ramp Signalised Junction</b>				
Rochestown Road westbound (right turn onto N28 on-ramp)	71.5	12.8	53.2	10.4

Note: DoS is Degree of Saturation and MMQ is Mean Maximum Queue

- 4.4 The table shows that in the AM peak the Rochestown Road westbound right turn onto N28 on-ramp has the highest degree of saturation (71.5%) and mean maximum queue (12.8). At the signalised roundabout it is the Rochestown Road westbound offside lane (ahead/right) that has the highest DoS and MMQ (68.3% and 11.7 respectively). The majority of the vehicle using this lane pass straight through the roundabout and turn right onto the N28 on-ramp.
- 4.5 In the PM period the N28 southbound off-slip (left/ahead) has the highest DoS and MMQ (70.1% and 11.2 respectively). The majority of the flow in this lane is vehicles travelling eastbound and turning left into Rochestown Road.
- 4.6 The queues on the N28 off-ramp are modelled to reach up to around 11 vehicles and there is sufficient length to store these with out impacting on the operation of N28 southbound carriageway. However, as part of the proposed signal improvement we would advise that additional queue loops are provided on the N28 and should the queue formation exceed an agreed length, a ‘hurry’ call is introduced to ‘Flush’ the queue.

**St Patrick’s Church**

- 4.7 We are aware that the north east arm of the roundabout, Woodbrook, is the access point for St Patrick’s Church. While the flows associated with this arm will be very low in the weekday peak periods we have assessed, there may be specific periods at the weekend when far larger volumes of traffic are associated with services at the church.
- 4.8 It would be useful to gather flow data for these periods and assess the operation of the junction at these times as the current signal settings are only optimised to take account of the low flows found during the week.

## 5 Conclusion

- 5.1 The analysis has found that the St Patrick's junctions operates well with the layout considered, which incorporates a roundabout with three signalised arms. As expected, the highest degrees of saturation and mean maximum queuing are associated with vehicles accessing the N28 in the AM period and exiting it in the PM period. In both periods the maximum degree of saturation is around 70% leaving ample spare capacity
- 5.2 Additionally, as part of the proposed signal improvement we would advise that additional queue loops are provided on the N28 and should the queue formation exceed an agreed length, a 'hurry' call is introduced to 'Flush' the queue.
- 5.3 We recommend further analysis to consider how the junction operates at weekends when there are very pronounced volumes of arrivals and departures associated with St Patrick's Church.

## Appendix A – Traffic Flows

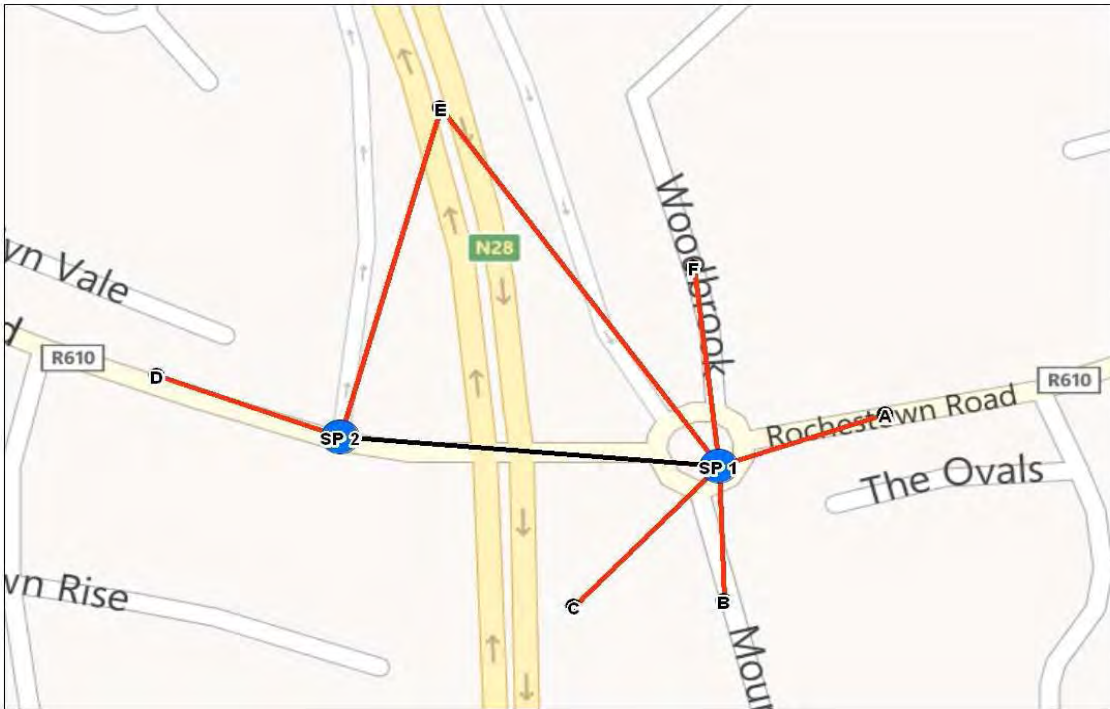
St Patrick's Junction

AM Flows and Zone Structure

	A	B	C	D	E	F	
A	0	0	0	285	630	16	931
B	0	0	0	0	0	0	0
C	0	0	0	0	0	0	0
D	112	0	0	0	378	2	491
E	211	59	0	248	2	35	555
F	2	0	0	2	10	0	13
	325	59	0	534	1019	53	1990

PM Flows and Zone Structure

	A	B	C	D	E	F	
A	0	51	0	70	371	0	493
B	37	0	0	19	13	0	69
C	0	0	0	0	0	0	0
D	168	66	0	0	442	0	675
E	565	27	0	608	0	3	1203
F	0	32	0	2	11	0	45
	770	176	0	699	837	3	2485

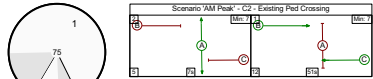




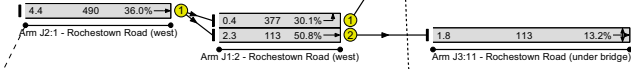
## Appendix B – LINSIG Diagrams

St Patrick's Roundabout (3 signalised approach arms)

Results For Scenario 'AM Peak'  
 Cycle Time: 75 PRC: 25.9% Tot Delay (pcu/hr): 17.65



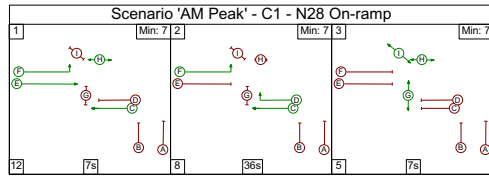
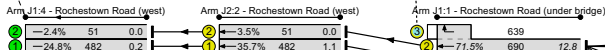
2 - Existing Ped Crossing Stream 1



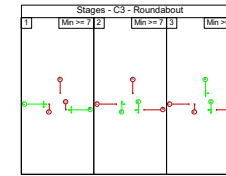
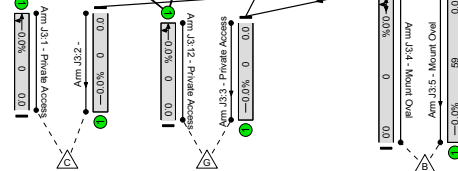
J2: Existing Crossing  
 PRC: 150.2 %  
 Total Traffic Delay: 1.4 pcu/hr  
 Controller: 2

J1: St. Patrick's Signals  
 PRC: 25.9 %  
 Total Traffic Delay: 5.0 pcu/hr  
 Controller: 1

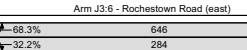
J3: Roundabout  
 PRC: 31.7 %  
 Total Traffic Delay: 11.2 pcu/hr  
 Controller: 3



C1 - N28 On-ramp Stream 1



C3 - Roundabout Stream 1

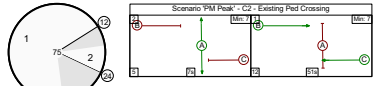


Project Name		
Douglas Land Use & Transport Study		
Company		
MVA Consultancy		
Address		
Author	Date	Scale
GS / SC	23 Nov 2012	NTS
Project Location		
Project Title		
St. Patrick's Junction at N28		
Drawing Title		
Titte as marked		
File Name		
20121016 Model 3 MVA Workingv4-GS.lsg3x		

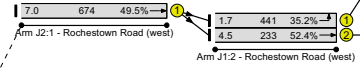
St Patrick's Roundabout (3 signalised approach arms)

Results For Scenario 'PM Peak'

Cycle Time: 75	PRC: 28.3%	Tot Delay (pcu/hr): 24.90
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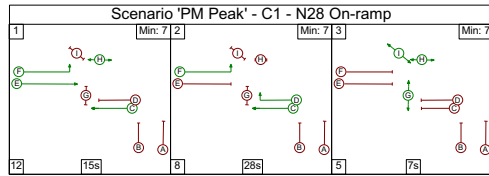
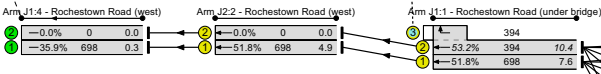
2 - Existing Ped Crossing Stream 1



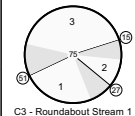
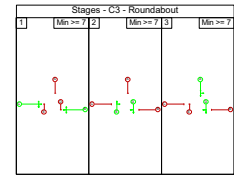
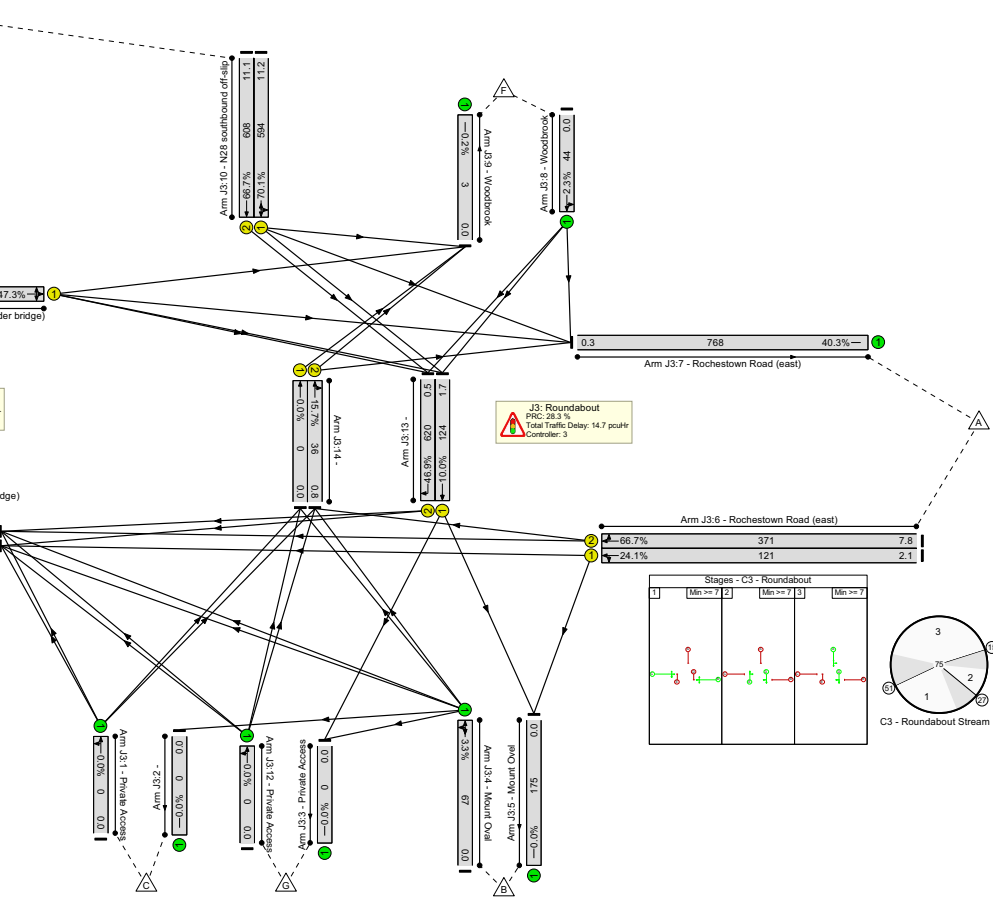
J2: Existing Crossing  
PRC: 73.9%  
Total Traffic Delay: 2.4 pcu/hr  
Controller: 2

J1: St. Patrick's Signals  
PRC: 68.1%  
Total Traffic Delay: 7.9 pcu/hr  
Controller: 1

J3: Roundabout  
PRC: 28.3%  
Total Traffic Delay: 14.7 pcu/hr  
Controller: 3



C1 - N28 On-ramp Stream 1



C3 - Roundabout Stream 1

Project Name		
Douglas Land Use & Transport Study		
Company		
MVA Consultancy		
Address		
Author	Date	Scale
GS / SC	23 Nov 2012	NTS
Project Location		
Project Title		
St. Patrick's Junction at N28		
Drawing Title		
Tilte as marked		
FileName		
20121016 Model 3 MVA Workingv4-GS.lsg3x		

# Technical Note

Project Title:	Douglas Land Use & Transport Study	
MVA Project Number:	30004712	
Subject:	Douglas Village LINSIG and ARCADY Model	
Note Number:	1	Version: 1
Author(s):	Gordon Scott	
Reviewer(s):	Stephen Campopiano David Conlon	
Date:	16 November 2012	

## Detailed Modelled Assessment - DLUTS

### 1 Background

- 1.1 As part of the Douglas Land Use Transport Strategic (DLUTS) model, MVA consultancy has been commissioned to undertake local detailed modelling of proposed changes to the local road network and confirm the initial findings of the DLUTS would be reflected when applied to the local Douglas road network.

#### Model Areas

- 1.2 We undertook assessment using the Traffic Network analysis tool LINSIG for two model areas, these are shown in Figure 1.1 and relate to the following junctions:

#### Douglas Village LINSIG Model

- Jct 1- West Douglas Street / Church Street;
- Jct 2- N40 Wets bound on Slip Lane/ New Link Road;
- Jct 3- Willow Park / South Douglas Road;
- Jct 4- New Link Road / R610;
- Jct 5- N40 Easbound off Slip Road / R610 / Well Road;
- Jct 6 - R610 / East Village / Shopping Centre;
- Jct 7 – (Fingerpost Junction) R610 / East Douglas Street / Marlborough Hill / Rochestown Road; and
- Jct 8 - St Patrick's Mills / West Douglas Street.

#### N28 On and Off Ramp and St. Patrick Roundabout Junction LINSIG Model

- SP1 – R610 Rochestown Road / Mount Ovel / N28 Off Ramp / St Patrick's Church

- SP2 – R610 Rochestown Road / N28 on Ramp

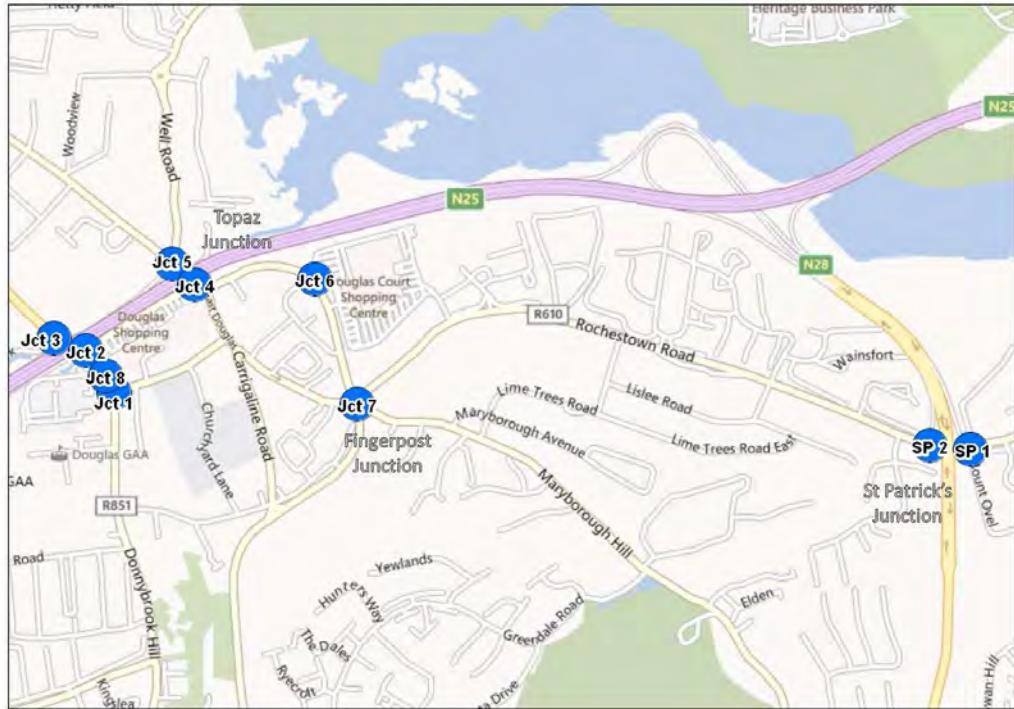


Figure 1.1 Junctions Analysed

### Finger Post Roundabout

- 1.3 The original proposal for the Fingerpost Roundabout (junction 7) was to create a compact signalised junction. It was included in the initial LINSIG model as a signalised junction, however, it became evident that it would not operate within capacity and there was little scope to improve on the initial results without a significant change in the proposed traffic management.
- 1.4 Therefore, we have assessed a revised roundabout proposal and modelled it separately using ARCADY. The results are outlined later in this note.

### LINSIG Network Models

- 1.5 The layouts at each of these junctions have been based on a set of drawings produced by WS Atkins.
- 1.6 We have, however, made a change to the layout at junction 5 N40 (Easbound off Slip Road / R610 / Well Road) where we have added an additional lane on the R610 in the northbound approach. The drawing by WS Atkins shows this to be a one lane approach with a short right-turn lane, whereas we believe it is more likely to operate as two long lanes as is the existing layout.

## 2 Traffic Flows

- 2.1 Half hourly traffic flows for 2022 have been provided, in matrix format, from a SATURN model developed for the area. These have been doubled to produce hourly flows and entered into the LINSIG model. Since the LINSIG model operates on a single cycle (240 second period) this represents the worst period within the peak hours.
- 2.2 The zones used, and the associated flow matrix, for each LINSIG model are shown in Appendix A.

## 3 Network Performance (LINSIG)

- 3.1 Network performance for the main LINSIG network is shown in Table 3.1. The full LINSIG outputs are included in Appendix B.

**Table 3.1 Main Network Performance**

	<b>AM</b>	<b>PM</b>
Cycle Time (Sec)	120	120
Total Delay (pcu/Hr)	87.2	123.5
<b>Junction</b>	<b>PRC</b>	<b>PRC</b>
Jct 1- West Douglas Street / Church Street	64.4	43.7
Jct 2- N40 Wets bound on Slip Lane/ New Link Road	38.6	1.7
Jct 3- Willow Park / South Douglas Road	31.2	0.9
Jct 4- New Link Road / R610	16.8	17.8
Jct 5- N40 Eastbound off Slip Road / R610 / Well Road	14.5	6.7
Jct 6 - R610 / East Village / Shopping Centre	5.1	5.8
<b>Network</b>	<b>5.1</b>	<b>0.9</b>

- 3.2 Table 3.1 shows that the network operates within, but close to capacity in both peak periods. In the AM period Junction 6 (R610 / East Village / Shopping Centre) is 5.1% under capacity. This is similar for the PM (5.9%), however, Junction 3 (Willow Park / South Douglas Road) operates closer to capacity at only 0.9% under.

## 4 Fingerpost Junction (ARCADY)

- 4.1 The zones used, and the associated flow matrix, are shown in Appendix C.

4.2 Network performance is shown in Table 4.1 with the full ARCADY outputs included in Appendix D.

**Table 4.1 Fingerpost Junction Performance**

	AM			PM		
Arm	RFC %	Queue (veh)	Delay (min / veh)	RFC %	Queue (veh)	Delay (min / veh)
A610	0.214	0.3	4.1	0.799	3.7	54.4
Rochestown Road	0.614	1.6	23.5	0.532	1.1	16.7
Maryborough Hill	0.813	4.0	61.2	0.664	1.9	29.1
R609 Carrigaline Road	0.908	7.0	114.8	0.833	4.8	70.1
Douglas Street	0.112	0.1	1.9	0.471	0.9	13.0
Inclusive Delay			0.16			0.14

4.3 Table 4.1 shows that the junction operates below capacity in the AM and PM peak periods. In both time periods R609 is the arm operating at the highest ratio of flow to capacity (RFC). It is over the capacity threshold, of 85%, at 90.8% in the AM but within the capacity threshold in the PM at 83%.

4.4 The reason for the approach being overcapacity is due to the short flare length and entry width and if there was a moderate increase to what is proposed we would expect this approach to work within the capacity threshold.

## 5 Conclusion

5.1 The analysis has found that the main network operates within, but close to, capacity in the AM and PM periods.

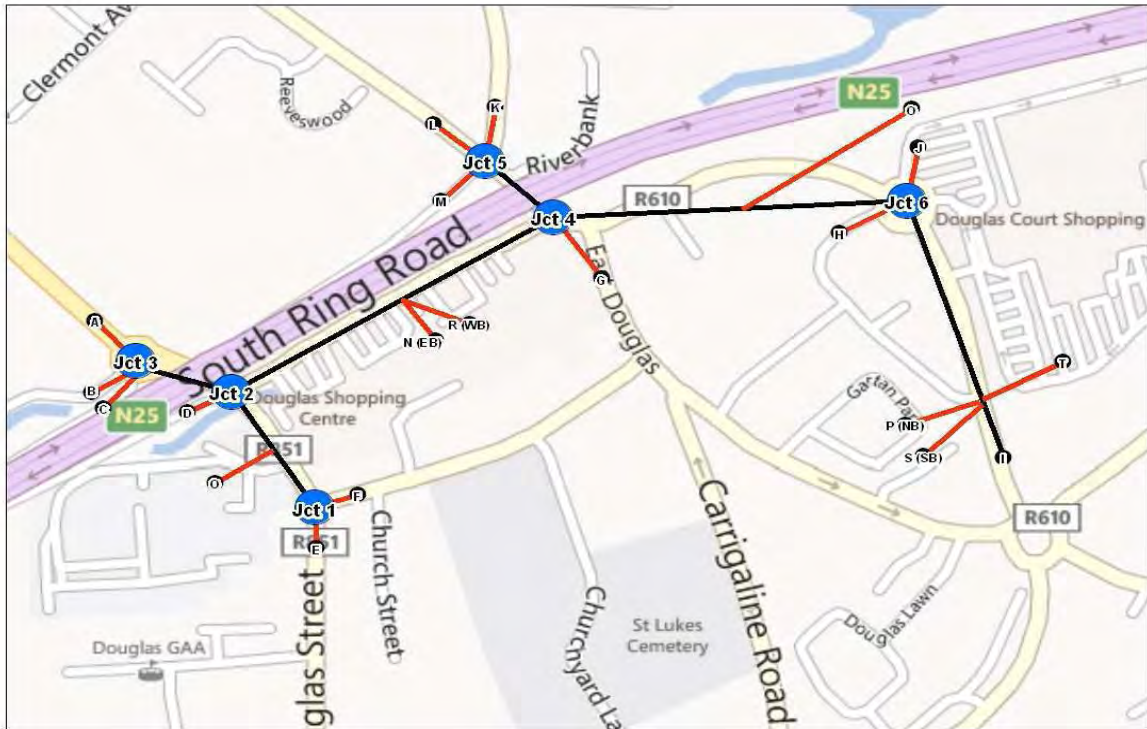
5.2 The Fingerpost junction, when modelled as a roundabout, operates over the capacity threshold of 85% (91%) in the AM period at the R609 Carrigaline Road northbound approach only. Minor adjustments to the design layout, in terms of increased flare length and entry width, would bring the RFC to within capacity.

# Appendix A – Traffic Flows, Douglas Village



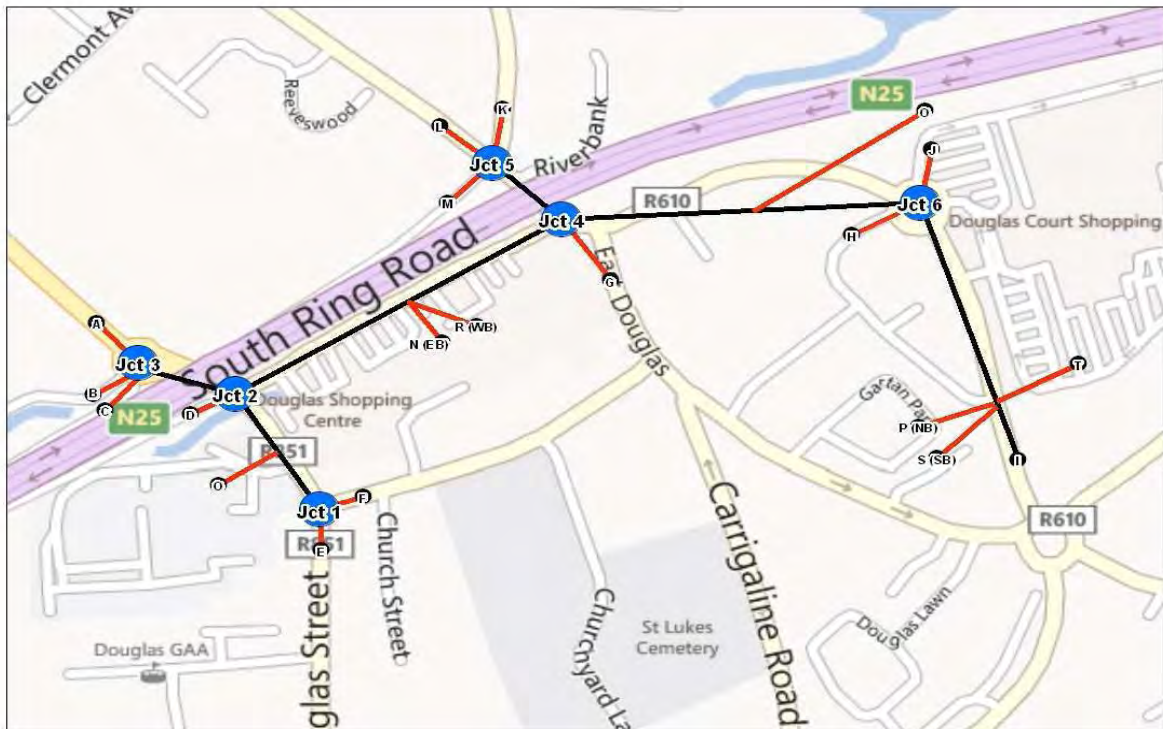
AM Flows and Zone Structure Douglas Village

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	Sum
A	0	34	0	75	158	27	0	0	0	0	0	0	0	50	11	0	0	0	0	355.2
B	34	0	0	21	19	21	0	0	0	0	0	1.6	0	0	0	0	1.6	0	0	97.6
C	93	0	0	0	110	37	0	0	3.2	0	0	0	0	19	4.8	0	0	0	34	300.8
D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
E	123	37	0	173	0	16	0	0	0	0	133	0	0	1.6	67	0	0	0	0	550.4
F	11	0	0	22	74	0	0	0	0	1.6	0	0	0	4.8	0	0	0	0	0	113.6
G	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H	0	0	0	1.6	0	0	0	0	3.2	0	3.2	29	0	0	0	0	0	0	0	36.8
I	0	3.2	0	4.8	78	0	0	0	0	8	342	605	0	0	0	0	0	53	0	1094
J	0	3.2	0	0	0	0	0	0	0	0	0	27	0	0	0	0	0	0	0	30.4
K	3.2	0	0	123	72	6.4	0	1.6	50	0	0	0	0	0	11	0	6.4	1.6	0	275.2
L	0	0	0	0	0	0	0	19	102	0	0	0	0	0	0	0	27	0	0	148.8
M	0	0	0	0	0	0	0	0	0	0	192	0	0	0	0	0	0	0	0	192
N	0	0	0	0	0	0	0	0	0	0	1.6	0	0	0	0	1.6	0	0	0	3.2
O	1.6	0	0	0	9.6	3.2	0	0	0	0	0	0	0	0	0	0	0	0	0	14.4
P	0	0	0	8	0	0	0	0	0	0	9.6	77	0	0	0	0	0	0	0	94.4
Q	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
R	0	1.6	0	1.6	9.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12.8
S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	266	78	0	430	531	110	0	21	158	9.6	682	739	0	70	99	0	37	54	34	3320

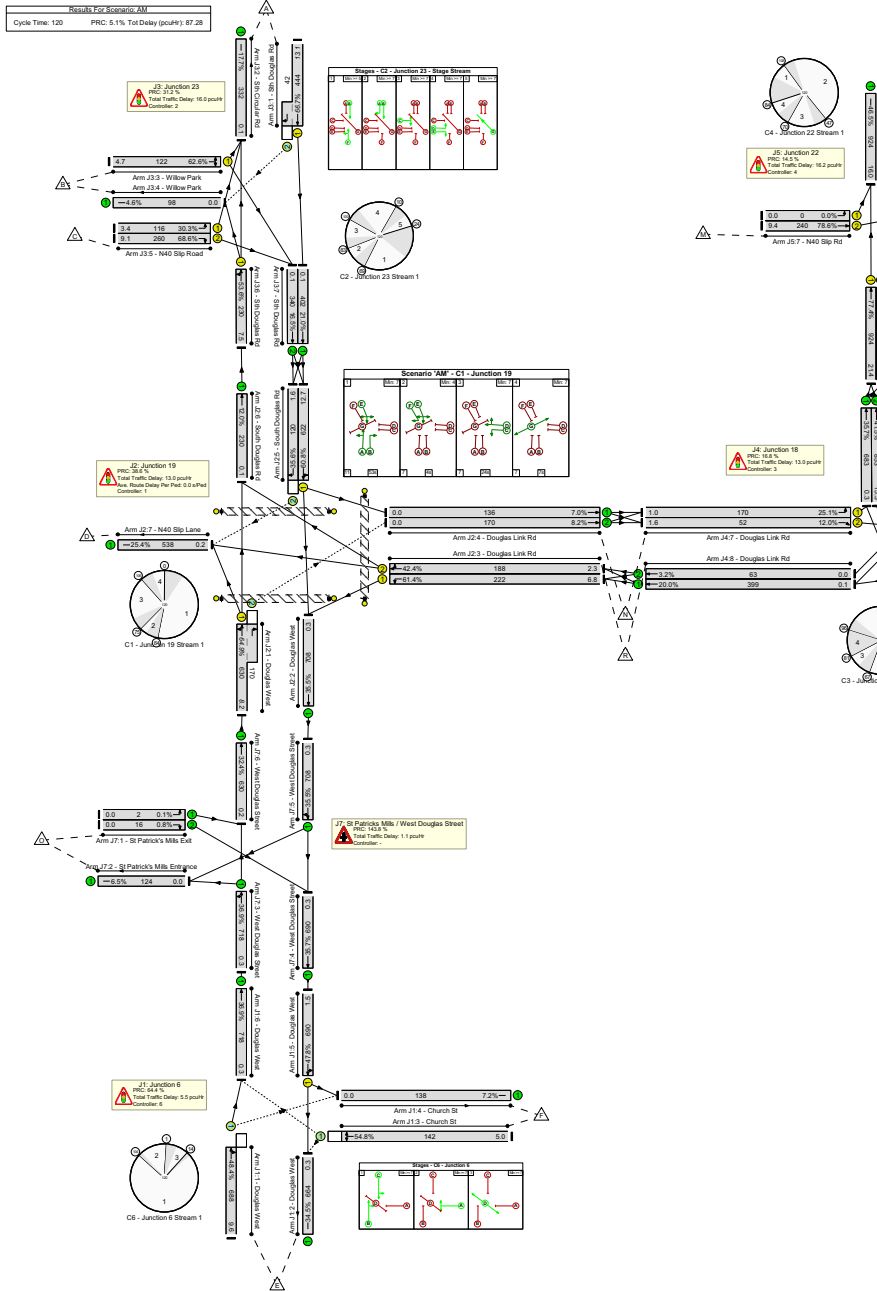


PM Flows and Zone Structure Douglas Village

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	Sum
A	0	42	0	96	184	0	0	0	0	0	0	0	0	32	0	0	0	0	0	353.6
B	8	0	0	9.6	3.2	11	0	0	0	0	0	0	0	0	0	0	0	0	0	32
C	117	0	0	22	136	19	0	0	0	0	0	0	0	37	1.6	0	72	0	0	404.8
D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
E	192	16	0	147	0	29	0	0	0	14	0	0	0	72	16	0	0	0	0	486.4
F	8	1.6	0	3.2	27	0	0	0	0	4.8	0	0	0	0	0	0	0	0	0	44.8
G	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H	0	0	0	1.6	0	0	0	0	9.6	1.6	0	1.6	0	0	0	0	0	0	0	14.4
I	0	6.4	0	0	22	0	0	0	0	128	11	275	0	0	3.2	0	0	130	0	576
J	0	1.6	0	69	51	0	0	1.6	1.6	0	0	54	0	0	14	0	0	0	0	193.6
K	42	6.4	0	206	50	21	0	58	157	0	0	0	0	1.6	0	1.6	0	0	0	542.4
L	0	0	0	0	0	0	0	38	200	0	0	0	0	0	0	0	35	24	0	297.6
M	0	0	0	0	0	0	0	0	0	0	42	1.6	0	0	0	0	0	0	0	43.2
N	0	0	0	0	0	0	0	18	3.2	0	0	189	0	0	0	0	3.2	0	0	212.8
O	48	0	0	0	37	1.6	0	0	0	0	3.2	0	0	0	0	0	0	0	0	89.6
P	0	8	0	14	6.4	3.2	0	0	0	22	4.8	114	0	0	13	0	0	1.6	0	187.2
Q	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
R	1.6	0	0	4.8	155	54	0	0	0	0	0	0	0	0	0	0	0	0	0	216
S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	416	82	0	574	672	139	0	115	371	152	80	635	0	141	50	0	112	155	0	3694



## Appendix B – LINSIG Diagrams



Project Name  
**Douglas Land Use & Transport Study**

Company  
**MVA Consultancy**

Address

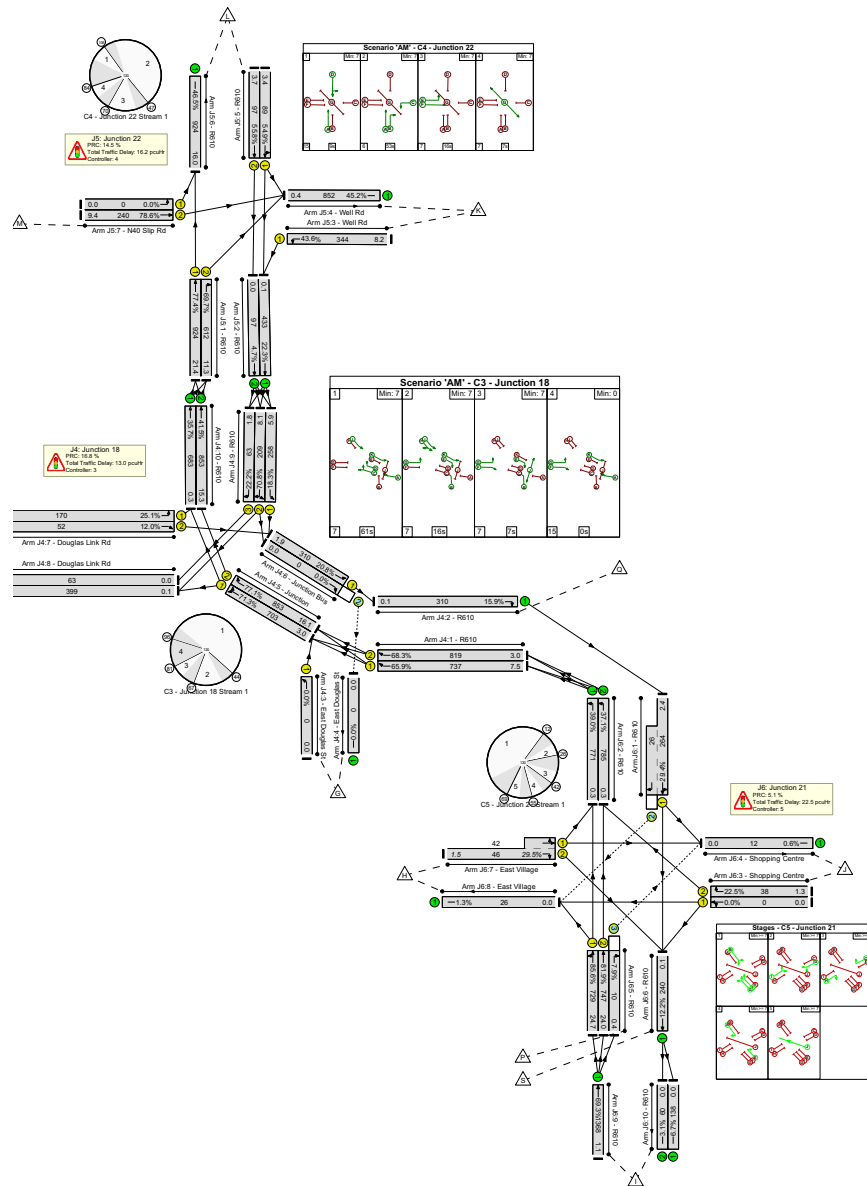
Author	Date	Scale
GS / SC	16 Nov 2012	NTS

Project Location

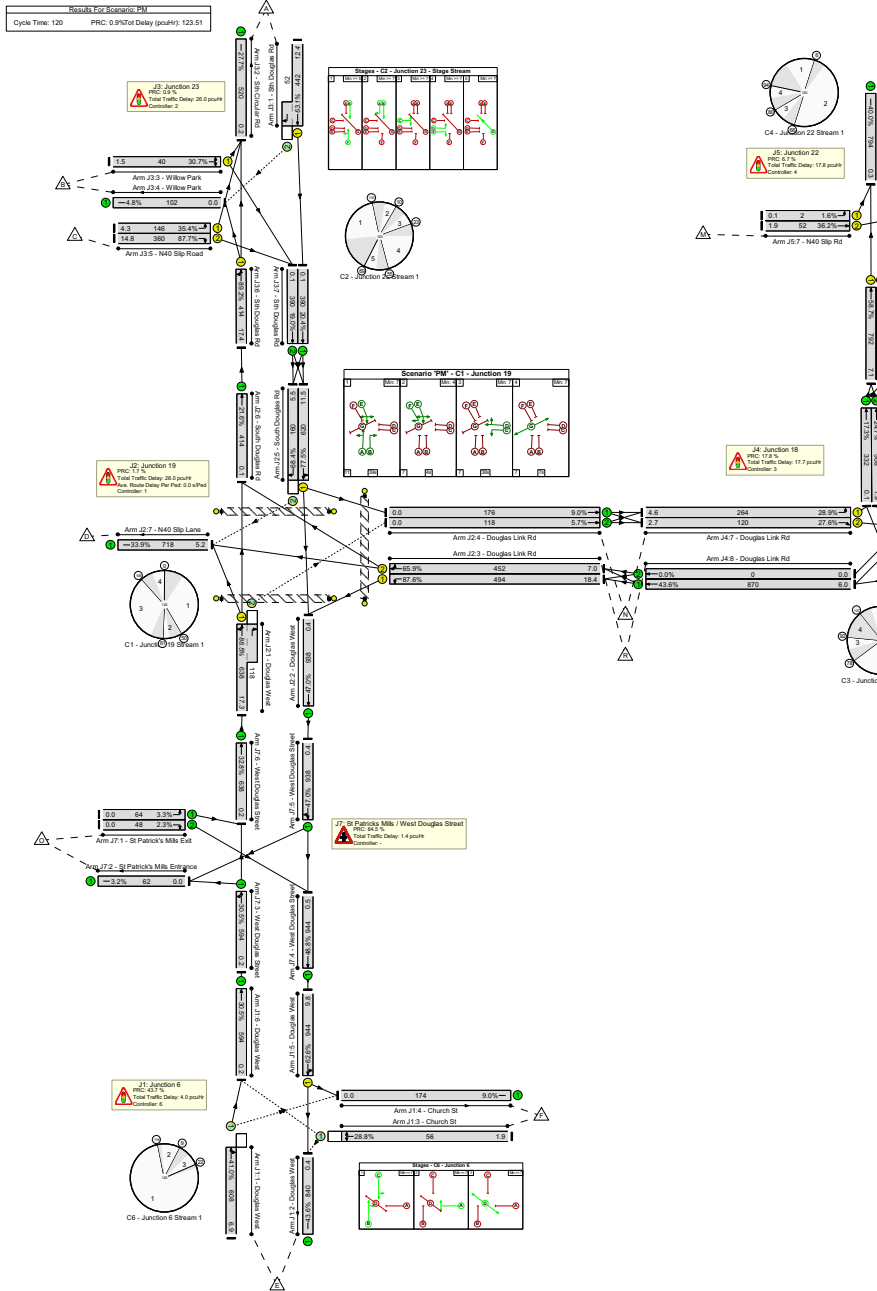
Project Title  
**St Patrick's Junction at N28**

Drawing Title  
**Title as marked**

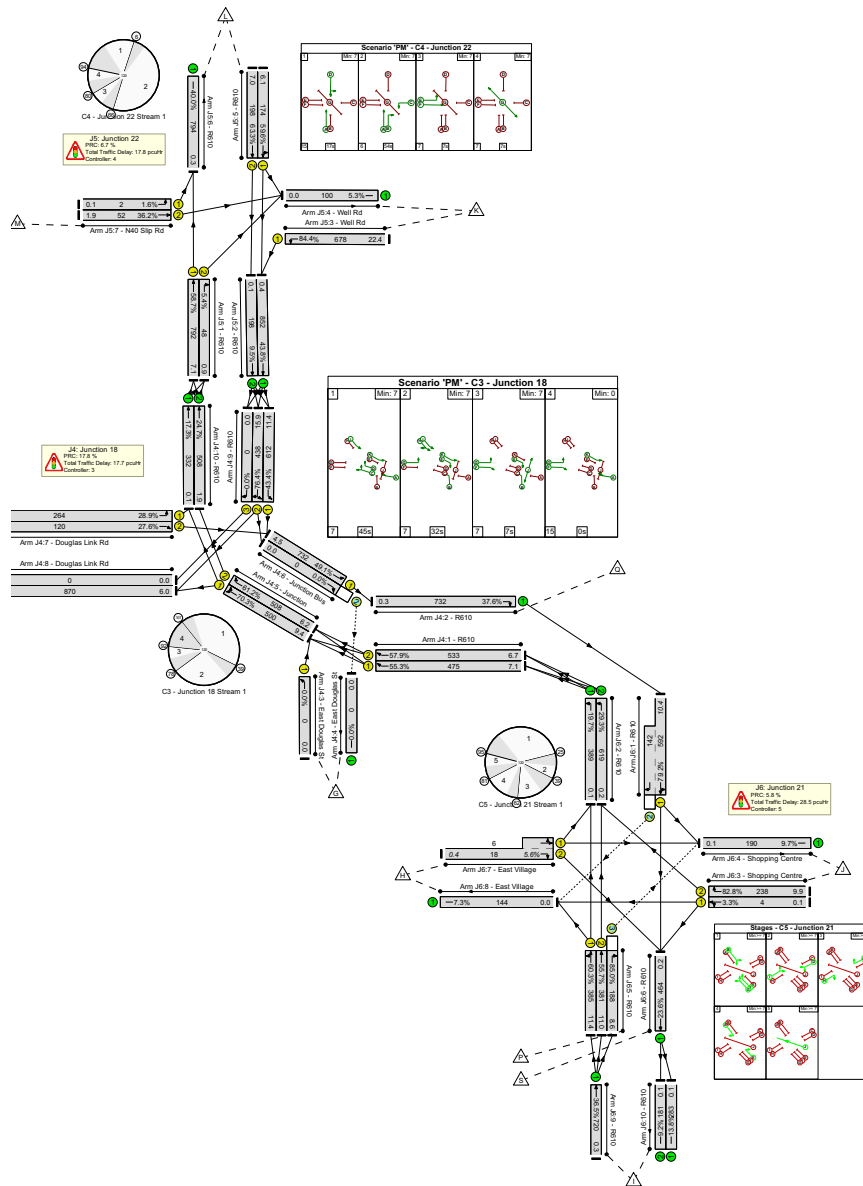
FileName  
**Douglas\_0.7 No Finger Junctionv1sc.lsg3x**



Project Name		
Douglas Land Use && Transport Study		
Company		
MVA Consultancy		
Address		
Author	Date	Scale
GS / SC	16 Nov 2012	NTS
Project Location		
Project Title		
St Patrick's Junction at N28		
Drawing Title		
FileName		
Douglas_0.7 No Finger Junctionv1sc.lsg3x		



Project Name		
<b>Douglas Land Use &amp; Transport Study</b>		
Company		
<b>MVA Consultancy</b>		
Address		
Author	Date	Scale
GS / SC	16 Nov 2012	NTS
Project Location		
<b>St Patrick's Junction at N28</b>		
Drawing Title		
<b>Title as marked</b>		
FileName		
Douglas_0.7 No Finger Junctionv1sc.lsg3x		



Project Name		
<b>Douglas Land Use &amp;&amp; Transport Study</b>		
Company		
<b>MVA Consultancy</b>		
Address		
Author	Date	Scale
GS / SC	16 Nov 2012	NTS
Project Location		
Project Title		
<b>St Patrick's Junction at N28</b>		
Drawing Title		
FileName		
Douglas_0.7 No Finger Junctionv1sc.lsg3x		

## Appendix C – Traffic Flows, St. Patrick's Junction



AM Flows

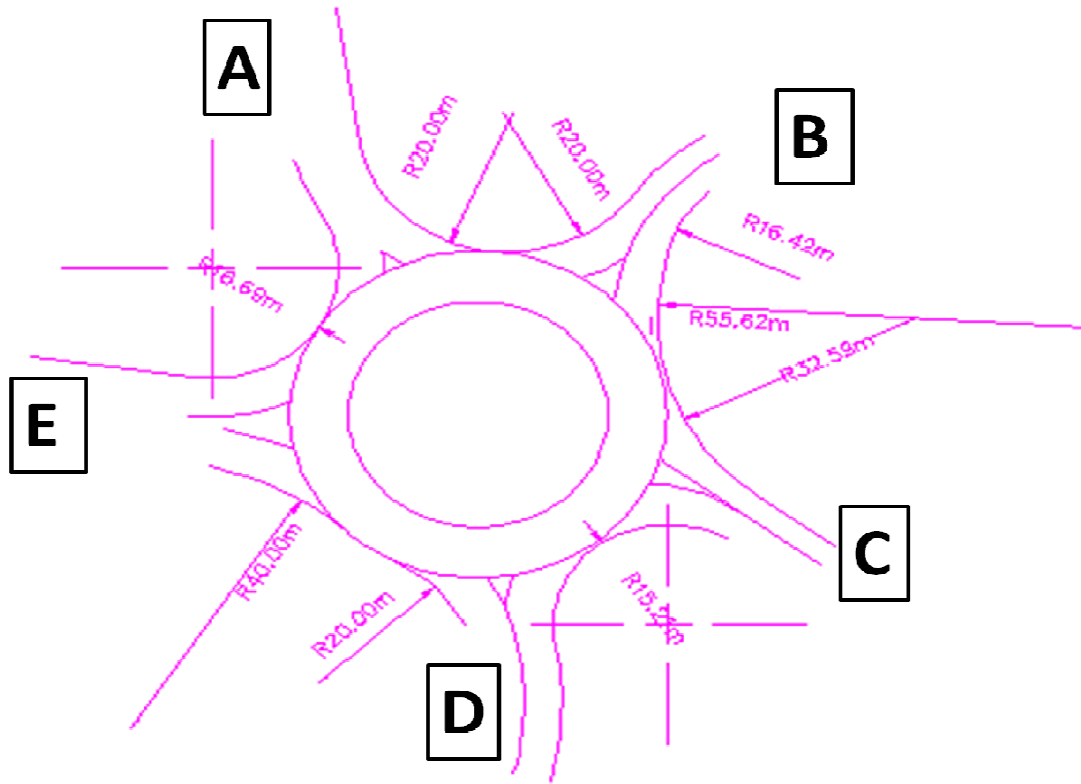
Fingerpost Junction

	A	B	C	D	E	
A	0	90	70	76	0	236
B	658	0	110	0	0	768
C	578	66	0	188	0	832
D	286	282	246	0	0	814
E	0	12	0	24	0	36
	1522	450	426	288	0	2686

PM Flows

Fingerpost Junction

	A	B	C	D	E	
A	0	206	296	76	0	578
B	220	0	0	242	0	462
C	306	128	0	332	0	766
D	202	448	464	0	0	1114
E	36	26	188	4	0	254
	764	808	948	654	0	3174



## Appendix D – Fingerpost ARCADY Outputs

ARCADY 6

ASSESSMENT OF ROUNDABOUT CAPACITY AND DELAY

Analysis Program: Release 7.0 (FEBRUARY 2010)

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THE USER OF THIS COMPUTER PROGRAM FOR THE SOLUTION OF AN ENGINEERING PROBLEM IS  
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-----

Run with file:-  
"g:\Contracts\Contracts Live\30004712 Douglas Land Use & Transport Study\2022AM.vai"  
(drive-on-the-left ) at 12:36:32 on Wednesday, 14 November 2012

.FILE PROPERTIES  
\*\*\*\*\*

RUN TITLE: Five Fingerpost Roundabout, 2022 Am  
LOCATION: Douglas, Co.Cork  
DATE: 14/11/12  
CLIENT:  
ENUMERATOR: scamp [CR5591]  
JOB NUMBER:  
STATUS:  
DESCRIPTION:

.INPUT DATA  
\*\*\*\*\*

ARM A - A610  
ARM B - Rochestown Road  
ARM C - Maryborough Hill  
ARM D - R609  
ARM E - Douglas Street

.GEOMETRIC DATA  
-----

ARM A HAS A PELICAN CROSSING

		T5														
I	ARM	I	V (M)	I	E (M)	I	L (M)	I	R (M)	I	D (M)	I	PHI (DEG)	I	SLOPE	I
		INTERCEPT (PCU/MIN)														
I	ARM A	I	4.55	I	6.00	I	4.20	I	20.00	I	50.00	I	22.0	I	0.604	I
			27.191													
I	ARM B	I	3.75	I	6.00	I	10.40	I	55.60	I	50.00	I	16.0	I	0.624	I
			27.701													
I	ARM C	I	4.20	I	6.40	I	6.30	I	15.20	I	50.00	I	18.0	I	0.603	I
			27.150													
I	ARM D	I	6.00	I	6.00	I	0.00	I	20.00	I	50.00	I	7.0	I	0.681	I
			32.718													
I	ARM E	I	6.00	I	6.00	I	0.00	I	16.70	I	50.00	I	26.0	I	0.634	I
			30.428													

V = approach half-width  
E = entry width

L = effective flare length  
R = entry radius

D = inscribed circle diameter  
PHI = entry angle

.TRAFFIC DEMAND DATA

Only sets included in the current run are shown

.SCALING FACTORS

----- T13

I ARM	I FLOW	SCALE(%)	I
I A	I	100	I
I B	I	100	I
I C	I	100	I
I D	I	100	I
I E	I	100	I

TIME PERIOD BEGINS(07.45)AND ENDS(09.15)

.LENGTH OF TIME PERIOD - ( 90) MINUTES

.LENGTH OF TIME SEGMENT - (15) MINUTES

.DEMAND FLOW PROFILES ARE SYNTHESISED FROM THE TURNING COUNT DATA

.DEMAND SET TITLE: Five Fingerpost Roundabout, 2022 Am

----- T15

I	ARM	I	NUMBER OF MINUTES FROM START WHEN FLOW STARTS	I	TOP OF PEAK	I	FLOW STOPS	I	RATE OF FLOW (VEH/MIN) BEFORE PEAK	I	AT TOP OF PEAK	I	AFTER PEAK
I	ARM A	I	15.00	I	45.00	I	75.00	I	2.95	I	4.43	I	2.95
I	ARM B	I	15.00	I	45.00	I	75.00	I	9.60	I	14.40	I	9.60
I	ARM C	I	15.00	I	45.00	I	75.00	I	10.40	I	15.60	I	10.40
I	ARM D	I	15.00	I	45.00	I	75.00	I	10.18	I	15.26	I	10.18
I	ARM E	I	15.00	I	45.00	I	75.00	I	0.45	I	0.67	I	0.45

DEMAND SET TITLE: Five Fingerpost Roundabout, 2022 Am

----- T33

		TURNING PROPORTIONS										
		TURNING COUNTS										
		(PERCENTAGE OF H.V.S)										
TIME		FROM/T	ARM A	ARM B	ARM C	ARM D	ARM E					
07.45 - 09.15		ARM A	0.000	0.381	0.297	0.322	0.000					
			0.0	90.0	70.0	76.0	0.0					
			( 0.0)	( 0.0)	( 0.0)	( 0.0)	( 0.0)					
		ARM B	0.857	0.000	0.143	0.000	0.000					
			658.0	0.0	110.0	0.0	0.0					
			( 0.0)	( 0.0)	( 0.0)	( 0.0)	( 0.0)					
		ARM C	0.695	0.079	0.000	0.226	0.000					
			578.0	66.0	0.0	188.0	0.0					
			( 0.0)	( 0.0)	( 0.0)	( 0.0)	( 0.0)					
		ARM D	0.351	0.346	0.302	0.000	0.000					
			286.0	282.0	246.0	0.0	0.0					
			( 0.0)	( 0.0)	( 0.0)	( 0.0)	( 0.0)					
		ARM E	0.000	0.333	0.000	0.667	0.000					
			0.0	12.0	0.0	24.0	0.0					
			( 0.0)	( 0.0)	( 0.0)	( 0.0)	( 0.0)					

PEDESTRIAN CROSSING DATA

PEDESTRIAN CROSSING FLOW:

ARM A: PEDESTRIAN FLOWS ARE INPUT DIRECTLY

.PELICAN CROSSINGS

----- T41

I (times in seconds)	I ARM A	I
I amber time	I	1.0I
I "green" amber time	I	2.9I
I both signals red time	I	0.0I
I green man time	I	4.0I
I flashing amber time	I	6.0I
I minimum green time	I	20.0I
I queuing space(pcu)	I	0.0I

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

----- T70									
I	TIME	DEMAND	CAPACITY	DEMAND/	PEDESTRIAN	START	END	DELAY	GEOMETRIC DELAY
AVERAGE DELAY	I	(VEH/MIN)	(VEH/MIN)	CAPACITY	FLOW	QUEUE	QUEUE	(VEH.MIN/	(VEH.MIN/
PER ARRIVING	I			(RFC)	(PEDS/MIN)	(VEHS)	(VEHS)	TIME SEGMENT)	TIME SEGMENT)
VEHICLE (MIN)	I								
-	-								
I	07.45-08.00								
I	ARM A	2.96	22.45	0.132	- -	0.0	0.0	2.2	-
	0.051								
I	ARM B	9.64	24.46	0.394	- -	-	0.0	9.4	-
	0.067								
I	ARM C	10.44	21.44	0.487	- -	-	0.0	13.5	-
	0.090								
I	ARM D	10.21	21.65	0.472	- -	-	0.0	12.8	-
	0.087								
I	ARM E	0.45	13.70	0.033	- -	-	0.0	0.5	-
	0.075								
I									

-----									
I	TIME	DEMAND	CAPACITY	DEMAND/	PEDESTRIAN	START	END	DELAY	GEOMETRIC DELAY
AVERAGE DELAY	I	(VEH/MIN)	(VEH/MIN)	CAPACITY	FLOW	QUEUE	QUEUE	(VEH.MIN/	(VEH.MIN/
PER ARRIVING	I			(RFC)	(PEDS/MIN)	(VEHS)	(VEHS)	TIME SEGMENT)	TIME SEGMENT)
VEHICLE (MIN)	I								
-	-								
I	08.00-08.15								
I	ARM A	3.54	21.52	0.164	- -	0.0	0.2	2.9	-
	0.056								
I	ARM B	11.51	23.82	0.483	- -	-	0.6	13.5	-
	0.081								
I	ARM C	12.47	20.32	0.614	- -	-	0.9	22.3	-
	0.126								
I	ARM D	12.20	19.46	0.627	- -	-	0.9	23.4	-
	0.136								
I	ARM E	0.54	10.41	0.052	- -	-	0.0	0.8	-
	0.101								
I									

-----									
I	TIME	DEMAND	CAPACITY	DEMAND/	PEDESTRIAN	START	END	DELAY	GEOMETRIC DELAY
AVERAGE DELAY	I	(VEH/MIN)	(VEH/MIN)	CAPACITY	FLOW	QUEUE	QUEUE	(VEH.MIN/	(VEH.MIN/
PER ARRIVING	I			(RFC)	(PEDS/MIN)	(VEHS)	(VEHS)	TIME SEGMENT)	TIME SEGMENT)
VEHICLE (MIN)	I								
-	-								
I	08.15-08.30								
I	ARM A	4.33	20.36	0.213	- -	0.0	0.2	4.0	-
	0.062								
I	ARM B	14.09	23.01	0.613	- -	-	0.9	22.3	-
	0.111								
I	ARM C	15.27	18.79	0.812	- -	-	1.6	52.7	-
	0.261								
I	ARM D	14.94	16.55	0.902	- -	-	1.6	83.7	-
	0.444								
I	ARM E	0.66	6.16	0.107	- -	-	0.1	1.7	-
	0.182								
I									

2022AM.vao									
I	TIME	DEMAND	CAPACITY	DEMAND/	PEDESTRIAN	START	END	DELAY	GEOMETRIC DELAY
AVERAGE DELAY	I	(VEH/MIN)	(VEH/MIN)	CAPACITY	FLOW	QUEUE	QUEUE	(VEH.MIN/	(VEH.MIN/
PER ARRIVING	I			(RFC)	(PEDS/MIN)	(VEHS)	(VEHS)	TIME SEGMENT)	TIME SEGMENT)
VEHICLE (MIN)	I								
-	-								
I	08.30-08.45								
I	ARM A	4.33	20.24	0.214	- -	0.0	0.3	4.1	-
	0.063								
I	ARM B	14.09	22.95	0.614	- -	-	1.6	23.5	-
	0.113								
I	ARM C	15.27	18.77	0.813	- -	-	4.0	61.2	-
	0.282								
I	ARM D	14.94	16.45	0.908	- -	-	7.0	114.8	-
	0.581								
I	ARM E	0.66	5.88	0.112	- -	-	0.1	1.9	-
	0.191								
I									

2022AM.vao									
I	TIME	DEMAND	CAPACITY	DEMAND/	PEDESTRIAN	START	END	DELAY	GEOMETRIC DELAY
AVERAGE DELAY	I	(VEH/MIN)	(VEH/MIN)	CAPACITY	FLOW	QUEUE	QUEUE	(VEH.MIN/	(VEH.MIN/
PER ARRIVING	I			(RFC)	(PEDS/MIN)	(VEHS)	(VEHS)	TIME SEGMENT)	TIME SEGMENT)
VEHICLE (MIN)	I								
-	-								
I	08.45-09.00								
I	ARM A	3.54	21.32	0.166	- -	0.0	0.3	3.0	-
	0.056								
I	ARM B	11.51	23.73	0.485	- -	-	1.6	14.7	-
	0.082								
I	ARM C	12.47	20.28	0.615	- -	-	4.2	26.3	-
	0.134								
I	ARM D	12.20	19.32	0.631	- -	-	8.1	31.7	-
	0.158								
I	ARM E	0.54	9.97	0.054	- -	-	0.1	0.9	-
	0.106								
I									

2022AM.vao									
I	TIME	DEMAND	CAPACITY	DEMAND/	PEDESTRIAN	START	END	DELAY	GEOMETRIC DELAY
AVERAGE DELAY	I	(VEH/MIN)	(VEH/MIN)	CAPACITY	FLOW	QUEUE	QUEUE	(VEH.MIN/	(VEH.MIN/
PER ARRIVING	I			(RFC)	(PEDS/MIN)	(VEHS)	(VEHS)	TIME SEGMENT)	TIME SEGMENT)
VEHICLE (MIN)	I								
-	-								
I	09.00-09.15								
I	ARM A	2.96	22.40	0.132	- -	0.0	0.2	2.3	-
	0.051								
I	ARM B	9.64	24.43	0.394	- -	-	1.0	10.1	-
	0.068								
I	ARM C	10.44	21.41	0.488	- -	-	1.6	15.0	-
	0.092								
I	ARM D	10.21	21.55	0.474	- -	-	1.8	14.2	-
	0.089								
I	ARM E	0.45	13.54	0.033	- -	-	0.1	0.5	-
	0.076								
I									

.QUEUE AT ARM A

TIME SEGMENT	NO. OF
ENDING	VEHICLES
	IN QUEUE

08.00 0.2  
 08.15 0.2  
 08.30 0.3  
 08.45 0.3  
 09.00 0.2  
 09.15 0.2

.QUEUE AT ARM B

-----  
 TIME SEGMENT NO. OF  
 ENDING VEHICLES  
 IN QUEUE  
 08.00 0.6 \*  
 08.15 0.9 \*  
 08.30 1.6 \*\*  
 08.45 1.6 \*\*  
 09.00 1.0 \*  
 09.15 0.7 \*

.QUEUE AT ARM C

-----  
 TIME SEGMENT NO. OF  
 ENDING VEHICLES  
 IN QUEUE  
 08.00 0.9 \*  
 08.15 1.6 \*\*  
 08.30 4.0 \*\*\*\*  
 08.45 4.2 \*\*\*\*  
 09.00 1.6 \*\*  
 09.15 1.0 \*

.QUEUE AT ARM D

-----  
 TIME SEGMENT NO. OF  
 ENDING VEHICLES  
 IN QUEUE  
 08.00 0.9 \*  
 08.15 1.6 \*\*  
 08.30 7.0 \*\*\*\*  
 08.45 8.1 \*\*\*\*  
 09.00 1.8 \*\*  
 09.15 0.9 \*

.QUEUE AT ARM E

-----  
 TIME SEGMENT NO. OF  
 ENDING VEHICLES  
 IN QUEUE  
 08.00 0.0  
 08.15 0.1  
 08.30 0.1  
 08.45 0.1  
 09.00 0.1  
 09.15 0.0

.QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

-----

ARM	TOTAL DEMAND	VEH/H	QUEUEING DELAY	MIN	MIN/VEH	INCLUSIVE QUEUEING DELAY	MIN	MIN/VEH
	(VEH)	(VEH/H)	(MIN)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)	(MIN/VEH)
A	324.8	216.6	18.5	0.06	18.5	0.06	0.06	0.06
B	1057.1	704.7	93.5	0.09	93.5	0.09	0.09	0.09
C	1145.2	763.5	191.0	0.17	191.0	0.17	0.17	0.17
D	1120.4	746.9	280.5	0.25	280.5	0.25	0.25	0.25
E	49.6	33.0	6.3	0.13	6.3	0.13	0.13	0.13
ALL	3697.1	2464.7	589.8	0.16	589.8	0.16	0.16	0.16

-----

\* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD.

2022AM.vao

\* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.  
\* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

END OF JOB



ARCADY 6

ASSESSMENT OF ROUNDABOUT CAPACITY AND DELAY

Analysis Program: Release 7.0 (FEBRUARY 2010)

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Run with file:-  
"g:\Contracts\Contracts Live\30004712 Douglas Land Use & Transport Study\ARCADY\2022PM.vai"  
(drive-on-the-left ) at 12:42:50 on Wednesday, 14 November 2012

.FILE PROPERTIES  
\*\*\*\*\*

RUN TITLE: Five Fingerpost Roundabout, 2022 PM  
LOCATION: Douglas, Co.Cork  
DATE: 14/11/12  
CLIENT:  
ENUMERATOR: scamp [CR5591]  
JOB NUMBER:  
STATUS:  
DESCRIPTION:

.INPUT DATA  
\*\*\*\*\*

ARM A - A610  
ARM B - Rochestown Road  
ARM C - Maryborough Hill  
ARM D - R609  
ARM E - Douglas Street

.GEOMETRIC DATA  
-----

ARM A HAS A PELICAN CROSSING

		T5														
I	ARM	I	V (M)	I	E (M)	I	L (M)	I	R (M)	I	D (M)	I	PHI (DEG)	I	SLOPE	I
		INTERCEPT (PCU/MIN)														
I	ARM A	I	4.55	I	6.00	I	4.20	I	20.00	I	50.00	I	22.0	I	0.604	I
			27.191													
I	ARM B	I	3.75	I	6.00	I	10.40	I	55.60	I	50.00	I	16.0	I	0.624	I
			27.701													
I	ARM C	I	4.20	I	6.40	I	6.30	I	15.20	I	50.00	I	18.0	I	0.603	I
			27.150													
I	ARM D	I	6.00	I	6.00	I	0.00	I	20.00	I	50.00	I	7.0	I	0.681	I
			32.718													
I	ARM E	I	6.00	I	6.00	I	0.00	I	16.70	I	50.00	I	26.0	I	0.634	I
			30.428													

V = approach half-width  
E = entry width

L = effective flare length  
R = entry radius

D = inscribed circle diameter  
PHI = entry angle

.TRAFFIC DEMAND DATA

Only sets included in the current run are shown

.SCALING FACTORS

----- T13

I ARM	I FLOW	SCALE(%)	I
I A	I	100	I
I B	I	100	I
I C	I	100	I
I D	I	100	I
I E	I	100	I

-----

TIME PERIOD BEGINS(16.45)AND ENDS(18.15)  
 .LENGTH OF TIME PERIOD - ( 90) MINUTES  
 .LENGTH OF TIME SEGMENT - (15) MINUTES

.DEMAND FLOW PROFILES ARE SYNTHESISED FROM THE TURNING COUNT DATA

.DEMAND SET TITLE: Five Fingerpost Roundabout, 2022PM

----- T15

I ARM	I	NUMBER OF MINUTES FROM START WHEN FLOW STARTS	I	TOP OF PEAK	I	FLOW STOPS	I	RATE OF FLOW (VEH/MIN) BEFORE PEAK	I	AT TOP OF PEAK	I	AFTER PEAK
I ARM A	I	15.00	I	45.00	I	75.00	I	7.22	I	10.84	I	7.22
I ARM B	I	15.00	I	45.00	I	75.00	I	5.78	I	8.66	I	5.78
I ARM C	I	15.00	I	45.00	I	75.00	I	9.57	I	14.36	I	9.57
I ARM D	I	15.00	I	45.00	I	75.00	I	13.93	I	20.89	I	13.93
I ARM E	I	15.00	I	45.00	I	75.00	I	3.17	I	4.76	I	3.17

-----

DEMAND SET TITLE: Five Fingerpost Roundabout, 2022PM

----- T33

I TIME	TURNING PROPORTIONS (PERCENTAGE OF H.V.S)									
	I FROM/T	I ARM A	I ARM B	I ARM C	I ARM D	I ARM E	I	I	I	I
I 16.45 - 18.15	I	I	I	I	I	I	I	I	I	I
I	I ARM A	I 0.000	I 0.356	I 0.512	I 0.131	I 0.000	I	I	I	I
I	I	I 0.0	I 206.0	I 296.0	I 76.0	I 0.0	I	I	I	I
I	I	I ( 0.0)	I ( 0.0)	I ( 0.0)	I ( 0.0)	I ( 0.0)	I	I	I	I
I	I ARM B	I 0.476	I 0.000	I 0.000	I 0.524	I 0.000	I	I	I	I
I	I	I 220.0	I 0.0	I 0.0	I 242.0	I 0.0	I	I	I	I
I	I	I ( 0.0)	I ( 0.0)	I ( 0.0)	I ( 0.0)	I ( 0.0)	I	I	I	I
I	I ARM C	I 0.399	I 0.167	I 0.000	I 0.433	I 0.000	I	I	I	I
I	I	I 306.0	I 128.0	I 0.0	I 332.0	I 0.0	I	I	I	I
I	I	I ( 0.0)	I ( 0.0)	I ( 0.0)	I ( 0.0)	I ( 0.0)	I	I	I	I
I	I ARM D	I 0.181	I 0.402	I 0.417	I 0.000	I 0.000	I	I	I	I
I	I	I 202.0	I 448.0	I 464.0	I 0.0	I 0.0	I	I	I	I
I	I	I ( 0.0)	I ( 0.0)	I ( 0.0)	I ( 0.0)	I ( 0.0)	I	I	I	I
I	I ARM E	I 0.142	I 0.102	I 0.740	I 0.016	I 0.000	I	I	I	I
I	I	I 36.0	I 26.0	I 188.0	I 4.0	I 0.0	I	I	I	I
I	I	I ( 0.0)	I ( 0.0)	I ( 0.0)	I ( 0.0)	I ( 0.0)	I	I	I	I

-----

PEDESTRIAN CROSSING DATA

PEDESTRIAN CROSSING FLOW:  
 ARM A: PEDESTRIAN FLOWS ARE INPUT DIRECTLY  
 .PELICAN CROSSINGS

----- T41

I (times in seconds)	I ARM A	I
I amber time	I	1.0I
I "green" amber time	I	2.9I
I both signals red time	I	0.0I
I green man time	I	4.0I
I flashing amber time	I	6.0I
I minimum green time	I	20.0I
I queuing space(pcu)	I	0.0I

-----

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

----- T70									
I	TIME	DEMAND	CAPACITY	DEMAND/	PEDESTRIAN	START	END	DELAY	GEOMETRIC DELAY
AVERAGE DELAY	I	(VEH/MIN)	(VEH/MIN)	CAPACITY	FLOW	QUEUE	QUEUE	(VEH.MIN/	(VEH.MIN/
PER ARRIVING	I			(RFC)	(PEDS/MIN)	(VEHS)	(VEHS)	TIME SEGMENT)	TIME SEGMENT)
VEHICLE (MIN)	I								
-	-								
I	16.45-17.00								
I	ARM A	7.25	17.71	0.409	- -	0.0	0.0	0.7	9.9
	0.095								-
I	ARM B	5.80	19.69	0.294	- -	-	0.0	0.4	6.1
	0.072								-
I	ARM C	9.61	23.07	0.417	- -	-	0.0	0.7	10.3
	0.074								-
I	ARM D	13.98	27.16	0.515	- -	-	0.0	1.0	15.2
	0.075								-
I	ARM E	3.19	16.44	0.194	- -	-	0.0	0.2	3.5
	0.075								-
I									

-----									
I	TIME	DEMAND	CAPACITY	DEMAND/	PEDESTRIAN	START	END	DELAY	GEOMETRIC DELAY
AVERAGE DELAY	I	(VEH/MIN)	(VEH/MIN)	CAPACITY	FLOW	QUEUE	QUEUE	(VEH.MIN/	(VEH.MIN/
PER ARRIVING	I			(RFC)	(PEDS/MIN)	(VEHS)	(VEHS)	TIME SEGMENT)	TIME SEGMENT)
VEHICLE (MIN)	I								
-	-								
I	17.00-17.15								
I	ARM A	8.66	15.85	0.547	- -	0.0	0.7	1.2	17.0
	0.138								-
I	ARM B	6.92	18.12	0.382	- -	-	0.4	0.6	9.0
	0.089								-
I	ARM C	11.48	22.27	0.515	- -	-	0.7	1.1	15.3
	0.092								-
I	ARM D	16.69	26.06	0.641	- -	-	1.0	1.7	25.1
	0.106								-
I	ARM E	3.81	13.69	0.278	- -	-	0.2	0.4	5.6
	0.101								-
I									

-----									
I	TIME	DEMAND	CAPACITY	DEMAND/	PEDESTRIAN	START	END	DELAY	GEOMETRIC DELAY
AVERAGE DELAY	I	(VEH/MIN)	(VEH/MIN)	CAPACITY	FLOW	QUEUE	QUEUE	(VEH.MIN/	(VEH.MIN/
PER ARRIVING	I			(RFC)	(PEDS/MIN)	(VEHS)	(VEHS)	TIME SEGMENT)	TIME SEGMENT)
VEHICLE (MIN)	I								
-	-								
I	17.15-17.30								
I	ARM A	10.61	13.38	0.793	- -	0.0	1.2	3.5	45.4
	0.327								-
I	ARM B	8.48	16.06	0.528	- -	-	0.6	1.1	15.8
	0.131								-
I	ARM C	14.06	21.19	0.663	- -	-	1.1	1.9	27.2
	0.138								-
I	ARM D	20.44	24.58	0.832	- -	-	1.7	4.5	60.6
	0.222								-
I	ARM E	4.66	10.03	0.465	- -	-	0.4	0.8	12.1
	0.184								-
I									

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I	TIME	DEMAND	CAPACITY	DEMAND/	PEDESTRIAN	START	END	DELAY	GEOMETRIC DELAY
AVERAGE DELAY	I	(VEH/MIN)	(VEH/MIN)	CAPACITY	FLOW	QUEUE	QUEUE	(VEH.MIN/	(VEH.MIN/
PER ARRIVING	I			(RFC)	(PEDS/MIN)	(VEHS)	(VEHS)	TIME SEGMENT)	TIME SEGMENT)
VEHICLE (MIN)	I								
-	-								
I	17.30-17.45								
I	ARM A	10.61	13.27	0.799	- -	0.0	3.5	3.7	54.4
	0.368								-
I	ARM B	8.48	15.94	0.532	- -	-	1.1	1.1	16.7
	0.134								-
I	ARM C	14.06	21.16	0.664	- -	-	1.9	1.9	29.1
	0.140								-
I	ARM D	20.44	24.55	0.833	- -	-	4.5	4.8	70.1
	0.241								-
I	ARM E	4.66	9.89	0.471	- -	-	0.8	0.9	13.0
	0.191								-
I									

2022PM.vao									
I	TIME	DEMAND	CAPACITY	DEMAND/	PEDESTRIAN	START	END	DELAY	GEOMETRIC DELAY
AVERAGE DELAY	I	(VEH/MIN)	(VEH/MIN)	CAPACITY	FLOW	QUEUE	QUEUE	(VEH.MIN/	(VEH.MIN/
PER ARRIVING	I			(RFC)	(PEDS/MIN)	(VEHS)	(VEHS)	TIME SEGMENT)	TIME SEGMENT)
VEHICLE (MIN)	I								
-	-								
I	17.45-18.00								
I	ARM A	8.66	15.70	0.552	- -	0.0	3.7	1.3	20.5
	0.149								-
I	ARM B	6.92	17.95	0.386	- -	-	1.1	0.6	9.8
	0.091								-
I	ARM C	11.48	22.22	0.516	- -	-	1.9	1.1	16.8
	0.094								-
I	ARM D	16.69	26.01	0.642	- -	-	4.8	1.8	29.4
	0.112								-
I	ARM E	3.81	13.49	0.282	- -	-	0.9	0.4	6.2
	0.104								-
I									

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I	TIME	DEMAND	CAPACITY	DEMAND/	PEDESTRIAN	START	END	DELAY	GEOMETRIC DELAY
AVERAGE DELAY	I	(VEH/MIN)	(VEH/MIN)	CAPACITY	FLOW	QUEUE	QUEUE	(VEH.MIN/	(VEH.MIN/
PER ARRIVING	I			(RFC)	(PEDS/MIN)	(VEHS)	(VEHS)	TIME SEGMENT)	TIME SEGMENT)
VEHICLE (MIN)	I								
-	-								
I	18.00-18.15								
I	ARM A	7.25	17.63	0.411	- -	0.0	1.3	0.7	11.0
	0.097								-
I	ARM B	5.80	19.62	0.296	- -	-	0.6	0.4	6.5
	0.073								-
I	ARM C	9.61	23.04	0.417	- -	-	1.1	0.7	11.1
	0.075								-
I	ARM D	13.98	27.11	0.516	- -	-	1.8	1.1	16.6
	0.077								-
I	ARM E	3.19	16.33	0.195	- -	-	0.4	0.2	3.7
	0.076								-
I									

.QUEUE AT ARM A

TIME SEGMENT	NO. OF
ENDING	VEHICLES
	IN QUEUE

17.00	0.7	*
17.15	1.2	*
17.30	3.5	***
17.45	3.7	****
18.00	1.3	*
18.15	0.7	*

.QUEUE AT ARM B

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
17.00	0.4	
17.15	0.6	*
17.30	1.1	*
17.45	1.1	*
18.00	0.6	*
18.15	0.4	

.QUEUE AT ARM C

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
17.00	0.7	*
17.15	1.1	*
17.30	1.9	**
17.45	1.9	**
18.00	1.1	*
18.15	0.7	*

.QUEUE AT ARM D

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
17.00	1.0	*
17.15	1.7	**
17.30	4.5	*****
17.45	4.8	*****
18.00	1.8	**
18.15	1.1	*

.QUEUE AT ARM E

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
17.00	0.2	
17.15	0.4	
17.30	0.8	*
17.45	0.9	*
18.00	0.4	
18.15	0.2	

.QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

ARM	TOTAL DEMAND (VEH)	TOTAL DEMAND (VEH/H)	* QUEUEING * * DELAY *	* QUEUEING * (MIN)	* INCLUSIVE QUEUEING * * DELAY *	* INCLUSIVE QUEUEING * (MIN)	* INCLUSIVE QUEUEING * (MIN/VEH)
A	795.6	530.4	158.2	0.20	158.2	0.20	
B	635.9	423.9	63.8	0.10	63.8	0.10	
C	1054.3	702.9	109.8	0.10	109.9	0.10	
D	1533.3	1022.2	217.0	0.14	217.0	0.14	
E	349.6	233.1	44.1	0.13	44.1	0.13	
ALL	4368.8	2912.5	592.9	0.14	592.9	0.14	

\* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD.

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\* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.  
\* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

END OF JOB

# Appendix 3 – Baseline Traffic Report

# Evaluating Performance

## Douglas Land Use and Transportation Strategy Baseline Transport Report

Prepared for Cork County Council

July 2012





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## Distribution

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## Appendices

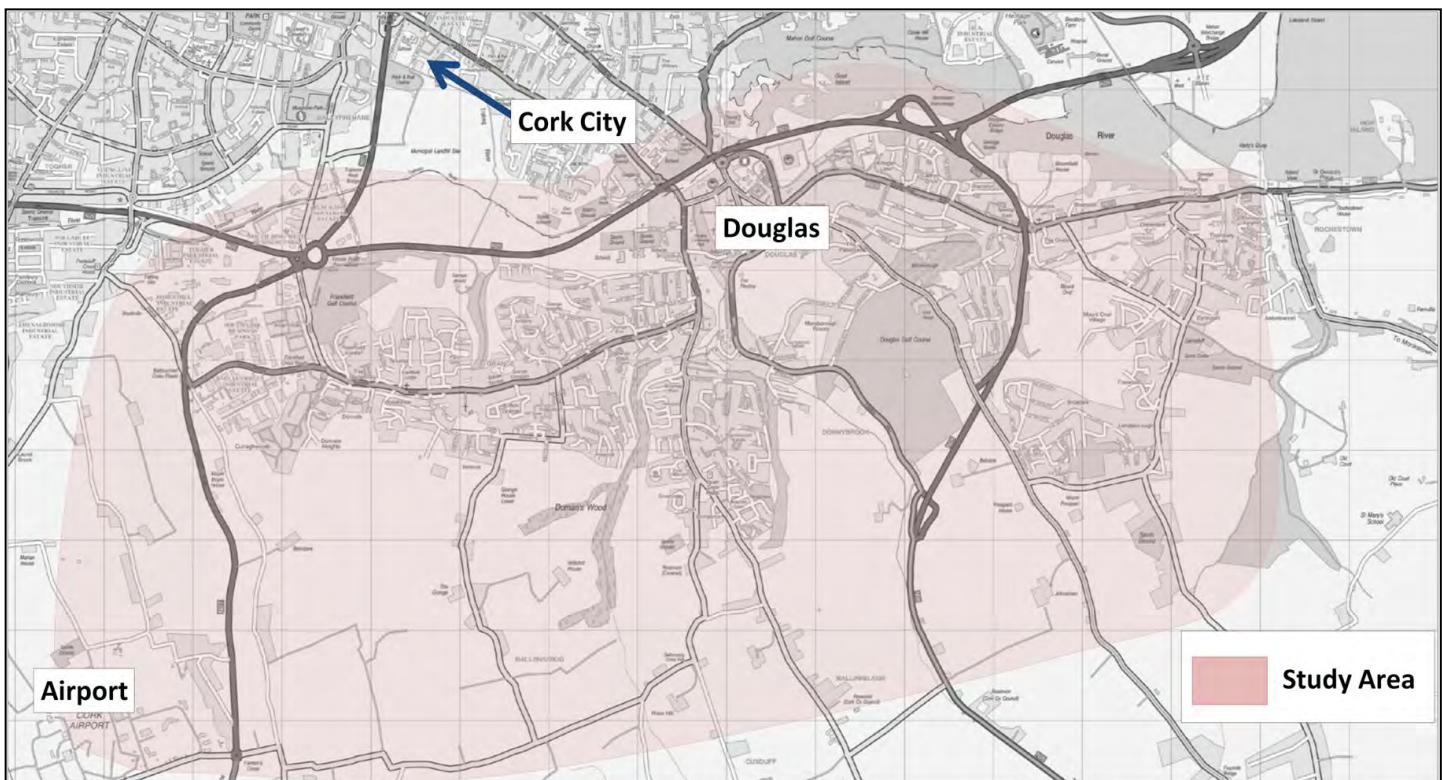
Appendix A – Public Consultation Report

# 1 Introduction

## 1.1 Background

- 1.1.1 MVA Consultancy was appointed by Cork County Council to prepare a Land Use and Transport Strategy for Douglas Village and its hinterlands. This study is referred to as the Douglas Land Use Transport Strategy (DLUTS) Study.
- 1.1.2 The study area for DLUTS is shown below in Figure 1.1. The initial task in undertaking the DLUTS study is the determination of current land use conditions, understanding the existing urban design and the transport operating environment and the respective conditions affecting the experience of road users. This will then inform the adequacy of the current road network and traffic and transport operation and management arrangements. It will also identify the plans, strategies and interventions required to address any issues and improve the traffic conditions currently experienced in the Douglas Area in a sustainable manner.

### Study Area



## 1 Introduction

1.1.3 The focus of this Baseline Report is transport, specifically in terms of providing:

- information on the travel patterns of people living within the Douglas area and understanding their needs and views;
- a detailed summary of current traffic conditions in the Village and surrounding areas in terms of infrastructure for each transport mode, utilisation of that infrastructure and conditions experience; and
- a review of previous land use and transport studies undertaken relevant to the Douglas Area specifically detailing the relative objectives, outcomes and recommendations made by each study.

## 1.2 Methodology for Developing Transport Baseline

### Site Visits

1.2.1 To facilitate an understanding of the transport environment within Douglas and the general traffic conditions experienced, a series of site visits were undertaken in Douglas and its environs during March 2012.

1.2.2 During the site visits the following actions were undertaken:

- detailed observations of current traffic management arrangements and how they affect each mode of transport;
- an examination of the conditions experienced by each road user type (i.e. mobility impaired individuals, pedestrians (including school children), **cyclists, cars, taxi's, buses, heavy goods & delivery vehicles** and so on);
- an examination of travel behaviours of people travelling around the Douglas area and how they respond to the existing transport network arrangements;
- observations of local land uses and their influence of traffic and transport arrangements;
- detailed auditing of junction arrangements including traffic lane definition, traffic signal arrangements, junction type, priority arrangements for public transport, access arrangement for schools and key land uses etc. (this information was required for the traffic model developed specifically for DLUTS to test traffic management and land use options); and
- an extensive set of photographic records.

### Traffic Surveys

1.2.3 In addition to the site visits detailed above, a comprehensive set of traffic surveys were undertaken during April 2012. This data is primarily used to inform the development of the Douglas Transport Model (DTM) and to provide further information on the current traffic conditions within the Village and surrounding areas.

1.2.4 The following surveys were undertaken:

- Classified junction turning count surveys (21 no. locations);
- Registration plate surveys (9 no. locations);
- Journey time surveys (4 routes, each way);



## 1 Introduction

- Automated traffic counters (ATCs) over seven survey days (15 no. locations); and
- Link Counts, surveying pedestrian and Cyclist flows (16 no. locations).

1.2.5 The location of these surveys are detailed later in this report in Chapter Five.

### Assessment of Census Data

1.2.6 Place of Work Census Anonymised Records (POWCAR) were used to determine work travel patterns for the study area. The data includes information on all people over fifteen in employment who were enumerated at home on Census night. The POWCAR database is provided by the Central Statistics Office (CSO) for the whole country entire. Each individual record is contained within the database. The strength and value of the POWCAR data is that it provides very important baseline travel information for the AM Peak period (07.00-10.00am) for journeys to work, linking:

- the origin of the journey;
- the destination of the journey;
- by time of departure;
- the estimated time to complete the journey;
- the estimated journey distance in kilometres; and
- the mode taken for the trip travel to work (in terms of car, public transport, walking and cycling etc.).

1.2.7 Small Area Population Statistics (SAPS) were also used. These allow key demographic statistics such as population, car ownership, primary means of travel, etc to be analysed at the Local Electoral District Level.

1.2.8 The analysis of POWCAR and SAPS data allowed us to establish travel to work patterns and demographic profiles, which in turn enabled us to develop an understanding of movement patterns within the study area and the role public transport plays in moving people to places of work and education.

### Stakeholder Consultation

1.2.9 Stakeholder consultation is a vital component for the development of DLUTS. Key Stakeholders in the study area were contacted in writing and encouraged to give written submissions of their views on any land use, traffic and transport related issues in the Douglas Area. These responses were then collated and analysed and formed a key role in developing a full understanding of current traffic and transport issues in the Douglas Area. Further details of the stakeholder consultation process and outcome are provided later in Chapter Four of this report.

### Public Consultation

1.2.10 Public consultation also plays a key role in determining the existing baseline transport and traffic conditions within the Douglas Area. A public exhibition event was held in the Rochestown Park Hotel on the 17<sup>th</sup> April 2012 to provide the general public with information on the DLUTS Study in terms of the objectives and timeline for DLUTS. The event was advertised in the local press and was attended by key members of the DLUTS Study team including Cork County Council staff and the DLUTS transport consultants.

### Online Workplace Travel Survey

- 1.2.11 To further supplement our understanding of the existing travel situation in Douglas Village an online travel survey was developed in April 2012 to enable the general public to provide information on their existing travel patterns. The travel survey was linked to Cork County Council's website. In addition, invitations to participate in the survey were sent to a number of key employers within Douglas and to members of the public who attended a public exhibition in the Rochestown Park Hotel. Hard copies of the travel survey were also given to those who attended the public exhibition on the 17<sup>th</sup> April.
- 1.2.12 The findings of the travel survey are detailed within Chapter Six of this report.

### 1.3 Structure of Baseline Traffic Report

- 1.3.1 This report will detail the traffic management arrangements for each road based transport mode within the study area. Traffic Management arrangements and conditions experienced are detailed for general traffic, pedestrians, cyclists, bus and HGVs. Observations of parking arrangements are also included.
- 1.3.2 The remainder of this report is structured as follows:

#### Chapter 2 Transportation Context:-

- Chapter Two describes the transportation context of the Douglas Area. Described are the existing main components and operation of the Village and its environs, the physical land use characteristics and transportation infrastructure are also reviewed. This chapter also presents some of the key findings from the POWCAR and Census data assessment including a presentation of the current modal share in Douglas, Cork City and in Cork County.

#### Chapter 3 Review of Planning and Policy Documents:-

- Chapter Three provides a summary of relevant planning and policy documents relating to transport issues in Douglas.

#### Chapter 4 Stakeholder Consultation:-

- Chapter Four outlines the stakeholder consultation process carried out and details the responses received from key stakeholders.

#### Chapter 5 Summary Baseline Traffic Evaluation:-

- Chapter Five evaluates the current traffic management arrangements and issues experienced in Douglas for all road users. The current public transport facilities available in Douglas are reviewed along with details of current cycle and pedestrian infrastructure in the Village. This chapter also outlines issues faced or caused by Heavy Goods vehicles in Douglas are outlined.

#### Chapter 6 Traffic Survey Results:-

- Chapter Six presents the results of the traffic surveys that were undertaken in the Douglas Area in April 2012

**Chapter 7 Workplace Travel Survey:-**

- Chapter Seven outlines results from a travel survey carried out among those employed and in education in Douglas. The chapter details among other things; the mode of travel used by people travelling to Douglas, distance travelled and reasons for making the trip.

**Chapter 8 Parking:-**

- Chapter Eight provides information on parking within the Douglas Area.

**Chapter 9 Summary of Baseline Evaluation:-**

- Chapter Nine provides a general summary of the report.

## 2 Transportation Context

### 2.1 Introduction

2.1.1 This chapter provides a transportation context relating to the Douglas Area. The following are discussed in this chapter:

- Overview of the Douglas Area and historical context;
- Road network serving the Douglas Area; and
- Evaluation of Census Data.

### 2.2 Overview of the Douglas Area and its Environs

#### Population

2.2.1 Table 2.1 below shows the population of Douglas, Cork City and Cork County. The two electoral districts which are contained within the study area of Douglas (18086 Douglas & 18096 Lehenagh) had a population of 30,295 in 2011. This represents an increase of 2,579 on the 2006 population which was 27,716. The population of Cork City, which borders the study area, remained largely constant over the five years from 2006 to 2011.

2.2.2 The largest demographic in Douglas is the 20-44 year old age group which accounts for 45% of the population. Those aged 0-19 years account for 29%. 45 to 64 year olds account for 20% and over 65 year olds account for 6% of the total population.

**Table 2.1 Study Area Population**

	2006 Population	2011 Population	% Change
<b>Douglas Ed's (18086 &amp; 18096)</b>	27,716	30,295	+9.3%
<b>Cork County</b>	361,877	399,802	+10.5%
<b>Cork City</b>	119,418	119,230	-0.1%

#### Land Use

2.2.3 Douglas contains a wide variety of different land uses including, residential, educational, health, industry/employment and retail. The land uses which represent key destinations for trips in the study are:

- The 7 Schools located within the Study Area;
- Douglas Court Shopping Centre;

## 2 Transportation Context

- Douglas Village Shopping Centre;
- **St Patrick's Mills;**
- East Douglas Village retail units;
- Grange Road Commercial units;
- Cork Airport;
- South Link Business Park;
- Ballycurreen Industrial Estate;
- Forge Hill Industrial Estate; and
- Togher Industrial Estate.

2.2.4 The majority of residential developments in the study area are located outside of the Village centre and are largely comprised of medium density developments with a cul de sac type road network. Some local amenities such as churches, schools, sport grounds and local retail are located within the residential areas, shortening travelling distances and providing the potential for walking and cycling.

### 2.3 Road Network Serving Douglas Area

2.3.1 Figure 2.1 below illustrates the road hierarchy in Douglas. A number of national roads pass through the Douglas Study area, namely:

- N40;
- N27; and
- N28;

2.3.2 There are also a number of regional and third class roads in the study area, including:

- R610;
- R609;
- Grange Road;

2.3.3 As can be seen from Figure 2.1, overleaf, the Douglas area incorporates 3 National Roads; the N40 to the north, the N28 to the east and the N27 to the west. The N40 (or Southern Ring Road) is a major national distributor road allowing access to the wider national road network; including the M8 to Dublin to the north and the N22 to Killarney to the west. The N27 is also a significant national route providing connections to the City Centre and with the Cork International Airport, as well as major employers near the airport with the wider labour market in Cork and the city centre. Finally, the other major national distributor, the N28, provides connections to the wider national road network with major employers and the national sea freight and passenger services from the Port of Cork to mainland Europe and wider international sea freight services As well as major employers based in Ringaskiddy and Carrigaline.

2.3.4 Access to the Douglas Village area from the N40 from the west is provided by two off-ramps located at South Douglas Road and Douglas Road respectively. These off-ramps are located in relatively close proximity to one another, approximately 1km apart.

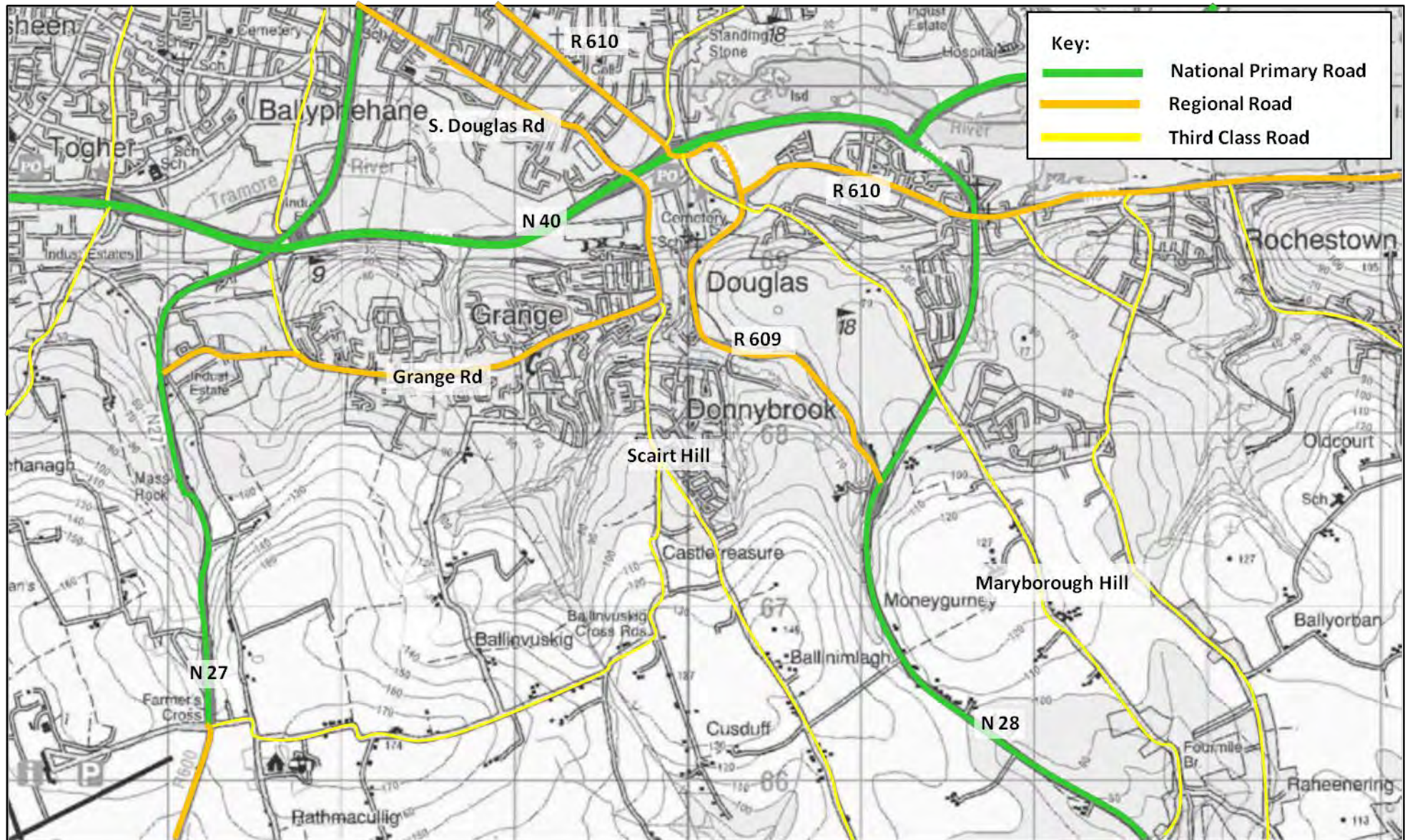
## 2 Transportation Context

- 2.3.5 Access to the Douglas area from the N40 from the east is provided via the Bloomfield Interchange or the Kinsale Roundabout.
- 2.3.6 At present a large proportion of traffic travelling from Douglas and its environs to the north (i.e. towards Cork City), or vice versa must travel through Douglas and in doing so adds to congestion in the village.

### **Implications for Douglas of the Current Road Network**

*As shown in Figure 2.1, overleaf, the DLUTS area encompasses high capacity roads with National Primary Road designation (i.e. N40, N27 and N28). It also has a number of Regional Roads (i.e. R609 & 610). The implication of this road network is to encourage high car use for people living within the area and to encourage high levels of through traffic (i.e. traffic that does not have an origin or destination within the study area) passing through the area from Carrigaline to the City Centre for example. Generally the road capacity within the Douglas area is limited, particularly within the village centre where a number of roads converge, thereby creating significant traffic management operational problems. There is, also, considerable competition for road space within Douglas particularly during peak traffic times primarily due to significant levels of commuter traffic, high levels of through traffic and the large amounts of school related traffic.*

**Figure 2-1 Douglas Road Hierarchy**



## Local Issues

- 2.3.7 Douglas experiences considerable congestion during the peak hours of 08:00-09:00 and 17:00-18:00. The areas around Douglas Street West and Church Road are particularly bad during the AM peak period as School trip and work trips occur simultaneously leading to long queues through the village. Douglas Road East (R610), which is the primary route to and from Cork City experiences large queues in both the AM and PM peak periods due to the concentration of large volumes of traffic making its way from Cork City to Douglas (in the PM Peak and vice versa in the AM Peak) and to other conurbations to the South.
- 2.3.8 Some of the radial routes leading into Douglas, most notably Grange Road and the Rochestown Road also experience congestion in the AM peak period (08:00 – 09:00). Queuing on the Rochestown Road can extend to over 1km in the mornings as traffic making a right turn onto the N28 which causes significant delays extending back as far as Coach Hill on the Rochestown Road.

## Parking

- 2.3.9 There is considerable demand for parking within the study area. Both the Douglas Court Shopping Centre and Douglas Village Shopping centre provide large amounts of off-street car parking. Parking in the Village centre is mostly on-street, with large amounts of this being taken up by medium and long stay parking. This suggests that the on-street parking in the village centre is being used by people working in the area and not by passing trade.
- 2.3.10 Parking demand measures, including parking charges, have been recently introduced in the village centre in order to manage the demand in the area.
- 2.3.11 *[Please refer to Chapter 5 for a more in depth description of the road network serving the Douglas Area].*

## 2.4 Evaluation of Census Data

- 2.4.1 This section provides an essential demographic context to the study. For example, who is living in Douglas and its hinterlands, their primary mode of transport, if they are working or going to school and the distance they travel and where they travel to. This information is an important element in understanding how the transportation system works and why it works in a particular way.
- 2.4.2 **This review of the study area's characteristics has been facilitated by analysis of census data** notably through 2006 Places of Work Census and Anonymised Records (POWCAR) and Small Area Population Statistics (SAPS), which allow key statistics relating to travel to work and education to be evaluated at a local electoral district level.
- 2.4.3 The National Census is undertaken under the direction of the Central Statistics Office and provides a valuable source of information on travel patterns and transport data. A number of questions within the Census relate to travel to work and education (primary, secondary and third level). This section of the report highlights the key findings from the analysis of Census travel data for Cork County, City and the Douglas Study Area.



### Evaluation of Car Ownership in Douglas

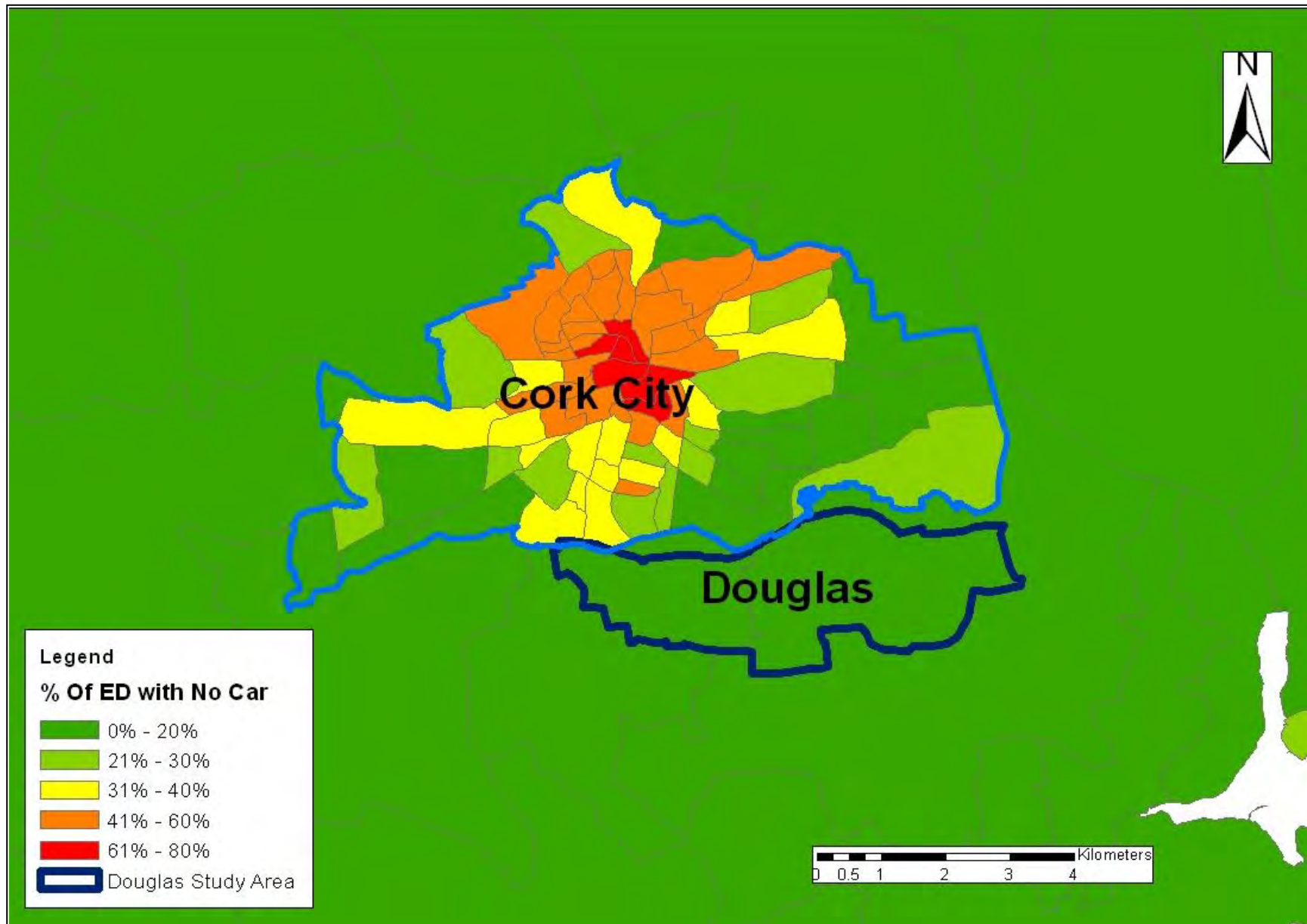
- 2.4.4 Car ownership is a key factor in travel pattern behaviour. The availability of a car is a critical input into deciding where to travel and how to travel. Car use is directly related to car ownership unless significant restrictions are enforced. For those who do not have access to a car, accessibility to education, employment and public facilities is restricted to walking or cycling distance or to the areas covered by the public transport network.
- 2.4.5 The level of car ownership in Douglas is relatively high (only 7.5% of households have no car; 35% have one car; and, 57.5% have two or more cars). By comparison 12.5% of households in Cork County have no car; 35% have one car and 52% have two or more cars. The rate of car ownership in Cork, and in particular in Douglas, demonstrates the reliance on private car transport as the dominant transport mode.
- 2.4.6 This high level of car ownership is explained by the fact that the need for a car is greater in rural areas where development is more dispersed such that facilities are not within walking or cycling distance. Dispersed populations are also difficult to serve by public transport in a cost-efficient way. The private car is often the best choice of transport in rural areas.
- 2.4.7 In urban areas by comparison there is generally a greater opportunity to access employment and education within walking and cycling distance. Therefore, the need for a car is greatly reduced and it is sometimes more cost efficient not to own a car. Car parking within the urban area is also more restricted and can limit the number of cars per household. This is illustrated in the figures below which show a much lower car ownership in Cork City than in the surrounding, more rural electoral districts.
- 2.4.8 The level of car ownership in Douglas as well as Cork City is illustrated in the following figures:
  - Figure 2-2 Percentage of Households without Access to a Car;
  - Figure 2.3 Percentage of Households with One Car; and
  - Figure 2.4 Percentage of Households with Two Cars or more.
- 2.4.9 Analysis of these figures shows a high level of car ownership within Douglas, reflecting the fact that there is a heavy reliance on the car as the main mode of transport for residents of the study area.

**Implications for Douglas of High Levels of Car Ownership**

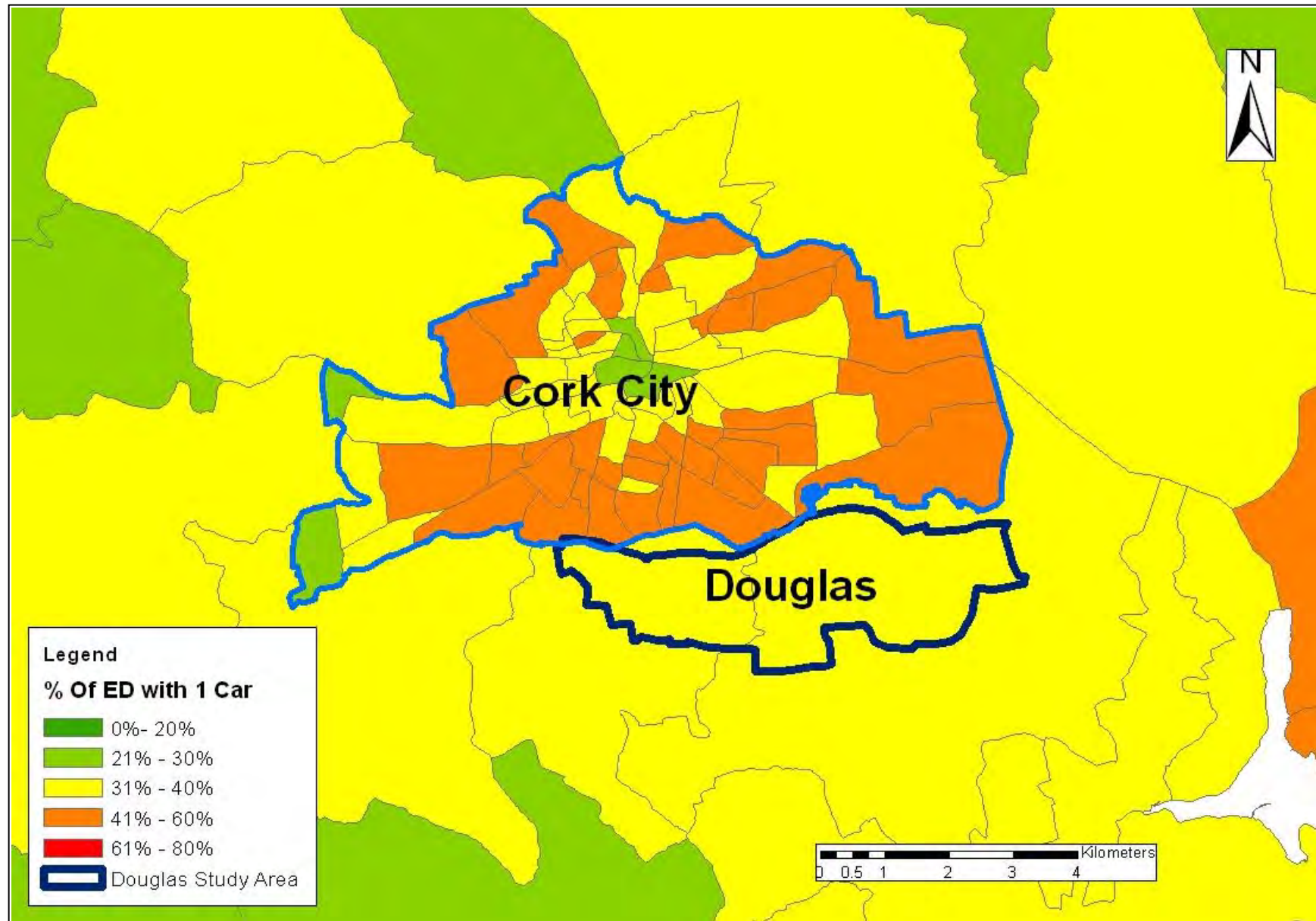
*The high levels of car ownership within the DLUTS area suggests that the car is viewed as the only way for many people to travel to work, education and so on. Therefore targeting public transport interventions in this area may not yield an up lift in public transport use and valuable resources (i.e. increased frequency) should only be targeted, in the short term, where there is a strong likelihood of increased patronage.*

Figure 2-2

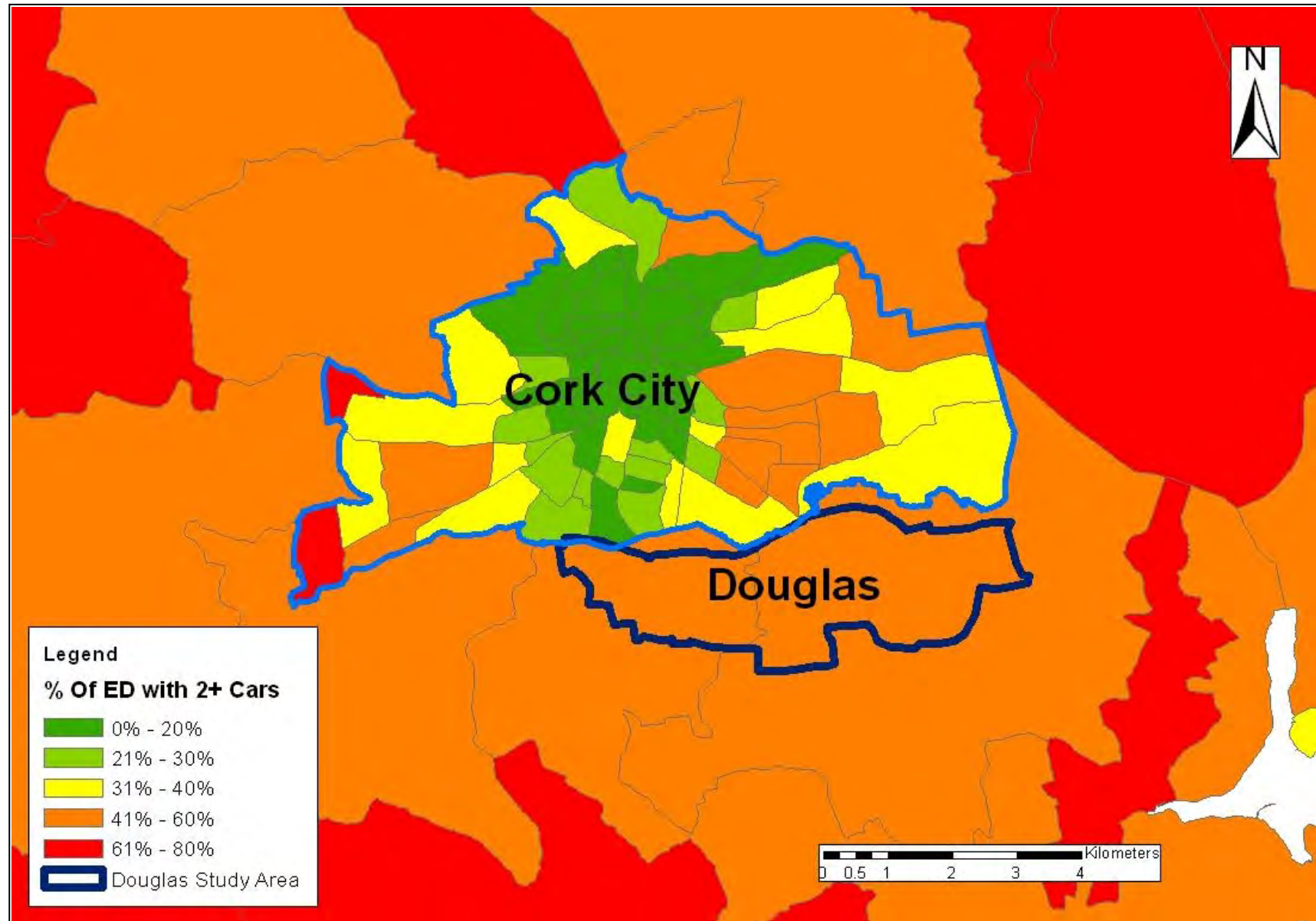
Percentage of Households without Access to a Car



**Figure 2-3 Percentage of Households with One Car**



**Figure 2-4 Percentage of Households with Two or More Cars**



**Evaluation of Travel to Work and Education**

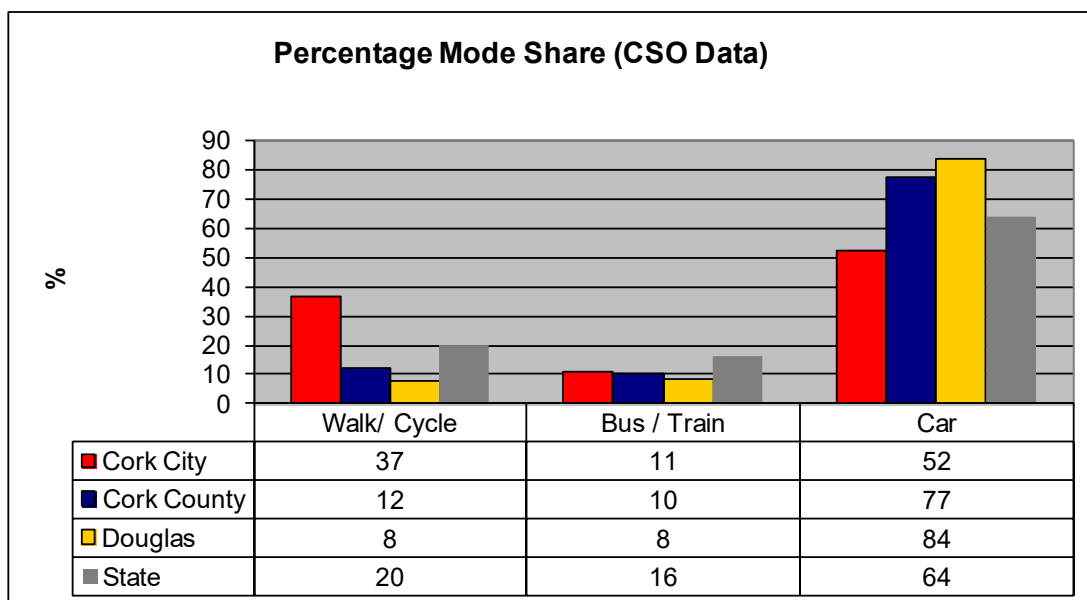
2.4.10 An analysis of 2006 Census data shows that the private car is by far the most commonly used mode of transport to work and education from Douglas. Table 2.2 and Figure 2.5, below, show that car accounts for 84% of all trips from Douglas for Work and Education Purposes. This is well above the state (64%) and County (77%) averages. This analysis also shows that travel by sustainable modes i.e. walking, cycling and public transport is much lower in Douglas than in Cork County and City.

**Mode of Transport**

**Table 2.2 Mode Share to Work and Education by Area**

Mode	Cork County	Cork City	Douglas
On Foot	11.7%	34.6%	6.9%
Bicycle	0.6%	2.3%	1.0%
Bus	9.9%	10.3%	8.3%
Train	0.5%	0.4%	0%
Car Driver	53.4%	35.7%	56.3%
Car Passenger	23.9%	16.7%	27.5%

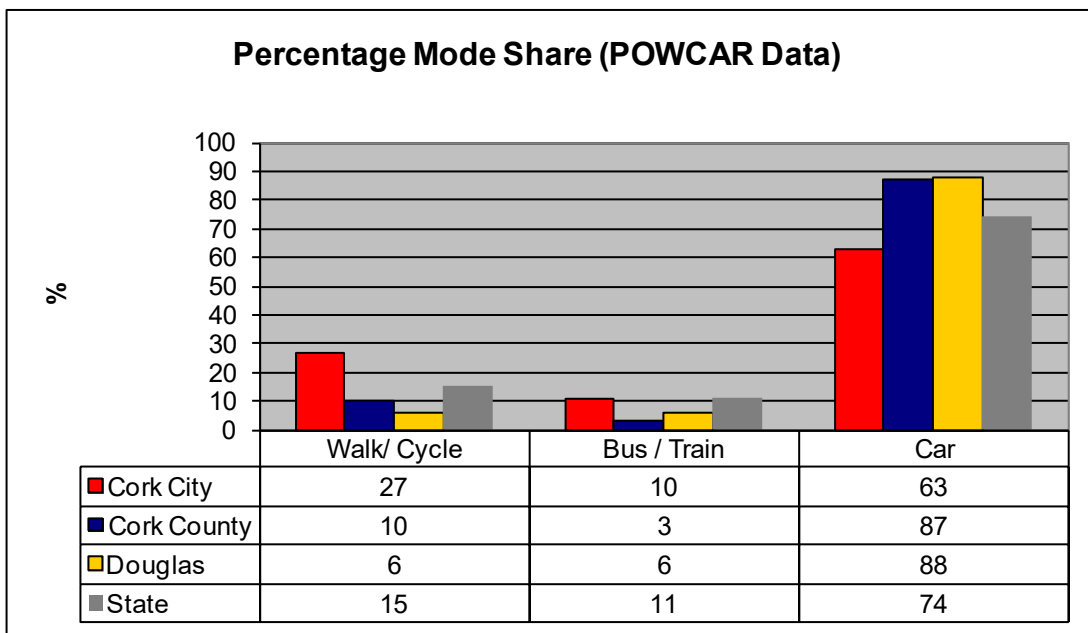
**Figure 2-5 Travel to Work and Education Combined Mode Share**



**Travel to Work**

2.4.11 Figure 2.6 below shows that Car is by far the most commonly used means of transport for work trips, accounting for 88% all trips to work made by people living in Douglas. This level of Car usage is slightly higher than the Cork County Average (87%) and well above the state average of 74%. Combined walking and cycling modal share for work trips is 6% for people living in Douglas, compared to 10% in Cork County and 27% in Cork City. Public transport usage is low for work trips in the review area, at only 6%. This is slightly higher than the average for Cork County (3%) but below the state average which is 11%.

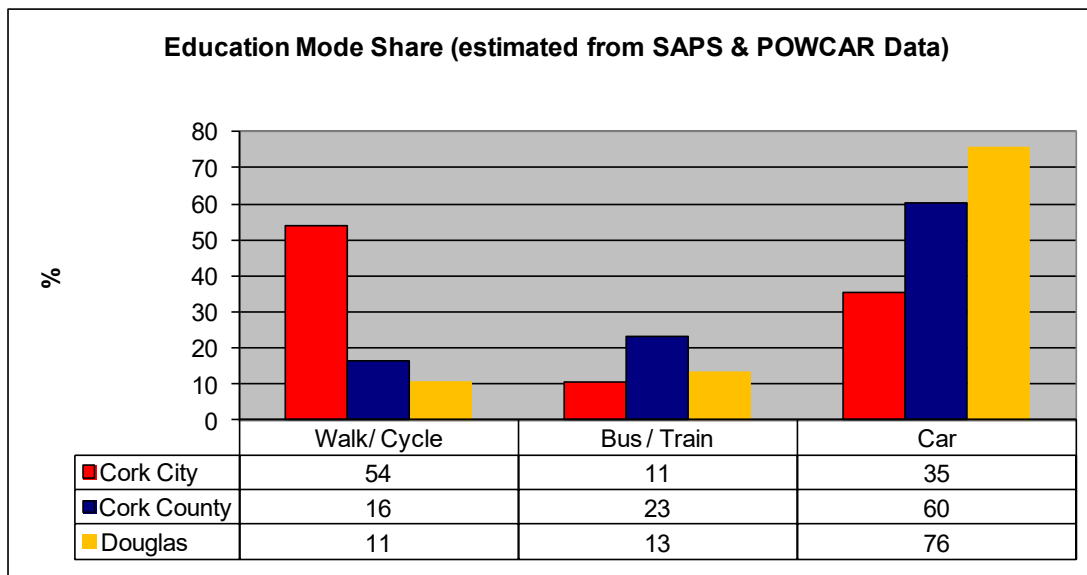
**Figure 2-6 Travel to Work Mode Share**



**Travel to Education**

76% of all trips made to education from Douglas are made by car. This mode share is well above that of Cork County (60%) and Cork City (35%). Walking and cycling mode share in Douglas is relatively low for education trips (11%) when compared to Cork County (16%) and Cork City (54%). Walking and cycling mode share in the city, for Education trips, is particularly high which reflects the high proportion of third level students living within the city.

**Figure 2-7 Travel to Education Mode Share**



**Implication on Douglas of Low Levels of Public Transport Use**

*The low levels of public transport use for work and education trips in the Douglas area indicate that public transport, cycling and walking do not provide an attractive option when compared to car.*

*This is not simply a reflection of the current public transport offering. It would require significant public transport investment and policies over the long term to support a large shift to public transport use for commuting (i.e. parking restraint at key destinations, bus priority, public transport orientated developments etc.) to get more people to travel to work (and a lesser extent to education) by public transport. The statistics do however indicate that given the very low levels of public transport use for travelling to work there is a large untapped market for the public transport system to target and that even minor enhancements of the public transport offering (i.e. through the improvement themes) could yield more use of the system.*

*The use of public transport for education trips is higher than that of work trips in Douglas. Further enhancement to the public transport offer should encourage more use of the public transport system for education trips, especially in the wider review area. Walking and cycling to education is also quite low in the study area.*

**Evaluation of Journey Time to Work and Education**

- 2.4.12 The Small Area Population Statistics from the Census (2006) provides information on the normal journey time to work and education. It is worth noting that the values for journey time are those stated by respondents, and are, therefore, the perceived journey time. Table 2.3 provides details of the stated journey time for Cork County, Cork City and the Douglas Study Area.
- 2.4.13 Journey times to work and education in the county are relatively short, with the majority of trips (70.5%) taking under 30 minutes. Journey times are even shorter in Cork City with 81.1% of trips taking under 30 minutes. Journey times for residents of the Douglas Study area are broadly in line with those experienced by residents of Cork County with 70% of trips taking 30 minutes or less.

**Table 2.3 Perceived Journey Time by Area – 2006 Census results**

Journey Time	Cork County	Cork City	Douglas
Under 15 minutes	39.2%	41.5%	23.0%
15 to 30 minutes	31.3%	39.6%	47.6%
30 to 45 minutes	18.3%	14.3%	22.0%
45 to 60 minutes	5.8%	2.5%	4.4%
60 to 90 minutes	4.3%	1.6%	2.3%
Over 90 Minutes	1.1%	0.5%	0.7%

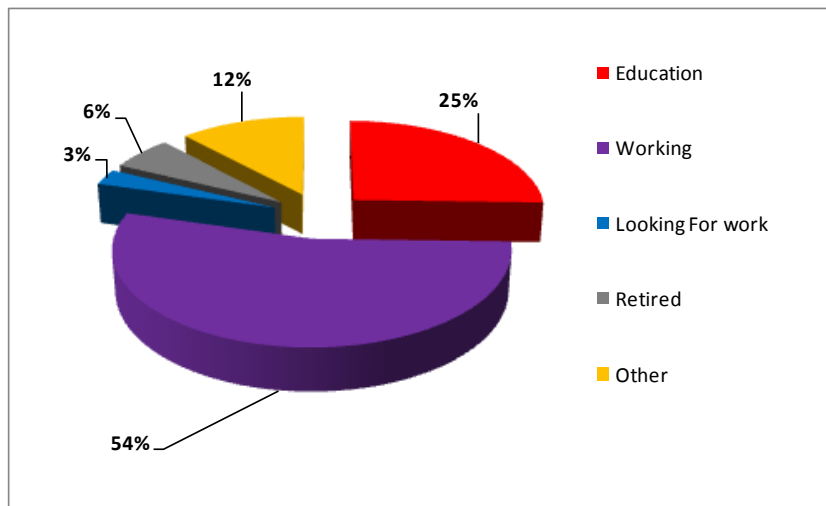
**Implication for Douglas of Perceived Journey Times to Work & Education**

*The perceived journey time to work for the Douglas Area re-enforces the point that there are significant localised congestion issues affecting the area as most journeys to work & education take between 15-45 minutes to be completed whereas for other areas of Cork (i.e. Cork City and rest of Cork County) most journeys to work & education take between 0-30 minutes.*

**Evaluation of Primary Economic Activity**

2.4.14 Figure 2.8 below shows the breakdown of those living in the Douglas Study Area by primary economic activity. As can be seen from the figure 54% are working and 25% are in education. The significance of this is that almost 80% of residents in the study area will need to make trips during the peak periods, either to work or school, and from the mode share analysis above we know that over 80% of these trips will be made by car.

**Figure 2-8 Primary Activity Breakdown of the Douglas Study Area**

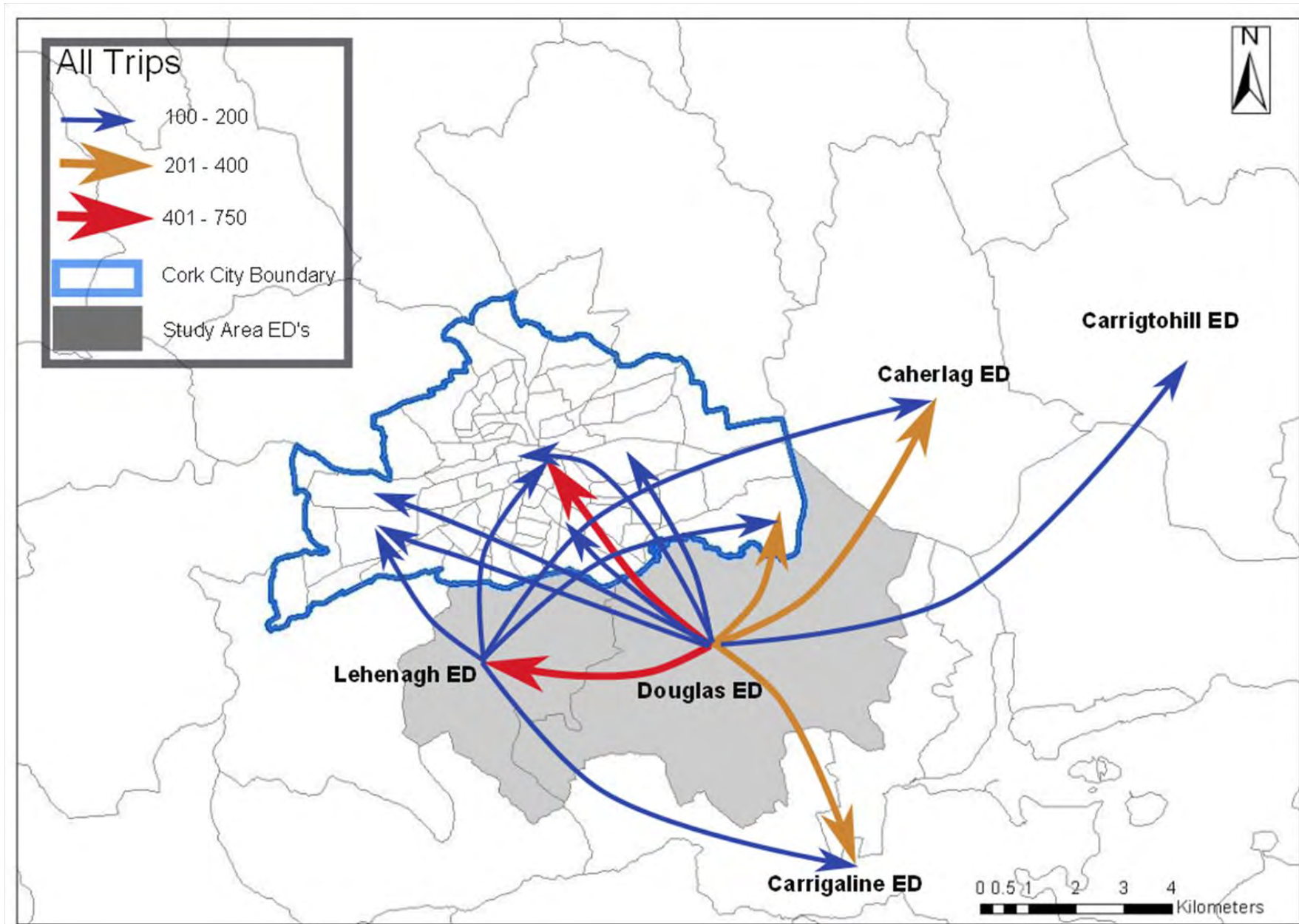




### Evaluation of Key Movement Desire Lines

- 2.4.15 Figure 2.9 below shows trip to work desire lines, on an ED level, for car trips originating in the two Electoral Districts which are contained within the study area.
- 2.4.16 This map shows that the majority of Work trips, leaving the study area, are destined for Cork City Centre. Other key destination points for Work trips originating in the Study Area are Mahon and Carrigaline.
- 2.4.17 The Highest demand for travel to work trips occurs, within the study area, between the ED of Douglas (which contains large residential areas such as the Maryborough and Rochestown Road areas) and the ED of Lehenagh (where there is a concentration of employment including Cork International Airport, Ballycureen Industrial Estate and Cork Airport Business Park).
- 2.4.18 This analysis shows that there is a strong demand for East to West travel within the Study Area during AM peak. As well as this, there is also pressure on northbound routes as Traffic from the study area in addition to through traffic from south of Douglas travel towards Cork City for work.

**Figure 2-9** Desire Line Map of Work Trips from the Study Area



**Implication for Douglas of the Travel to Work Desire Line Pattern**

*The dispersed nature of the travel to work desire lines coupled with the fact that most of these trips are made by car indicates that it will be difficult to provide an alternative to the car for many of these trips, particularly a public transport alternative. It will be important, therefore, to target those desire lines that provide a realistic change of attracting people away from the car (i.e. to city centre areas where the bus service is reasonably frequent and reliable).*

## 3 Review of Planning and Policy Documents

### 3.1 Introduction

- 3.1.1 This Land Use and Transport Strategy is being developed to corroborate with the objectives set out in the Cork County Development Plan and the Carrigaline Local Area Plan (Interim Version, August 2011). Regard is also given to all relevant national and regional policies including Smarter Travel.
- 3.1.2 As part of the Baseline Evaluation, therefore, the Development plans noted above, as well as Regional Guidelines and other transport studies have been reviewed in the context of this study. Also considered are a large number of previous transport and land use studies undertaken for Douglas.
- 3.1.3 The following additional documents and studies are also considered to have relevance to the study and have been reviewed:
- South West Regional Planning Guidelines 2010-2022;
  - National Spatial Strategy;
  - National Development Plan (2007 – 2013);
  - Smarter Travel Policy; and
  - Various land use and transport studies carried out in Douglas.

### 3.2 Cork County Development Plan

- 3.2.1 Cork County Development Plan is a six year plan for the County that attempts to set out Cork County Council's strategy for the proper planning and sustainable development of the County. The plan looks forward to the horizon year of 2020 so that it is aligned with National and Regional planning policies and also so that it can provide an adequate framework for the County's Electoral Area Local Area Plans.
- 3.2.2 The key aims that underpin the strategy were first developed in the County Development Plan 2003 and this plan seeks to maintain and enhance their implementation into the future in order to achieve:
- Enhanced quality of life for all, based on high quality residential, working and recreational environments and sustainable transportation patterns;
  - Sustainable patterns of growth in urban and rural areas, reflecting the need to reduce energy consumption and emissions and taking account of the need to plan for the effects of climate change, that are well balanced throughout the County, together with efficient provision of social and physical infrastructure;
  - Sustainable and balanced economic investment, in jobs and services, to sustain the future population of the County together with wise management of the County's environmental, heritage and cultural assets;

- Responsible guardianship of the County so that it can be handed on to future generations in a healthy state.

3.2.3 The policy and objectives of this plan for the County Metropolitan Strategic Planning Area are based on the following planning and sustainable goals:

- To recognise the importance of the role to be played by Metropolitan Cork in the **development of the Cork 'Gateway' as a key part of the Atlantic Gateways Initiative** and, in tandem with the development of Cork City, to promote its development as an integrated planning unit to function as a single market area for homes and jobs where there is equality of access for all, through an integrated transport system, to the educational and cultural facilities worthy of a modern and vibrant European City.
- To maintain the principles of the Metropolitan Cork Greenbelt to protect the setting of the City and the Metropolitan Towns and to provide easy access to the countryside and facilities for sports and recreation.
- **In the Cork Harbour area generally, to protect and enhance the area's natural and built heritage** and establish an appropriate balance between competing land-uses to maximise the areas overall contribution to Metropolitan Cork.
- To assist in the redevelopment of the Cork City Docklands by providing for the relocation and development of industrial uses and major port facilities, primarily at Ringaskiddy, where deep-water berths can be developed and modern road infrastructure is planned to facilitate freight transport.
- To recognise the long-term importance of Cork International Airport and to maintain and enhance the infrastructure and other resources likely to be required for its future development.
- To develop the Cork City Environs so that they complement the City as a whole. In the south, priority should be given to consolidating the rapid growth that has occurred in recent years by the provision of services, social infrastructure and recreation facilities to meet the needs of the population. The North Environs will play a major role in the rebalancing of the City in terms of future population and employment growth.
- To maximise new development, for both jobs and housing, in the Metropolitan Towns served by the Blarney – Midleton/Cobh rail route (including the proposed new settlement at Monard) and to enhance the capacity of these towns to provide services and facilities to meet the needs of their population.
- **To provide an enhanced public transport network linking the City, its' environs, the Metropolitan towns and the major centres of employment.**

### **3.3 Carrigaline Local Area Plan (Interim Version August 2011)**

3.3.1 The Carrigaline Electoral Area lies within the Cork Area Strategic Plan and is entirely contained within the County Metropolitan Strategic Planning Area as defined in the County Development Plan 2009. The Electoral Area is located to the south of Cork City and also includes the Cork City South Environs including Douglas, Grange, Frankfield, Donnybrook, Maryborough, Rochestown, Doughcloyne and Togher. All of the Carrigaline Electoral Area is within the Cork Area Strategic Plan (CASP) Metropolitan Cork Area.

- 3.3.2 The strategic aims for the South Environs in this Local Area Plan (LAP) will be the consolidation of the southern suburbs within the existing development boundary. This includes the promotion of the suburban centers as important locations for residential, community and recreational facilities. It is an aim to ensure the clear demarcation of the inner metropolitan greenbelt. Finally, it is also an aim to support appropriate proposals for urban regeneration initiatives in Douglas and elsewhere in the Tramore Valley.
- 3.3.3 The ability of the settlement to provide a strong supply of housing and business land in a location close to the City suggests that the South Environs has the potential to play a pivotal role in the development of Metropolitan Cork. This potential warrants close cooperation with the City Council so as to ensure a high quality environment is achieved through an appropriate balance of land uses. According to the LAP Douglas has potential for development such as:
- There is potential for significant employment development on brownfield land close to Douglas centre.
  - In order to achieve housing requirements there will need to be major urban regeneration initiatives in Douglas and elsewhere in the Tramore Valley.
  - The relocation of existing lower density industrial developments currently located in both Douglas to other more appropriate locations within Metropolitan Cork will allow for the regeneration and redevelopment of existing brownfield sites.
  - It is suggested that Douglas should develop as a mixed use urban centre, progressively extending its range of comparison shopping so that it can rival new suburban centres such as Mahon Point rather than relying on standalone shopping centres focused on car-dependent convenience shopping.
- 3.3.4 The South Environs is heavily dependent on a road network which suffers from heavy peak hour congestion. This problem is most acutely felt in Douglas where it is difficult to make improvements to the local road network given the compact nature of the existing urban environment. In order to relieve this congestion it is suggested that the local road network serving the area is adapted to accommodate public transport by enhancing the local road infrastructure serving the area, by facilitating greater public transport use and by creating a more pedestrian friendly urban setting.
- 3.3.5 The CASP Update has stated that ways of improving the services for public transport users, pedestrians, cyclists and other road users on routes such as the R610 between Passage West and Douglas should be examined. The CASP Update has also referenced the commissioning of a Douglas Transportation Study which will examine the issue of a proposed Green Route from Passage West to Douglas and wider transportation issues for the Douglas area.

### **3.4 South West Regional Planning Guidelines 2010-2022**

- 3.4.1 The Planning and Development Act 2000 requires each regional authority to prepare regional planning guidelines. To this end, the South West Regional Authority prepared Regional Planning Guidelines for the South West Region in 2004 to act as a regional tier in the hierarchy of plans and policies that influence local plans such as the development plan.
- 3.4.2 The task of the Guidelines is to provide a broad canvas to steer the sustainable growth and prosperity of the Region and its people, over the next sixteen years. The Plan contains statements and analysis of key economic objectives, together with a set of planning guidelines to be incorporated within the development plans of the local authorities in the Region.

- 3.4.3 The strategy covers the South West Region, which incorporates County Cork together with County Kerry. The specific areas that have been identified are divided into four functional areas, namely:
- Greater Cork Area (including Cork Gateway and Mallow Hub)
  - Tralee/Killarney Linked Hub
  - Northern Area
  - Western Area
- 3.4.4 Development priorities that have been identified for the Greater Cork Area (including Douglas) in these guidelines were:
- Realignment and reinforcement of spatial planning and land use policies;
  - Plan for an increase in the population and employment of the Cork Gateway.
  - Refocusing of economic and investment strategy;
  - Front-loading of infrastructure and implementation of integrated transport strategy;
  - Priority infrastructure investments for the Cork Docklands.
- 3.4.5 The Guidelines also prioritise a number of infrastructural provisions and up-grades for the Greater Cork Area and these include:
- Cork Docklands Road and Bridge infrastructure;
  - The remaining stages of the Cork Suburban Rail Network;
  - Upgrading of N25 Cork-Waterford;
  - The N28 servicing the major industrial developments at Ringaskiddy; and
  - The N25 flyovers within Cork City.

### 3.5 National Spatial Strategy

- 3.5.1 The National Spatial Strategy (NSS), 2002-2020 is a twenty year strategic planning framework designed to counterbalance disparities in regional development. Cork **is classed as a "Gateway"** under the NSS. As a Gateway, Cork has a strategic location, nationally and relative to their surrounding areas, and provides national scale social, economic infrastructure and support services.
- 3.5.2 According to the NSS, of the regional cities, Cork has the most immediate potential to be developed to the national level scale required to complement Dublin. The Cork Area Strategic Plan (CASP) sets a positive agenda for proceeding in this direction, given the emphasis in it on **enhancing Cork's capabilities as a metropolitan, business friendly, public transport based and physically attractive city.**

### 3.6 National Development Plan (2007-2013)

- 3.6.1 This Plan sets out the development strategy for the Country over a seven-year period, which is supported by quantified, multi-annual investment proposals in all sectors of the economy. It also seeks to promote social inclusion, gender equality and more balanced regional development.

Economic infrastructure has been identified as a top priority within the National Development Plan (NDP), 2007-2013, which includes transport infrastructure. Three broad transport investment priorities have been identified:

- Rail / Public Transport;
- Airports; and
- Ports.

- 3.6.2 The plan states that Atlantic Gateways such as the Cork have the potential through strengthened individual cities, enhanced connectivity and a collaborative approach to planning and promotion, to develop the second major metropolitan corridor on the island of Ireland to complement and counterbalance the strengthening Dublin-Belfast corridor. Investment in key projects such as the Atlantic Corridor, embracing road and rail links under Transport 21, will help unlock the potential of the Atlantic Gateways concept. Further collaboration between the Atlantic Gateways in preparing and implementing joint development strategies will also be supported by this Plan.
- 3.6.3 The NDP also has a specific transport programme, with a total investment target of €32.9 billion. €17.6 billion of this being allocated to the provision and upgrade of roads and €13.0 billion being provided for the Public transport sub programme. Under the roads sub-programme of key importance are improvements of road links between the main NSS Gateways, targeted improvements of national secondary routes and the improvement and maintenance of the non-national roads network.

### 3.7 Smarter Travel

- 3.7.1 Under the Government **Smarter Travel** policies it would be desirable to promote Douglas as a model town with regards to sustainable travel. This study can give Douglas a substantial head start in making progress towards the government targets. This Transport Strategy can act as a clear framework for ensuring this long term objective is realised.
- 3.7.2 To ensure these long term sustainable travel objectives are met in the long term, it is essential that a town centre environment is created where pedestrian and cyclist activities are accommodated and encouraged.
- 3.7.3 There are five key goals which form the basis of the policy:

- 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 maximising the efficiency of the transport system and alleviating congestion and infrastructural bottlenecks;
- Minimise the negative impacts of transport on the local and global environment through reducing localised air pollutants and greenhouse gas emissions;
- Reduce overall travel demand and commuting distances travelled by the private car; and
- Improve security of energy supply by reducing dependency on imported fossil fuels.



### Sections Relevant to Douglas

3.7.4 With regard to cycling in Ireland the government intend to create a strong cycling culture and ensure that all cities, towns, villages, and rural areas will be cycling friendly. And that cycling will be a normal way to get about, especially for short trips. Next to walking, cycling will be the most popular way to get to school and universities and will become the transport mode of choice for all ages. The document envisages that by 2020 160,000 people will cycle for their daily commute up from 35,000 in 2006. In order to achieve these aims the National Cycle Policy Framework intends to:

- Create a number of traffic free urban centres to facilitate cycling;
- Invest in a national cycle network with urban networks given priority;
- Give cycle Training for school children;
- And integrate cycling with other modes of transport;
- Provide safe pedestrian routes;
  - that serve employment and educational trips; and
  - that link with public transport;
- Prioritise traffic signals to favour pedestrians instead of vehicles;
- Create level grade crossings for pedestrians at junctions;
- Unless it is inappropriate ensure 30km/h speed limits are introduced in all urban areas;
- Widen footpaths where there is high pedestrian flow;
- Signpost pedestrian routes; and
- And enforce the law with regard to encroachment on pedestrian spaces.

3.7.5 It is evident from the list of Smarter Travel Objectives that any transport plans and traffic management arrangement developed for Douglas must actively focus on improving the attractiveness of travel by cycling and walking.

### 3.8 Relevant Policy and Document Review

3.8.1 The following additional documents and studies are also considered to have relevance to the study and have been reviewed:

- Well Road Junction and 'Topaz' Junction, WSP, 2011
- Fingerpost Roundabout, WSP, 2011
- East Douglas Link Road Assessment, WSP, 2011
- N28 / Rochestown Road / Mount Oval / Woodbrook Junction, WSP, 2011
- Douglas: Issues & Options, Colin Buchanan & Urban Fabric, 2010
- Douglas Catchment Analysis, Colin Buchanan, 2010
- Numerous submissions to Local Area Plan, 2010

## Review of Planning and Policy Documents

- Link Road between Grange Road and Carrigaline Road Traffic Assessment, Arup, 2010
- A Strategy for the Provision of Community, Social and Recreational Infrastructure in the Cork City South Environs Area, Colin Buchanan, 2009
- Douglas Masterplan, Arup Consulting Engineers, 2008
- Douglas Masterplan, Land Exchanges, 2008
- Proposed Traffic Management System, Faber Maunsell Aecom, 2008
- Shipton Group Presentation, 2007
- Douglas/ Rochestown/ Donnybrook/ Grange Area Traffic Study – Problems & Options Report and Final Report, Oscar Faber, 2000
- Douglas Village Study, Brady Shipman Martin, 1992

3.8.2 A background to the document, the objectives, what was involved and the recommendations of each are set out below in Table 3.1 below.

**Table 3.1 Summary Objectives from relevant principal plans and previous studies**

Background to Document	Objective of Study	What was involved	Recommendations
<p>Well Road Junction and 'Topaz' Junction, WSP, 2011</p>	<p>WSP was requested by Cork County Council to carry out a morning and evening peak hour assessment of the following junctions:</p> <ul style="list-style-type: none"> <li>■ Douglas Road / Well Road / N25 off slip, hereby referred to as the Well Road junction</li> <li>■ East Douglas Link Road / New Link Road / East Douglas Street, hereby referred to as the 'Topaz' junction.</li> </ul>	<p>In particular, the assessment focused on the extent of the morning peak hour congestion and queuing on the East Douglas Link Road and the development of recommended options for improving traffic capacity. The objective was to increase the northbound traffic capacity in the morning peak hour in order to reduce queuing on the East Douglas Link Road and hence also improve the junction capacity at the Fingerpost roundabout.</p> <p>The proposed improvements were also tested in the evening peak hour and any additional intervention to improve the capacity of the junctions and reduce queuing and delay was incorporated into the assessment.</p>	<p>In order to assess the capacity of the existing junctions and future proposals including changing the signal settings, introducing a bus lane and introducing a puffin crossing, Linsig analysis was undertaken using signal settings, traffic count data, queue length surveys, saturation flow measurements and junction geometry.</p>
<p>Fingerpost Roundabout, WSP, 2011</p>	<p>WSP was requested by Cork County Council to carry out a morning and evening peak hour assessment of the Fingerpost roundabout. This is a strategic junction to the south of Douglas Village at the intersection of the following routes:</p> <ul style="list-style-type: none"> <li>■ Rochestown Road</li> <li>■ Maryborough Hill</li> <li>■ Carrigaline Road</li> <li>■ East Douglas Street</li> <li>■ East Douglas Link Road</li> </ul>	<p>The assessment focused on the extent of peak hour congestion and queuing on the East Douglas Link Road and its impact on the Rochestown Road, Maryborough Hill and Carrigaline Road approaches. The downstream 'Topaz' traffic signal controlled junction has a significant impact on the operation of the Fingerpost roundabout and therefore the performance of this junction was considered.</p>	<p>In order to assess the capacity of the existing junctions and future proposals Arcady analysis was undertaken using traffic count data, queue length surveys, saturation flow measurements and junction geometry.</p> <p>The following interventions are recommended to improve the operation of the junctions:</p> <ul style="list-style-type: none"> <li>■ Testing of fixed signal timing plans in the morning peak hour to improve the co-ordination of the traffic signals.</li> <li>■ Provision of a bus gate at the East Douglas Street give-way junction in the morning peak period with general traffic diverted to the Fingerpost junction. Traffic wishing to access the village centre can do so via East Village.</li> <li>■ Provision of a bus gate at the right turn to East Douglas Street in the evening peak period with through traffic diverted to the East Douglas Relief Road.</li> <li>■ Provision of puffin crossings on both junctions incorporating pedestrian detectors to increase the efficiency of the traffic signals.</li> <li>■ Furthermore, in addition to the above low cost solutions, an extended two lane stacking length on the East Douglas Link Road from the 'Topaz' junction back to Douglas Close can be provided. This will provide additional storage capacity for any potential additional traffic attracted to the area as a result of an increase in capacity and resulting additional queues. This measure would further protect the Fingerpost roundabout from morning peak hour queuing of northbound traffic.</li> </ul> <p>In both peak periods, the Fingerpost junction has adequate capacity to accommodate the proposed diversions from East Douglas Street as proposed as part of the recommendations for the Well Road and 'Topaz' junctions.</p>

Background to Document	Objective of Study	What was involved	Recommendations
<p><a href="#">East Douglas Link Road Assessment, WSP, 2011</a></p>	<p>WSP was requested by Cork County Council to carry out an assessment of the East Douglas Link Road in Douglas, Co. Cork from the Fingerpost junction to the south to the 'Topaz' junction to the north.</p>	<p>The purpose of the assessment is to determine the number of lanes required in both the northbound and southbound directions for the full length of the road link.</p>	<p>In order to assess the capacity of the existing junctions and future proposals analysis was undertaken, including an assessment of pedestrian, cyclist and public transport requirements and considerations for signing, lining and landscaping, using traffic count data, queue length surveys, saturation flow measurements and junction geometry.</p> <p>An overall recommended lane arrangement for the East Douglas Link Road shows a two lane carriageway, with three lane approaches to junctions and a raised cycle track in both directions.</p> <p>In order to fully determine the alignment and lane arrangement that can be accommodated on the East Douglas Link Road, a full plan design should be developed This design should determine the actual requirements for service diversions, land take and impacts on and potential mitigation to accommodate existing properties along the route.</p> <p>The full scheme of an upgrade to the East Douglas Link Road should incorporate measures for improvements to the pedestrian environment in the town centre, a detailed signage and directional information strategy in the town and a high-quality urban landscaping scheme in order to reinforce the urban nature of the link.</p>
<p><a href="#">N28 / Rochestown Road / Mount Oval / Woodbrook Junction, WSP, 2011</a></p>	<p>WSP was requested by Cork County Council to carry out a morning and evening peak hour assessment of the N28 / Rochestown Road / Mount Oval / Woodbrook junction.</p>	<p>In particular, the assessment focused on the extent of morning peak hour congestion and queuing on the Rochestown Road and the development of recommended options for improving traffic capacity.</p>	<p>In order to assess the capacity of the existing junctions and future proposals Arcady analysis was undertaken, including linked traffic signal control and introducing signals to the Rochestown Road/ Clarke's Hill junction, using traffic count data, queue length surveys, saturation flow measurements and junction geometry.</p> <p>In order to improve the existing congestion at the N28 / Rochestown Road junctions, it is recommended that linked traffic signals be introduced at the two junctions. This will provide significant additional capacity for westbound vehicles on the Rochestown Road travelling to Douglas and the N28 in the morning peak. The proposed junction improvements will also accommodate evening peak traffic movements with no significant queuing or delay.</p>
<p><a href="#">Douglas: Issues &amp; Options, Colin Buchanan &amp; Urban Fabric, 2010</a></p>	<p>Issues &amp; Options for Douglas, to be read in conjunction with Castlelands Construction Co. Submission.</p>	<p>Presentation of full study.</p>	<p>Presents Masterplan options.</p>

Background to Document	Objective of Study	What was involved	Recommendations
<p>Castlelands Construction Co. Submission to Carrigaline LAP, Colin Buchanan &amp; Urban Fabric, 2010</p>	<p>The review of the Carrigaline Local Area Plan presents significant opportunities to develop and deliver a vision for Douglas that will help to address significant planning issues in addition to the promotion of a more appropriate and sustainable configuration of land use in the area.</p>	<p>This document proposes the development of a new mixed use area to the west of Douglas Village Centre and a new residential neighbourhood to the south of Douglas, at Maryborough Hill and will involve the relocation of Douglas <b>GAA Club, St. Columba’s Schools and Douglas Golf Club</b> to alternative sites. It corresponds to a submission that has been prepared and submitted to Cork County Council as part of the Pre Draft Consultation on the Carrigaline Local Area Plan. This corresponding document presents a detailed justification for these proposals, demonstrating their consistency with national, regional and county planning policy.</p>	<p>The following was considered:</p> <ul style="list-style-type: none"> <li>■ An Opportunity for Douglas</li> <li>■ Douglas: A Spatial Portrait</li> <li>■ Development Issues</li> <li>■ Transport &amp; Movement</li> <li>■ Strategic Masterplan</li> <li>■ Community and Recreational Infrastructure</li> <li>■ Town Centre Masterplan</li> <li>■ Maryborough Site Masterplan</li> </ul> <p>The report stated how the proposed change in land use and the subsequent layout of these proposals will result in:</p> <ul style="list-style-type: none"> <li>■ Improved provision of social and community infrastructure including state of the art GAA and Golfing Facilities that will enhance Douglas as a place to live</li> <li>■ Improved vitality and viability of the town centre</li> <li>■ A reduction in traffic volumes in the village centre and improved pedestrian environment</li> <li>■ The provision of accessible and high quality public open space</li> <li>■ More efficient use of land and existing infrastructure</li> </ul>
<p>Douglas Catchment Analysis, Colin Buchanan, 2010</p>	<p>This report relates to a submission to the Carrigaline Electoral Area Local Area Plan.</p>	<p>It proposes the development of a new mixed use area to the west of Douglas Village Centre and a new residential neighbourhood with ancillary community facilities and schools campus to the south of Douglas, on Maryborough Hill. The proposal will involve the relocation of St. <b>Columba’s Schools to the Maryborough Hill site,</b> and the relocation of the Douglas GAA Club and Douglas Golf Club.</p>	<p>The likely effects on transport and movement have been assessed against the existing and likely future locations of pupils and / or members. Given the projected population growth south of Douglas, future settlement patterns have also been taken into account.</p> <p>Traffic congestion problems in Douglas result from local as well as through traffic. As a consequence, any suggested improvements to the movement network may extend well beyond the red line boundaries of the sites concerned. The proposed <b>relocation of St. Columba’s Schools, Douglas GAA Club and Douglas Golf Club</b> should be considered in the context of creating strategic walking and cycling and vehicular routes which would enable new opportunities for sustainable travel between Douglas Village, residential areas in Donnybrook, Grange, Frankfield, Rochestown and the current Douglas Golf Club site.</p> <p>It is proposed that sustainable transport considerations and the impact of these proposals on transport links and junctions within the surrounding areas will receive further detailed technical consideration as part of a transport study that is due to be commissioned. The completion of this study should be expedited to allow proposals to be appropriately aligned with the Local Area Plan process.</p>
<p>Numerous submissions to Local Area Plan, 2010</p>	<p>Numerous submissions, including recommendations for inclusion in the LAP.</p>		

Background to Document	Objective of Study	What was involved	Recommendations
<p>A Strategy for the Provision of Community, Social and Recreational, Colin Buchanan, 2009</p>	<p>In July 2007, Colin Buchanan (CB) was commissioned by Cork County Council to undertake a Community, Social and Recreational Infrastructure Audit for the Cork City South Environs. The Study Area includes Douglas, Grange, Frankfield, Donnybrook, Maryborough, Rochestown, Doughcloyne and Togher as defined by the Carrigaline Electoral Area Local Area Plan 2005.</p>	<p>To undertake a Community, Social and Recreational Infrastructure Audit for the Cork City South Environs.</p>	<p>A detailed land use survey was undertaken which included identifying community, social and recreational facilities, photographing and mapping each facility and recording other forms of relevant information on the prepared audit form, such as address, condition, etc. Consultation with an agreed list of stakeholders was also undertaken through questionnaires and telephone interviews.</p> <p>The recommendations for action include:</p> <ul style="list-style-type: none"> <li>■ Make better use of what exists - Cork County Council should take the lead in broking agreement amongst stakeholders to secure the maximum multi-purpose use of all existing and new facilities.</li> <li>■ Plan new facilities to embrace multiple activities and integrated services - Cork County Council should encourage the development of new facilities which allow for joint-use activities. Objective HOU 10-4 in the Cork County Development Plan addresses the provision and development of community infrastructure to cater for variety of activities.</li> <li>■ Review County Council policy approaches to leisure and recreation provision and funding to address historic deficits - Cork County Council may need to address the provision of new leisure and recreation to enhance the standard of current management of existing facilities and to springboard the development of new projects.</li> <li>■ Protect existing social, community and recreational infrastructure assets - Lock down what exists – do not allow development to erode the quality of existing facilities unless substantial betterment is demonstrated. Objective HOU 14-2 in the Cork County Development Plan seeks to protect existing infrastructure.</li> <li>■ Introduce prescriptive zoning of specific community infrastructure land uses - Cork County Council should consider the introduction of further prescriptive zoning objectives in order to encourage the development of necessary community, social and recreational infrastructure.</li> </ul>
<p>Infrastructure in the Cork City South Environs Area, Colin Buchanan, 2009</p>			

Background to Document	Objective of Study	What was involved	Recommendations
<p>Douglas School Traffic Impact, Faber Maunsell – Aecom, 2009</p>	<p>The school campus incorporates a Girl’s National School, a Boy’s National School, a School for the Hearing Impaired and a Montessori School. The main entrance to the school is located in the southeast corner of the campus, a short distance from the signalised junction of Church Road and Donnybrook Hill Road. This is a busy junction with Church Road serving as an important east-west corridor to the south of Douglas Village.</p>	<p>Faber Maunsell was commissioned by Cork County Council to investigate the impact of traffic generated by St. Columba’s School, in Douglas, on the local transport network and to suggest mechanisms which might reduce this impact.</p>	<p>To investigate the extent of traffic generated by the school, it would have been preferable to carry out an Origin/Destination survey of the staff and students at the school. However, considering the confidential nature of the project it has not been possible to contact the school directly to obtain such data. As an alternative, traffic counts outside the school and observations of mode of arrival were undertaken.</p> <p>In the project brief, Cork County Council asked whether there be a benefit to the local transport network by relocating St Columba’s National School?</p> <p>In response, it was concluded that there would be limited benefit to relocating the school, with reduced delays to traffic on Donnybrook Road providing the benefit. It is unlikely that this would justify the cost of relocating this important local amenity, especially in light of the fact the relocating would probably increase traffic on the network as fewer children would be within walking distance of the school.</p> <p>It should also be noted that by relocating the school, there would be high demand to redevelop the vacant site which would generate new traffic movements on the local network. Depending on the type of development proposed on the vacant site, it is possible that the new development could generate more traffic than currently experienced, especially during the weekend.</p> <p>As an alternative, it is recommended that infrastructure and mobility management measures are implemented to reduce the impact of school traffic on the road network.</p>
<p>Douglas Masterplan, Arup Consulting Engineers, 2008</p>	<p>Arup Consulting Engineers on behalf of Douglas Development Ltd, carried out a traffic assessment of development proposals for Douglas Court Shopping Centre and Douglas Central. The development proposals include for the construction of new roadways providing relief to Douglas and are consistent with the greater Douglas Roads Masterplan which has been developed in conjunction with Cork County Council.</p>	<p>This report was prepared as a consultation document for discussion between Douglas Developments Ltd. and Cork County Council and <b>should be accompanied by the ‘Douglas Masterplan Roads – Proposed Traffic Management System’.</b></p>	<p>The study included objectives of Douglas Roads Masterplan, Proposed Traffic Management for Douglas, Data Collection, Traffic Assessment, Impact on Local Road Network and Impact on Local Road Network.</p> <p>Traffic management proposals included:</p> <ul style="list-style-type: none"> <li>■ Creation of a central zone with pedestrian movements as a priority</li> <li>■ Elimination of a significant portion of through traffic from the central zone</li> <li>■ Provide direct access to Douglas for public transport vehicles</li> <li>■ Provision of improved loading/ unloading facilities within the centre of Douglas</li> <li>■ Creation of a relief route around the centre of Douglas with high quality access points incorporating dedicated pedestrian facilities</li> <li>■ Greater pedestrian connectivity between Douglas Court Shopping Centre and Douglas Village</li> <li>■ Improved pedestrian access to Douglas from Rochestown Road and Maryborough Hill</li> </ul>

Background to Document	Objective of Study	What was involved	Recommendations
Douglas Masterplan, Land Exchanges, 2008	This report refers to land exchanges between Shipton and Cork County Council. Shipton objective is to build, manage and maintain a public park of 4.95 acres with right to build and operate a car park underneath the park.		
Proposed Traffic Management System, Faber Maunsell Aecom, 2008	Faber Maunsell were commissioned by Cork County Council to undertake a strategic review of the Douglas Roads Masterplan and Traffic Assessment for Douglas Court Shopping Centre prepared by Arup.	<p>The objective of the assignment was to:</p> <ul style="list-style-type: none"> <li>■ Provide a strategic appraisal of the proposed Roads Masterplan in terms of its functionality and impact on existing transport network and land uses</li> <li>■ Review the Roads Masterplan objectives to ensure they reflect the vision and objectives of Cork County Council for future transport and land use development</li> <li>■ Provide a high level review of the Traffic Assessment for the Douglas Court Shopping Centre Redevelopment</li> </ul>	<p>The study included an overview of existing transport conditions, an overview of the Roads Masterplan and plans for redevelopment of Douglas Court Shopping Centre, a review of the Masterplan objectives and provision of high level critique of Masterplan proposals and investigation of the Traffic Assessment methodology.</p> <p>In conclusion, it is acknowledged that the Masterplan presents some good opportunities to resolve existing traffic issues in Douglas and to absorb growth of future traffic as result of proposed development. However, a number on concerns were raised including:</p> <ul style="list-style-type: none"> <li>■ More robust measures to reduce through traffic are required</li> <li>■ Further opportunities to review signalling exist</li> <li>■ Opportunities for new public transport infrastructure</li> <li>■ Proposals need to compliment local objectives for urban design and amenity</li> <li>■ Review of AM peak is required</li> </ul>
Shipton Group Presentation, 2007	Presentation detailing development proposals for Douglas and other areas of Cork.		
Douglas/ Rochestown/ Donnybrook/ Grange Area Traffic Study – Problems & Options Report and Final Report, Oscar Faber, 2000	In 1999 Oscar Faber, in association with MC O’Sullivan and Cunnane Stratton Reynolds, were commissioned by Cork County Council to undertake a traffic study for the Douglas/ Rochestown/ Donnybrook/ Grange area of Country Cork.	The study was commissioned to address problems associated with current congestion on the road network, which arose as a result of <b>significant traffic growth in the year’s preceding</b> within the study area combined with changes to the road system.	<p>The study included consultation, traffic surveys, review of existing conditions, consideration of proposed land use development, recommendations and traffic assessment. Problems and options were identified in a separate report which considered traffic movement and capacity (13 problems), road safety (11 problems), pedestrian facilities (12 problems) and strategic issues (7 problems). Design drawings were also supplied.</p> <p>Short term and medium term measures were recommended. These were related to:</p> <ul style="list-style-type: none"> <li>■ Reducing on street parking where it obstructs traffic movement</li> <li>■ Discourage through traffic in village centre</li> <li>■ Increasing capacity of existing traffic signals</li> <li>■ Traffic calming including reducing speeds</li> <li>■ Provision of cycling facilities</li> <li>■ Upgrading section of road</li> <li>■ Constructing a dedicated east – west link</li> </ul>



Background to Document	Objective of Study	What was involved	Recommendations
<p><b>Douglas Village Study, Brady Shipman Martin, 1992</b></p>	<p>In 1992, Cork County Council commissioned Brady Shipman Martin to undertake the Douglas Village Study.</p>	<p>The brief required the Consultants to:</p> <ul style="list-style-type: none"> <li>■ Examine the current situation with regard to environmental quality</li> <li>■ Consider the potential for improvement (where currently deficient) and for enhancement (where already present)</li> <li>■ Make recommendations for land use policies, streetscape upgrading, new development guidelines and traffic movement measures so as to secure environmental wellbeing.</li> </ul>	<p>The study considered the historical background, existing village structure, primary issues and the village at the future.</p> <p>The report presented a comprehensive set of policies for the future including:</p> <ul style="list-style-type: none"> <li>■ Overall strategy: the policies to be pursued</li> <li>■ Guidelines for Infill Area and Vacant Site Development</li> <li>■ Precinct Plan for undeveloped area of the East Village</li> <li>■ Environmental Improvements Measures for areas, routes and spaces</li> <li>■ Streetscape Ideas for facades, concourses, vistas</li> <li>■ Design and Layout Guidelines for buildings and their setting</li> <li>■ Circulation and Parking objectives</li> <li>■ Identify and image to reinforce a 'sense of place'</li> </ul>

	Background to Document	Objective of Study	What was involved	Recommendations
<p>Link Road between Grange Road and Carrigaline Road Traffic Assessment, Arup, 2010</p>	<p>At present, particularly during the morning peak period long queues and delays occur along Donnybrook Hill, and Church Road. During off-peak periods traffic generally moves freely without any significant delays. The construction of a Link Road between the existing junction of Grange Road and Donnybrook Hill is proposed.</p>	<p>Arup were requested by Cork County Council to assess the benefits and constraints associated with providing a new link road between the existing junction of Grange Road and Donnybrook Hill, with Carrigaline Road to the east.</p>	<p>A morning peak operational assessment was carried out for the immediate junctions based on projected Year 2020 traffic.</p>	<p>It is recommended that the road link is pursued further in terms of its implementation. The road link does offer significant benefits to traffic conditions on Church Road. Reduced traffic flows on this roadway will reduce delays to traffic but it will also improve the environment outside the local Church, outside St Lukes primary school, it will also improve the pedestrian connectivity along the Ballybrack amenity walk and finally it will improve access to the neighbourhood centre at the junction of Church Road and Donnybrook Hill. However, the analysis of the immediate junctions, indicate that queues and delays will still exist in the subject area during peak hour periods.</p> <p>The new link road will improve the connectivity between the Maryborough Hill area of Douglas and Frankfield/ Grange. This improved connectivity will provide good access between the new residential estates on Maryborough Hill (Maryborough Woods, Maryborough Ridge) with the primary schools in Douglas (St Columbas) and Frankfield (Scoil Nioclás), also to the retail centre on Grange Road (Super Valu and Aldi). Finally, the provision of the link road will improve the connectivity between south environs of Douglas with the Airport Road.</p> <p>The cost of the road link is relatively expensive because the roadway needs to span the Ballybrack Valley and the estimated construction cost is in the <b>region of €3,500,000, however the initial economic assessment has shown that roadway has the potential to return a positive Cost/ Benefit Ratio of 1.93.</b></p>

### **3.9 Summary**

- 3.9.1 In undertaking the DLUTS, it is crucial to be aware of existing relevant policy priorities and objectives to ensure that any recommendations made are corroborative. For this purpose, the Carrigaline Local Area Plan and the Cork County Development Plan have each been reviewed in addition to the relevant elements of national and regional policy documents, notably the National Development Plan. The recommendations and issues raised in previous transport studies have also been reviewed for their relevance to this study.
- 3.9.2 Sustainability is also common to the objectives of most policy documents, defined with relevance primarily to the economy and also the environment. An integrated approach to land use planning and transport provision is therefore essential, and this theme has been central to previous transport studies.

## 4 Public Consultation

### 4.1 Introduction

- 4.1.1 At the outset of the Douglas Land Use and Transport Strategy (DLUTS) an extensive public and stakeholder consultation was undertaken. This report provides an overview of the written responses relating to land use, traffic and transportation issues received by MVA Consultancy during the 1<sup>st</sup> phase of the public consultation process.

### 4.2 Consultation Process

- 4.2.1 The Public Consultation process carried out for DLUTS involved a number of stages including a public exhibition, a Travel Survey, direct correspondence with key stakeholders in the Study area, a schools survey and meetings with local schools.

#### Public Exhibition

- 4.2.2 On the 17<sup>th</sup> of April a public exhibition was held in the Rochestown Park hotel between the hours of 15:00 and 21:00. Members of the public were invited to attend and the event was advertised in local newspapers and on local radio. The purpose of the exhibition was to make people aware of the study and to invite them to make submissions and to inform us of any issues or concerns they may have.
- 4.2.3 The event was hosted by 8 members of the DLUTS team from both MVA consultancy and Cork County Council. Visitors who attended were invited to view a number of presentation boards which outlined the vision, aims, objectives, methodology and timeframe for the development of the DLUTS Strategy. A copy of these boards is presented overleaf in Figure 4.1. Visitors were encouraged to talk to members of the DLUTS team and discuss any issues or concerns in relation to the study. Visitors were also given the Travel Survey questionnaire for DLUTS (see Travel Survey Questionnaire below) and asked to complete it before they left. The exhibition was well attended, with a constant flow of visitors throughout the day. In total over 130 people attended the exhibition and we received over 50 completed questionnaires during the exhibition. Some visitors also took away the questionnaire and posted back responses at a later date.

#### Travel Survey Questionnaire

- 4.2.4 An online travel survey was established and instigated in April 2012 in the form of a questionnaire. Details and results from this survey are discussed fully in Chapter Six of this report.

Figure 4-1 1<sup>st</sup> Exhibition Posters (1 to 3)

### Douglas Land Use and Transportation Strategy

#### Introduction

Cork County Council is preparing the Douglas Land Use and Transportation Strategy, DLUTS. The overall aim of the strategy is to ensure that there is an integrated approach to land use and transportation planning for the Douglas Area. MVA Consultancy has been commissioned by Cork County Council to assist in the preparation of the Strategy.

#### DLUTS Study Area

This is the 1<sup>st</sup> public consultation exhibition.  
This is your opportunity to inform the strategy.  
Let us know your views on:

- how do you see Douglas developing?
- what potential solutions you think should be explored?
- how are current traffic conditions in and around Douglas?
- what local transportation issues are important to you?

DLUTS will deliver:  
*a successful vibrant urban centre*

MVA consultancy

### Douglas Land Use and Transportation Strategy

#### The Vision

To secure a successful vibrant urban centre with a more efficient transport network for Douglas, that provides an improved public realm, reduces congestion, encourages greater levels of walking & cycling, and improves the quality of life for the community, thereby enabling sustainable future growth.

Encourage greater levels of walking & cycling

Reduce congestion by providing for sustainable transport

Improved public realm

More efficient transport network

DLUTS will deliver:  
*a more efficient transport network*

MVA consultancy

### Douglas Land Use and Transportation Strategy

#### Douglas Today

Population

Mode Choice

Car Ownership

Journey Time to Work and Education

DLUTS will deliver:  
*less congestion, greater levels of walking & cycling*

MVA consultancy

Figure 4-2 1<sup>st</sup> Exhibition Posters (4 to 6)

Douglas Land Use and Transportation Strategy	Douglas Land Use and Transportation Strategy	Douglas Land Use and Transportation Strategy																					
<p align="center"><b>Developing Objectives</b></p>	<p align="center"><b>We Want to Hear Your Views</b></p>	<p align="center"><b>Next Steps</b></p>																					
<p><b>Economy</b></p> <ul style="list-style-type: none"> <li>to improve the vitality of the Douglas Area</li> <li>to provide for the future development of a mixed use, high quality urban centre in Douglas</li> <li>to stimulate economic growth and employment in Douglas</li> <li>to make it easier to get around, through and into the Douglas Area</li> </ul>	 <ul style="list-style-type: none"> <li>What role does Douglas play in your life?</li> <li>How can Douglas be improved for you?</li> <li>What current planning issues affect you?</li> <li>What do you think of the current transport network in the Douglas Area?</li> <li>Are there transport issues that you think should be addressed?</li> </ul>	<ul style="list-style-type: none"> <li>Understanding the Existing Land Use and Transport Network - Identifying Issues</li> <li>Consultation with Stakeholders: e.g. local schools, transport agencies</li> <li>Land Use and Transport Modelling</li> <li>Future Development Options and Testing</li> <li>Recommendations for Change - Land Use and Transportation Proposals</li> <li>Further Consultation in July</li> <li>Final Report by end 2012</li> </ul>																					
<p><b>Health &amp; Safety</b></p> <ul style="list-style-type: none"> <li>to increase the level of activity of people living and working in the Douglas Area</li> <li>to reduce the number of accidents and injuries on the road</li> <li>to protect vulnerable road users, e.g. children, older people, people with disabilities, etc.</li> </ul>																							
<p><b>Environment</b></p> <ul style="list-style-type: none"> <li>to improve the attractiveness of the public realm</li> <li>to reduce the impact of noise, vibration and emissions generated by heavy traffic</li> <li>to provide for sustainable development</li> </ul>		<ul style="list-style-type: none"> <li>Have you completed a questionnaire? Fill in one now or log on to <a href="http://www.corkccco.ie">www.corkccco.ie</a> to complete the questionnaire electronically.</li> <li>Dates for your diary:             <ul style="list-style-type: none"> <li>11<sup>th</sup> May: Closing date for submissions on 1<sup>st</sup> public consultation</li> <li>10<sup>th</sup> July: 2<sup>nd</sup> Public Consultation Exhibition</li> <li>26<sup>th</sup> July: Closing date for submissions on 2<sup>nd</sup> public consultation</li> </ul> </li> </ul>																					
<p><b>Integration, Accessibility &amp; Social Inclusion</b></p> <ul style="list-style-type: none"> <li>to enhance the integration between land use (houses, businesses, schools, shops, etc.) and transport</li> <li>to provide better access for pedestrians, cyclists, bus passengers, car users and delivery vehicles</li> <li>to make it easier to switch from one mode to another (e.g. to walk or cycle to the bus)</li> </ul>		<table border="1"> <thead> <tr> <th>May</th> <th>June</th> <th>July</th> </tr> <tr> <th>S M T W T F S</th> <th>S M T W T F S</th> <th>S M T W T F S</th> </tr> </thead> <tbody> <tr> <td>1 2 3 4 5</td> <td>1 2</td> <td>1 2 3 4 5 6 7</td> </tr> <tr> <td>6 7 8 9 10 11 12</td> <td>3 4 5 6 7 8 9</td> <td>8 9 10 11 12 13 14</td> </tr> <tr> <td>13 14 15 16 17 18 19</td> <td>10 11 12 13 14 15 16</td> <td>15 16 17 18 19 20 21</td> </tr> <tr> <td>20 21 22 23 24 25 26</td> <td>17 18 19 20 21 22 23</td> <td>22 23 24 25 26 27 28</td> </tr> <tr> <td>27 28 29 30 31</td> <td>24 25 26 27 28 29 30</td> <td>29 30 31</td> </tr> </tbody> </table>	May	June	July	S M T W T F S	S M T W T F S	S M T W T F S	1 2 3 4 5	1 2	1 2 3 4 5 6 7	6 7 8 9 10 11 12	3 4 5 6 7 8 9	8 9 10 11 12 13 14	13 14 15 16 17 18 19	10 11 12 13 14 15 16	15 16 17 18 19 20 21	20 21 22 23 24 25 26	17 18 19 20 21 22 23	22 23 24 25 26 27 28	27 28 29 30 31	24 25 26 27 28 29 30	29 30 31
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<p>DLUTS will deliver: <i>sustainable future growth</i></p> 	<p>DLUTS will deliver: <i>an improved public realm</i></p> 	<p>DLUTS will deliver: <i>improved quality of life</i></p> 																					

## Key Stakeholders

4.2.5 To ensure a varied and representative response a total of 43 stakeholders and local representatives were contacted and invited to make submissions. Those stakeholders invited to provide submissions include:

- All primary and secondary facilities in the Douglas Area and those close to Douglas;
- Bus Éireann;
- Church / parish representatives;
- Department of Education;
- Local Land owners;
- Local transport stakeholders (Bus Coach operators / taxi representatives etc);
- Major employers in the Douglas area through the chamber of commerce;
- National Roads Authority;
- Organisations for the disabled; and
- Community Groups.

### 4.3 Submissions from Local Stakeholder Organisations

4.3.1 Cork County Council provided a list of local stakeholder organisations of which 21 were contacted by letter and invited to make submissions. Those contacted included the following:

- Public agencies;
- Private agencies; and
- Community Groups.

4.3.2 As well as the groups mentioned above, local land owners and private individuals were also encouraged to make submissions with any relevant issues.

4.3.3 Approximately 3-4 weeks was allowed for receipt of submissions in relation to the study. The number and names of the local stakeholders which were contacted in relation to this study, and the number of written submissions received are illustrated in Table 4.1 below. This table shows that a very representative response was received from local groups and stakeholders.

**Table 4.1 Breakdown of Stakeholders contacted**

Group, organisation or individual consulted	Method of consultation	Number contacted	Response
Local Sport groups	Contacted by letter and invited to respond by letter or email.	6	2 submission received
Local community groups	Contacted by letter and invited to respond by letter or email.	4	2 submission received
Religious stakeholder organisations	Contacted by letter and invited to respond by letter or email.	3	0 submissions received
Local Schools (including primary and secondary and Department of Education)	Contacted by letter and in person and invited to respond by letter or email.	23	16 submissions received
Health Organisations	Contacted by letter and phone call and invited to respond by letter or email.	2	0 submission received
Business representatives (Douglas Chamber of Commerce)	Contacted by letter and phone call and invited to respond by letter or email.	1	1 submission received
Transport stakeholders	Contacted by letter and phone call and invited to respond by letter or email.	5	4 Submissions received
Local Land owners and private individuals	Invited to make submissions at public consultation meeting and in adverts in local media	Open invitation	9 Submissions received
<b>Total</b>		<b>43</b>	<b>33</b>

### Public Bodies / Stakeholders

4.3.4 Written submissions have been received from the following public stakeholders:

- Bus Éireann;
- Cork Taxi Drivers Association;
- Department of Education;
- Douglas Business Association;
- Douglas Community Association;
- Douglas Golf Club;
- Douglas Gymnastics Club;
- Dublin Airport Authority;
- Grange Frankfield Partnership; and
- National Roads Authority.



### Private Stakeholders

4.3.5 Written submissions have been received from the following private stake holders:

- Anna O'Toole;
- Ciaran O'Callaghan;
- Dan and Margaret O'Mahony;
- Deirdre Whelan;
- Dennis O'Regan;
- Michael Dowling;
- O'Brien & O'Flynn Contractors;
- Shipton Group; and
- St Patrick's Mills.

### Summary of Stakeholder Submissions

4.3.6 By the end of the consultation process a significant number of submissions had been received from a variety of different stakeholders. A review of these submissions identified the following main areas of concern:

- Traffic Congestion especially during peak periods;
- School Traffic causes major congestion near schools in the AM peak;
- Traffic Signals in the study area need to be optimised to run more efficiently;
- A number of junctions in the village centre including the Topaz Junction and Donnybrook Hill are over capacity during peak periods;
- There is a need for more public walkways and cycle ways in Douglas; and
- There is a need for more public amenities and facilities in Douglas.

4.3.7 A full summary and comprehensive review of these submissions is contained within the Public Consultation Report included in Appendix A of this report.

## 4.4 Schools Consultation

4.4.1 As was highlighted in a number of stakeholder submissions, school traffic is a significant contributor to congestion in the Douglas Area during the peak periods. Because of this it was important for this study to understand the travel patterns associated with each of the schools in the study area.

4.4.2 A total 23 schools were contacted as part of the consultation process for DLUTS. They were sent an introduction letter and a specifically designed schools questionnaire for them to complete and return. The schools contacted are listed in Table 4.2 below.

**Table 4.2 Study area Schools contacted to take part in Consultation Process**

School	School Type
Ballintemple National School	Primary School
Bunscoil Chríost Rí	Primary School (Girls)
Bunscoil Chríost Rí	Primary School (Boys)
Gaelscoil na Dúglaise	Primary Gaelscoil
Our Lady of Lourdes NS	Primary School (Girls)
Rockboro Primary School	Primary School
Scoil Bhríde Eglantine	Primary School
<b>Scoil Iosaf Naofa</b>	Primary School
<b>Scoil Nioclais</b>	Primary School
Scoil Phódraig Naofa	Primary School
St Anthony's BNS	Primary School (Boys)
St Columba's BNS	Primary School (Boys)
St Columba's GNS	Primary School (Girls)
St Lukes National School	Primary School
Ashton School	Secondary School
Christ King Girls	Secondary School (Girls)
Colaiste Chríost Rí	Secondary School
Douglas Community School	Secondary School (Boys)
Regina Mundi College	Secondary School
Rochestown College	Secondary School
School of the Devine Child	Special School
Scoil Aislínn	Special School
<b>St Mary's Special School</b>	Special School

4.4.3 The survey questionnaire was grouped into a number of categories including:

- School Description;
- Cycling;
- Walking;
- Bus;
- Pick up and Drop Off;
- General Traffic Issues;
- Car Parking;
- Staggered Start Times; and
- Travel Planning.

## 4 Public Consultation

- 4.4.4 In total we received responses from 15 schools out of the 23 contacted which represents a 65% response rate. Table 4.3 below outlines the general characteristics of the schools who responded to the questionnaire in terms of primary or secondary and the numbers of staff and pupils/students in each school.

**Table 4.3 Characteristics of Schools who Answered Questionnaire**

School	Description	Pupils	Staff
			Full-time/Part-time
Ballintemple National School	Primary School	216	17/1
Bunscoil Chríost Rí	Primary School	574	38/4
Gaelscoil na Dúglaise	Primary Gaelscoil	355	23/1
Scoil Bhríde Eglantine	Primary School	553	35/5
Scoil Phádraig Naofa	Primary School	244	15/1
St Anthony's BNS	Primary School (Boys)	788	56/1
St Columba's BNS	Primary School (Boys)	507	50/1
St Columba's GNS	Primary School (Girls)	515	56/12
St Lukes National School	Primary School	217	12/7
Ashton School	Secondary School	500	50/17
Christ King Girls	Secondary School (Girls)	1011	70/20
Colaiste Chríost Rí	Secondary School	640	51/7
Douglas Community School	Secondary School (Boys)	570	50/50
St Mary's Special School	Special School	61	17/4
School of the Devine Child	Special School	22	10/10

- 4.4.5 The responses received from the schools are summarised in the following sections of this chapter. Further details, as well as information on the interviews carried out with the local schools, are contained within the Public Consultation report in Appendix A of this report.

### Cycling

- 4.4.6 The rate of cycling to school is very low in the area. Cycling is perceived to be dangerous and, as a consequence, schools are reluctant to promote cycling as a means of travel. However, consultation with the local schools suggests that pupils are interested in cycling.
- 4.4.7 Cycling appears to be more common amongst boys attending secondary school. Douglas Community School has 235 cycle parking spaces. On the other hand, Christ the King girls secondary school stated that no pupil cycles to school.

## 4 Public Consultation

- 4.4.8 There are a small number of pupils who cycle to local primary schools and there are also a small number of teachers who are interested in cycling. Almost all the schools offered the 'cycle to work scheme' to members of staff which allows them to purchase a bicycle tax free.

### Walking

- 4.4.9 Walking is a popular means of travel to and from school. However, most of the local schools have very wide catchment areas and this reduces the propensity for pupils to walk to school.
- 4.4.10 **A number of walking buses are in operation to St Columba's GNS and BNS. These require organisation by a member of staff and a commitment from parents to facilitate them and have been very successful.**
- 4.4.11 A minority of schools stated that the standard of access for pedestrians was inadequate. In this respect, the most common issue raised by local schools related to the lack of pedestrian crossing facilities near the school entrance. A lack of pedestrian pavements was also mentioned as being of concern in some locations.

### Bus

- 4.4.12 Two of the local schools, Gaelscoil na Dúglaise and St Lukes, have dedicated school bus services. There is strong demand for these school bus services, though recent increases in **charges have resulted in reduced demand. The two special schools surveyed, St Mary's and School of the Divine child, also have a dedicated bus service.**
- 4.4.13 Most of the local schools can be accessed by Bus Éireann regular services. A small number of pupils from each local school would travel on these services. Generally, the timetables are suited to the school hours, though not in all cases. The location of bus stops is not ideal for some schools and some stops do not have shelters or timetable information.

### Pick Up and Drop Off

- 4.4.14 Eleven of the fifteen schools surveyed stated that pick up and drop off activity at the school results in traffic congestion. In some cases, delays caused by school related traffic are a frequent occurrence. Often, the impact can be more pronounced in the afternoon as parents wait for pupils to leave school. Many of the local schools are located beside residential areas and parking associated with pick up activity overflows into these estates which impacts on residents.

### General Traffic Issues

- 4.4.15 The local schools were invited to raise any general traffic issues that affected access to the schools. The following issues were raised:
- there is significant congestion on routes from the Rochestown direction towards Douglas;
  - some junctions within the centre of Douglas and near the N25 are perceived to cause delays;
  - the lack of alternative routes for traffic from the south west of Douglas (e.g. Grange, Frankfield) means that traffic has no option but to route via West Douglas; and

## 4 Public Consultation

- on-street parking within Douglas can impede traffic and cause significant delays (e.g. on Church Yard Lane and Church Road).

### Car Parking

- 4.4.16 All but two of the schools surveyed have an on-site car park. The school car parks generally have one space per full-time member of staff and one or two additional spaces for visitors. The allocation of car parking spaces was organised within four of the schools on a needs basis; the remaining schools operated a 'free for all'.
- 4.4.17 Demand for car parking at the schools is high and nine of the eleven schools with car parks stated that demand exceeded supply at least occasionally. For four of the schools, including **Gaelscoil na Dúglaise and St Columba's GNS, demand was stated to be constantly above capacity.**

### Staggered Start Times

- 4.4.18 Some efforts have been made to stagger the start times of local schools. The schools either have an early start time of 08:30 or a late start time of 08:45/08:50. The finish times are also staggered 14:10 or 14:30 for the primary schools.

### Travel Planning

- 4.4.19 Only two of the fifteen schools surveyed have a nominated travel plan co-ordinator or a post with the responsibility for travel planning. As part of the Green Schools initiative, **St Columba's GNS has initiated travel planning. Scoil Phádraig Naofa maintains a mobility management plan and was conditioned to do so as part of their planning permission.**

## 4.5 Public Consultation Summary

### Public Exhibition and Key Stakeholder Consultation

- 4.5.1 A public exhibition was carried out on the 17<sup>th</sup> of April in the Rochestown Park hotel. The purpose of the exhibition was to make people aware of the study and to invite them to make submissions and to inform us of any issues or concerns they may have.
- 4.5.2 After carrying out the thorough review of all public and private stakeholder submissions received we have established that the main concerns of the stakeholders in Douglas relate to;

- Traffic Congestion especially during peak periods;
- School Traffic causing major congestion near schools in the AM peak;
- Traffic Signals in the study area need to be optimised to run more efficiently;
- A number of junctions in the village centre including the Topaz Junction and Donnybrook Hill are over capacity during peak periods;
- There is a need for more public walkways and cycle ways in Douglas; and
- There is a need for more public amenities and facilities in Douglas.

### Schools Consultation

4.5.3 The following were outlined as the main issues relating to the schools in the study area:

- The majority of pupils travel to school by car;
- Pick up and drop off activities at schools results in traffic disruption and contributes to congestion;
- There is potential to increase the rate of cycling if the issues regarding safety are addressed;
- There are some issues which affect access to schools for pedestrians. A lack of pedestrian footpaths in some locations restricts access. There are a number of local schools which do not have pedestrian crossing facilities near the entrance to the school;
- There is scope to improve the planning and management of travel to school;
- Most of the local schools participate in the Green Schools Programme and, though only one has so far implemented travel initiatives under the programme, a number of others are intending to do so in the near future; and
- Consultation with local schools suggests that there is potential to organise 'Park and Stride' schemes to address issues with pick up and drop off.

# 5 Summary Baseline Traffic Evaluation

## 5.1 Introduction

5.1.1 This chapter provides a detailed summary of current traffic conditions in the Douglas Area in terms of infrastructure for each transport mode, utilisation of that infrastructure and conditions experienced.

5.1.2 This chapter contains the following sub-sections:

- Traffic Management Arrangements and General Traffic Conditions;
- Key Junction Arrangements;
- Pedestrian Facilities and Conditions;
- Cyclist Facilities and Conditions;
- Bus Operating Arrangements and Conditions;
- Goods Vehicles Facilities; and
- Summary.

## 5.2 Methodology

5.2.1 To facilitate an understanding of these traffic conditions, an extensive site visit was undertaken in Douglas on the following dates:

- Wednesday, 28 March 2012;
- Thursday, 29 March 2012; and
- Friday, 30 March 2012.

5.2.2 During this site visit, detailed observations on current traffic management arrangements for each road user classification, conditions experienced by each road user, observations of local land uses and photographic records were taken.

5.2.3 In addition to the site visits detailed above, a comprehensive set of traffic surveys were undertaken during April 2012. These surveys included the following:

- Classified junction turning count surveys (21 no. locations);
- Registration plate surveys (9 no. locations);
- Journey time surveys (4 routes, each way);
- Automated traffic counters (ATCs) over seven survey days (15 no. locations); and
- Link Counts, surveying pedestrian and cycling flows (16 no. locations).

### 5.3 General Traffic Conditions experienced in Douglas

5.3.1 The following key points relating to general traffic management arrangements were noted in Douglas:

- Douglas experiences considerable congestion during the peak hours of 08:00-09:00 and 17:00- 18:00. The areas around Douglas Street West and Church Road are particularly bad during the AM peak period as School trip and work trips occur simultaneously leading to long queues through the village. Douglas Road East (R610), which is the primary route to and from Cork City also experiences large queues in both the AM and PM peak periods as large volumes of traffic makes its way to and from Cork City from Douglas and other conurbations to the South.
- Some of the Radial routes leading into Douglas, most notably Grange Road and the Rochestown Road also experience congestion in the AM peak period (08:00 – 09:00). Queuing on the Rochestown Road can extend to over 1km in the mornings as traffic making a right turn onto the N28 causes delays extending back as far as Coach Hill on the Rochestown Road. This is evidenced by the Journey time survey information and traffic count data outlined in detail in Chapter Six of this report.

### 5.4 Road Network Description and Issues

5.4.1 Traffic management arrangements (e.g. no. of lanes, lane widths) and related conditions experienced (observed levels of queuing, congestion, ambient traffic speeds etc.) away from junctions are described in this section of the report. Conditions are described for all National, regional and third class road classifications in the study area as per the road hierarchy outlined below in Figure 5.1.

5.4.2 The road network is separated into three categories, these are:

- National Roads - providing connection between major cities and towns;
- Regional Roads – providing connection between cork and surrounding towns; and
- Third Class Roads - providing connect between towns and local areas within Douglas and Rochestown.

### 5.5 National Roads

#### N40 Southern Ring Road

5.5.1 The Southern Ring Road is a major national distributor road allowing access to the wider national network; to the north the M8 to Dublin and to west N22 to Killarney. As a result of this it is relatively heavily trafficked during peak periods. Traffic on the N40, in the vicinity of the Study Area, is generally free flowing until it reaches the Kinsale roundabout at the junction with the N27. Traffic can experience significant delays at this signalised roundabout during peak periods. Both eastbound and westbound traffic on the N40 also experiences delays at the Mahon Point interchange to the east of the study area.

5.5.2 Westbound Traffic on the N40 can enter the study area at the N28 interchange to the east of the Douglas Village. Traffic travelling to Douglas use this exit and then take the slip road



## 5 Summary Baseline Traffic Evaluation

from the N28 onto the Rochestown Road. Alternatively westbound traffic can exit at the Kinsale Roundabout and enter the study area via the Frankfield Road or N27 to the west of Douglas Village.

- 5.5.3 Eastbound traffic on the N40 travelling to Douglas can exit at the Kinsale roundabout to the West of Douglas, alternatively, they can enter Douglas Village using the slip roads onto the South Douglas Road or Douglas Road to the north of Douglas Village Centre. Eastbound traffic on the N40 travelling to the East of the Study Area can use the exit at the N28 interchange and travel south along the N28 or take the slip road onto the Rochestown Road.
- 5.5.4 The Southern Ring Road is a two-lane dual carriageway with hard shoulders and a speed limit of 100 kph.

### **N27 South Link Road between Cork City Centre and Cork International Airport**

- 5.5.5 This is a major national distributor as it connects the City Centre with the Cork International Airport, as well as major employers near the airport with the wider labour market in Cork and the city centre. It is a dual carriageway with bus lanes and speed limits ranging from 100 kph to 60 kph. Traffic on the N27 experiences delays during peak periods at the Kinsale roundabout and the signalised cross roads with Forge Hill and the Ballycurreen Road. South of the Ballycurreen Road junction traffic is relatively free flowing south and suffers minimal delays. The N27 travels from South to North along the western boundary of the Study Area. Traffic using the N27 to travel to Douglas would mostly exit via the signalised forge hill crossroads and travel east along the Ballycurreen Road and Grange Road.

**Figure 5-1 N27**



### **N28 between Ringaskiddy / Carrigaline and N30**

- 5.5.6 This is a major national distributor which connects the wider national road network with major employers and the national sea freight and passenger services from the Port of Cork to mainland Europe and wider international sea freight services. It is a single carriage with a 1 metre hard strip. Traffic from the south, travelling to Douglas using the N28, exits onto the R609 (old Carrigaline Road). Traffic on the R609 is mostly free flowing until it enters the centre of the village and begins to experience congestion as it travels northbound towards

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the Eastern Link Road close to the centre of Douglas. Traffic from the north, travelling to Douglas using the N28, exits the N28 onto the Rochestown Road at St Patrick's roundabout. From here it travels west along the Rochestown Road until it reaches the centre of Douglas. The roundabout at the Rochestown Road / N28 slip road experiences heavy congestion during the AM peak resulting in large queues along the Slip from the N28.

### 5.6 Regional and Local Roads

#### R609 Carrigaline Road

- 5.6.1 The R609 Carrigaline is a regional distributor as it branches off the N28 and serves demand for the City Centre, providing access via Douglas Street East. It is a single carriageway. The R609 approaches Douglas from the south and passes through largely undeveloped areas until it reaches the outskirts of Douglas at the Dry Bridge junction. Traffic along this route is largely free flowing until it reaches Fingerpost Roundabout where traffic begins to slow down. Some delay is experienced at this roundabout as well as the signalised junction with Douglas Street East, especially during AM and PM peak periods. From here the R609 leads north out of the study area towards Cork City.

**Figure 5-2 R609**



**Picture 1:** R609 at Dry Bridge facing north towards fingerpost roundabout

**Picture 2:** R609 at N28 interchange facing west.

#### R610 Rochestown Road

- 5.6.2 Rochestown Road is a regional distributor road which connects Rochestown with the wider district and national road network. It is single carriage way.
- 5.6.3 The Rochestown Road approaches Douglas from the East and is the primary route into Douglas for people living in the eastern environs of Douglas. As a result, this road experiences significant congestion during the AM Peak Period (08:00 – 09:00) as large amounts of residents make their way from the Rochestown area towards Douglas and the N28 towards the southern ring road and Cork City.

**Figure 5-3 Rochestown Road**



**Picture 1:** Rochestown Road Between N28 and Fingerpost Roundabout

**Picture 2:** Westbound traffic on Rochestown road east of the N28

**Church Street, Church Road and New Link Road between Douglas W and E**

5.6.4 These roads are district distributors as they connect the N28 (via R609 Carrigaline) with Donnybrook Hill / Grange Road. This allows for improved dispersion through the network between residential areas and major employment areas. These roads are single carriageway, although the new link road does have dedicated turning lanes into the new shopping centre. These roads provide the only west to east / east to west links in Douglas and as a result can experience large amounts of traffic during peak periods. Church road, in particular can experience heavy delays during the AM peak period as a result of the traffic generated by a number of schools on Church road and Donnybrook Hill.

**Figure 5-4 Church Road, Church St and New Link Road**



**Picture 1:** Church Road facing west towards Dry Bridge

**Picture 2:** Church Road facing west towards Douglas Street West



**Picture 3:** New Link Road facing west



**Picture 4:** Church Street facing east

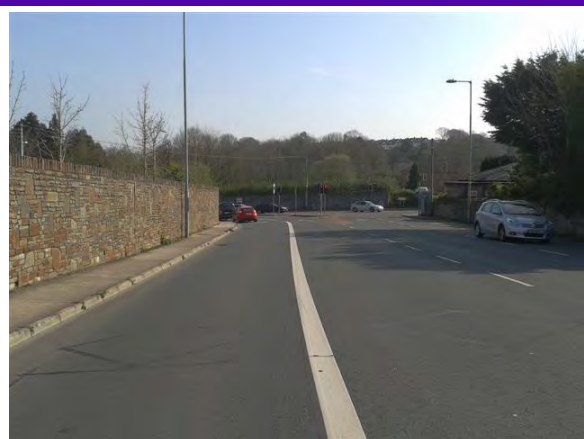
**Donnybrook Hill, Grange Road, Ballycureen Road and Frankfield Road**

5.6.5 The Grange Road is a district distributor road as it runs parallel to the N25 Ring Road, and connects the western residential areas with the wider road network. This group of roads are generally wide single carriageways, with Grange Road having a dedicated bus lane in either approach to the major junctions at Donnybrook Hill and Ballycureen Road to cater for express bus services to and from Airport and associated major employers. In general, traffic conditions on these roads are free flowing with some moderate levels of queuing and congestion experienced during the AM and PM peaks. The Junction of Grange Road and Donnybrook Hill experiences particularly bad congestion during the AM peak with long queues developing on the Grange Road arm of the junction. This is as a result of the large amounts of traffic travelling from east to west and west to east within Douglas which must travel through this junction.

**Figure 5-5 Grange Road, Frankfield Road and Donnybrook Hill**



**Picture 1:** Donnybrook Hill facing south towards Grange Road Junction



**Picture 2:** Grange Road facing east towards Donnybrook Hill



**Picture 3:** Grange Road facing west



**Picture 4:** Frankfield Road Facing North

### **Douglas W, Douglas E and Carrigaline Road**

5.6.6 This road network is a district distributor as it connects the local road network around the Douglas Village centre. These roads provide the main links between Douglas and its environs (as well as Carrigaline and Ringaskiddy) to Cork City in the North. As a result of this both the Douglas Road East and West Can become very heavily congested during the peak AM and PM periods.

**Figure 5-6 Douglas W, E and Old Carrigaline Road**



**Picture 1:** Douglas Road East facing north towards Church Street Junction



**Picture 2:** Old Carrigaline Road facing south



**Picture 3:** Douglas Road West, facing north



**Picture 4:** Douglas Road West, facing south

## 5.7 Junction Evaluation

- 5.7.1 Junctions represent the major point of conflict between road users, with intra modal (e.g. general traffic to general traffic) and inter modal (e.g. general traffic/ pedestrian/ cyclist) conflict occurring. In terms of the efficient operation of an urban traffic management system, the layout and operation/ management of junctions is essential to ensure that a fair balance is achieved between the competing needs of each transport mode. Given the conflict between road users that exists at junctions, the traffic management arrangements in place determine how well the junction will perform from a safety perspective. As a result, the junction arrangements at key junctions within the Study Area are described within this section of the report. Figure 5.7, below, illustrates the location and type of the key roundabouts and signalised junctions within the Study Area. This Transport Network Review of the Douglas Area is based upon observations made on-site. We believe these represent typical / average day to day operation of the transport network in the Douglas Area and the findings from these observations coupled with the review of previous reports and studies for the area and the stakeholder and public consultation responses outlined within Chapter Four form a sound starting point for developing transport options (to be tested through the Evaluation Framework which is described in the DLUTS - Interim Report) for improving the operational capacity of the Transport Network within the Douglas Area.

### 5.1 Signalised Traffic Control – Douglas Area

- 5.1.1 It should be noted that some of the signalised junctions within Cork County are controlled using SCOOT<sup>1</sup> technology, which is an adaptive Urban Traffic Control System that aims to optimise the signal timing and off sets between junctions, to minimise delays and vehicles emissions. The system does require to be validated on-site, especially if there have been any significant changes in the network. Within Douglas there are some junctions which are controlled by MOVA<sup>2</sup> which aims to optimise the signal setting every cycle to minimise the queues and delays. MOVA is normally applied to signal standalone junctions, but can be introduced in small networks of two or three junctions in they are very close to each other.

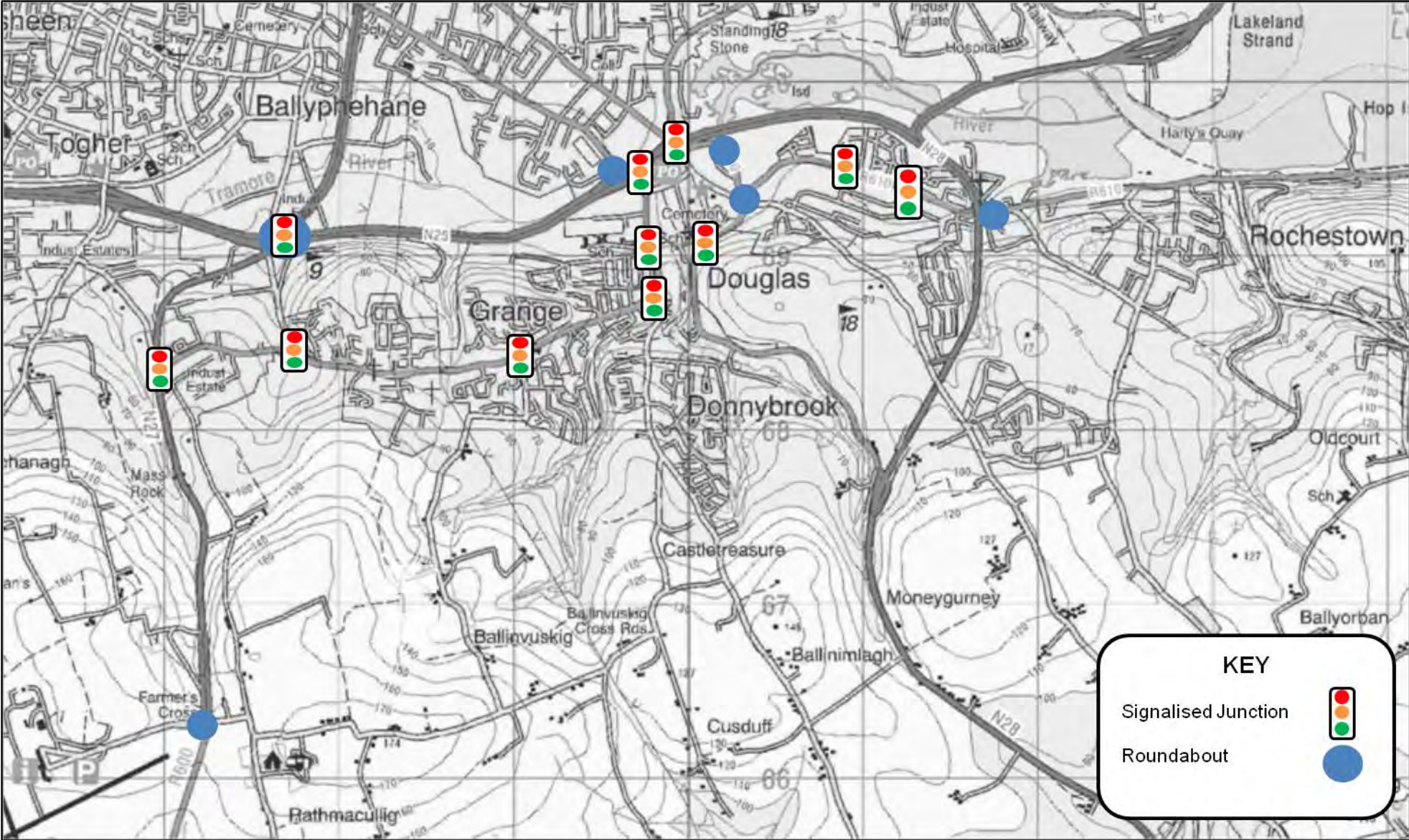
Other signalised junctions within Douglas operate on a fixed time basis and there could also be some locations which still run on cable less linking (CLF) which provides a method of linking traffic intersections, generally along a route, using only timing information to co-ordinate the required control activities at each site. Each Controller is programmed with several timing plans to synchronise the signal between junctions (Controllers). These are required to be updated regularly, especially if a new junction is added to the network or there has been significant change in the traffic volumes.

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<sup>1</sup> SCOOT - SCOOT (Split Cycle Offset Optimisation Technique) is a tool for managing and controlling traffic signals in urban areas. It is an adaptive system that responds automatically to fluctuations in traffic flow through the use of on-street detectors embedded in the road. It coordinates the operation of all the traffic signals in an area to give good progression to vehicles through the network. Whilst coordinating all the signals, it responds intelligently and continuously as traffic flow changes and fluctuates throughout the day. It removes the dependence of less sophisticated systems on signal plans, which have to be expensively updated.

<sup>2</sup> MOVA stands for Microprocessor Optimised Vehicle Actuation. - MOVA is designed to cater for the full range of traffic conditions, from very low flows through to a junction that is overloaded. For the major part of the range - before congestion occurs, MOVA operates in a delay minimising mode; if any approach becomes overloaded, the system switches to a capacity maximising procedure. MOVA is also able to operate at a wide range of junctions, from the very simple 'shuttle-working', to large, multi-phase multi-lane sites

**Figure 5-7 Junction Type and Location in Douglas**





## 5.2 Key Junction Arrangements

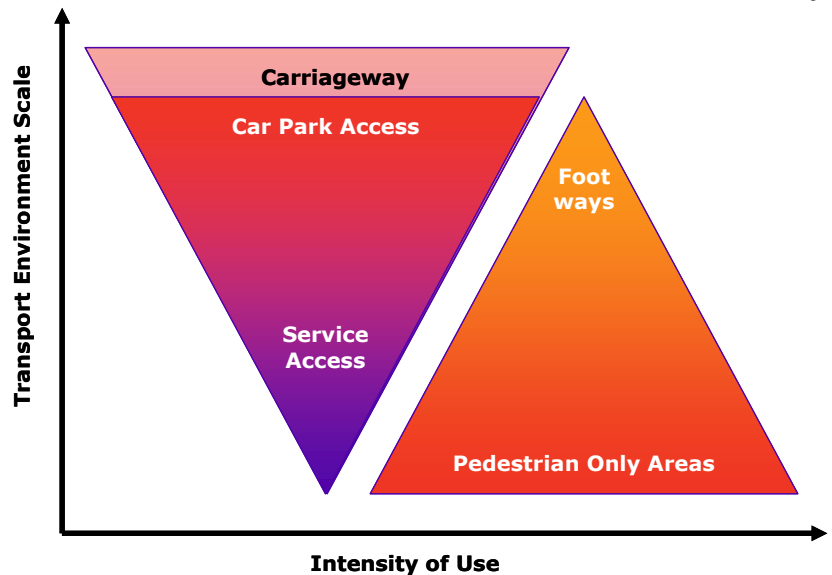
5.2.1 We have split the issues observed in Douglas into the following three categories:

- **Operational Issues** - This relates to a junction or an area where the operation is the main issue, this could include conflict between different modes or uses;
- **Capacity Issue** - This relates mainly to a junction or an area where capacity is the main issue, this could be also be down to operational issues, but mainly relates to demand exceeding capacity (i.e. vehicular demand passing wishing to pass through a junction or road exceeds to capacity available, this often leads to queuing and congestion), and includes confined / restricted road widths; and
- **Pedestrian and Cyclist Issues** - This relates to a junction or an area where pedestrian and cycle facilities are a main issue particularly where they are not catered for by the design of the road or junction. These issues are usually due to junction arrangements, pavement widths or crossing facilities.

5.2.2 It should be recognised that operational and capacity issues also have an effect beyond pedestrian and cyclist issues, these are:

- **Severance Issues** - This relates to the Transport Network hierarchy in relation to the adjacent land uses, for example, if there is significant regional movement through a retail or residential area, it could lead to increased vehicle speed and / or volume and a reduction in pedestrians crossing on that road. This could result in an increased footfall in some areas and reduced footfall in other areas.

- **Sustainable Town Centre - Regeneration** - Increased Severance due to heavy traffic flows and / or congestion leads to the town centre becoming less walkable and less attractive to some visitors who focus on main shopping centre areas and do not venture beyond them. This effect undermines small retail and service businesses in the Village centre.



In turn, this undermines the Shopping Centres as small, unique, retail units attract some visitors to the town in search of the unique / mixed retail experience not provided in shopping centres with their 'on-every high street stores.' Therefore, we are aiming to ensure the Transport User Hierarchy is appropriate for land use and

Transport Network needs and we consider the intensity of use against the transport needs the aims of which are outlined in the UK *Urban Design Manual (2009)*.

*The streets are designed as places instead of roads for cars, helping to create a hierarchy of space with less busy routes having surfaces shared by pedestrians, cyclists and drivers*

- **Supporting the Neighbourhoods and Community** - This is a primary concern within the Urban Design Manual and UK's Department For **Transport's (DfT)** Manual for Streets I, which is aimed at residential areas. However, for Douglas we need to consider the mixed priorities that the transport network wishes to support, this includes the High Street and Retail core and this is where the Manual for Streets (II), with UK's DfT Mixed Priority Routes, will give better guidance. We need to acknowledge that while there are arterial routes that go through the village centre, they need to be rebalanced and the hierarchy of routes needs to be redefined to support the long term sustainability and viability of the village centre. It has to support residential, retail and leisure uses, as well as the local and regional transport trips that constitute passing trade.


5.2.3 Figure 5.8 below illustrates examples of some of the issues experienced in Douglas. The next section of this chapter will detail the specific junctions where these issues occur and we then discuss each junction individually. The following sections will then describe the traffic management arrangements for each of the main arterial roads in the study area. The pedestrian, cycle, HGV and public transport facilities in the town will also be discussed.

**Figure 5-8 Examples of issues in Douglas**


**Example of Issues**

- Picture 1 shows an example of traffic congestion at the signalised Junction on Douglas Street East.
- Picture 2 shows an example of queuing at Clarkes Hill and Rochestown Road during the AM Peak Period.
- Picture 3 shows the poor pedestrian facilities on The Rochestown Road near the Fingerpost Roundabout
- Picture 4 shows an example of poor road markings, which is prevalent throughout the village, at the junction of Douglas Street East and the Fingerpost Roundabout.


**1**




**2**



**3**



**4**



5.2.4 Observations were made at each of the main junctions within the Study Area, these include the following:

- Jct 1. Airport Road /Amberley;
- Jct 2. Forge Hill / Ballycureen Road;
- Jct 3. Grange Road / Ballycureen Road;
- Jct 4. Grange Road / Cooneys Lane;

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- Jct 5. Grange Road / Donnybrook Hill;
- Jct 6. West Douglas St. / Church St;
- Jct 7. West Douglas St. / Church Road/ Donnybrook Hill;
- Jct 8. Church St / East Douglas St. / Carrigaline Rd. / Tramway Terrace;
- Jct 9. Junction at Dry Bridge;
- **Jct 10. St. Patrick's Roundabout (Marchwood);**
- Jct 11. Rochestown Rd. / Coach Hill;
- Jct 12. Rochestown Rd. / Clarkes Hill;
- Jct 13. Rochestown Rd. / Maryborough Hill;
- Jct 14. Coach Hill / Clarkes Hill;
- Jct 15. Clarkes Hill / Ballyorban Road;
- Jct 16. Scairt Cross on Donnybrook Hill;
- Jct 17. N28 On Ramp / Rochestown Road
- **Jct 18. New Link Road / East Douglas Street / Well Road / N25 E'bound Off Ramp**
- Jct. 19. New Link Road / West Douglas Street / N25 On and Off Ramp / South Douglas Street;
- Jct 20. St Patricks Mills / West Douglas Street; and
- Jct 21. Douglas Court Roundabout.

5.2.5 When undertaking the review, we have considered the following documents as points of reference:

- UK Urban Design Manual –A best practise guide (2009);
- UK Department for Transport 'Manual for Streets Part 1 (2007);
- Chartered Institute of Highways & Transport (CIHT) 'Manual for Streets Part 2 (2010); and
- UK Department for Transport 'Mixed Priority Routes' (2008).

### 5.3 Road Network Evaluation – Key Junction Arrangements

5.3.1 Observations were made at each of the main junctions within the study area, which was divided into the following three sub areas:

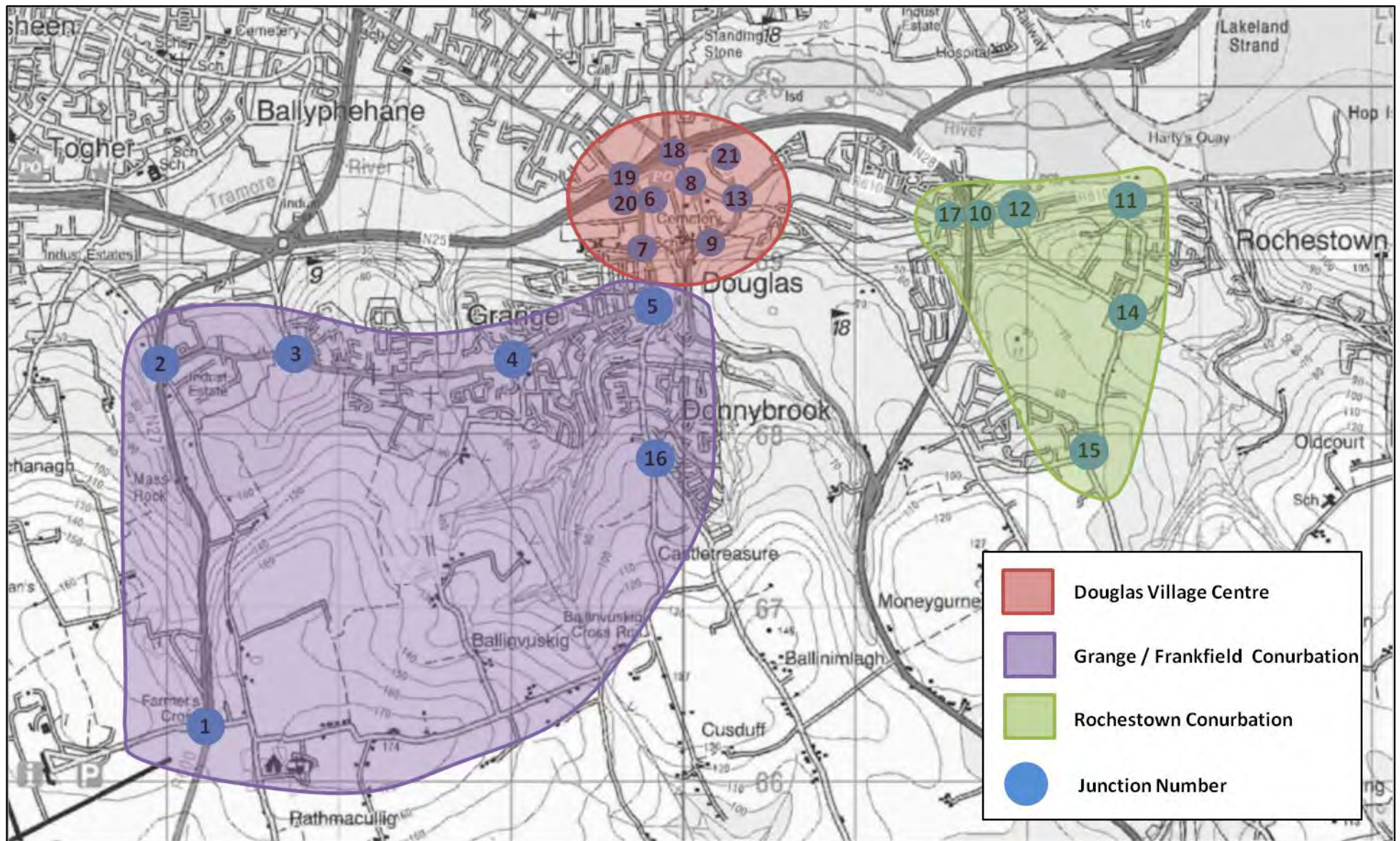
- Douglas Village Centre;
- Grange / Frankfield Conurbation; and
- Rochestown Conurbation.

5.3.2 Table 5.1 summarise where issues have been identified and details them as per the above categories (i.e., Operational, Capacity or Pedestrian and Cyclist). Identified issues are described in detail for each location in the following section. Figure 5.9 maps out each junction identified in Table 5.1.

**Table 5.1 Summary of Junction location and Issues identified**

Location	Traffic Operatio	Traffic Capacity	Pedestria n and
Jct 1. Airport Road / Amberley			
Jct 2. Forge Hill / Ballycureen Road	✓		✓
Jct 3. Grange Road / Ballycureen Road		✓	
Jct 4. Grange Road / Cooneys Lane	✓		✓
Jct 5. Grange Road / Donnybrook Hill	✓	✓	✓
Jct 6. West Douglas St. / Church St	✓	✓	✓
Jct 7. West Douglas St. / Church Road/ Donnybrook Hill	✓	✓	
Jct 8. Church St / East Douglas St. / Carrigaline Rd. / Tramway Terrace	✓		
Jct 9. Junction at Dry Bridge			
Jct 10. St. Patrick's Roundabout (Marchwood)	✓	✓	✓
Jct 11. Rochestown Rd. / Coach Hill	✓		
Jct 12. Rochestown Rd. / Clarkes Hill;	✓		
Jct 13. Rochestown Rd. / Maryborough Hill		✓	
Jct 14. Coach Hill / Clarkes Hill;			
Jct 15. Clarkes Hill / Ballyorban Road; and	✓		
Jct 16. Scairt Cross on Donnybrook Hill			
Jct 17. On and Off Ramp N28 / Rochestown Road	✓	✓	✓
Jct 18. New Link Road / East Douglas Street / Well Road / N25 E'bound Off Ramp	✓	✓	
Jct 19. New Link Road / West Douglas Street / N25 On and Off Ramp / South Douglas Street	✓	✓	
Jct 20. St Patrick's Mills / West Douglas Street	✓		
Jct 21. Douglas Court Shopping Centre Roundabout		✓	✓

**Figure 5-9 Study area Junction Location Map**



## 5.4 Douglas Village Centre

5.4.1 The Village Centre of Douglas is split into three distinct areas, these are:

- **Douglas Village Shopping Centre:** A recently modernised Shopping centre which has a new link road between East and West Douglas Street running parallel to the Southern Ring Road (N25 / N40), which accesses a Multi-Storey Car Park and is bordered by Church Street to the south.
- **Traditional Village Centre:** Is made up of arterial routes leading into East and West Douglas Street adjacent to the Shopping Centre. While there is excellent retail units on parts of East Douglas Street and the Roads to the East, the other arterial Routes, including the area around the junction of Church Street / East Douglas Street, there are a number of retail units which are closed, the streetscape is poor, and the predominance of private car creates severance issues for pedestrians.
- **Retail Park:** Retail Park (Douglas Court Shopping Centre) to the East of the R610 Link Road.

5.4.2 The vitality of these areas rely on good transport links for all transport users, although it is evident that operational issues, coupled with regional and district movements through these areas, create severance issues which do support the local community and village centre. Therefore, we need to consider the junctions within the village centre and the effects on the local and wider network.

5.4.3 The junctions that make up Douglas Village Centre are (junction numbers relate to those present in Figure 5.9 above):

- Junction 6 – West Douglas Street / Church Street;
- Junction 7 – West Douglas Street/ Church Road / Donnybrook Hill;
- Junction 8 – Church Street/ East Douglas Street / Carrigaline Road;
- Junction 9 – Junction at Dry Bridge;
- Junction 13 – Rochestown Road/ Maryborough Hill (Fingerpost Roundabout);
- Junction 18 – New Link Road/ East Douglas Road / Well Road / N25 Off Ramp;
- Junction 19 – New Link Road/ West Douglas Street / N25 on and off Ramp;
- Junction 20 – Patricks Mills / West Douglas Street; and
- Junction 21 – Douglas Court Roundabout;

**Figure 5-10 Junction 6 - West Douglas Street / Church Street Junction**

**West Douglas St / Church Street**

- This is a T – priority junction, with capacity issues for a number of reasons relating to a number of trip attractor and generators in the area. The rear of Douglas Shopping centre can be accessed off Church Street where a taxi rank is located adjacent to the main anchor store in the shopping centre (Tesco) and includes the main service access for the shopping centre. There is a number of small retail units / businesses within St. Patricks Woollen Mill, and there is an element of pedestrian movement between this area and the Tesco Entrance to the east;
- The other main generator is the school downstream, on West Douglas Street, which will contribute to traffic volumes in the short term peak in the morning period;
- The capacity issues are compound by poor sight lines and the close proximity of the signalised junction, which all contribute to a reduced capacity;
- Speed limit; 50kph



**Picture 1:** Standing on Church St facing West towards West Douglas St



**Picture 2:** Standing at West Douglas St/ Church St Junction facing south.



**Figure 5-11 Junction 7 - West Douglas Street / Church Road Junction**

**West Douglas St / Church Road Junction**

- Signalised T Junction with operational issues at peak periods. The junction has operational issues during the morning peak period due to the close proximity of a school and nursery to the west of the junction, with localised congestion caused by children being dropped off.
- There are also operational issues on the Church Road approach due to the local convenience store which has on-street echelon parking which can disrupt vehicle flow in the area.
- This junction is also the first opportunity for traffic from Scairt Hill and Grange Road to connect with the Carrigaline Road and travel to the South Ring Road (N25), Rochestown Road (R610) as well as other local schools on Church Road.
- There are capacity issues which are associated with vehicle volumes, especially due to the upstream junction having a more effective traffic management system (Grange Road / Donnybrook Hill – Signalised Junction – MOVA control) and the junction having limited capacity due to the physical frontage, which is reduced further by the operational issues.
- Speed Limit: 50km/h.



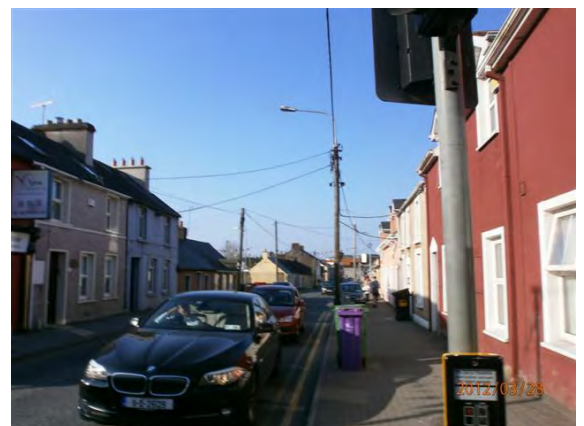
**Picture 1:** Standing on Church Rd facing west towards West Douglas St



**Picture 2:** Standing at West Douglas St facing South towards Donnybrook Hill.



**Picture 3:** Standing on Church Rd facing west towards West Douglas St



**Picture 4:** Standing at West Douglas St facing North towards Douglas Street West.

**Figure 5-12 Junction 8 - Church St / East Douglas St. / Carrigaline Rd.**

**Church St / East Douglas St. / Carrigaline Rd. / Tramway Terrace**

- Signalised T Junction located to the north of the forked junction of East Douglas Street and Carrigaline Road.
- The junction has capacity issues, mainly due to the queuing / block back from the downstream junction of East Douglas Street / R610 East Douglas Link Road / New Link Road / Well Road Junction.
- The queuing on Church Street is likely to be less since the New Link Road between West and East Douglas Street was constructed.
- There does not appear to be any capacity issues at this junction, rather, operational issues associated with downstream junctions.
- On-street parking near this junction is at capacity, with a poor turnover of parking (i.e. abundance of medium to long stay parking) which would suggest it is being used by local employees which discourages passing motorists / trade from stopping.
- Sections of both East Douglas Street and Church Street are in need of resurfacing.
- An element of severance due to the level of congestion.
- Speed limit: 50kph



**Picture 1:** Standing on Douglas Street East facing north towards Church St



**Picture 2:** Standing at Church St Junction facing east towards Douglas St East.

**Figure 5-13 Junction 9 - Dry Bridge Junction**

**Dry Bridge Junction (Carrigaline Road (R610)/ Carrigaline Road)**

- Signalised T Junction;
- No apparent operational or capacity issues;
- Pedestrian crossing facilities are incorporated into the signal design;
- Speed limit: 50pkh



**Picture 1:** Standing on Carrigaline Rd facing south towards Junction with Old Carrigaline Rd



**Picture 2:** Standing at Dry Bridge Junction facing north on Carrigaline Rd.

**Figure 5-14 Junction 13 - Finger Post Roundabout**

**Finger Post Roundabout**

- Five arm roundabout, approximately 48 meter inscribed circle diameter;
- Two lane approach from East Douglas Link Road for about 170 metres, the other approaches have two lane approaches for shorter lengths of up to 30 metres;
- No apparent operational issues;
- Experiences capacity issues at peak periods, although due to the good design of the roundabout operates effectively at peak times;
- Generally adequate and well used pedestrian facilities. However, on the Maryborough Hill approach some pedestrians do cross closer to the roundabout, away from the pedestrian crossing, utilising the roundabout splitter island. This may suggest the crossing is not aligned to the pedestrian desire line. Also there is a lack of priority for pedestrians crossing the Eastern Link Road arm of the junction;
- Speed limit: 50pkh.



**Picture 1:** Standing on Roundabout facing east towards Maryborough Hill



**Picture 2:** Ped Crossing on Carrigaline Rd arm of Roudabout



**Picture 3:** Standing on Roundabout facing north towards Douglas Street East



**Picture 4:** Ped Crossing on Rochestown Rd arm of Roudabout

**Figure 5-15 Junction 18 - New Link Road / East Douglas Street / Well Road****New Link Road / East Douglas Street / Well Road / N25 E'bound Off Ramp**

- Also referred to as the Well Road Junction & 'Topaz' Junction;
- Experiences both operational and capacity issues;
- **MVA Consultancy's observations concurred with the views expressed** by WSP that while the signals were being controlled by SCOOT, the signal staging and phasing is not coordinated correctly. Resulting in an underutilised green time (UGT)<sup>3</sup> with internal queuing occurring regularly;
- The main approaches all display significant queuing during peak periods;
- East Douglas Street forms a priority junction with the East Link Road approach to the junction and relies on the courtesy of drivers on the East Link Road;
- One of the main reasons for the degree of pressure on the junction is the lack of eastbound access to the N25 Southern Ring Road, which results in significant demand for traffic on to Well Road (eastbound) to Beaumont and Mahon, as well as access to the N25 at Mahon Interchange;
- There is also significant demand on Douglas Road as it is the main road northbound into Cork City Centre, via a number of Schools;
- It was observed that queues on East Douglas Street and East Link Road were of a similar length, this suggests that traffic is balanced between the routes and this situation has come about due to traffic from the Carrigaline access junction via East Douglas Street, Maryborough Hill and Rochestown Traffic accessing the junction from East Link Road;
- The traffic levels, and the associated queues and delays, on East Link Road are acceptable, due to the nature of the road. However, as discussed earlier, on East Douglas Street the traffic volumes with associated queues, delays, emissions, noise, severance and safety are out of keeping with the surrounding network and do not serve the town centre or wider community well;
- Should any proposal be developed to discourage traffic from using East Douglas Street it would exacerbate the queues and delays on East Link Road, which would cause operational issues at the retail park access and finger post Roundabout.

<sup>3</sup> utilised green time (UGT) - where fully saturated traffic appears to discharge at a rate less than the saturation flow (e.g. due to driver behaviour or exit-blocking)



**Picture 1:** Standing on Douglas Rd East facing north towards New Link Road



**Picture 2:** Standing on Link Road facing North towards Douglas Road.



**Picture 3:** Standing on Douglas Rd facing West towards New Link Road



**Picture 4:** Standing on Douglas Road facing south towards Douglas Road East.

**Figure 5-16 Junction 19 - New Link Road / West Douglas Street / N25 On and Off Ramp**

**New Link Road / West Douglas Street / N25 On and Off Ramp / South Douglas Street**

- This junction is made up by signalised cross roads to the south of the N25 ring road and a Roundabout Junction to the north of the N25;
- A minor operational issue is that a pedestrian push button unit (pbu) is orientated in the wrong direction and is required to be changed, as this will cause confusion to users with impaired vision;
- No other apparent operational issues at this junction;
- The Roundabout at the Northern end of the Junction experiences Capacity problems during peak periods.



**Picture 1:** Standing on Douglas St West facing North towards New Link Road



**Picture 2:** Standing at Junction facing east towards New Link Rd.

**Figure 5-17 Junction 20 – Patricks Mills / West Douglas Street**

**Patricks Mills / West Douglas Street**

- This junction is a signalised T-Junction made up of West Douglas Street and the entrance to St Patrick’s Mills retail area.
- Operational issues at this junction relate to poor road geometry and poor visibility for traffic exiting St Patrick’s Mills.



**Picture 1:** Standing on Douglas St West facing west towards Patrick’s Mills



**Picture 2:** Standing at Douglas St West facing North towards Junction with Patricks Mills.

**Figure 5-18 Junction 21 - Douglas Court Roundabout**

### Douglas Court Roundabout

- This is a five arm roundabout on the Eastern Link Road and caters for traffic entering and exiting Douglas Court Shopping Centre and Douglas Close retail area.
- Experiences capacity issues at peak periods, with blocking back from the Junction at Douglas Road and the New Link Road.
- Pedestrian Conditions are generally good for pedestrians crossing from east to west with pelican crossing provided on both the north and south sides of the roundabouts. There are currently no crossing facilities in place for pedestrians travelling from north to south or south to north.



**Picture 1:** Standing on Link Rd facing north towards Roundabout



**Picture 2:** Standing at exit from Douglas Court facing west towards Roundabout.

## 5.5 Grange / Frankfield Conurbation

- 5.5.1 Considering the Grange / Frankfield Conurbation requires looking at the junctions that are to the west and south of Douglas Town Centre which support inter urban trip making in the Cork County area. Inter urban trips are important because they provide connection between residential areas and major employers as well as transport hubs, Cork International Airport and Cork Port at Ringaskiddy (both of which are to the south).
- 5.5.2 We should also note that in residential areas, like Grange, there is a proportion of residents who will work in Cork City Centre and the surrounding areas where major employers reside. For example, Apple is based in Hollyhill to the north west of the city centre and a number of major pharmaceutical companies reside to the east of Cork.
- 5.5.3 Therefore, these junctions serve a more regional and national purpose, as well as being important to the local economy, and it is important to ensure that these junctions support these functions.
- 5.5.4 The junctions that make up Douglas Conurbation are (junction numbers relate to those present in Figure 5.9 above):
- Junction 1 – Airport / Amberly;



## 5 Summary Baseline Traffic Evaluation

- Junction 2 – Forge Hill / Ballycureen Road;
- Junction 3 – Grange Road / Ballycureen Road;
- Junction 4 – Grange Road / Cooney’s Lane;
- Junction 5 – Grange Road / Donnybrook Hill; and
- Junction 16 – Scairt Cross on Donnybrook Hill.

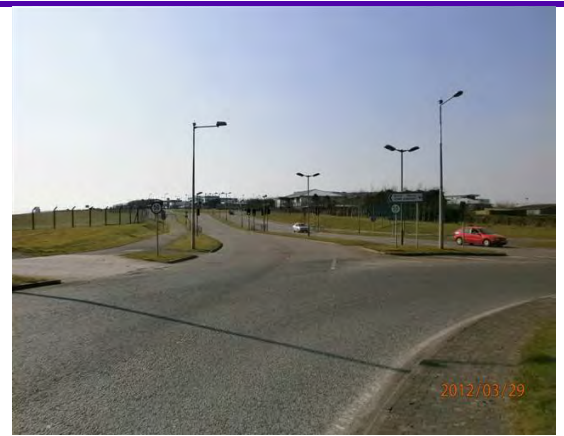
**Figure 5-19 Junction 1- Airport Road /Amberley**

### Airport Road /Amberley

- Roundabout junction with two lane approaches on the main approaches in the northbound, southbound and eastbound directions. The westbound approach is a minor approach which flares out to the two lane at about 20 metres from the give way line;
- No operational or capacity issues were observed at the junction during the site visit, and if there were any we would expect them to be isolated to short periods of peak demand;
- Speed limit: 60kph



**Picture 1:** Standing on Airport Rd facing east towards N27



**Picture 2:** Standing on Roundabout facing west towards Airport Rd.

**Figure 5-20 Junction 2 - Ballycureen Cross Roads****Ballycureen Road /N27 Kinsale Road / Forge Hill**

- Signalised right-left staggered junction;
- Operates within capacity and has no major operational issues;
- The N27 Kinsale Road is main regional distributor between the Airport and southern Ring Road (N25) and this road is dual carriageway, with cycle lanes in both directions;
- The side roads are single carriageway, with Forge Hill forming a short, sharp incline to the junction and results in slight loss of saturation flow. Ballycureen Road has a sharp bend into the junction, which has a similar effect.
- The inter-greens between the changes of certain phases /stages seem to be insufficient at this junction as traffic does not clear from the side road approaches in time for the Kinsale Road stage. This could be the result of poor road geometry and a lack of local adjustment as part of Site Acceptance Tests (SATs).
- There is a slight operational issue with the South Link Business Park, which has barrier controlled access onto the junction. This approach has not been incorporated into the signalised control of Ballycureen Cross Roads which could raise safety issues if this access / egress has a high use at peak periods or increased use in the future.

**Picture 1:** Standing on Ballycureen Rd facing west towards N27**Picture 2:** Standing on N27 facing south towards Ballycureen Rd.



**Picture 3:** Standing on Forge Hill facing north



**Picture 4:** Standing at crossroads facing north towards N27.

**Figure 5-21 Junction 3 - Grange Road / Ballycurreen Road**

**Grange Road / Ballycurreen Road**

- This junction can be best described as a Double T junction, with the main T junction being Ballycurreen Road with Grange Road which appears to have no operational issues.
- The second T is made up of the access to the residential area of Curragh Woods, which operates on a demand basis only and has a left turn only filter lane from Grange Road.
- There is a westbound Bus Lane on Grange Road that terminates to the east of Curragh Woods, it was observed that buses utilise the filter lane at Curragh Woods to U-turn back up Grange Road i.e. bus terminus. This does not present any operational issues.
- There are capacity issues with traffic to and from Ballycurreen Road and while it appears to be within capacity, we would expect moderate levels of queues and delays on these approaches during peak periods.



**Picture 1:** Standing on Grange Rd facing north towards Frankfield Rd



**Picture 2:** Standing at Ballycurreen Rd facing east towards Grange Rd.

**Figure 5-22 Junction 4 - Grange Road / Cooney's Lane**

**Grange Road / Cooney's Lane**

- This is a signalised T junction, with some local food retail to the west of the junction and a bus stop in the nearside lane on the westbound approach.
- Upon first inspection it would be ideal to have a bus stop located near to the exit of the westbound approach, it appears to have been re-located with respect to recently opened local retail access.
- We would expect this junction not to have any major operational issues, except some minor capacity issues at peak periods.



**Picture 1:** Standing on Grange Rd facing west towards junction with Cooneys Lane.



**Picture 2:** Standing on Cooney's Lane facing north towards Grange Rd.

**Figure 5-23 Junction 5 - Grange Road / Donnybrook Hill**

**Grange Road / Donnybrook Hill**

- This is a signalised T-Junction with two lanes on all approaches and Grange Road having an additional bus lane with a dedicated filter lane that continues down Donnybrook Hill until the junction with Inchvale Road.
- No operational and/or capacity issues were observed during our site visit however public consultation indicated large queuing on Grange Road / Donnybrook Hill during peak periods, partly caused by high demand and partly caused by MOVA inductive loops on Grange road not operating correctly.



**Picture 1:** Standing on Donnybrook Hill facing west towards Grange Rd



**Picture 2:** Standing on Donnybrook Hill facing north towards Grange Rd Junction.



**Picture 3:** Standing on Donnybrook Hill facing west towards Grange Rd



**Picture 4:** Standing at Junction facing south towards Donnybrook Hill.

**Figure 5-24 Junction 16 - Donnybrook Hill / Scairt Cross****Donnybrook Hill / Scairt Cross**

- Scairt Cross is a staggered right – left priority junction made up of Bromley Park, Donnybrook Hill and Calderwood Road. These junctions work independent of each other as these side roads are accessing predominately residential areas, with Calderwood Road being the larger.
- There is a nursery on Calderwood Road, close to the junction of Donnybrook Hill, and we would expect operational issues at various times of day due to this facility.
- This junction of Calderwood has been upgraded in recent years whereby the junction layout has been compacted and there has been the introduction of a stop line instead of Give Way. These measures with the retained right turn lane on Donnybrook Hill to Calderwood, contribute to improving safety at this section of Donnybrook Hill, which may have been of concern due to the gradient / speed. Therefore, operationally this junction should work effectively and safely, although this may be to the expense of capacity, we believe a good balance has been achieved at this junction.



**Picture 1:** Standing on Scairt Hill facing south towards Bracken Court



**Picture 2:** Standing on Bracken Court facing north towards Scairt Cross.

### 5.6 Rochestown Conurbation

- 5.6.1 The Rochestown Conurbation is to the east of Douglas Village Centre and is predominately residential. The main road out of the area is Rochestown Road (R610) which experiences significant congestion in the morning peak period.
- 5.6.2 It should be noted that there is an apparent level of cycling originating from Rochestown Road and going to Douglas Village and beyond, this needs to be considered and encouraged if gaps are identified in the cycling network.
- 5.6.3 The junctions that make up Rochestown Conurbation are (junction numbers relate to those present in Figure 5.9 above):
- Junction 10 / 17 – **St Patrick’s Roundabout and N28 on Ramp;**
  - Junction 11 - Rochestown Road/ Coach Hill;
  - Junction 12 – Rochestown Road / Clarkes Hill;
  - Junction 14 – Coach Hill / Clarkes Hill; and
  - Junction 15 – Clarkes Hill / Ballyorban Road.

**Figure 5-25 Junctions 10/17 - St. Patrick's Roundabout & On and Off Ramp N28 / Rochestown Road**

**St. Patrick's Roundabout & On and Off Ramp N28 / Rochestown Road**

- This junction is made up of St. Patrick's Roundabout, with approaches from Rochestown Road, Woodbrook (St. Patrick Church) and the N28 Southbound off-ramps, as well as the Priority Junction N28 Northbound on-ramp;
- This junction does experience significant operational and capacity problems in the morning period, mainly due to the restricted capacity right turn onto the N28 Northbound ramp. The level of congestion is significant and prolonged (in excess of one hour), with queues lengths extending beyond Coach Hill Junction about 1km from the junction;
- In the evening the situation reverses with queues forming on N28 Southbound off-ramp and the Roundabout working at or close to capacity. Queues extend back to the off-ramp, but not onto the N28;
- During the off peak period there were no operational and / or capacity problems observed;
- The junction has poor pedestrian facilities, with incomplete and unsafe pedestrian routes through the junction meaning pedestrians potentially have to walk on the carriageway or grass verge to complete their journey through this junction;
- These junctions were the subject of a report by WSP Consultants for Cork County Council, which identified a viable solution as signalisation of this series of junctions. The report predicts significant reduction in level of congestion and removes the need for any further remedial measures on Rochestown Road.



**Picture 1:** Standing on Rochestown Road facing east towards Roundabout



**Picture 2:** Standing at Roundabout facing west towards right turn for slip lane onto N28





**Picture 3:** Standing on Roundabout Road facing north towards N28 Slip Road



**Picture 4:** traffic exiting Mount Oval onto Roundabout.

**Figure 5-26 Junction 11 - Rochestown Road / Coach Hill**

**Rochestown Road / Coach Hill**

- The Coach Hill Junction with Rochestown Road should be viewed in conjunction with Clarke’s Hill, drivers wishing to avoid the queues at the Clarke’s Hill junction will enter the network at this junction;
- There are no operational and/or capacity issues outside of the morning peak period when blocking back from St Patrick’s Roundabout causes problems.



**Picture 1:** Standing on Rochestown Rd facing north towards Coach Hill



**Picture 2:** Standing at Coach Hill facing south towards Roachestown Rd.

**Figure 5-27 Junction 12 - Rochestown Road / Clarke's Hill**

**Rochestown Road / Clarke's Hill**

- This Junction is a priority T-Junction;
- As discussed, Clarke's Hill has operational and capacity problems in the morning period due to the operational and capacity issues at the St. Patrick's Roundabout and right turn to the Northbound N28 on-ramp;
- The junction operates as merge 'in turn' in the morning peak, although the level of courtesy does occasionally deteriorate at times during the peak with some driver frustration evident;
- Unlike Coach Hill Junction, the queues on Clarke's Hill approach are significantly greater and the use of Coach Hill and the acceptance of a place at the end of a 1km queue (200 vehicles) indicates that operational and capacity issues at St. Patrick's Roundabout and N28 on and off Ramps is now at an unacceptable level.



**Picture 1:** Standing on Rochestown Rd facing west towards St Patrick's Roundabout



**Picture 2:** Standing Rochestown Rd facing north towards Clarke's Hill.

**Figure 5-28 Junction 14 - Coach Hill / Clarkes Hill**

**Rochestown Road / Clarke's Hill**

- This Junction has recently been upgraded to a signalised T-Junction;
- There is a dedicated pedestrian crossing facility at the junction which has been installed to a high standard;
- Since this is a recent installation we would expect the form and nature of the junction to be appropriate for the flows observed, therefore no capacity and/or operational issues would be expected.



**Picture 1:** Standing at junction facing north towards Coach Hill



**Picture 2:** Standing at junction facing west towards Clarke's Hill.

**Figure 5-29 Junction 15 - Clarke's Hill / Ballyorban Road**

**Clarke's Hill / Ballyorban Road**

- This junction is a priority T-junction;
- The main road (Clarke's Hill) has primarily detached residential housing with drive way access at irregular intervals. There are no footpaths to the west of this junction and there are no footpaths on Ballyorban Road;
- Ballyorban Road is a narrow single carriageway rural road with no pedestrian footways. The junction of Clarke's Road has poor visibility to the left and right due to the vegetation on either side;
- We were unable to observe this junction at peak times, nevertheless we would expect some operational issue due to poor sight line, the geometry of the road and capacity issues relating to the volume of traffic experienced in the area.



**Picture 1:** Standing on Clarkes Hill facing south towards Ballyorban Road



**Picture 2:** Standing on Clarkes Hill facing west towards junction with Ballyorban Rd.

## 5.7 Pedestrian Facilities and Conditions

### Introduction

- 5.7.1 In general, pedestrian levels are mixed within the study area, with relatively high levels of pedestrian activity observed in the village centre. Pedestrian activity outside of the village centre is considerably lower. This is a result of the spatially dispersed nature of development in the village, where local amenities are located outside the distance at which most people consider acceptable to walk.
- 5.7.2 Pedestrian facilities (such as footpaths, adequate crossing points, etc), which play a large part in determining the levels of pedestrian activity, are also mixed within the Study Area. Other factors which determine pedestrian activity are traffic speeds and volumes and the presence of heavy goods vehicles as these can adversely affect the pedestrian environment.
- 5.7.3 One of the most vulnerable groups of pedestrians is school children, and as such they deserve special consideration. Apart from distance, one of the key factors determining the levels of pedestrian activity related to school trips is the safety of the pedestrian environment. Young children particularly will be less inclined to walk when there are high traffic volumes or excessive traffic speeds along their route. The existence of a continuous pedestrian network allowing journeys on foot from door (of home) to door (of school) and vice versa is crucial if pedestrian related school journeys are to be encouraged.
- 5.7.4 Another vulnerable pedestrian group are those with reduced mobility, which includes the elderly and mothers with prams/buggies. These pedestrians take longer than average to cross the road, which can become an issue. The crossing time allocated to pedestrians at some signalised junctions (e.g. Forge Hill and Ballycurreen Rd) in the Study Area were observed to be very short and may not be long enough to cater for all pedestrians.
- 5.7.5 The following sections of this report will give an overview of the pedestrian facilities and conditions in Douglas on a subarea basis.

### Douglas Village Centre

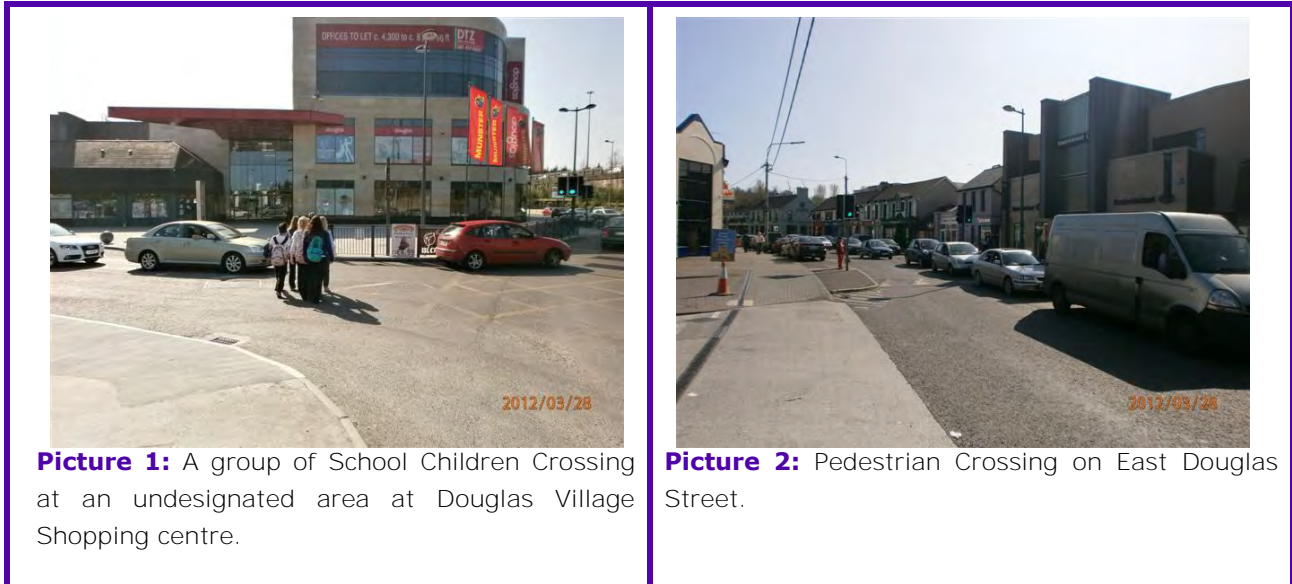
#### 5.7.6 East Douglas Street

- Volumes of pedestrian Activity Observed:
  - Relatively low in the AM Peak hour of 08:00-09:00 (65 pedestrians at busiest point).
  - High in the PM peak hour of 17:00 – 18:00 (429 pedestrians at busiest point).
- Footpaths:
  - Generally wide footpaths on both sides of the road.
  - Restricted widths of less than 1m at some locations (e.g. outside Barrys Bar) is not adequate to accommodate pedestrian movements required.
- Pedestrian Crossing Facilities:
  - On- Demand, signalised Pedestrian Crossing to the south of Douglas Village Shopping Centre.

## 5 Summary Baseline Traffic Evaluation

- Issues:
  - Lack of designated Crossing Points on East Douglas Street.
  - Existing Pedestrian Crossing is not correlated to main desire lines.
  - Heavy traffic and queuing on this road leads to severance for pedestrians.

**Figure 5-30 East Douglas Street Pedestrian Conditions**



### 5.7.7 West Douglas Street

- Volumes of pedestrian Activity Observed:
  - Relatively high during school times in the vicinity of St Columbus School.
- Footpaths:
  - Narrow footpaths (circa 1 meter wide) on both sides of the road.
- Pedestrian Crossing Facilities:
  - Crossing points are provided on the Northern Arm of the signalised junction with **St Patrick's** Woollen Mills and the southern arm of the signalised junction with The New Link Road.
- Issues:
  - High levels of Traffic can act as a deterrent to pedestrian activity

**Figure 5-31 West Douglas Street Pedestrian Facilities**



5.7.8 Church Street and Church Road

- Volumes of pedestrian Activity Observed:
  - Both roads experience relatively high flows in the AM peak hour (Circa 100 Pedestrians).
  - Pedestrian flows in the PM peak hour are 128 on Church Street and 25 on Church Road
- Footpaths:
  - Church Street has adequate footpaths widths on both sides on the approaches to junctions with East and West Douglas Street. However a large section of Church Street has footpath provision on one side only.
  - Footpaths on Church road are generally wide, however they narrow in places to less than 1 meter. Also footpath provision on sections of Church Road is limited to one side only (e.g. close to St **Luke's** School).
- Pedestrian Crossing Facilities:
  - One Pelican Crossing on Church Road to the West of St **Luke's** School.
  - One Pedestrian Crossing on Church Street, close to bus stop.
- Issues:
  - Disconnected Footpath provision, with both roads having sections with footpaths on one side only.
  - High levels of traffic on Church Road adversely affect pedestrian environment.

**Figure 5-32 Church Road & Church Street Pedestrian Facilities**



5.7.9 R609 (Eastern Link Road) and Fingerpost Roundabout

- Volumes of pedestrian Activity Observed:
  - Low pedestrian flows observed on the Eastern Link Road in the AM and PM peak hours (21 Pedestrians AM and 16 PM).
- Footpaths:
  - Adequate Footpaths provided on Both Sides of Eastern Link Road:
- Pedestrian Crossing Facilities:
  - Pelican Crossing on Southern Arm of Roundabout at Douglas Court Shopping Centre.
  - Pelican Crossing on Northern Arm of Roundabout at Douglas Court Shopping Centre.
  - Pedestrian island for crossing Eastern Link Road at Fingerpost Roundabout.
  - Pelican Crossings on Rochestown Rd, Maryborough Road and R609 arms of Fingerpost Roundabout.
- Issues:
  - High levels of severance caused by high volumes of traffic on Eastern Link Road.
  - Crossing points not directly aligned with main desire lines (e.g. from McDonalds and Douglas Village East to Douglas Court Shopping Centre).
  - No crossing points for those travelling north to south or south to north at Douglas Court Shopping Centre Roundabout.
  - No Priority given to pedestrians crossing on Eastern Link Road arm of Fingerpost Roundabout.



## 5 Summary Baseline Traffic Evaluation

- Some of the pelican crossings on Fingerpost Roundabout are not aligned with pedestrian desire lines (e.g. Pelican Crossing on Maryborough Road Arm is located quite far from the junction).

**Figure 5-33 R609 Pedestrian Facilities**



**Picture 1:** Children Crossing on Link Road Arm of Fingerpost Roundabout.



**Picture 2:** Pelican Crossing at Douglas Court Roundabout.

### Grange / Frankfield Conurbation

- 5.7.10 On Grange Road there are continuous footpaths along both sides of the road, with pedestrian crossings facilities at most major junctions including the junction of Grange Road and Donnybrook Hill and Grange Road and Cooney's Lane.
- 5.7.11 Frankfield Road has a continuous footpath along the western side with no footpath on its eastern side. There are no pedestrian crossing facilities on Frankfield Road.
- 5.7.12 Similarly, Ballycurreen Road has a continuous footpath along one side only, with crossing facilities limited to the signalised junctions at both ends of the road. The signalised junction with Ballycurreen Road and the N27 has very short green times for pedestrians, which makes crossing the road at this point dangerous.

**Figure 5-34 Grange / Frankfield Conurbation Pedestrian Facilities**



**Rochestown Conurbation**

- 5.7.13 The Western Section of the Rochestown Road (Between N28 and Fingerpost Roundabout) generally has wide, continuous, footpaths in both directions with signalised, pedestrian crossing facilities at a number of locations, usually close to large housing estates. On the approach to the Finger Post Roundabout, footpaths on the southern side of the Rochestown road become very narrow and unsafe for pedestrians.
- 5.7.14 The Eastern Section of the Rochestown Road (From the N28 to Coach Hill) has narrower footpaths in both directions with no crossing facilities for pedestrians. The footpaths at the roundabout near the N28 Slip Road are very uneven and difficult for pedestrians to negotiate due to high traffic levels. This junction has poor pedestrian facilities, with incomplete and unsafe pedestrian routes through the junction meaning pedestrians potentially have to walk on the carriageway or grass verge to complete their journey through this junction.
- 5.7.15 Maryborough Hill has a wide continuous footpath along one side only. Pedestrian crossing facilities are limited to two pelican crossings. One at the Fingerpost Roundabout and One leading from Maryborough Heights and Lisadell to the Bus Shelter for the 222 Bus serving Douglas and Cork City.
- 5.7.16 Coach Hill, has no footpath provision with some small sections of footpaths provided outside residential areas. This is representative of the low pedestrian demand in the area. Clarke’s Hill has a footpath on one side only, which narrows in places to less than one meter. There are no pedestrian crossing facilities on either Clarke’s Hill or Coach Hill.

**Figure 5-35 Pedestrian Facilities in Rochestown Conurbation**



**Picture 1:** Pelican Crossing at Lissadell on Maryborough Hill



**Picture 2:** Pedestrians Crossing at Rochestown Rise on Rochestown Road

## 5.8 Cyclist Facilities and Conditions

5.8.1 As in most parts of the Country, levels of cycling are low, particularly amongst schoolchildren. The road network within Douglas represents a poor cycling environment, and as a result, very little cycle activity was observed. The following factors would militate against cycle use in the town centre:

- restricted effective carriageway widths along a lot of roads in the town due to the presence of on-street parking;
- extensive car pick up and drop off activities in the vicinity of schools
- lack of cycle lanes to protect cyclists from the effects of the above;
- absence of on-street cycle parking in Douglas; and
- the radial road network, which impacts on the permeability of the town from a cyclists perspective, and restricts direct movement between various districts in the town;

5.8.2 The above factors represent a major barrier to cycle use in Douglas. As a result, low levels of cycling activity were observed in the area, and this was supported by the traffic survey results, where cyclists accounted for 6% of all travel to work /education trips.

5.8.3 The cycle network in Douglas is very fragmented and there are only a few stretches of road that have cycle lanes, these are:

- Maryborough Hill; and
- N27 /Airport Road;

5.8.4 It is evident that one of the main restrictions on dedicated cycle lane provision is the level of on-street parking within the village, which is not ideal for accommodating cycle ways. There are opportunities to enhance the level of cycle lanes through the rationalisation of some on-street parking and the utilisation of some parallel routes to form a basic network. Figure 5.36 below illustrates some of the cycling facilities and issues in Douglas.

**Figure 5-36 Cycling Facilities and Issues in Douglas**



5.8.5 Provision for cyclists will improve under the Cork County Development Plan. Therefore, cycle routes and facilities, particularly in the Village centre, will have to be taken into consideration in all future planning.

**Cycle Surveys**

5.8.6 Link count surveys, which recorded the numbers of cyclists and pedestrians, were carried out at 16 locations throughout the Study Area over a 12 hour period from 07:00 – 19:00.

**Cycle Flow - AM**

5.8.7 The results of these surveys showed that cycle use in the area is quite low. The highest count on any link during the AM period (08:00 – 09:00) was on the South Douglas Road where 18 cyclists were counted cycling towards Cork City and 2 towards Douglas. The next highest count in the AM peak was on Douglas Road where 14 cyclists were counted cycling towards Cork City and 2 towards Douglas.

## 5 Summary Baseline Traffic Evaluation

- 5.8.8 The sites which recorded the lowest number of cyclists during the AM peak hour of 08:00 – 09:00 were the R609 (1 Cyclist) and Scairt Cross (2 Cyclists). Low levels of cycling were also observed on Church Road (3) and the southern end of Douglas Street East (3).

### Cycle Flow - PM

- 5.8.9 The highest cycle counts observed during the PM peak (17:00 – 18:00) were recorded on Douglas Road, where 18 cyclists were counted cycling towards Douglas and 4 towards Cork City. The next highest Cycle counts were on Well Road, where 9 cyclists were counted cycling towards Douglas and 7 northbound on Well Road.

The sites which recorded the lowest number of cyclists during the PM peak hour of 17:00 – 18:00 were the R609 (3 Cyclists), Scairt Cross (3 Cyclists), Church Road (3) and the Old Carrigaline Road (3).

## 5.9 Bus Operating Arrangements and Conditions

### Overview

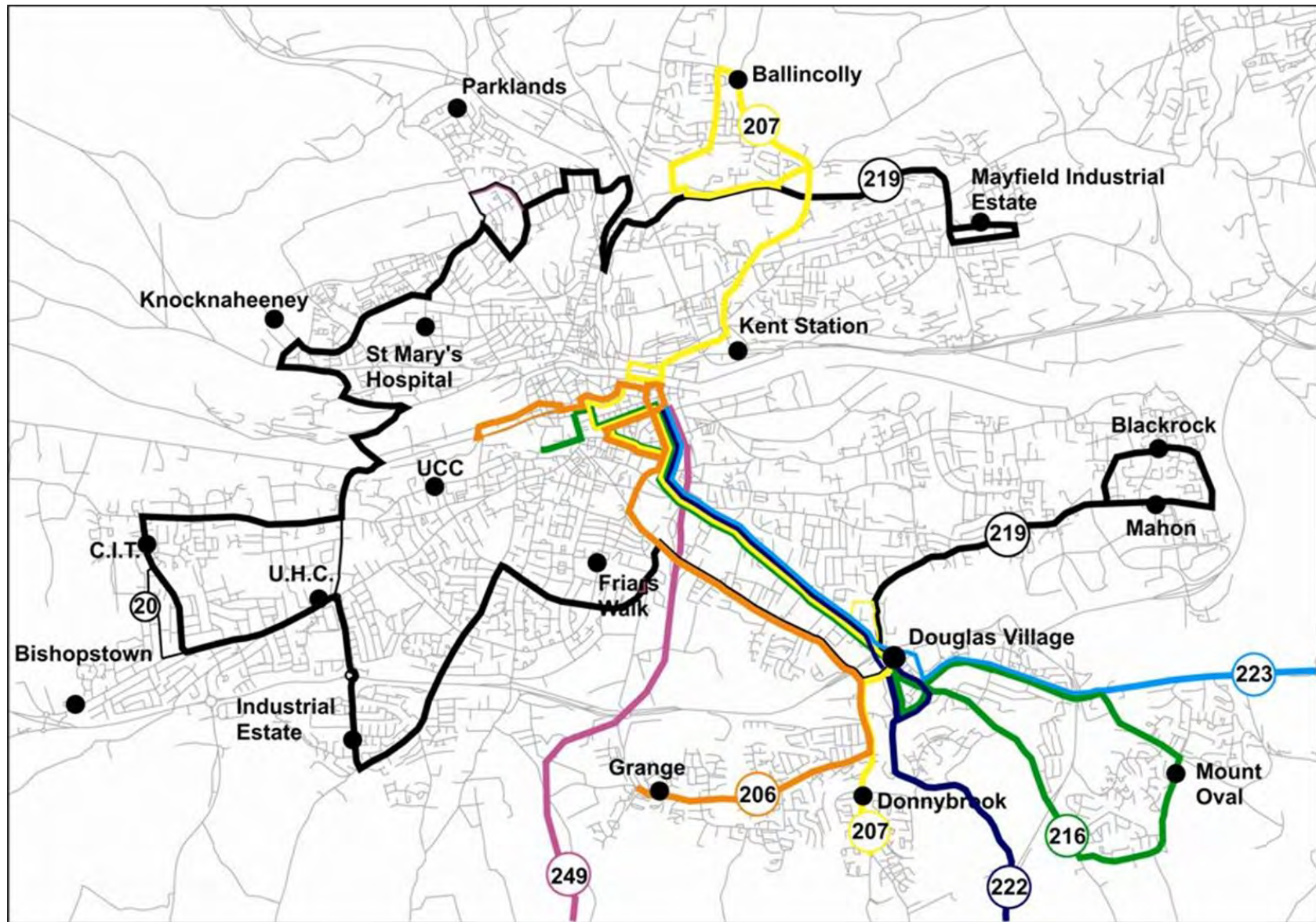
- 5.9.1 At present, The Douglas Study Area is served by four Bus Éireann City bus routes (206, 207, 216 and 219) and three Bus Éireann Regional Routes (222, 223 and 249). These routes are shown in figure 5.37 below.
- 5.9.2 Despite this reasonably high level of coverage public transport use in Douglas remains low (8% of all trips) when compared to Cork County (10%) and state averages (16%).

### Bus Facilities and Conditions

- 5.9.3 Local bus services are limited to the Bus Éireann routes mentioned above with no private operators operating in the Area. Of the four City Routes serving Douglas the 206, operating from Grange Road to Cork City via Douglas Village, has the highest frequency with one bus every 10 minutes throughout the day. The 207 (every 25 minutes during peak times), the 216 (every 30 minutes during peak times) and the 219 (every 60 minutes during peak times) all operated with much lower headways.
- 5.9.4 The two regional routes which pass through Douglas Village (222 and 223) both have headways of 25 minutes during peak periods. Regional Route 249, which connects Kinsale and Cork City via the N27, has a headway of 40 minutes during peak periods. Table 5.2 below outlines the frequency per direction of all the Bus Services passing through the Douglas Study Area.
- 5.9.5 The provision of bus facilities is generally mixed in the Study Area. Some areas, particularly in the village centre, have sheltered bus stops with bus lay bys. However some of the stops outside of the village centre have no shelters or lay bys. Examples of Bus facilities in Douglas are shown in Figure 5.38 below.

The provision of Bus Lanes in the Study Area is limited. At present only two roads have dedicated bus lanes in place, these are on the Grange Road and a short section of Donnybrook Hill northbound.

Figure 5-37 Bus Éireann Routes Operating Through Douglas



**Figure 5-38 Local bus operations in Douglas**



**Picture 1:** Passengers Loading onto the 207 at the stop on Church Street.



**Picture 2:** Sheltered Bus Stop at Douglas Village Shopping Centre.



**Picture 3:** Unsheltered Bus Stop on Rochestown Road with no Lay by

**Table 5.2 Bus services in Douglas**

<b>Bus Route</b>	<b>Scheduled AM Peak Frequency (maximum one direction flows, 07:00 – 10:00hrs)</b>	<b>Route details (From, via and to)</b>	<b>Adult Single</b>	<b>Adult Return</b>
Bus Éireann Route 206	16 Northbound	Grange – Douglas – South Mall	€17.50	€17.50
	13 Southbound	South Mall – Douglas - Grange	€24.50	€24.50
Bus Éireann Route 207	8 Northbound	Donnybrook – Douglas – City	€25.50	€25.50
	8 Southbound	City – Douglas - Donnybrook	€25.50	€35.50
Bus Éireann Route 216	5 Northbound	Mount Oval – South Mall	€18.50	€25.50
	4 Southbound	South Mall – Mount Oval	€18.50	€25.50
Bus Éireann Route 219	4 Westbound	Mahon – Douglas - Bishopstown	€9.80	€13.00
	4 Eastbound	Bishopstown - Mahon - Douglas	€9.80	€13.00
Bus Éireann Route 222	6 South Bound	City – Douglas – Carrigaline	€8.70	€12.40
	9 North Bound	Carrigaline – Douglas - City	€8.70	€12.40
Bus Éireann Route 223	3 Southbound	City – Douglas - Ringaskiddy	€11.70	€15.70
	5 Northbound	Ringaskiddy - Douglas - City	€11.70	€15.70
Bus Éireann Route 249	5 South Bound	City – Cork Airport - Kinsale	€7.60	€10.50
	3 North Bound	Kinsale – Cork Airport - City	€7.60	€10.50

### 5.10 Taxi Facilities

- 5.10.1 The main taxi pick-up facilities are effectively split into two locations; A large Taxi rank located on the Old Carrigaline Road at the junction with Douglas Street East and a smaller rank on Church Street behind Douglas Village Shopping centre.
- 5.10.2 Under the current development plan, adequate taxi set-down / pick-up facilities will continue to be provided within the village centre in close proximity to the primary retail area and other facilities.



### 5.11 Goods Vehicles

#### Overview

- 5.11.1 Three, four and five-axle HGVs were observed throughout the study area. During site visits
- 5.11.2 The limited carriageway width in the Village is unsuited to significant HGV flows. This is, particularly so in the context of encouraging an environment where cycling can be promoted.

#### Loading / Unloading

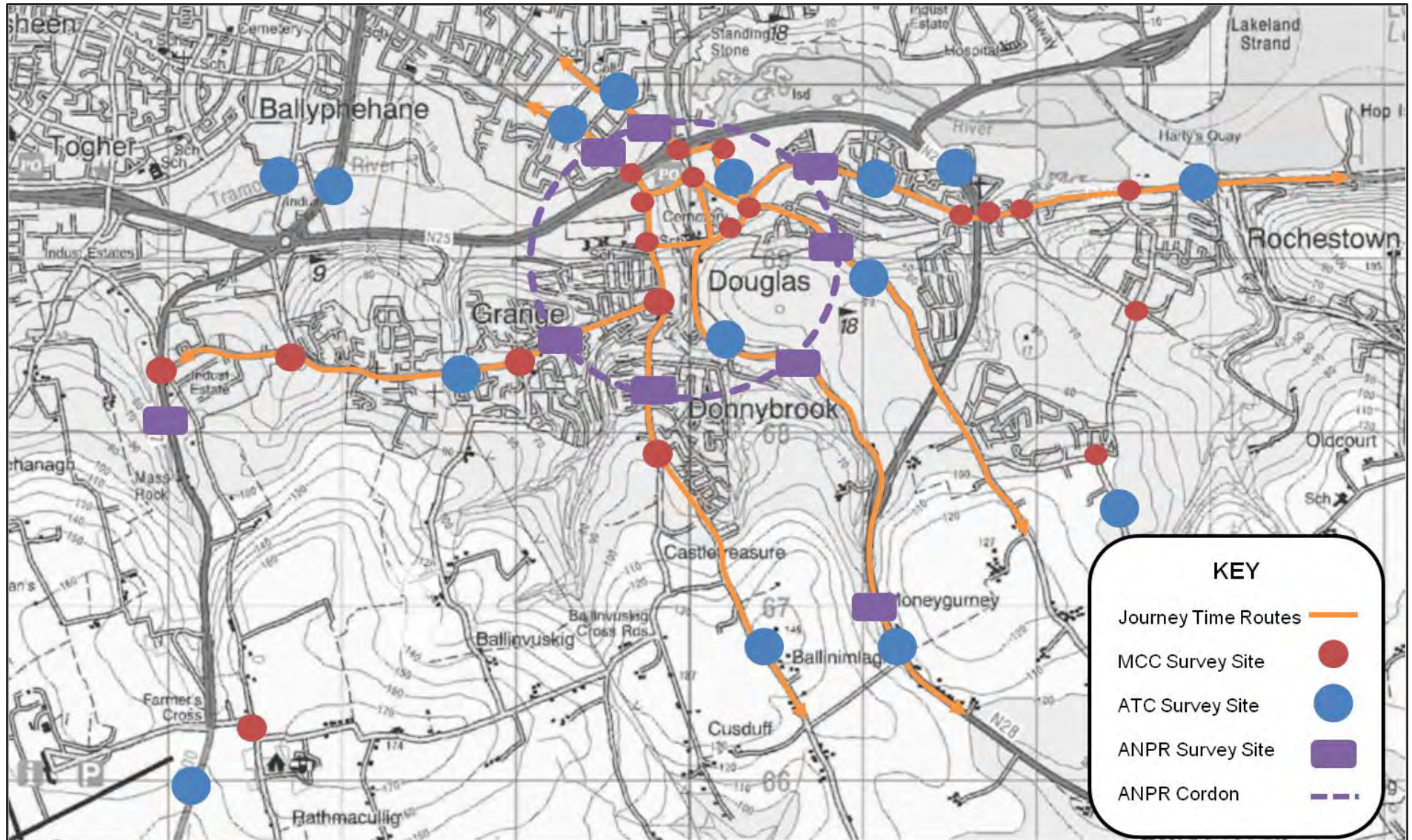
- 5.11.3 Loading and Service Bays are distributed throughout the Village and seem to operate effectively in places. Some premises however provide no loading bays and delivery vehicles have to park on street at their destination. This in turn contributes to congestion as traffic must stop before passing the parked vehicle. This sometimes occurs on Douglas Street West and can disrupt Bus services on the Green Route. Consideration could be given to restricting loading and servicing at peak periods within the Village centre.

# 6 Existing Traffic Flows and Traffic Survey Results

## 6.1 Introduction

- 6.1.1 An extensive set of surveys were undertaken in the Douglas Area in April 2012. These surveys were undertaken with a view to understanding current traffic flows in the Village and surrounding area, the nature of these traffic flows (i.e. whether through or terminating traffic) and the conditions experienced, i.e. journey times. The survey results were also used in calibrating and validating the recently developed Douglas Traffic Model.
- 6.1.2 The following surveys were undertaken:
- Classified junction turning count surveys (21 no. locations, from 07:00 to 10:00hrs and 16:00 – 19:00hrs. Surveys were undertaken on the 18<sup>th</sup> April 2012);
  - Registration plate surveys (9 no. locations, from 07:00 to 10:00 and 16:30 – 18:30. Surveys were undertaken on 17<sup>th</sup> April 2012);
  - Journey time surveys (4 routes, each way AM, and PM Peaks. All undertaken on 18<sup>th</sup> April 2012);
  - Automated traffic counters (ATCs) were also used to supplement this data (15 no. locations, continuous from 17<sup>th</sup> April 2012 to 23<sup>rd</sup> April 2012); and
  - Link Count Surveys were undertaken at 16 locations on the 19<sup>th</sup> of April 2012 between the hours of 07:00 and 19:00.
- 6.1.3 Survey locations for each of the above survey types are illustrated in Figure 6.1 below. It was felt that the wide coverage of the network achieved by these surveys was more than sufficient to allow us ascertain an accurate depiction of traffic flows and conditions in Douglas.

Figure 6-1 Survey locations



## 6.2 Classified Junction Turning Count Surveys

- 6.2.1 The Manual Classified Count surveys (**MCC's**) were commissioned at 21 junctions for the AM and PM peak periods (07:00-10:00 and 16:00-19:00) and were carried out on Wednesday the 18<sup>th</sup> of April. These counts were classified for light vehicles and Heavy Vehicles. Flows detailed in this section refer to light vehicles only i.e. cars plus LGV's combined.

### AM Traffic Flows

- 6.2.2 The heaviest flow in the study area observed during the AM peak of 08:00-09:00 was westbound on the Rochestown Road **at St Patrick's** roundabout, where a total of 1047 cars and light goods vehicles (LGV's) were counted.
- 6.2.3 Another relatively large observation in this area was at the slip road onto the N28 where 855 cars and LGV's were counted making the right turn from the Rochestown Road onto the N28 Slip Road.
- 6.2.4 Other large observations in the AM peak included the City bound directions of the Eastern Link Road where 935 vehicles were observed travelling in a north-westbound direction at the Douglas Court Shopping Centre Roundabout and 932 vehicles were observed travelling Northbound at the signalised junction at Douglas Village Shopping Centre.
- 6.2.5 **Of the above results the counts at St Patrick's roundabout on Rochestown Road are of particular interest as they show that over 80% of traffic travelling westbound on the Rochestown Road at this point is turning right onto the N28 slip lane.** This right turning traffic leads to large queues (up to 1km) on the Rochestown Road as traffic slows down and stops in order to make the turn safely.
- 6.2.6 The count results on the eastern link road illustrate that almost 100% of traffic travelling northbound at this point go on to travel towards the city on the Douglas Road. The result of this is large congestion along the Douglas Road during peak periods.

### PM Traffic Flows

- 6.2.7 During the PM peak (17:00-18:00), the heaviest traffic flow was observed on the off-ramp from the N28 southbound onto Rochestown Road. A total of 1212 cars and light goods vehicles were counted. Approximately 53% of these headed eastbound, along Rochestown Road, before exiting the study area on the R610 towards Pembroke and Passage West. This through traffic forms the majority of eastbound traffic on Rochestown Road.
- 6.2.8 The next largest movement, of 1165 cars and light goods vehicles, was observed heading southbound on Douglas Road approaching the junction with East Douglas Street. Approximately 22% right turned onto the new link road, 20% (239 vehicles) turned into Douglas Village, and 58% of these continued onto the East Link Road.
- 6.2.9 The survey also highlighted significant traffic movements at Ballycurreen Crossroads, with 1000 southbound and 912 northbound cars and light goods vehicles on the N27. This road also carries a significant volume of HGVs (25 southbound, 29 northbound) during the PM peak.
- 6.2.10 Another significant movement for HGVs is westbound along Rochestown Road. Approximately 11 vehicles enter the Study area on the R610, and this rises to 17 vehicles at

the junction with the N28. All of the HGVs right turn onto the N28 on-ramp, thus avoiding Douglas Village Centre.

### Automated Traffic Counter (ATC Surveys)

- 6.2.11 Automated Traffic Counts (ATC's) were also commissioned for all the entry points into the study area. Figures 6.2 and 6.3 below illustrates the results of the ATC surveys for the AM peak (08:00-09:00) and PM peak periods (17:00 – 18:00). The numbers in black represent light vehicles and the numbers in red represent Heavy Goods Vehicles.
- 6.2.12 As the ATC's cover all the entry/exit points into the Study Area and the village they allow us to establish the amount of traffic entering and leaving the study area during the survey period. The figures detailed below represent weekday averages for the time periods concerned and refer to light vehicles only, i.e. cars and light goods vehicles.

### AM Peak ATC Flows

- 6.2.13 The largest flows registered during the AM Peak from 08:00 to 09:00 were registered on the national roads which border Douglas Village. The two largest counts from the AM peak period were northbound on the N28 (2328) and southbound on the N27 (1494).
- 6.2.14 Closer to the Village centre the largest counts seen during the AM peak were northbound on the Eastern Link Road (977) and northbound on the Douglas Road (946). Northbound flows on South Douglas Road were also relatively high (733) during the AM Peak period.
- 6.2.15 These counts show that the primary movement of Traffic in the AM peak is from the residential areas in and around Douglas, northwards towards Cork City Centre. A large proportion of this northbound traffic uses the Douglas Road and South Douglas Road, and as a result is funnelled through Douglas village, resulting in the capacity related issues mentioned earlier in this report.

### PM Peak ATC Flows

- 6.2.16 The largest flows registered during the PM Peak from 17:00 to 18:00 were also registered on the national roads which border Douglas Village. The two largest counts from the PM peak period were southbound on the N28 (2228) and southbound on the N27 (2106).
- 6.2.17 In Douglas Village the largest counts seen during the PM peak were southbound on the Douglas Road (1009) and eastbound on Rochestown Road (842).

These counts, as would be expected, show that the primary movement of Traffic in the PM peak is a reversal of the AM peak. I.e. traffic is moving away from Cork City Centre towards the residential areas in and around Douglas Village. As with the AM peak this results in large amounts of traffic using the Douglas Road and eastern link road which in turn increases delay on these routes.

Figure 6-2 ATC Survey Results (Links outside Douglas Village)

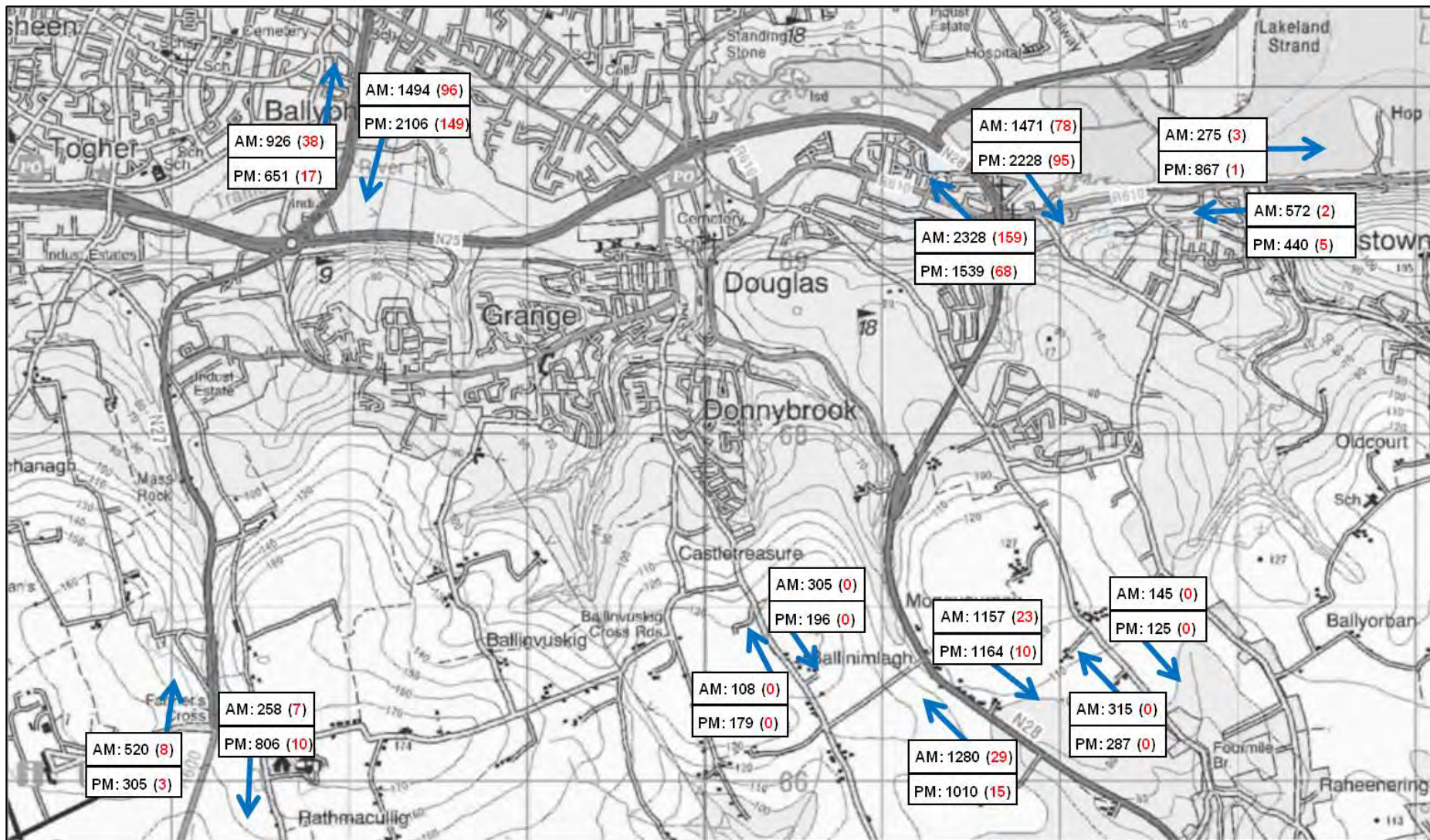
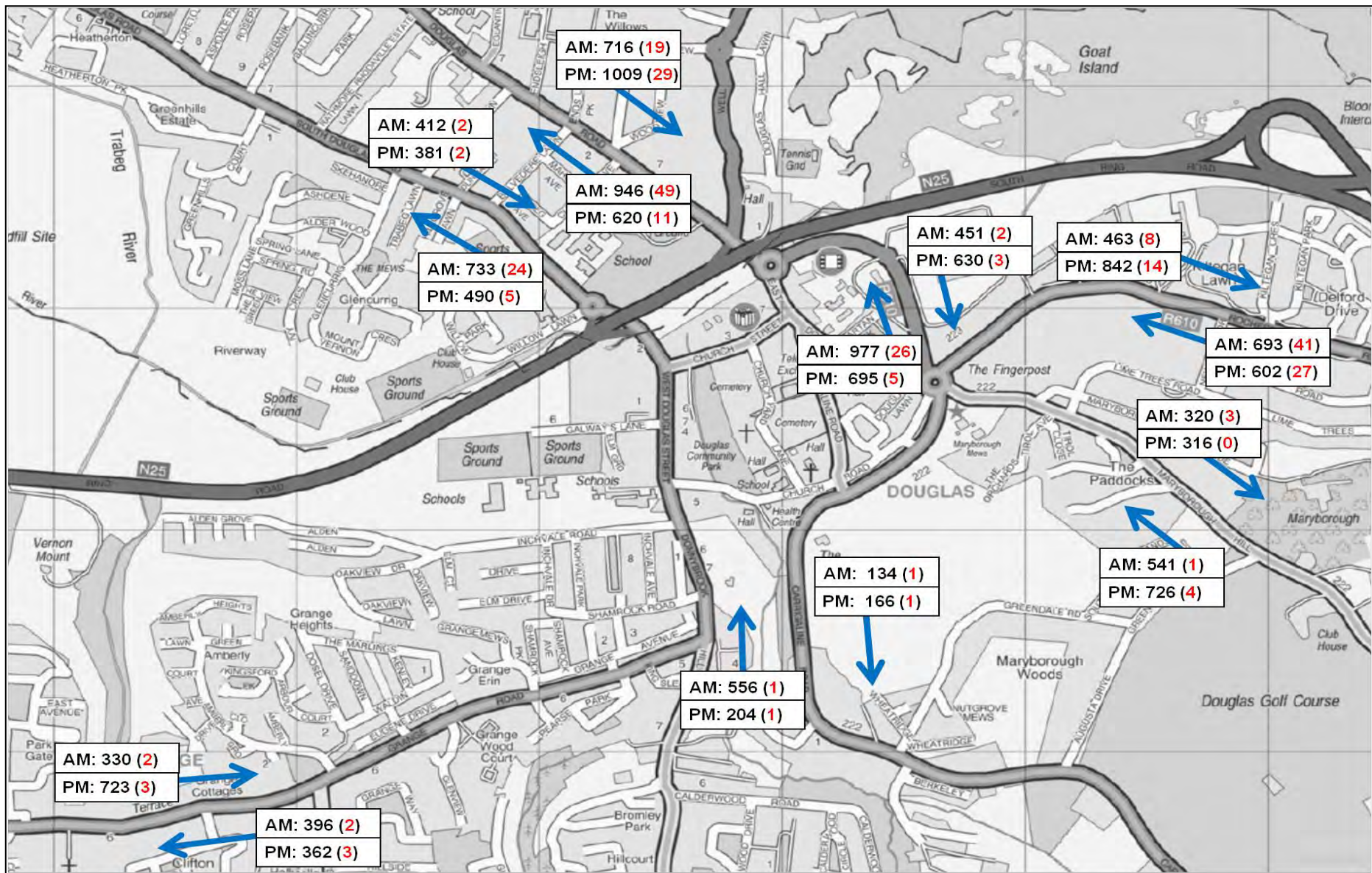


Figure 6-3 ATC Survey Results (Links outside Douglas Village)



### **6.3 Registration Plate Surveys and Results**

- 6.3.1 The registration plate surveys take note of all registration plates entering and leaving the study area. From this information it is possible to ascertain general travel patterns of traffic entering the study area. For example we can tell whether a car which entered the study area on a particular road stayed inside the study area or passed through it and on what road that particular car exited the study area. Figure 6.1 above illustrates the locations of the registration plate surveys.
- 6.3.2 By processing the registration plate survey data it is possible to produce an Origin – Destination style matrix for all traffic entering and leaving the Douglas Cordon Area (purple circle in Figure 6.1). By creating a cordon, we can analyse the traffic movements through Douglas Village.

#### **AM Results**

- 6.3.3 Table 6.1 below shows the O-D trip matrix for through trips in the AM peak (8:00-9:00) derived from the registration plate surveys. Trip origins are listed in the left hand column and trip destinations are listed on the top row.
- 6.3.4 Analysis of this matrix shows that there are a significant number of return trips in the AM peak, i.e. trips to and from the same road. These trips represent work / school drop off trips as well as other short shopping trips.
- 6.3.5 Return trips aside, the most significant through trip movement in the AM peak is from southeast to northwest, towards Cork City Centre. In total, approximately 89% of surveyed vehicles heading northbound on the Douglas Road came from Carrigaline Road / Maryborough Hill / Rochestown Road.
- 6.3.6 Traffic in the reverse direction represents the next most significant movement. Approximately 64% of surveyed traffic heading southbound on the Douglas Road leaves the cordon via Maryborough Hill or Rochestown Road.
- 6.3.7 Most of the above traffic travels via the East Link Road, and thus avoids Douglas Village Centre. The exception being vehicles from the N28-Carrs Hill, a significant portion of which travel via Carrigaline Road, then pass through Douglas Village Centre, and onto Douglas Road.

#### **PM Peak Results**

- 6.3.8 Table 6.2 below shows the O-D trip matrix for through trips in the PM peak derived from the registration plate surveys. Trip origins are listed in the left hand column and trip destinations are listed on the top row. On the roads surveyed, the number of return trips in the PM peak is generally comparable to that in the AM peak. However, there is a marked increase on Douglas Road, with 100 vehicles making a return trip within the PM peak (17:00-18:00). It is likely that these are short shopping trips to Douglas Village Centre.
- 6.3.9 As in the AM peak, in the PM peak there is a strong northwest - southeast pattern to the recorded traffic movements i.e. between Douglas Road and Carrigaline Road / Maryborough Hill / Rochestown Road. This will primarily be composed to workers returning home.
- 6.3.10 The other significant traffic movement during the PM peak is from Grange Road to Scairt Hill, with 117 trips.



**Table 6.1 Table of Surveyed Traffic Movements within the ANPR Cordon during the AM Peak (08:00-09:00)**

	Grange Road	Scairt Hill	Carrigaline Road	Maryborough Hill	Rochestown Road	Douglas Road	S. Douglas Road
Grange Road	41	45	0	4	15	17	37
Scairt Hill	26	30	0	3	10	17	39
Carrigaline Road	6	11	7	5	29	<b>245</b>	55
Maryborough Hill	4	5	1	26	13	<b>199</b>	28
Rochestown Road	37	17	21	18	64	<b>283</b>	51
Douglas Road	19	31	54	<b>145</b>	<b>150</b>	42	17
South Douglas Road	21	32	10	17	42	10	45

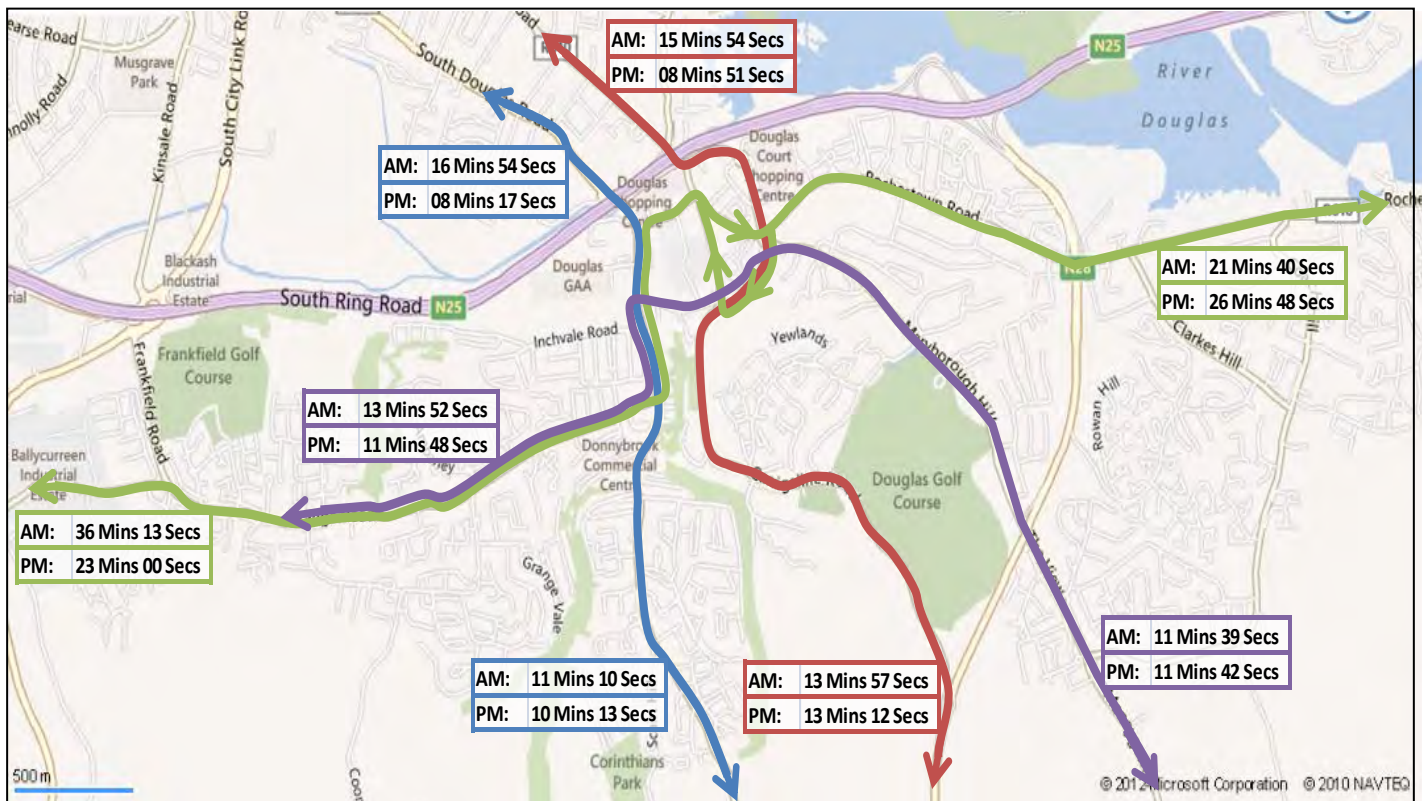
**Table 6.2 Table of Surveyed Traffic Movements within the ANPR Cordon during the PM Peak (17:00-18:00)**

	Grange Road	Scairt Hill	Carrigaline Road	Maryborough Hill	Rochestown Road	Douglas Road	S. Douglas Road
Grange Road	44	<b>117</b>	3	27	23	26	45
Scairt Hill	43	41	0	24	14	11	50
Carrigaline Road	4	5	10	5	11	84	18
Maryborough Hill	7	10	2	56	17	80	25
Rochestown Road	17	47	11	42	30	<b>113</b>	37
Douglas Road	14	42	69	<b>253</b>	<b>132</b>	<b>100</b>	34
South Douglas Road	15	62	10	36	21	22	39

## 6.4 Journey Time Surveys and Results

- 6.4.1 The journey time surveys were carried out on four routes, and surveyed between the hours of 07:00-10:00, and 16:30-18:30 on Wednesday the 18<sup>th</sup> of April. The results of these surveys allow us to establish average journey times throughout the network during peak times.
- 6.4.2 The results of these surveys are illustrated in Figure 6.4 below for the AM and PM peak periods. These are average results for all journey times carried out in the AM peak (08:00-09:00) and PM peak (17:00-17:30).
- 6.4.3 The Key findings of these surveys are that:
- Journey times are slowest in the AM peak for the Purple and Green routes Westbound and also on the Red and Blue routes Northbound.
  - Southbound Journey times on the Blue and Red routes as well as eastbound journeys on the Purple route are quite consistent between AM and PM peak periods. All three of these routes show less than a one minute difference between the AM and PM peak periods.
  - Northbound (towards Cork City) Journey times on both the Red and Blue routes differ quite substantially between the peak periods. Journey times on both these routes are in the region of 8-9 minutes in the PM peak but almost double in the AM peak to 16 minutes 54 seconds for the Blue route northbound and 15 minutes 54 seconds for the Red route northbound. In the case of both these journeys, the longest delay was experienced on Donnybrook hill and Douglas Street West.
  - In general AM journey times are slowest with congestion experienced On the Rochestown Road, Donnybrook Hill, Douglas Street West and Douglas Street East. The slowest journey time for the AM period is Westbound on the Green route with a journey time of 36 minutes 13 seconds.
  - The PM journey times register the fastest journey times for both blue routes and red routes. Both Purple route and Green route westbound also experience their fastest journey times in the PM peak. The slowest journey time in the PM peak is on the Green Route westbound which takes 26 minutes and 48 seconds.

**Figure 6-4 Journey Time Survey Routes and results**



## 6.5 Pedestrian Surveys

6.5.1 Link count surveys were carried out throughout the Study Area on Thursday the 19th of April over a 12 hour period from 07:00 – 19:00. In total 16 sites were surveyed, the location of the count sites as well as an indication of the two-way pedestrian flow at these sites, during the AM and PM peak hours, is illustrated in Figures 6.5 and 6.6 respectively. The purpose of these link counts was to count the number of pedestrians and cyclists at each of the points over a 12 hour period.

### Pedestrian Flow – AM Peak Period

6.5.2 The highest pedestrian flows observed during the AM peak (08:00 – 09:00) were seen in the areas close to the schools in Douglas. The highest, hourly, two-way flow recorded was 327 pedestrians on Douglas Road South in close vicinity to Douglas Community School. Other particularly high observations were on Donnybrook hill (200 pedestrians between 08:00 – 09:00) close to the junction with Church Road, and on Church Road itself (130 pedestrians between 08:00 – 09:00).

6.5.3 In and around the village centre pedestrian flows were lower, with 33 pedestrians observed on Douglas Street East (at Gartan Park) between 08:00 – 09:00 and 65 pedestrians observed at the Northern end of Douglas Street East during the same time period.

**Figure 6-5 AM (08:00 – 09:00) Pedestrian Survey Results in Douglas**



**Figure 6-6 PM (17:00 – 18:00) Pedestrian Survey Results in Douglas**



## **Pedestrian Flow – PM Peak Period**

- 6.5.4 The highest pedestrian flows observed during the PM peak (17:00 – 18:00) were recorded on Douglas Road East close to Douglas village shopping centre, where 429 pedestrians were counted. The next highest pedestrian counts were on Church Street (128), Grange Road (115) and Donnybrook Hill (114).
- 6.5.5 In the Southern section of the village centre pedestrian flows were lower, with 87 pedestrians observed on Douglas Street East (at Gartan Park) between 17:00 – 18:00 and 25 pedestrians observed at the Old Carrigaline Road during the same time period.
- 6.5.6 Links count sites which recorded particularly low numbers of pedestrians during the PM peak hour include:
- Rochestown Road (13 pedestrians);
  - R609 near Church Road (13 Pedestrians);
  - Scairt Cross (16 Pedestrians); and
  - Eastern Link Road (16 pedestrians).

# 7 Travel Survey Results

## 7.1 Introduction

- 7.1.1 An online travel survey was established and instigated in April 2012. The website was published in the local media, The Examiner and local radio. In addition, invitations to complete the survey were circulated to major employers in the area and to people attending the public exhibition.
- 7.1.2 A summary of the key findings is provided in this section of the Baseline Report.

## 7.2 Rate and Profile of Responses

- 7.2.1 In total, 122 people responded to the survey (via the website, completing them by hand at the public exhibition or by post back. Of the 120 respondents who specified their gender, 61% (n=73) were male and 39% (n=47) were female. Of the 120 respondents who specified their age, 38% (n=46) were over 55, 19% (n=23) were 45-55, 23% (n=27) were 35-44, 16% (n=19) were 25-34, and four per cent (n=5) were under 25.
- 7.2.2 Table 7.1 below details where respondents stated they lived. Almost a third (30%, n=36) stated they lived in Douglas, while 18% (n=22) said they lived in Rochestown.

**Table 7.1 Residence of respondents**

	Number	Percentage
Ballinlough	1	1
Ballinrea Road	1	1
Ballygarvan	1	1
Ballyphehane	2	2
Carrigaline	3	2
Cobh	1	1
Cork	1	1
Donnybrook	14	12
Douglas	36	30
Frankfield	5	4
Grange	7	6
Grange Heights	2	2
Hettyfield	2	2
Killorglan	1	1
Maryborough Hill	3	3
Midleton	1	1
Monkstown	1	1
Not specified	14	12
Passage West	1	1
Rochestown	22	18
Top of Scairt Hill, Westgrove	1	1
Turners Cross	1	1
Youghal	1	1
<b>Total</b>	<b>122</b>	<b>100</b>

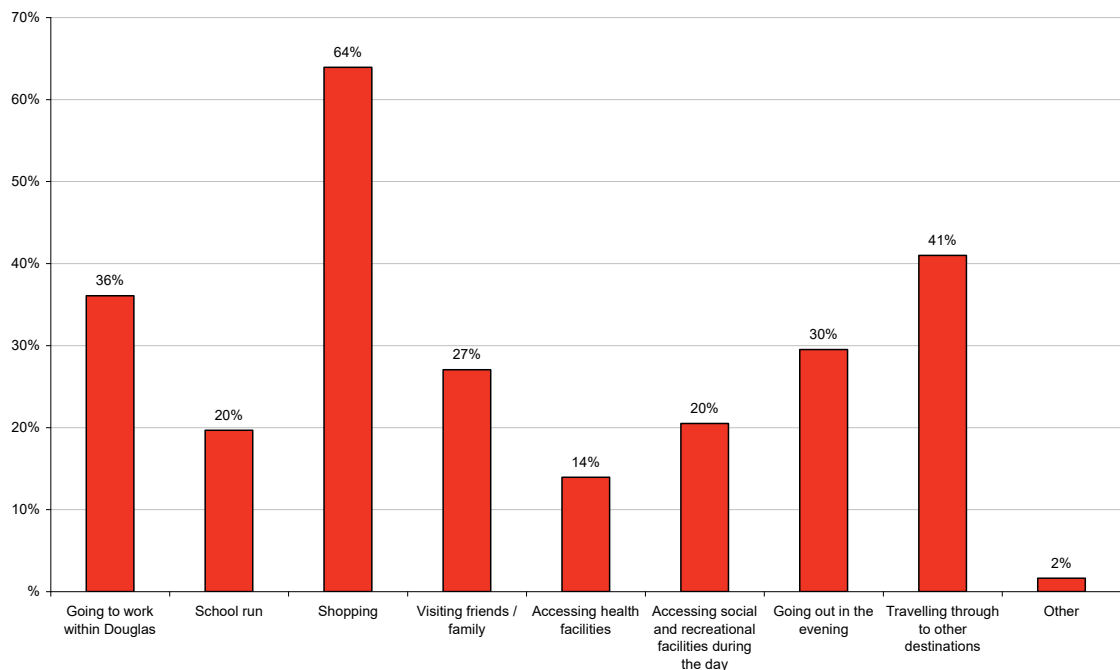
- 7.2.1 Of the 122 respondents who specified whether they drove or not, 93% (n=112) stated that they did, while only seven per cent (n=9) said that they did not drive.



## 7 Travel Survey Results

- 7.2.2 In total, 121 respondents specified whether they owned or had access to a bike. Half (50%, n=61) said that they did, the other 50% (n=60) said they did not own or have access to a bike.
- 7.2.3 When asked how frequently respondents travel within the Douglas area, 119 people answered the question. As many as 84% (n=100) stated that they travel daily within the Douglas area, with a further eight per cent (n=10) stating they travel 3-4 days per week, six per cent (n=7) staying 1-2 days per week, one person stating fortnightly, and one other person stating occasionally.
- 7.2.4 When asked why respondents travel within the Douglas area, 64% (n=78) said they did so to go shopping, 41% (N=50) said they were travelling through to other destinations, 30% (n=36) said going out in the evening, and 27% (n=33) said visiting friends/family. This is shown in the figure below. Other responses were Church and going to work via Douglas.

**Figure 7-1 Why respondents travel within the Douglas area**



Note: Totals equal more than 100% due to multiple responses

- 7.2.5 When asked if respondents had a health problem or disability that affects their choice of travel, almost all (98%, n=120) said that they did not.
- 7.2.6 The table below shows that half of the respondents (56%, n=68) who returned the questionnaire stated that they worked full-time, while 14% (n=17) said that they worked part-time, and 16% (n=20) said they were retired.

**Table 7.2 Working pattern of respondents**

	Number	Percentage
Working Full-time	68	56
Working Part-time	17	14
Full-time student	6	5
Unable to work due to illness / disability	1	1
Retired	20	16
Looking after home / family	10	8
<b>Total</b>	<b>122</b>	<b>100</b>

### 7.3 Journey to Work or Education

7.3.1 Respondents who said that they were working or were a student were asked the town/location of where they work/study. This is shown in the table below.

**Table 7.3 Location of Work/Study**

	Number	Percentage
Across Cork City and County	1	25
Airport Road	1	1
Ballincolig	1	1
Bishopstown	2	1
Blackrock	1	2
Carrigtwohill	2	1
City centre	8	2
Cork	6	7
Cork Airport Business Park	2	5
Cork City	9	2
Cork/Airport	1	7
Cork/Kerry	1	1
Donnybrook	1	1
Douglas	26	1
Douglas Court Shopping Centre	2	21
Douglas Village	2	2
Fermoy	1	2
Fingerpost	1	1
Kinsale Road	1	1
Little Island	2	1
Mahon	2	2
Midleton	1	2
Munster	1	1
Not specified	5	1
Ringaskiddy	1	4
St Finbarrs Hospital	2	1
Turners Cross	1	2
University College Cork	6	1
Victoria Cross	1	5
<b>Total</b>	<b>91</b>	<b>100</b>

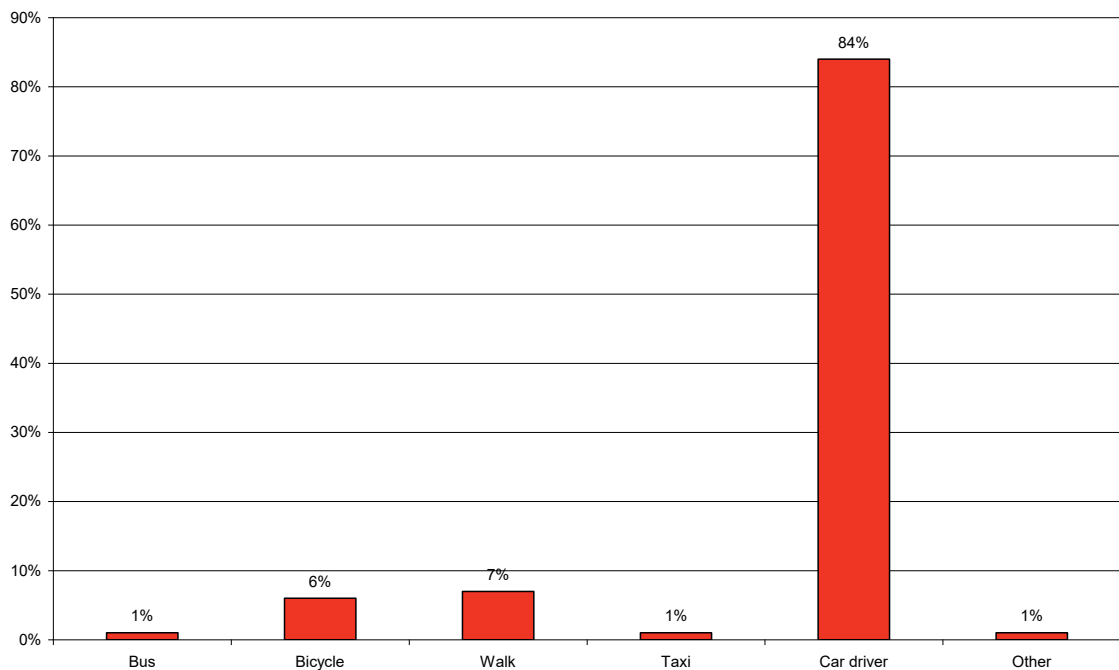
7.3.2 Most respondents (88%, n=71) attended a work or education facility from between the hours of 8:00 and 10:00. Almost half of respondents (43%, n=35) left the work or education facility between the hours of 16:00-17:59, while a further 44% (n=36) left between the hours of 18:00 and 19:59. This is detailed in the table below.

**Table 7.4 Hours attending work or education facility**

	From		To	
	Number	Percentage	Number	Percentage
4:00-5:59	1	1	1	1
6:00-7:59	3	4	0	0
8:00-9:59	71	88	0	0
10:00-11:59	4	5	0	0
12-13:59	2	2	5	6
14:00-15:59	0	0	2	2
16:00-17:59	0	0	35	43
18:00-19:59	0	0	36	44
20:00-21:59	0	0	2	2
<b>Total</b>	<b>81</b>	<b>100</b>	<b>81</b>	<b>100</b>

7.3.3 Respondents were asked what mode of transport they use most often. All 122 respondents answered the question, and the figure below quite clearly shows that the most frequently cited mode was car driver, with 84% (n=102) stating that this was the mode they used most often. Other responses included travelling by van.

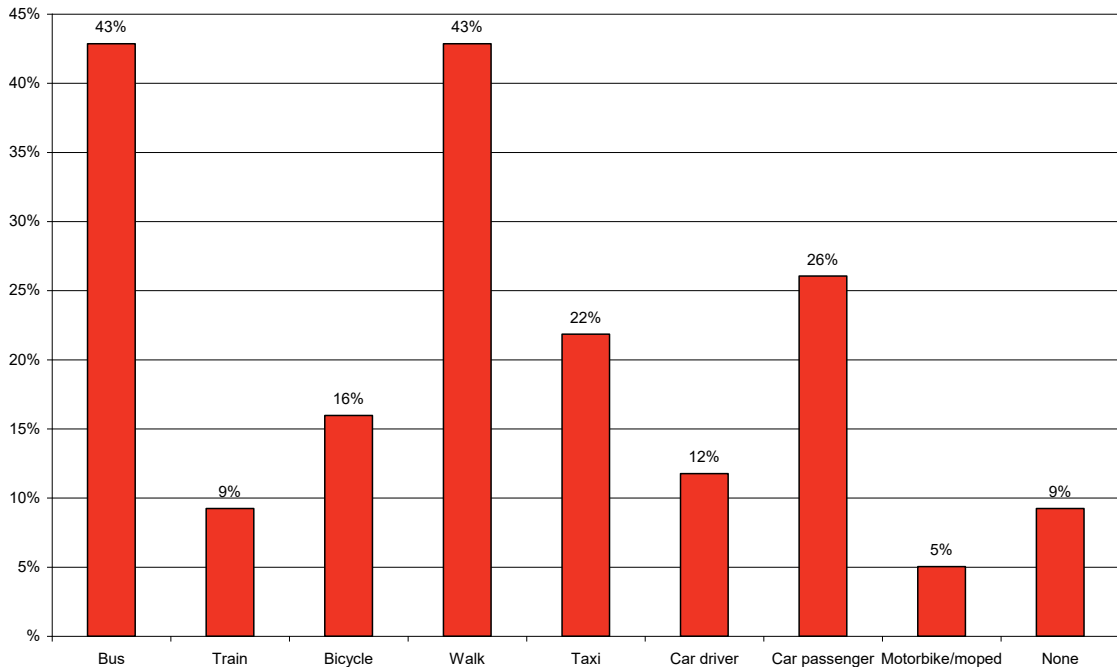
**Figure 7-2 Mode used most often**



## 7 Travel Survey Results

7.3.4 Respondents were also asked if there were any other modes that they occasionally use instead of their main mode of transport. The graph below shows that the most frequently cited responses were bus (43%, n=51) and walk (43%, n=51).

**Figure 7-3 Other modes occasionally used**

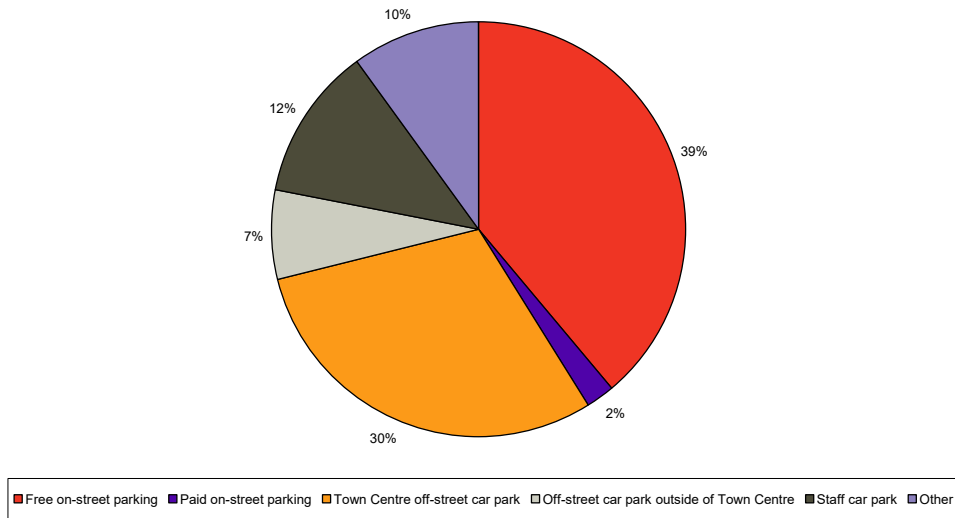


Note: Totals equal more than 100% due to multiple responses

### 7.4 Travel by Car

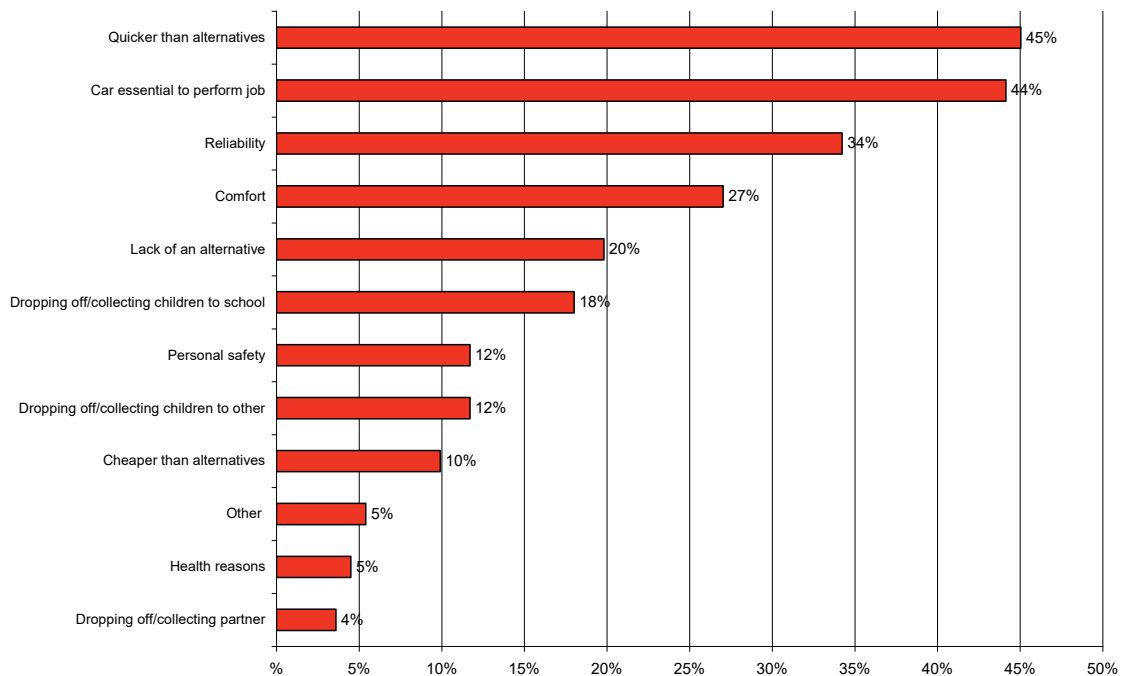
7.4.1 Respondents who stated that they either mostly or occasionally travelled as a car driver were asked to specify where they usually parked. Of the 88 respondents who specified, the graph below shows that 39% (n=42) parked in free on-street parking, while 30% (n=32) said they parked in a town Centre off-street car park. Other locations included at a **friend's** house, Dunnes, at home, in a multi-storey car park, and in a shopping centre car park.

**Figure 7-4 Location of Parked Car**



7.4.2 Respondents were also asked the reason that they used their car for travelling. Almost half of respondents (45%, n=50) said that it was quicker than alternatives, 44% (n=49) said that a car was essential to perform their job, and 34% (n=38) stated it was because it was reliable. This is detailed in the figure below.

**Figure 7-5 Reasons for using car to travel**



Note: Totals equal more than 100% due to multiple responses

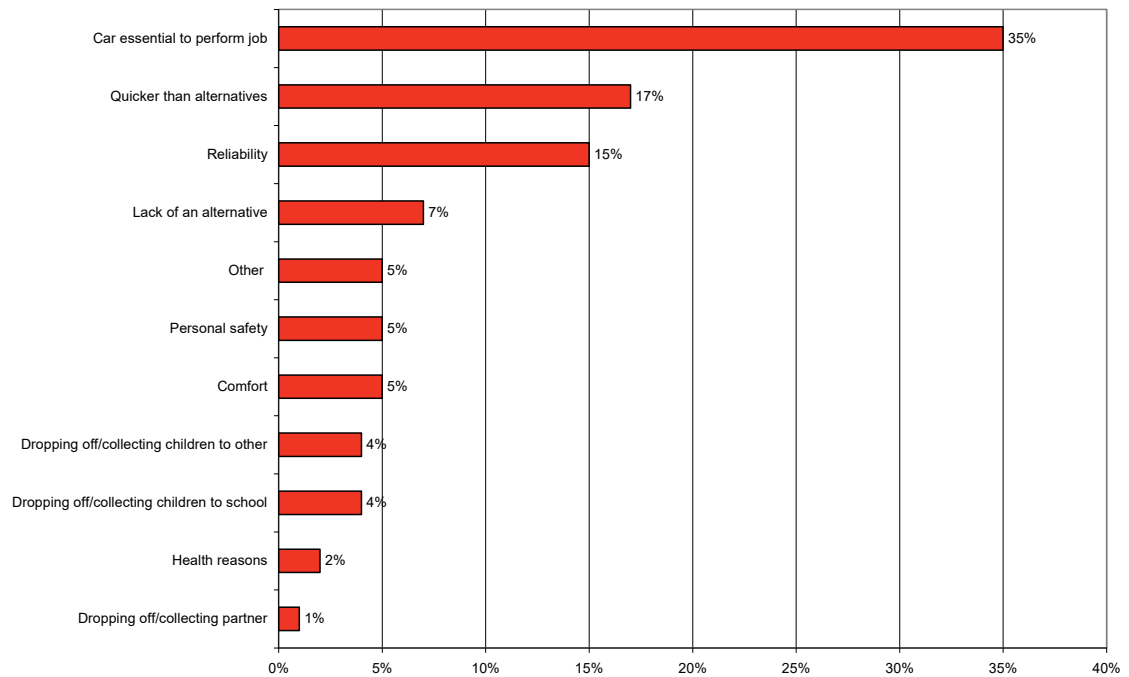
## 7 Travel Survey Results

### 7.4.3 Other responses included:

- access to other areas not covered by public transport;
- carrying shopping and passengers;
- easier to manage files and computer;
- for occasional out of town meetings;
- caring for my elderly relative; and
- too dangerous to cycle.

7.4.4 Of all the reasons why respondents use a car to travel, they were asked what they consider to be the most important reason. The graph below shows that over a third of respondents (36%, n=38) stated that this was because their car was essential to perform their job.

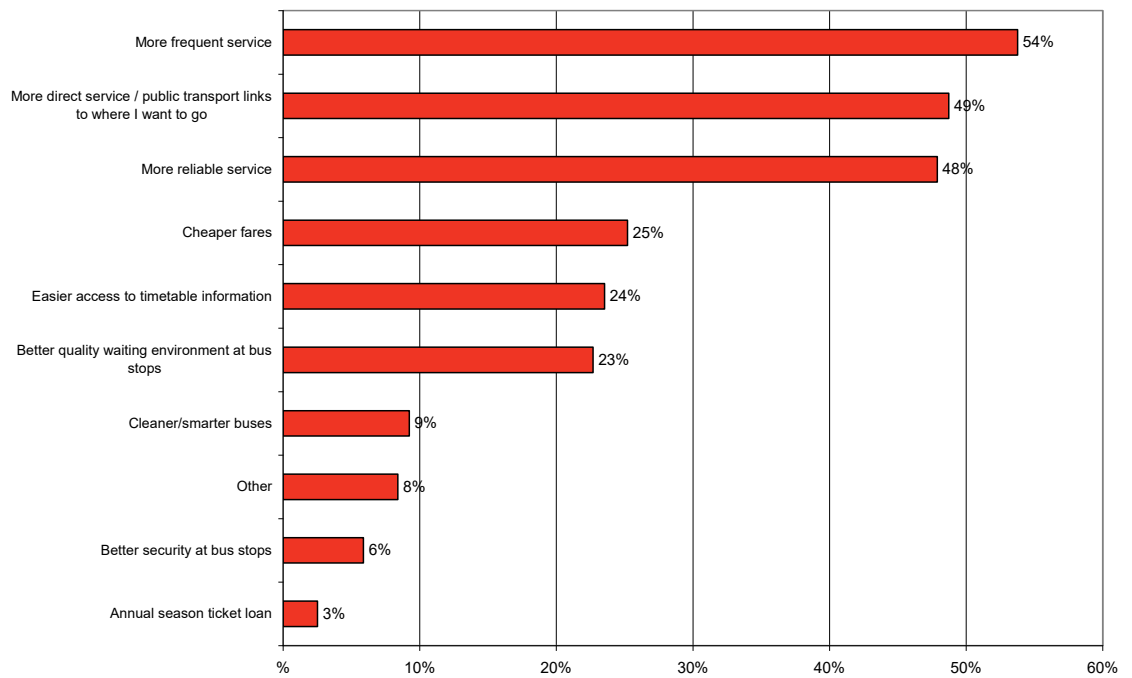
**Figure 7-6 Most important reason for using car to travel**



## 7.5 Travel by Public Transport, Cycle or Walking

### Encouraging bus use

7.5.1 Respondents were asked which of the following improvements would most encourage them to use the bus more. Over half of respondents (54%, n=64) said a more frequent service would encourage them to use the bus more, 49% (n=58) said a more direct service / public transport links to where they want to go, and 48% (n=57) said a more reliable service. This is shown in the graph below.

**Figure 7-7 Improvements that would encourage bus use**

Note: Totals equal more than 100% due to multiple responses

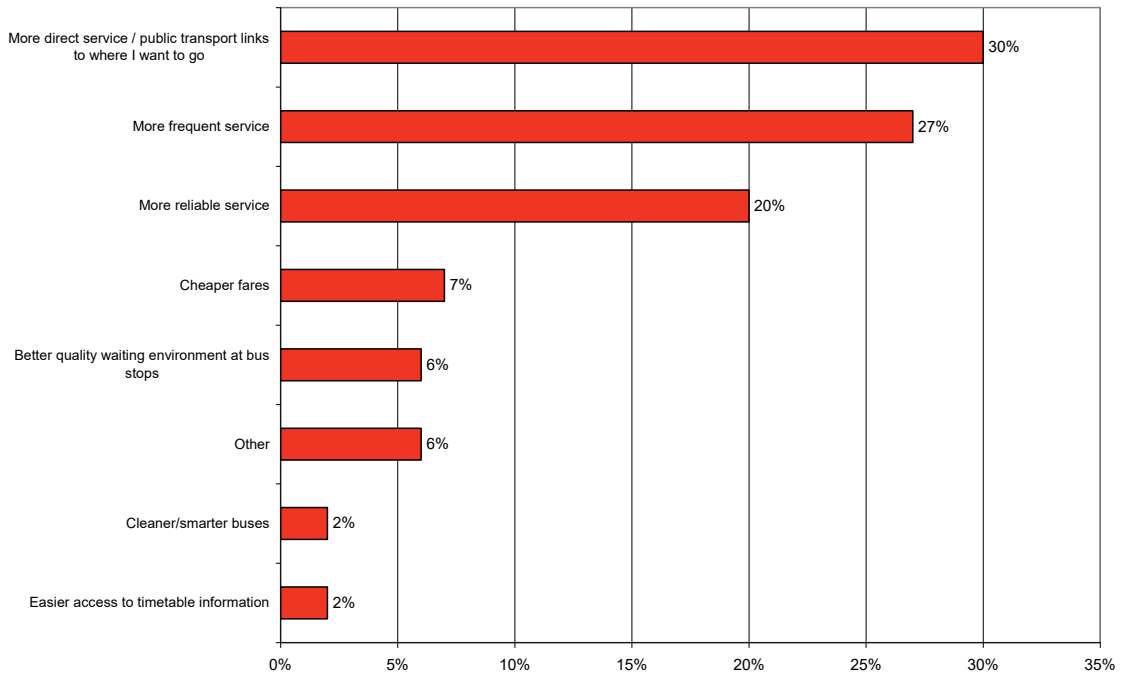
#### 7.5.2 Other responses included:

- shorter bus journeys;
- ETA information;
- better location of bus stops;
- parking nearer to bus stops; and
- able to guarantee a seat on the bus.

#### 7.5.3 Of these improvements, respondents were asked what they considered to be the most important improvement. Of the 113 respondents who specified, the graph below shows that 30% (n=34) said a more direct service / public transport links to where they want to go would be the most important improvement, 27% (n=30) said a more frequent service, and 20% (n=23) said a more reliable service.

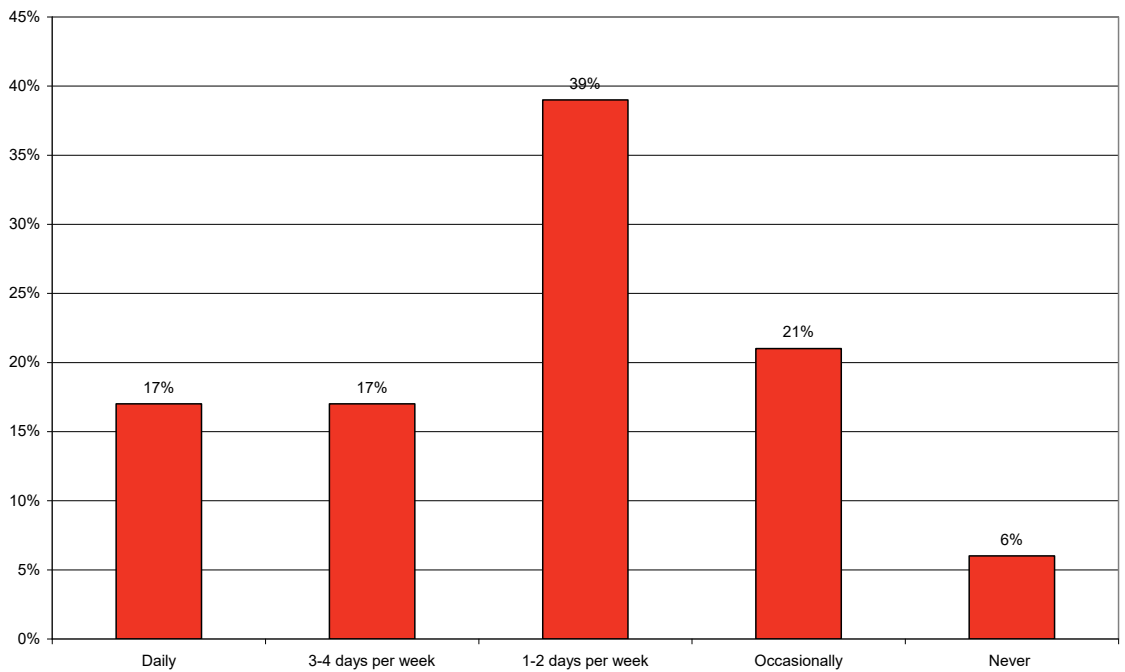


**Figure 7-8 Most Important improvement that would encourage bus use**



7.5.4 If the improvements were made, respondents were asked how often they would consider using the bus. Of the 119 people who answered the question, the graph below shows that 39% (n=46) said 1-2 days per week, while 21% (n=25) said occasionally.

**Figure 7-9 Frequency of using the bus if improvements were made**



## 7 Travel Survey Results

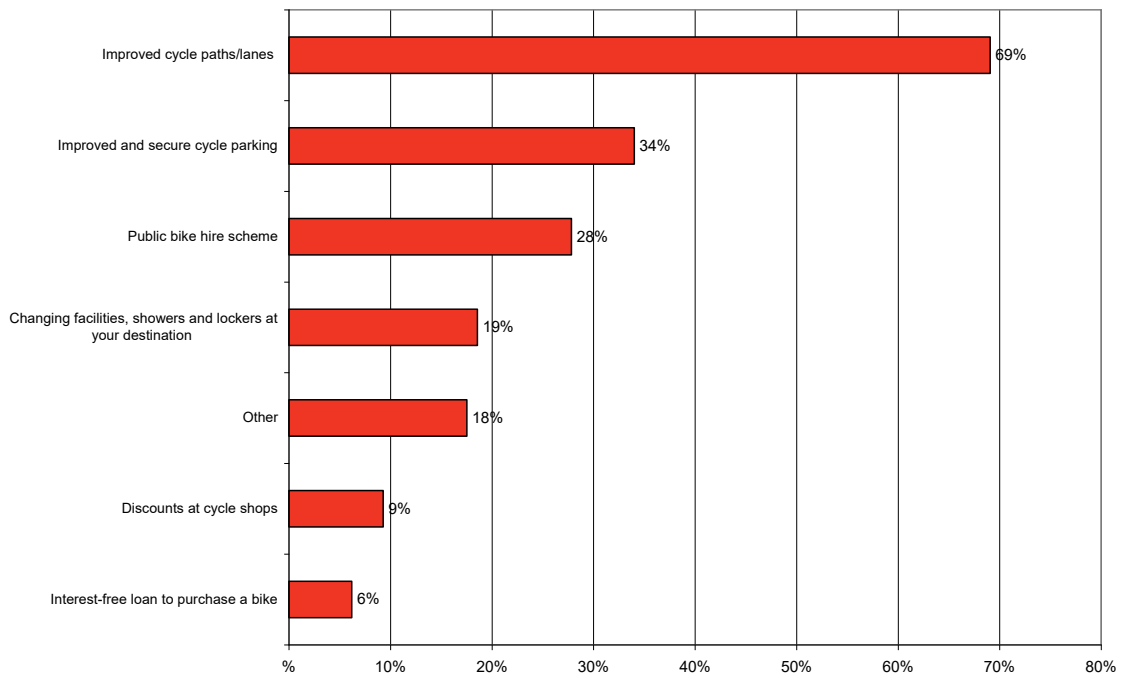
7.5.5 Of those who said never, responses included:

- do not like the bus;
- when travelling would always be picking up/dropping off children;
- home is too far from a bus stop;
- respondents has a disability which would enable them to use a bus; and
- there is no bus rote where the respondent wants to go.

### Encouraging cycle use

7.5.6 Respondents were also asked what improvements would encourage them to cycle more. Over two thirds of respondents (70%, n=67) said improved cycle paths/lanes would encourage them to cycle more. A third of respondents (34%, n=33) said improved and secure cycle parking, and 28% (n=27) said a public bike hire scheme. This is detailed in the graph below.

**Figure 7-10 Improvements that would encourage cycle use**



Note: Totals equal more than 100% due to multiple responses

7.5.7 Other responses included:

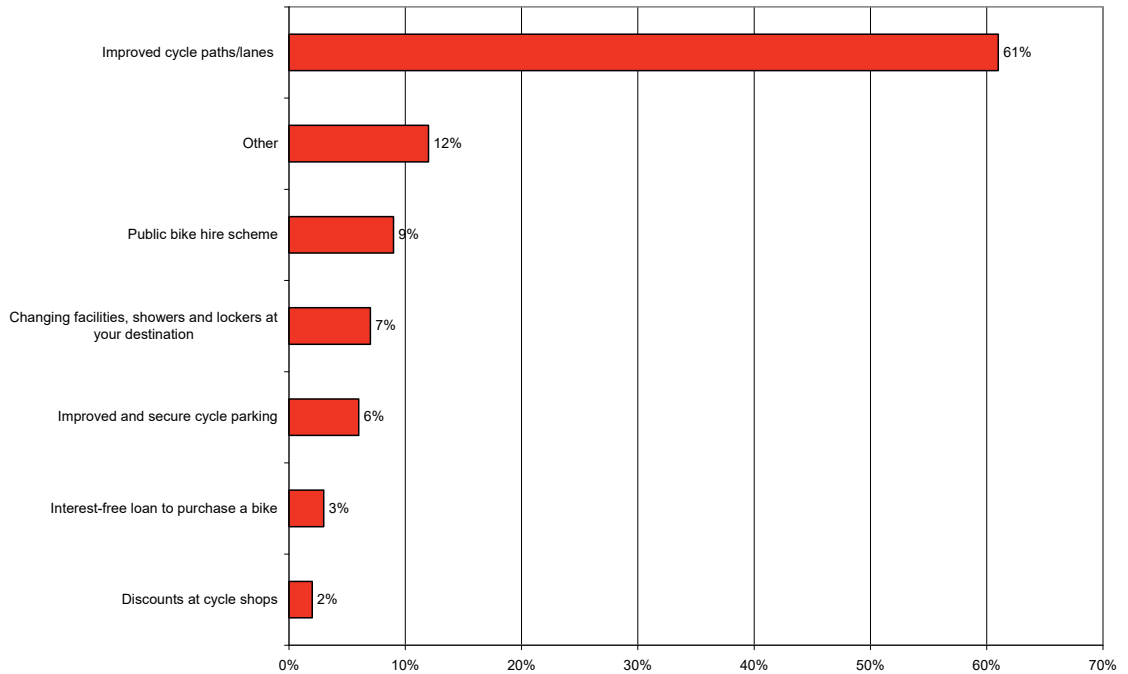
- safer cycling routes;
- better weather;
- bike to work scheme with employer;
- a less hilly area;
- less air pollution; and

## 7 Travel Survey Results

- none: disabled, elderly, poor health, etc.

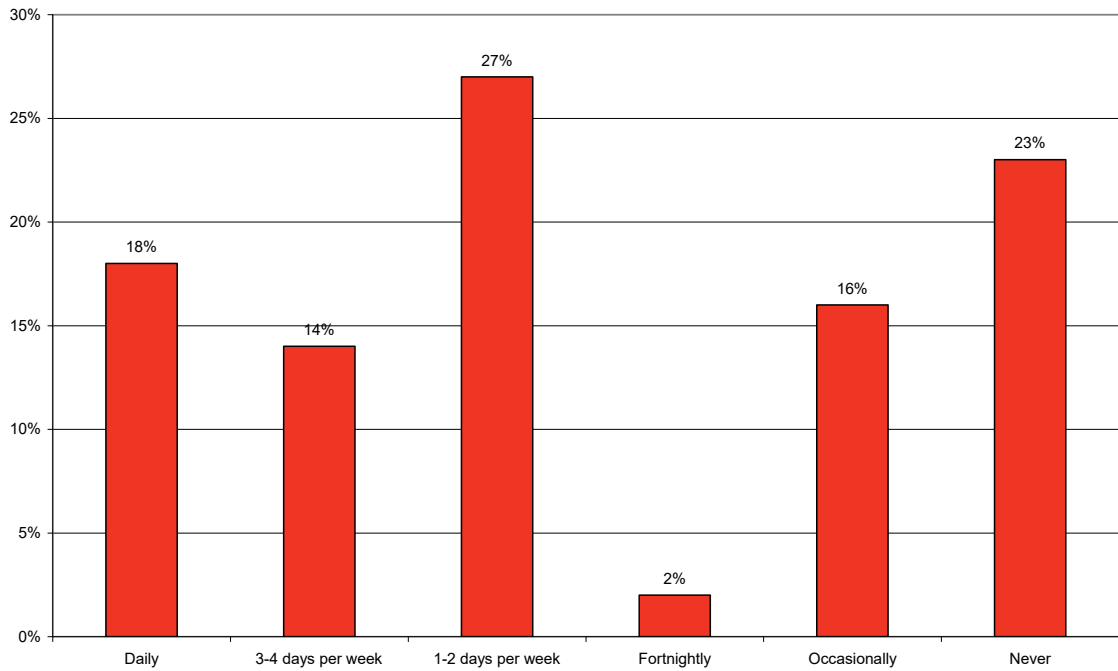
7.5.8 Respondents were then asked to specify what they thought was the most important improvement. Of the 90 respondents who specified, the figure below shows that 61% (n=55) said improved cycle paths/lanes were the most important improvement.

**Figure 7-11 Most important improvement that would encourage cycle use**



7.5.9 If the improvements were made, the figure below shows the responses of the 103 respondents who specified how often they would then consider cycling. Over a quarter of respondents (27%, n=28) said 1-2 days per week, while almost a quarter said that they would never consider cycling.

**Figure 7-12 Frequency of cycling if improvements were made**



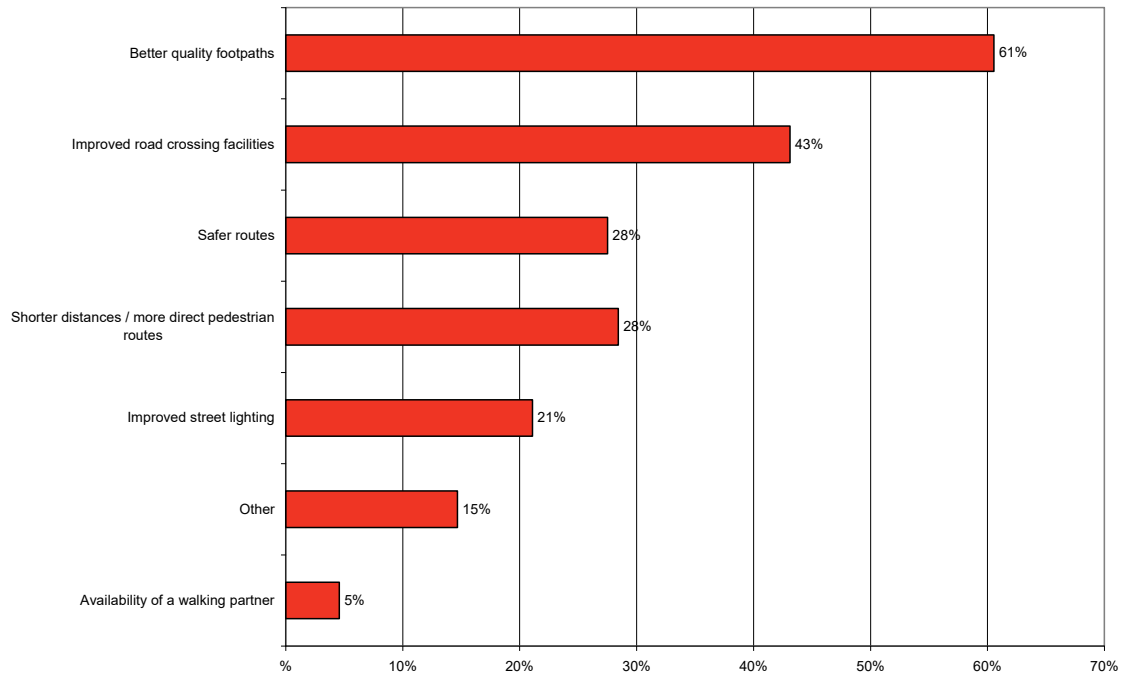
7.5.10 Of those respondents who said never, reasons for stating this included:

- age;
- bad weather;
- they have a disability;
- do not like cycling;
- poor health;
- traffic is too heavy/busy to cycle;
- area is too hilly;
- travel with children so unable to take them on a bike also; and
- do not own a bike.

**Encouraging walking**

7.5.11 Respondents were also asked what improvements would have to be made to encourage them to walk more. The most frequently cited improvements were better quality footpaths (61%, n=66) and improved road crossing facilities (43%, n=47). This is shown in the graph below.

**Figure 7-13 Improvements that would encourage cycle use**



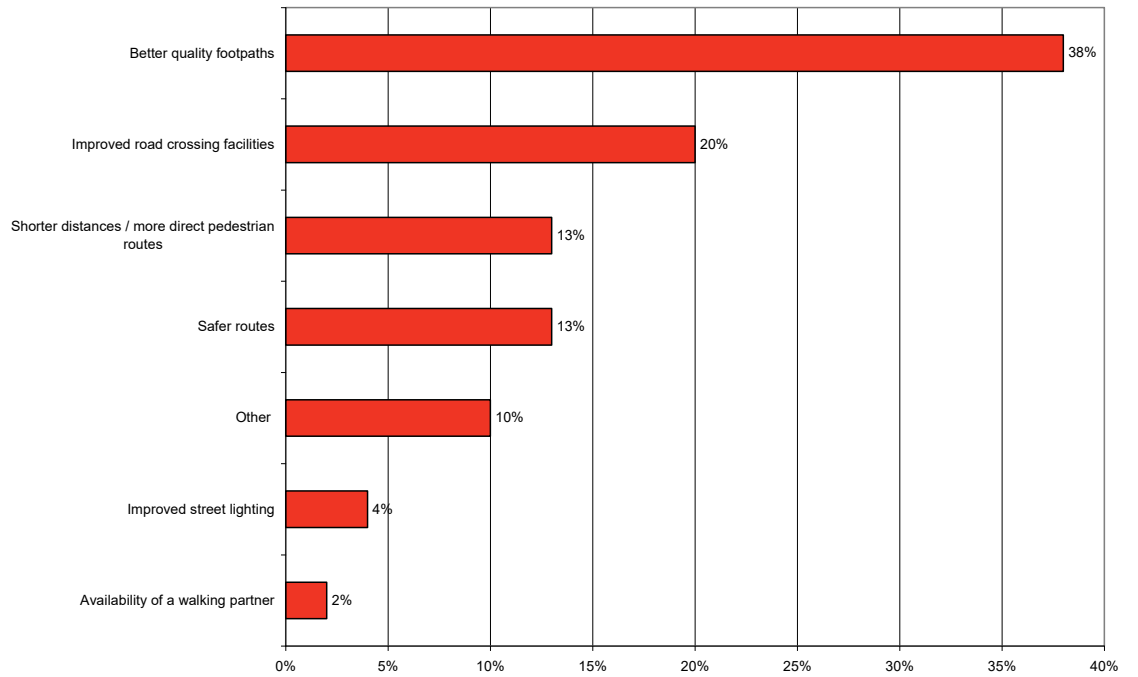
Note: Totals equal more than 100% due to multiple responses

7.5.12 Other improvements were considered to be:

- better weather;
- dedicated walk paths;
- fewer cars so more pleasant walking environment;
- lack of dog fouling; and
- a less hilly area.

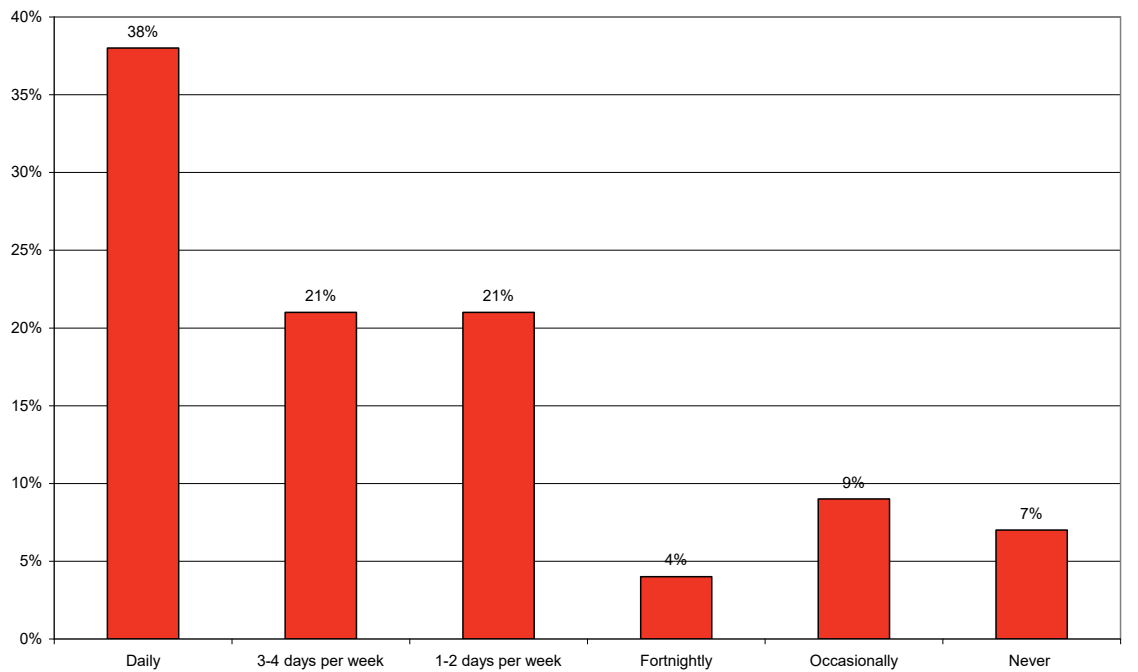
7.5.13 When asked what the most important improvement is, of the 105 respondents who specified, 38% (n=40) said better quality footpaths, while 20% (n=21) said improved road crossing facilities. This is detailed in the figure below.

**Figure 7-14 Most important improvement that would encourage walking more**



7.5.14 Of the 112 respondents who specified if the above improvements were made, how frequently they would walk more, 38% (n=43) said daily. A further 21% (n=24) said 1-2 days per week, while 21% (n=23) also said 3-4 days per week. This is shown in the graph below.

**Figure 7-15 Frequency of walking if improvements were made**



## 7 Travel Survey Results

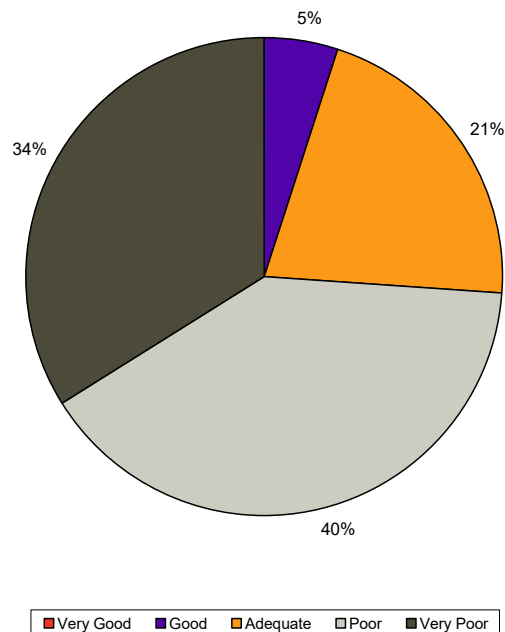
7.5.15 Of the respondents who said never, their reasons included:

- the distance to the destination is too far to walk;
- the weather is too poor to walk;
- respondent has a disability which prevents them from walking.

### 7.6 Transport Infrastructure

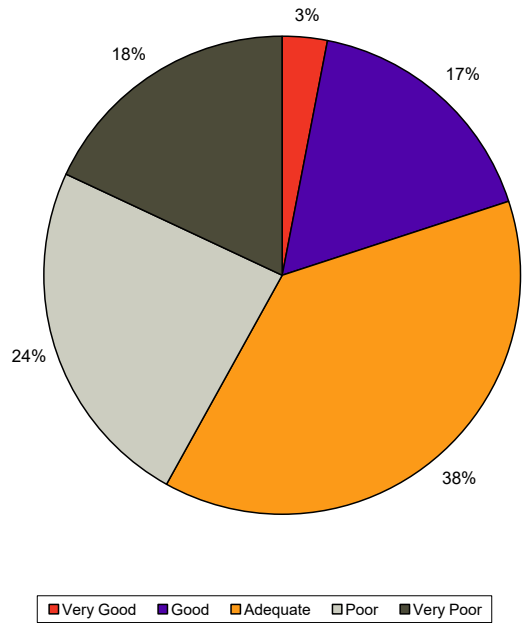
7.6.1 Respondents were asked to rate the general traffic conditions in Douglas. The graph below shows that of the 121 respondents who answered the question, 40% (n=48) said that the general traffic conditions were poor, with a further 34% (n=41) considering that they were very poor. Only five per cent of respondents (n=6) said that they thought the general traffic conditions in Douglas were good.

**Figure 7-16 Rating of general traffic conditions in Douglas**



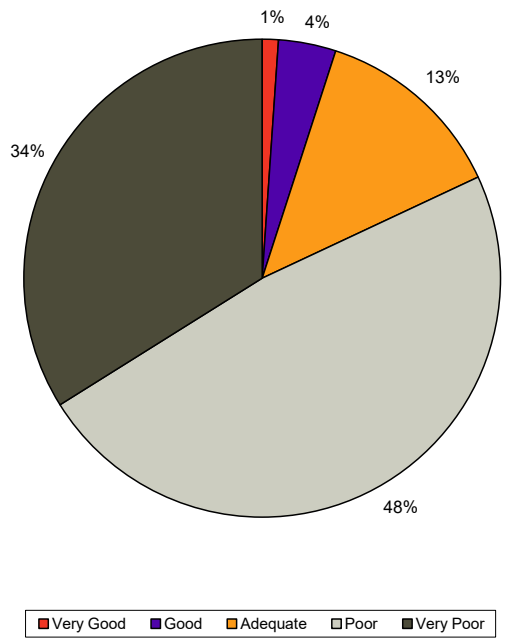
7.6.2 When considering the pedestrian infrastructure in Douglas, of the 120 respondents who answered the question, 38% (n=45) of respondents said they thought it was adequate. While around 20% (n=24) of respondents thought that the pedestrian infrastructure was either very good or good, 42% (n=51) of respondents said they thought it was either very poor or poor. This is detailed in the figure below.

**Figure 7-17 Rating of pedestrian infrastructure in Douglas**



7.6.3 When considering the cycle infrastructure in Douglas, of the 114 people who answered the question, almost half of respondents (48%, n=54) said that they thought it was poor, with a further 34% (n=39) stating that it was very poor. Only one respondent thought that the cycle infrastructure was very good, while five respondents thought it was good. This can be seen in the graph below.

**Figure 7-18 Rating of cycle infrastructure in Douglas**

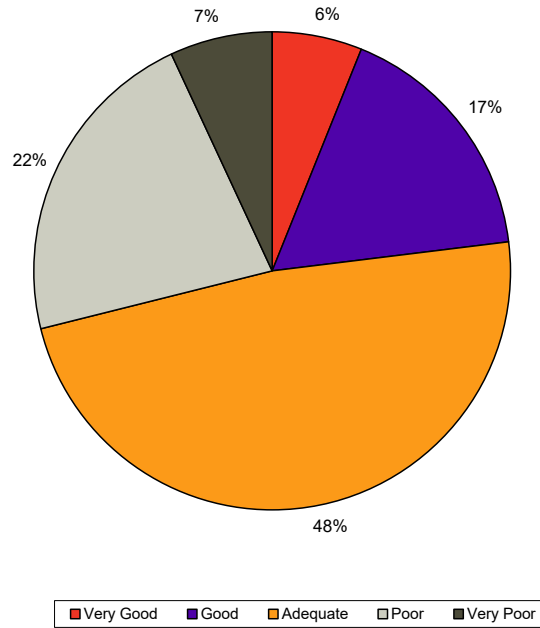




## 7 Travel Survey Results

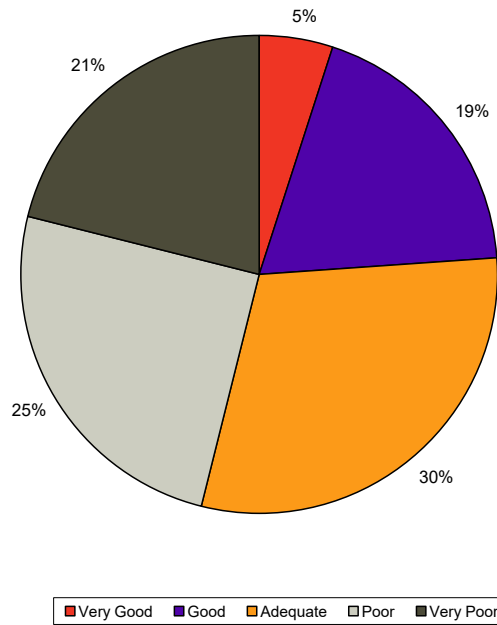
7.6.4 When asked how respondents would rate the public transport provision in Douglas, of the 120 respondents who answered the question, 48% (n=58) of respondents said that they felt it was adequate. A further 23% (n=27) said they thought it was either very good or good, while 29% (n=35) said that they thought it was either very poor or poor. The graph below details these responses.

**Figure 7-19 Rating of public transport provision in Douglas**



7.6.5 All 122 respondents rated the car parking provision in Douglas, the responses of which are shown in the graph below. Almost a quarter (24%, n=29) stated that it was either very good or good, while almost half (46%, n=56) stated that it was either very poor or poor. A further 30% (n=37) said they thought the car parking provision was adequate.

**Figure 7-20 Rating of car parking provision in Douglas**



**7.7 Further Comments**

7.7.1 Finally, respondents were asked if there were any specific transport issues in the Douglas area that are of concern. The comments received in this section were varied and can be summarised under the following headings:

- Roads and congestion;
- Junctions
- Parking;
- Speeds;
- Journey Times;
- Public Transport;
- Pedestrian Issues;
- Cycling Issues;
- Land Use Issues; and
- Other

**Roads / Traffic Congestion**

7.7.2 Some of the comments and issues raised relating to the local road network are:

- Traffic / Congestion is heavy during peak periods and school runs. Conditions are particularly poor on Douglas Road, South Douglas Road, Well Road, Douglas West, Rochestown Road, The Topaz Junction, Kinsale Roundabout from Frankfield, Douglas Shopping Centre, Donnybrook Hill and Grange Road. ...
- School runs add considerably to traffic congestion a dedicated shuttle bus service for students should be introduced. Or perhaps an earlier opening time for schools that **doesn't coincide with job starting times.**
- Pedestrian Phases at lights are excessive and cause increased delays.
- There should be alternative routes for through traffic to and from Rochestown, Maryborough and Carrigaline etc to alleviate congestion on Douglas Road and in Douglas Village. A new circulatory system, or one way system, which moves traffic from the core of the village is badly needed.
- A BSM report in 2000 proposed a link road to the west of Douglas. Also a new east – west link might be needed as the current east –west link is too close to the village centre.
- Could the R160 be routed under the motorway and across Marsh leading to other roads to city instead of traffic being routed down the Douglas Road?
- Road Markings and surfaces as well as signage, in general, are poor.
- Roundabouts should be replaced by traffic lights to reduce congestion and increase safety for pedestrians. Particularly at the Finger post roundabout.
- Roundabouts should be left in place as traffic flows more freely than at signalised junctions.
- A vehicle underpass to the east of the village could remove traffic from the village and encourage a more pedestrian and cyclist friendly environment.
- A link road from west Douglas to the South Ring Road is desperately needed to relieve traffic congestion in Douglas and Donnybrook.
- There is no Road hierarchy in Douglas.
- There is some through traffic in Shamrock Lawn and delays exiting this estate.
- Well Road Should be made one way outbound.
- Traffic is currently illegally exiting Woodview on to Douglas Road.
- Rochestown Road from the Finger Post roundabout to Hotel is very narrow. It should be widened and realigned.
- Serious problem with West Douglas St one way system. Only buses should be allowed to come down West Douglas St.
- Ideally a road should be constructed to run behind Douglas Court Shopping Centre and link up with main Rochestown Road.
- Access to Douglas Court causes tail back at peak hours.
- Traffic calming is required at entrance to Cork County Council Housing Castletreasure, Donnybrook. The wide estate entrance/exit is used by boy racers doing tyre donuts.

### Junctions

- There is very poor visibility at the exit of Alderbrook and the Frankfield Road. The two lane approach to Ballycureen Road should be extended back to Alderbrook.
- A dedicated lane for traffic turning left travelling west from the Topaz Garage should be introduced. The wide footpath at this point provides the space for this. Mixing northbound and westbound traffic results in northbound traffic blocking westbound traffic when the left turn filter light comes on.
- The roundabout at South Douglas Road/Willow Park/the south ring road slip off ramp experiences large delays. It can sometimes take up to 20 minutes to exit Willow Park.
- The signalised junction at Church Road and Donnybrook hill has large delays and **sometimes the lights don't work properly, resulting in a situation where traffic on Church road doesn't get a green light.**
- Traffic signal sequencing and synchronisation are not functioning efficiently at a number of junctions including:
  - the Topaz junction,
  - Well Road
  - Frankfield Hill,
  - Donnybrook Hill,
  - South Douglas Road and N40 on Ramp,
  - Kinsale roundabout
- Traffic Gardaí or signalisation could help keep traffic moving during busy school times on the busier junctions.

### Land Use Issues

- There is too much traffic from the over built areas around Douglas. There have been far too many houses built in the Douglas area in the last twenty years. Especially evident on the Rochestown road which experiences very long tail backs in the AM peak. This is due to the fact the numerous houses were built with no improvements to the one road they all use into Douglas.
- The Douglas Gymnastic Club, which is a voluntary community based sporting organisation has grown quite large (over 600 members) and requires its own site to accommodate this youth focused community-based activity. As the club does not have any significant financial resources, the land would need to be made available from a local authority in the area e.g. Cork CoCo or Cork city Council.
- There is a lack of land for future industrial developments such as direct access to the harbour.
- The Topaz garage location is not ideal as it adds to congestion at the junction and is an unsuitable landmark building in Douglas. Would it be possible to move this to a more suitable location and replace with a public open space or more suitable development?

## 7 Travel Survey Results

- Preserve existing green areas within Douglas area – estates and parks. Let Douglas village keep what's left of its heart. More recreation areas e.g. Vernon Mount would be an improvement.
- The scale of retail floor space both existing and which has been granted planning permission has resulted in the poor traffic conditions seen today. Dominance of car based infrastructure has detracted from the core village area and greatly affected the character of the same.

### Public Transport

- There are capacity issues with buses serving Douglas (6 & 7). These buses tend to fill up very quickly during peak times and leave no seats for some passengers. Maybe Double deck buses would help.
- Some bus stops are placed in dangerous locations and poorly marked. A bus station / hub should be created in Douglas.
- Earlier start times for the buses serving Douglas would be helpful
- Some areas such as Mount Oval are poorly served by public transport.
- Plans should be made for an alternative light rail system when oil is no longer a suitable fuel.
- A park and ride facility should be provided.
- Could the buses serving Douglas be re-routed to avoid congested areas? Route 6 could use the N27 and Kinsale Roundabout. The number 7 bus could potentially use the new link road at the shopping centre and avoid Douglas Village which is a bottle neck.
- A dedicated school bus service should be put in place serving the local primary and secondary schools.
- Bus lanes should be continuous on Grange Road and Frankfield road to ensure the reliability of the service.
- The bus service in Douglas is unreliable and frequently runs up to 20 minutes late especially on the Green Route.
- Green route needs greater priority to allow easier morning rush hour travel.

### Parking

- Paid on-street parking is a bad idea and will route traffic towards Tesco and Dunnes car parks.
- The introduction of Paid parking outside schools could lead to potentially chaotic and dangerous situations at drop off and pick up times.
- There is a lack of parking in some areas especially on perimeter.

### Speed

- Nobody seems to keep to speed limits and there are no reminder signs on most of the roads in Douglas. Maryborough Road and Douglas Village at night have problems in respect of speeding.
- Speed limits need to be enforced.

### Pedestrian Issues

- Footpath provision and the pedestrian environment in general is poor. Especially so on Maryborough Hill where paths are very narrow.
- The pedestrian facilities around Well Road and topaz junction are particularly bad. No thought given to pedestrians when designing these junctions.
- Better street lighting is needed on footpaths in Douglas.
- More off road walkways should be provided in Douglas. E.g. at Domans, Calderwood or Mangala.
- The centre of Douglas village should be pedestrianised or made more pedestrian friendly creating an improved public realm and link with East Village and between the two shopping centres.
- There is a lack of pedestrian crossing points in Douglas.
- The Zebra crossing outside McDonalds does not link with shopping centre entrance.
- The development of a cycleway/walkway from Grange Road through Vernon Mount Valley and over the N25 (N40) using a new bridge. This would give connectivity from Grange and Frankfield to 1) Douglas and on to Rochestown Road, 2) to Turners Cross via a new park at the former landfill and 3) east to Togher.
- Schools should encourage children to walk and cycle to school which would eliminate a lot of peak hour traffic.

### Cycling

- The cycling environment is poor in Douglas. Better laid out and marked cycle lanes are needed. There are no safe cycle routes from surrounding residential areas into Douglas or from Douglas to Cork City. Cycle lanes should be provided on all radial routes into Douglas.
- A cycle lane should be provided along the Rochestown road, which is currently very dangerous for cyclists.
- Cyclists need better protection from general traffic.
- It is currently not safe for children to cycle to / from school etc. Safe cycle lanes to and from schools should be provided.
- More secure and covered parking provision for bicycles is needed.
- Better provision of Cycle lanes and routes could help tourism. For example a cycle route from Crosshaven to Carrigaline (existing) then on to Douglas and Cork City.

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- The widening of the Road on Donnybrook Hill has narrowed the roads to such a degree that it is dangerous for cyclists. Cycle lanes are needed here as a drainage ditch on one side of the road leaves it very unsafe for cyclists. Cycle lanes for cyclists climbing Frankfield Hill is also required.
- The lack of cycle lanes on Maryborough hill can cause traffic to back up as they are unable to pass cyclists at some points along this road, especially during busy periods.

### Other

- Douglas village & environs falls between 2 local authorities. Could the local authority boundaries be relocated to make Douglas village & suburbs within one Local Authority area?
- Douglas should come under the control of Cork City Council which has a dedicated traffic department.
- Efforts to reduce traffic entering Douglas by reducing road space for car traffic should be discouraged. This will lead to more congestion as people are unlikely to switch to other modes of travel as public transport and walking/ cycling are not practical for most journeys in the area.
- There is a lack of enforcement of driving laws e.g. speed limits and especially driver using mobile phones.

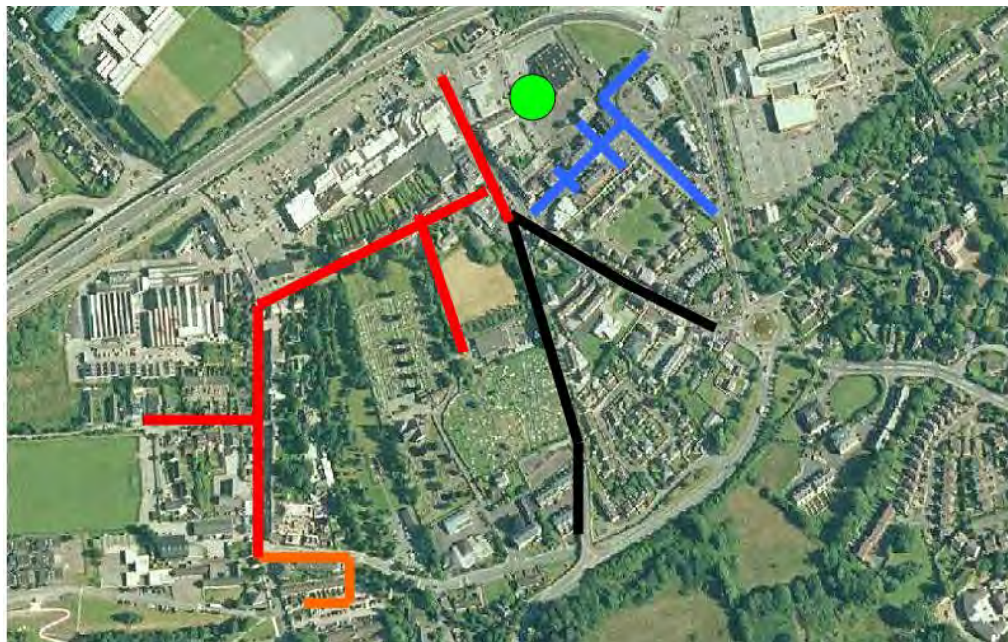
# 8 Parking Arrangements

## 8.1 Introduction

8.1.1 A study outlining proposals for the management of the publicly owned car parking stock in Douglas has recently been completed. This chapter will summarise the main findings and recommendations of this Car Parking Study in Douglas.

## 8.2 Existing Parking Supply

8.2.1 The quantity of existing parking supply in Douglas was determined through a series of site visits. Given the large size of the study area it was divided up into five separate zones, as shown in figure 8.1, below and detailed in Table 8.1 below.



**Figure 8-1 Douglas Parking Area Zones**

Zone	Colour	Description
Zone 1	Orange	Lions Club & Church Rd
Zone 2	Red	Galway's lane, West Douglas St, Churchyard Lane, East Douglas St (North) & Church St.
Zone 3	Green	Cinema Car Park
Zone 4	Blue	East Village
Zone 5	Black	Carrigaline Rd & East Douglas St (South)



## 8 Parking Arrangements

Table 8.1 Douglas Parking Area Zones

<b><u>Public Parking Supply</u></b>	<b><u>No. on-street</u></b>	<b><u>No. off-street (in car parks)</u></b>
<b>Zone 1</b> (Lions Club Car Park & Church Rd - includes loss of spaces due to reconfiguration at Daly's Corner)	22	89
<b>Zone 2</b> (Galway's Lane, West Douglas St., Churchyard lane, East Douglas St (north), Church St.)	65	-
<b>Zone 5</b> (Carrigaline Rd and East Douglas St - includes loss of spaces due to Green route)	78	-
<b>Total</b>	<b>165</b>	<b>89</b>
<b><u>Private Car Parks</u></b>		
<b>Zone 3</b> (Cinema Car Park)		180
<b>Zone 4</b> (East Village area)	11	90
<b>Total</b>	<b>11</b>	<b>270</b>

8.2.2 The total number of public and private car parking provided in the vicinity of the Village centre is 535 spaces, of which 281 are privately owned spaces and 254 are publicly owned spaces.

8.2.3 The following should also be noted:

- There are five publicly owned disabled parking spaces in the Study area (Zone 2 only);
- There is one publicly controlled delivery zone on East Douglas St;
- On the date of the survey there was no dedicated taxi parking area and a large amount (33 events) of taxi parking was observed in the vicinity of Barry's Bar and Douglas Village Shopping Centre.

### 8.3 Existing Parking Demand

8.3.1 Hourly parking Beat surveys were undertaken Tuesday 13th April 2010, between 8.00am and 6.00pm. The extent of the study area is shown in Figure 8.1 above. The results of the survey are presented in Table 8.2 below and Figure 8.2 below.

Table 8.2 Parking Beat Survey Results

ZONE	No. of Spaces* (No.)	No. of Parking Events (No.)	Average Turnover of spaces (No.)	Duration of Parking Events %										
				1hr	2hr	3hr	4hr	5hr	6hr	7hr	8hr	9hr	10hr	11hr
Zone 1	113	257	2.3	60	10	5	5	3	4	4	1	4	2	3
Zone 2	48	294	6.1	65	11	8	3	3	3	2	1	1	1	2
Zone 3	180	32	0.4	45	7	4	3	1	6	1	20	10	3	0
Zone 4	101	383	3.8	62	16	7	3	1	5	3	1	1	0	1
Zone 5	91	212	2.3	50	11	5	6	1	4	3	7	8	2	1

#### 8.4 Analysis of Parking Data

8.4.1 The data compiled above was analysed to elicit a full understanding of parking habits and trends in the Study Area.

##### Level of Occupancy

8.4.2 Analysis of the survey data shows that the hour of peak demand was at 14:00hrs on the day of the survey. During this period there was a high level of occupancy within all the public parking areas both on and off street in the Village. Table 8.3 below details the results from this period.

**Table 8.3 Peak Hour (14:00-15:00) Demand, Tuesday 13/04/10**

Parking Type*	Demand			
	Zone 1	Zone 2	Zone 3	Zone 5
Short stay (1hr)	23	25	5	8
Medium stay (2+3hr)	9	12	2	4
Long stay (>3hrs)	49	35	30	60
<b>Total</b>	<b>81</b>	<b>72</b>	<b>37</b>	<b>72</b>

##### Residential Parking

8.4.3 In order to identify the level of residential parking, beat surveys were carried out on the 23rd February 2010 at 6.15am. This allowed for the identification of resident's vehicles and provided information on their parking patterns throughout the course of the survey on 13/04/10. The survey showed that there were 52 no residents parking in public spaces (both on-street and off-street) in the Study area.

##### Compliance with Parking Regulations

## 8 Parking Arrangements

- 8.4.4 The survey identified a number of areas within the study where illegal parking was taking place. Results from the study are outlined in Table 8.4 below indicating the number of parking events taking place under each heading:

**Table 8.4 Compliance with Parking Regulations**

Zone	Illegal parking on Double Yellow Line (events)	Illegal parking in delivery zone (events)
Zone 1	21	0
Zone 2	90	16
Zone 3	0	0
Zone 4	53	0
Zone 5	21	0
<b>Total</b>	<b>185</b>	<b>16</b>

- 8.4.5 The following points should be noted:

- there is a large amount of illegal parking on double yellow lines at various areas along East Douglas Street
- there was no evidence of illegal parking associated with deliveries, which implies that the existing provision of loading zones is sufficient.
- illegal parking by taxis on double yellow lines was evident **in the vicinity of Barry's Bar** and along Church St, at the entrance to the Shopping Centre.

### Summary of data analysis.

#### 8.4.6 Supply:

- The supply of existing legal public spaces has been calculated as 254 spaces.

#### 8.4.7 Demand:

- The peak demand for spaces has been established as being at 2.00pm.
- The peak demand has been calculated from consideration of:
  - Zone 1: Lions Club Car Park & Church Rd
  - **Zone 2: Galway's Lane, West Douglas St., Churchyard Lane, East Douglas St (north), Church St.**
  - Zone 3: Cinema Car Park – it is assumed that these spaces will no longer be available and form part of the public demand.
  - Zone 4: East Village area – these spaces are private and are not included.
  - Zone 5: Carrigaline Rd and East Douglas St (south).
  - this includes illegal/inappropriate parking.
  - the peak demand has been thus calculated as **263 spaces.**
- The overall occupancy of the existing public spaces (which excludes the loss of 8 no. spaces due to the Green Route **and loss of 12 no. due to reconfiguration at Daly's Corner**) at the peak hour is thus 103%.
- Illegal parkers (16 no.) at the peak hour on public spaces represent 6% of parked vehicles.
- For the peak hour demand:

## 8 Parking Arrangements

- short-stay (1 hour duration) is 23%.
- medium-stay (greater than 1 hour, but less than 3 hours) is 10%.
- long-stay (greater than 3 hours) is 67%.

### 8.4.8 Analysis By Zone:

- **Zone 1** - Lions Club Car Park (89 spaces) and Church Rd (22 spaces – includes loss of 12 no. due to reconfiguration at Daly's Corner) - total **111** spaces.
  - for the peak hour, demand is 81 spaces, made up of 23 short-stay, 9 medium-stay and 49 long-stay.
  - in this Zone, demand is currently met by supply.
- **Zone 2** – Galway's Lane, West Douglas St., Churchyard Lane, East Douglas St (north), Church St. - **65** on-street spaces.
  - for the peak hour, demand is 74 spaces, made up of 26 short-stay, 13 medium-stay and 35 long-stay.
  - in this Zone, demand currently not met by supply – deficit of 9 spaces.
  - short-stay and medium-stay would be served if long-stay were removed.
- **Zone 3** - Cinema Car Park – it is assumed that these spaces will no longer be available and form part of the public demand.
- **Zone 4** - East Village area – these spaces are private and are not included in the analysis.
- **Zone 5** - Carrigaline Rd and East Douglas St (south) – 78 spaces (including the loss spaces due to the Green Route).
  - for the peak hour, demand is 71 spaces, made up of 8 short-stay, 3 medium-stay and 60 long-stay.
  - in this Zone, demand is currently met by supply.

## 8.5 Preferred Parking Management System

8.5.1 The Report concluded that to provide for the quantified parking shortfall in Study area and provide the best parking management system available, the preferred parking strategy for Douglas is:

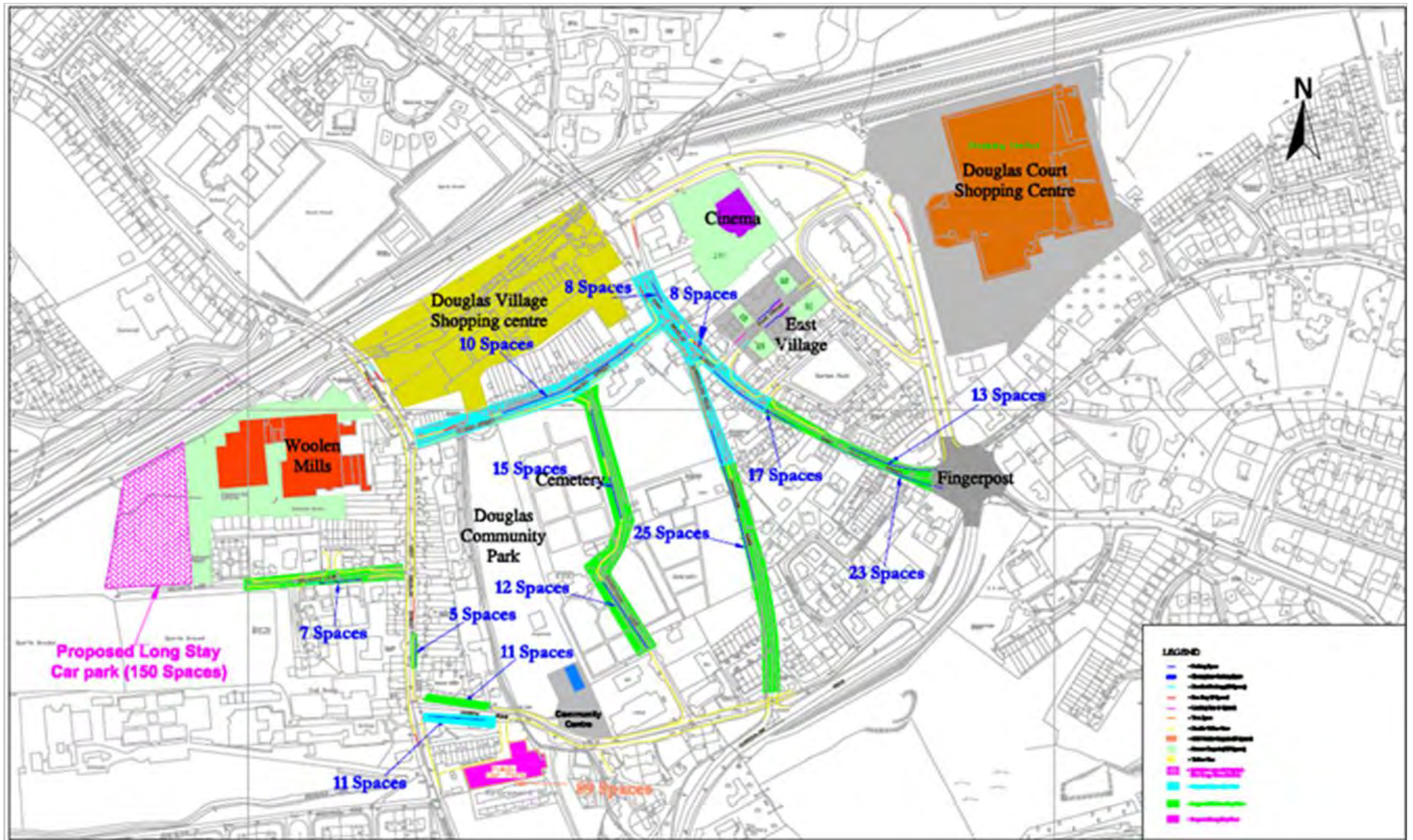
- Introduce a Pay and Display parking system.
- Provide dedicated zones for the parking demands identified:
  - short-stay (1-hour)
  - medium-stay (3-hour)
  - long-stay (all-day).
- Specify the same cost per hour (of the order of 80 cent/hour) for both short- stay and medium-stay zones. This will allow medium-stay spaces be occupied by short-stay users and optimise the resource.
- Provide a long-stay (all-day) car park in as close proximity as possible to the Village centre. A suitable site for an all-day car park has been identified on the western side of **the St. Patrick's Woollen Mills site. This car park would have a capacity of 150 spaces.**
- Introduce a Residents Permit scheme.
- Provide sufficient resources to monitor and control all the elements above.
- The following locations are proposed as dedicated parking zones:

## 8 Parking Arrangements

- **Short-stay (1-hour):**
  - Church Rd.: (11 no. spaces)
  - Church St.: (10 no. spaces)
  - East Douglas St. (north): (22 no. spaces)
  - Carrigaline Rd. (6 no. spaces)
  - Total: 49 no. spaces.
  
- **Medium-stay (3-hour):**
  - Church Rd.: (11 no. spaces)
  - Churchyard Lane: (27 no. spaces)
  - West Douglas St.: (5 spaces)
  - East Douglas St. (north): (47 no. spaces)
  - Carrigaline Rd. (19 no. spaces)
  - **Galway's Lane (7 no. spaces)**
  - Total: 116 no. spaces.
  
- **Long-stay (all-day):**
  - Lions Club car park: (89 no. spaces)
  - **New car park in St. Patrick's Woollen Mills: (150 no. spaces)**
  - Total: 239 no. spaces.

8.5.2 The three proposed zones are shown in Figure 8.5 below.

Figure 8-2 Proposed Parking Zones



## **8.6 Recommendations**

8.6.1 From the analysis of existing and future parking demand and supply in Douglas Village Centre, as well as a review of parking management systems available and the financial implications of the various suggested management systems, the following was recommended:

- 1.** Introduce a Pay and Display parking system;
- 2.** Provide dedicated zones for the parking demands identified:
  - short-stay (1-hour)
  - medium-stay (3-hour)
  - long-stay (all-day).in the locations identified in Section 5.5 above; and
- 3.** Introduce a Residents Permit scheme.

8.6.2 The above recommendations came into action in Douglas in April 2012.

## 9.1 Introduction

- 9.1.1 MVA Consultancy was appointed by Cork County Council to prepare a Land Use and Transport Strategy for Douglas and its environs. This baseline report considers the existing situation in terms of the local road network, public transport provision and cycle and pedestrian facilities for the Douglas area.

## 9.2 Transport Context and Policy Review

- 9.2.1 Chapter two has outlined the Transport Context of the study which included current population figures, land uses, local issues and a review of all relevant census data for the area. A policy review was discussed in Chapter three. This included an investigation of transportation and planning documents such as the Cork County Development Plan and the Carrigaline Local Area Plan as well as all other relevant Planning documents.
- 9.2.2 In addition to this a number of site visits were carried out to determine the existing situation and conditions for car users, public transport users, pedestrians and cyclists in Douglas.

## 9.3 Stakeholder consultation

- 9.3.1 Chapter four outlines the Stakeholder Consultation Process undertaken and the submissions received. After carrying out a thorough consultation process we have established that the main concerns of key stakeholders in Douglas relate to;
- The levels of congestion within the Village centre;
  - The operation of a number of key signalised junctions in Douglas;
  - The level of School traffic in Douglas; and
  - Lack of public amenities and walkways in Douglas.

## 9.4 Baseline Traffic Evaluation

- 9.4.1 A detailed evaluation was undertaken of the current traffic conditions within the Village pertaining to all modes of transport. The results of this are summarised below:



## Key Junction Arrangements

- Junctions represent the maximum constraint in an urban transport system as they are the point at which inter and intra-modal conflict occurs. The arrangement at junctions for each mode of transport is therefore crucial in determining the efficiency of the traffic management system in the town for mechanised modes
- During an extensive site visit it was determined that the following junctions and roads performed poorly with regard to capacity issues/ operational issues or pedestrian and cyclist issues:
  - West Douglas Street / Church Road / Donnybrook Hill;
  - **St Patrick's Roundabout;**
  - East Douglas Street / Douglas Road / East Link Road;
  - West Douglas Street / New Link Road;
  - Grange Road / Donnybrook Hill;

## General Traffic Management Arrangements

- The following key points related to general traffic management arrangements were noted in Douglas:
  - Some congestion was observed between the hours of 08:00 and 09:00. The most significant congestion was on the Rochestown Road westbound and Northbound on The Douglas Road. High levels of traffic generated by seven schools in the Study Area also contributed to this congestion.
  - Some level of congestion was also observed on other routes in the village, most notably on Donnybrook Hill and Church Road, which experience delays during peak times, most notably during school drop off and pick up times.

## Pedestrian Facilities

- The following key points were noted for pedestrian related facilities/ activity in Douglas:
  - In general the provision of footpaths are quite good within the study area;
  - Footpath provision and widths outside of the Village centre is disjointed in places which can lead to pedestrians walking on the live carriageway at times which in turn leads to a slowing down of traffic; and
  - In general the level of pedestrian activity within the Study Area was low to moderate with the highest level of pedestrian activity recorded in the vicinity of schools in the AM peak period and outside Douglas Village shopping centre during the PM peak period.

## Cycle Facilities

- The following key points were noted for cyclist related facilities/ activity in Douglas:
  - Very little cycle activity was observed in Douglas and its environs; and
  - The cycle lane provision is very limited in Douglas and there was a lack of any on-street cycle parking facilities within the village centre.

### Bus operating arrangements

- Douglas is well served by four Bus Éireann City and three regional bus routes. The most frequent service, the 206, operates up to every 10 minutes during peak hours and serves Grange, Douglas Village and Cork City. Frequency on the other routes varies from every 20 minutes to every 60 minutes during peak times.
- The provision of bus facilities is mixed in Douglas with some areas lacking facilities such as sheltered bus stops, adequate bus bays at schools or bus priority routes in the area.

### Goods Vehicle Arrangements

- The following are the key points of note in relation to goods vehicle activities in Douglas:
  - Three, four and five axle HGV's were observed during site visits to Douglas;
  - On-street loading and unloading activities take place at some points in the village centre. This can lead to congestion problems as parked HGV's tend to hold up traffic; and
  - Outside the Village centre, servicing of premises is generally accommodated off-street.

## 9.5 Traffic Surveys

9.5.1 An extensive set of surveys were undertaken in Douglas in April 2012. These surveys were undertaken with a view to understanding current traffic flows in the study area, the nature of these traffic flows (i.e. whether through or terminating traffic) and the conditions experienced, i.e. journey times. The survey results were also used in calibrating and validating the Douglas Traffic Model.

9.5.2 The following surveys were undertaken:

- Classified junction turning count surveys (21 no. locations);
- Registration plate surveys (9 no. locations);
- Journey time surveys (4 routes, each way);
- Automated traffic counters (ATCs) over seven survey days (15 no. locations); and
- Link Count Surveys (16 no. locations).

## 9.6 Travel Survey

9.6.1 An online travel survey was established and instigated in April 2012. The website was published in the local press, The Examiner.

9.6.2 The findings of this survey allowed us to determine the regular travel habits of residents in the study area and covered the following topics among others:

- Reasons for travel within the Douglas Area;

## 9 Conclusion

- Location of study or work trip destination;
- Means of travel;
- Reasons for using that mode;
- Parking locations used;
- Attitudes on car sharing and public transport; and
- Attitudes on walking and cycling to work or college.

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# Appendix 4 – Junction Recommendation Details

# DLUTS – Final Report

## Appendix 4 – Junction Recommendation details

Report for Cork County Council

In Association With Atkins

February 2013



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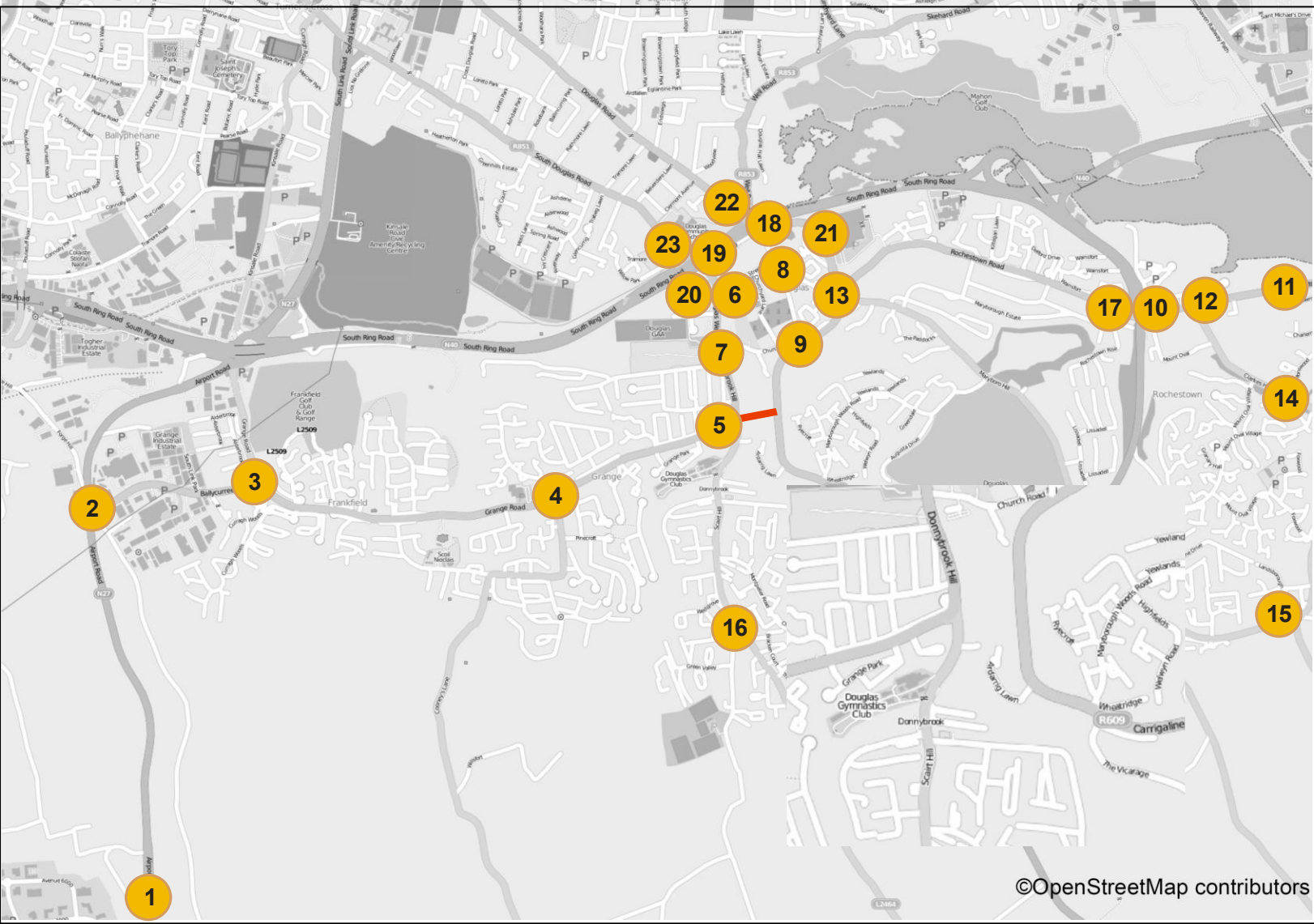
## Distribution

Issue	Date	Distribution	Comments
1	24/02/2013	Cork County Council	





Figure 1: Junction Overview



## Junction 1 – Airport Roundabout



Looking East towards N27



Looking West towards Airport Road

### Issues

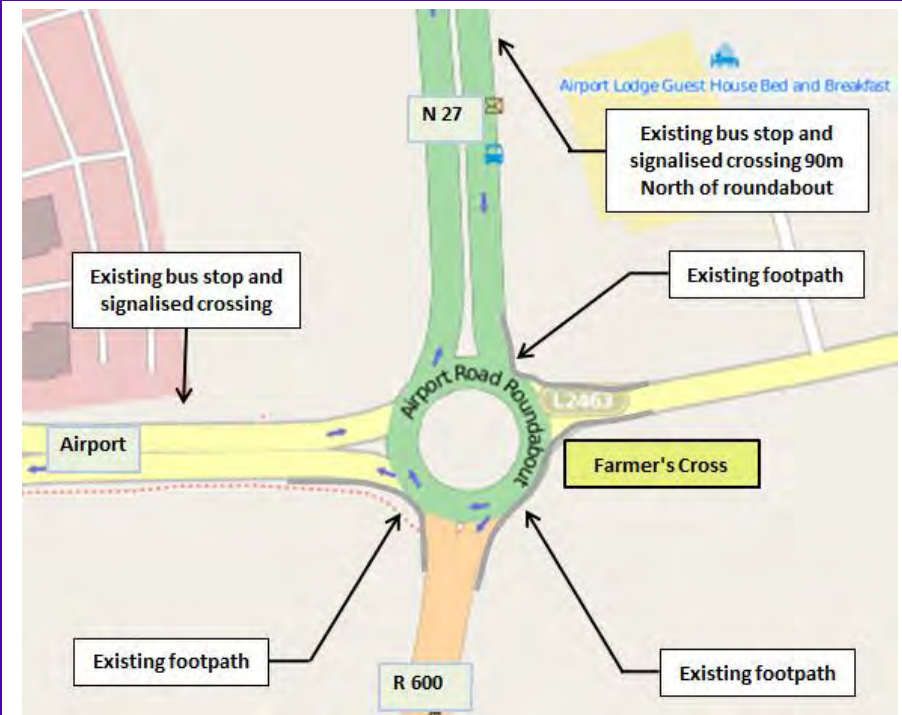
- Significant traffic levels and hence some capacity issues during peak times.

### Proposed Improvements

- Monitor operation of roundabout, if traffic levels / congestion increase there may be potential to add left turn slip lanes in to and out of the airport to increase capacity.

### Benefits

- Improve capacity and operation of the roundabout;
- Improve safety for pedestrians and cyclists.



## Junction 2 – Forge Hill Crossroads



Ballycurreen Rd facing west



Facing North along N27

### Issues

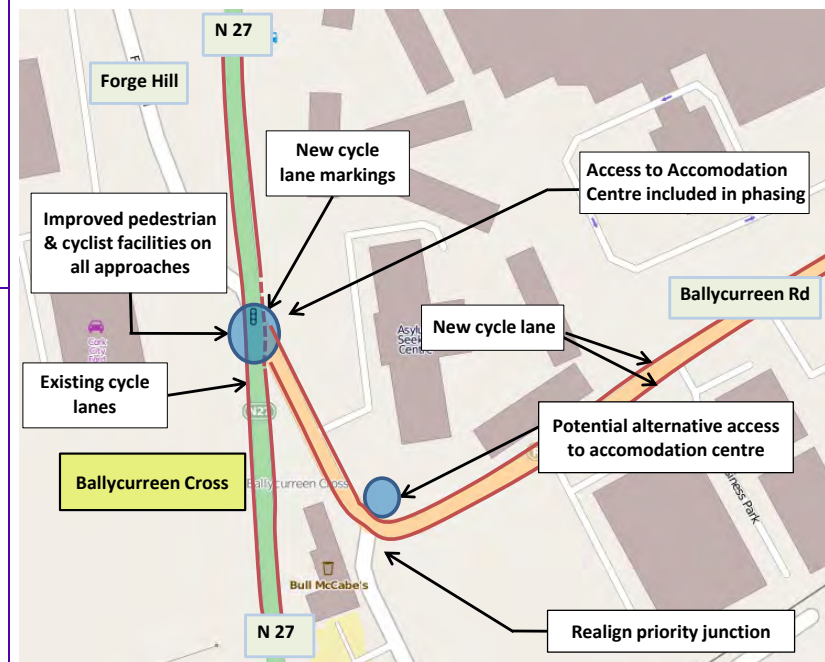
- Capacity issues with traffic to and from Ballycurreen Road;
- Some capacity issues on the N27 during peak periods;
- Poor road geometry;
- Inter-green timings insufficient; and
- Access from accommodation centre not incorporated into signal phasing;

### Proposed Improvements

- Formalise priority on Ballycurreen Road / Forge Hill;
- Improve inter-green periods to aid pedestrian movement;
- Include access / egress from accommodation centre into signal phasing; and
- Addition of advanced stacking locations (ASL's) for cyclists.

### Benefits

- Improved inter-green period will improve safety for pedestrians;
- Advanced stop lines for cyclists will improve cycle safety; and
- Addition of access / egress from accommodation centre will improve safety at the junction.



### Junction 3 - Grange Road / Ballycurreen Road



Looking North towards Frankfield Rd



Looking east towards Grange Rd

#### Issues

- During peak periods there are capacity issues with traffic to and from Ballycurreen Road during the peak period (moderate levels of queues and delays).

#### Proposed Improvements

- Add flare lane to Ballycurreen Road arm;
- Improve pedestrian and cycle facilities where possible; and
- Addition of advanced stacking locations (ASL's) for cyclists.

#### Benefits

- The increased saturation flow / discharge will reduce the queues and delays on Ballycurreen Road;
- Reduce the amount of green time needed on the Ballycurreen Road; and
- This will allow increased green time on Grange Road which will reduce queue time and delays.



## Junction 4 – Grange Road / Cooney's Lane



Looking West towards junction with Cooney's Lane



Looking north towards Grange Rd

### Issues

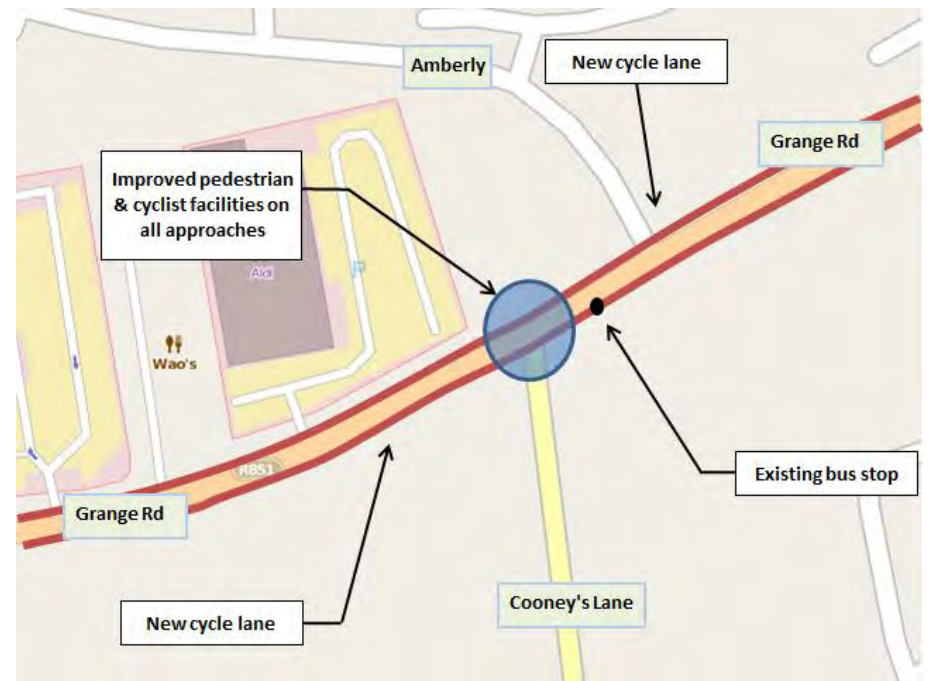
- It is expected that this junction would not have any major operational issues, except some minor capacity issues at peak periods.

### Proposed Improvements

- Introduce a cycle lane on both arms of Grange Rd;
- Addition of advanced stacking locations (ASL's) for cyclists;
- Improve pedestrian crossing facilities; and
- Review signal timings

### Benefits

- Improved facilities for walking and cycling.



## Junction 5 – Grange Road / Donnybrook Hill



Church St Road looking west towards West Douglas St.



Standing at West Douglas St/ Church St Junction facing south.

### Issues

- Public consultation indicated large queuing on Grange Road / Donnybrook Hill during peak periods; and

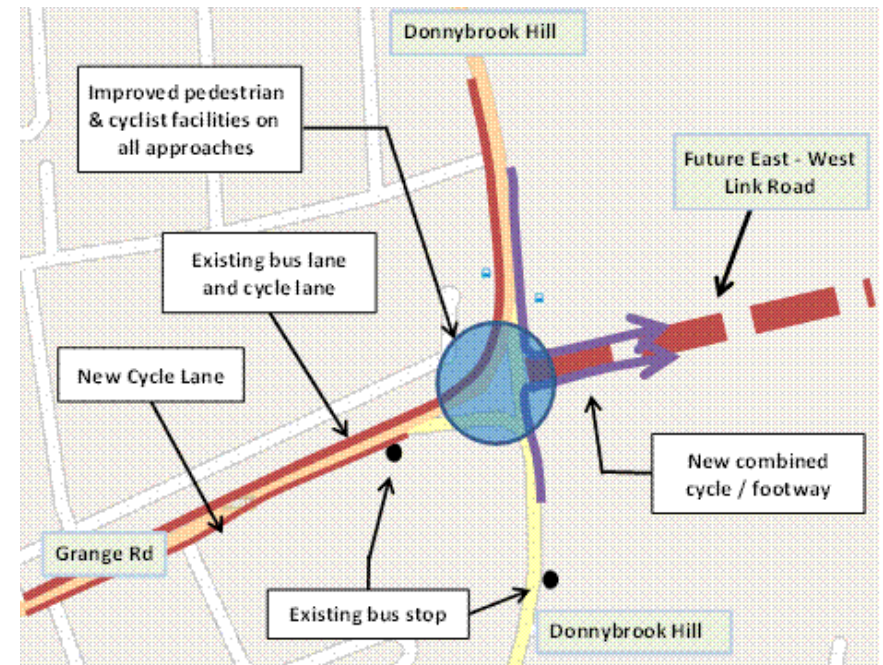
This is partly caused by high demand on the road and drop offs at St Columba's School down-stream of the junction

### Proposed Improvements

- Cycle lane on both arms of Grange Rd;
- Recalibrate MOVA loops;
- Link with Cork City SCOOT UTC; and
- Additional fourth arm, a link road from Donnybrook Hill to Carrigaline Road.

### Benefits

- Potential for slight reduction in queues and delays with recalibrated MOVA;
- Greater co-ordination with surrounding junctions by using SCOOT UTC; and
- New link road will remove traffic travelling from East-West in the Douglas village centre as well as reducing vehicle km/emissions.



## Junction 6 – West Douglas Street / Church Street



Church St Road looking west towards West Douglas St.



Standing at West Douglas St/ Church St Junction facing south.

### Issues

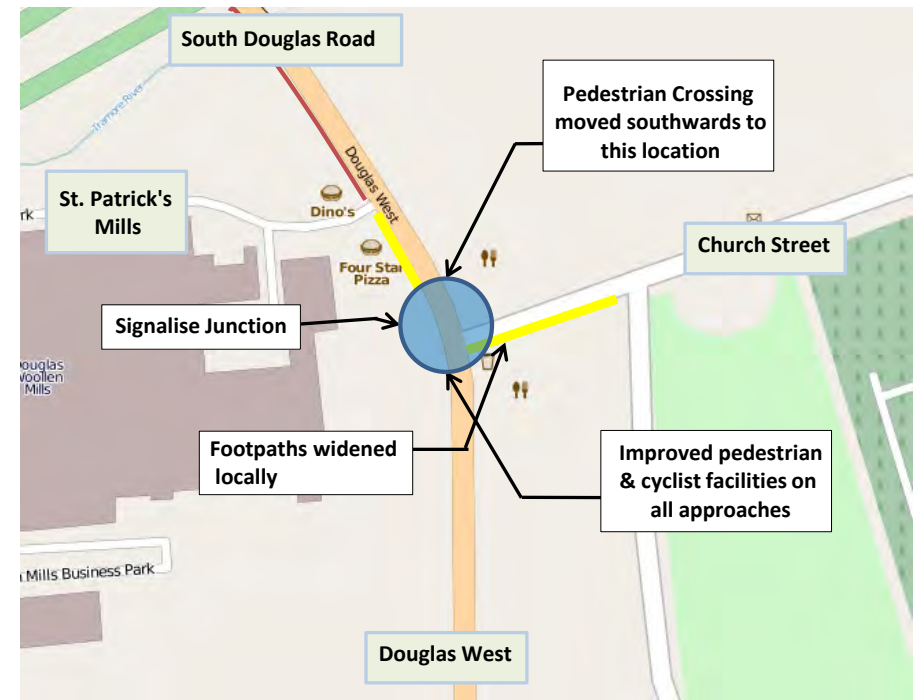
- There are capacity issues for a number of reasons relating to a number of trip attractor and generators in the area such as the Douglas Shopping Centre and a number of small retail units / businesses within St Patrick's Woollen Mill;
- The other main generator is the school downstream, on West Douglas Street, which contributes to traffic volumes in the short term peak in the morning period; and
- The capacity issues are compounded by poor sight lines and the close proximity of the signalised junction, which all contribute to a reduced capacity.

### Proposed Improvements

- Signalise the Junction;
- Junction to be included in the Cork City SCOOT UTC system; and
- Move pedestrian crossing from North of St Patrick's Mills to North of this junction.

### Benefits

- Signalisation is to ensure that Church Street traffic can exit, as well as improve safety for pedestrians by introducing a dedicated crossing stage/phase; and
- The relocation of the existing pedestrian crossing into the proposed junction will ensure that pedestrian facilities are coordinated with adjacent junctions. This helps to minimise queues and delays as well as emissions.



## Junction 7 – West Douglas Street / Church Road



Church Rd facing west towards West Douglas St



West Douglas St facing South towards Donnybrook Hill.

### Issues

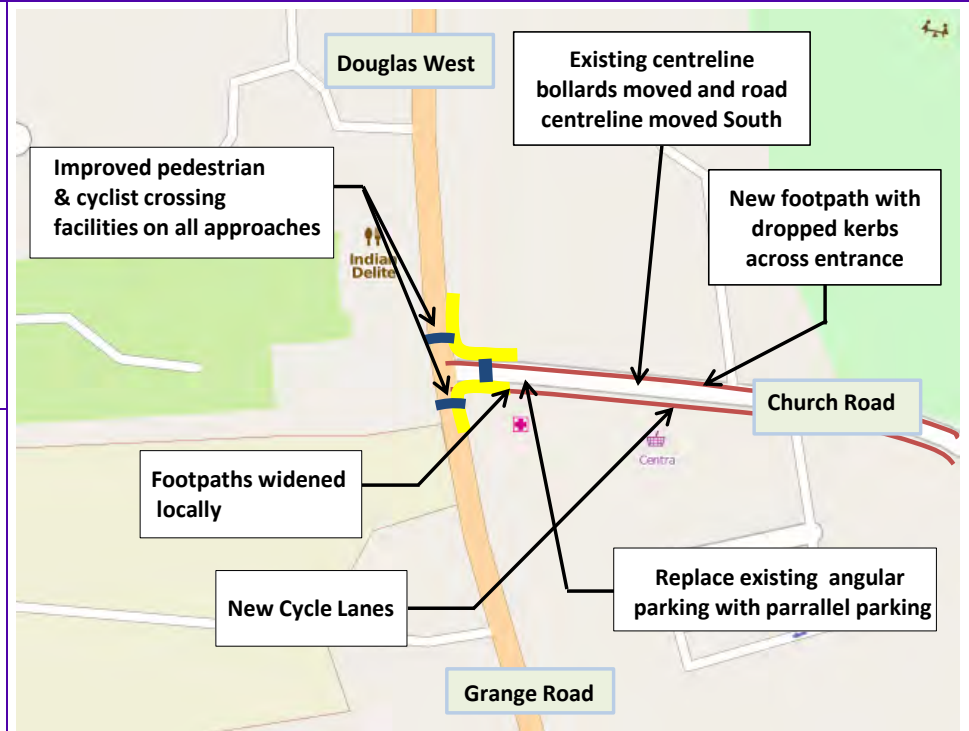
- The junction has operational issues during the morning peak period due to the close proximity of a school and nursery to the west of the junction, with localised congestion caused by children being dropped off;
- There are also operational issues on the Church Road approach due to the local convenience store which has on-street echelon parking which can disrupt vehicle flow in the area; and
- There are capacity issues which are associated with vehicle volumes, especially due to the upstream junction which has a more effective traffic management system (Grange Road / Donnybrook Hill – Signalised Junction – MOVA control). The junction also has limited capacity due to the physical frontage, which is reduced further by the operational issues.

### Proposed Improvements

- Advanced stacking locations for cyclists;
- Remove angular parking;
- Remove center line bollards;
- Move center line south;
- Junction to be included in the Cork City SCOOT UTC system; and
- Improved pedestrian and cycle facilities where possible, including widening of footpaths.

### Benefits

- Improved vehicle and pedestrian safety by reconfiguration of parking, and increasing footway widths as well as pedestrian storage at crossing points; and
- Improved vehicle operation due to removal of parallel parking.





## Junction 8 – Church Street / East Douglas Street



Douglas Street East facing north towards Church St



Church St Junction facing east towards Douglas St East.

### Issues

- The junction has capacity issues, mainly due to the queuing / block back from the up-stream junction of East Douglas Street / R610 East Douglas Link Road / New Link Road / Well Road Junction;
- There does not appear to be any capacity issues at this junction but there are operational issues associated with downstream junctions;
- On-street parking near this junction is at capacity, with a poor turnover of parking (i.e. abundance of medium to long stay parking) which would suggest it is being used by local employees; and
- Sections of both East Douglas Street and Church Street are in need of resurfacing.

### Proposed Improvements

- Improve pedestrian and cycle facilities;
- Include advance staking locations for cyclists;
- Only allow buses and taxis between Church St and New Link Road;
- Signalise junction with East Douglas Street and Church Street; and
- Junction to be included in the Cork City SCOOT UTC system.

### Benefits

- Re-establish the Village Centre feel and pedestrian priority; and
- Connect the new shopping centre with East Douglas Village - regenerate the area by removing severance caused by vehicle flows.



## Junction 9 – Junction over Dry Bridge



Standing on Carrigaline Rd facing south towards Junction with Old Carrigaline Rd



Standing at Dry Bridge Junction facing north on Carrigaline Rd.

### Issues

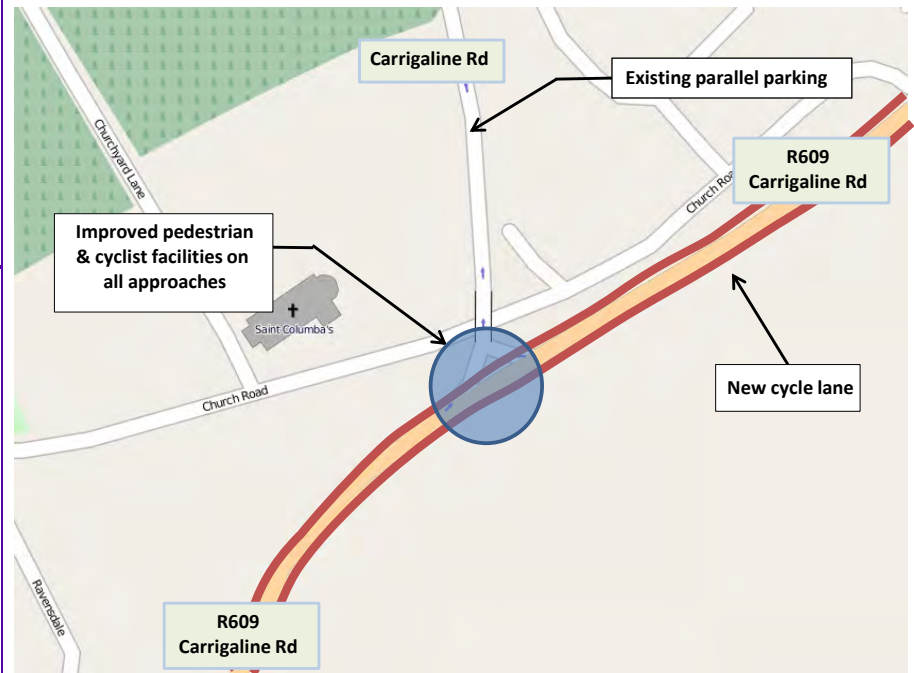
- No apparent operational or capacity issues.

### Proposed Improvements

- Introduce advanced stacking locations for cyclists;
- Improve pedestrian and cycle facilities; and
- Extend cycle lane on R609.

### Benefits

- Create safer environment for pedestrian and cyclists.



## Junction 10 – St. Patrick’s Roundabout / N28 On & Off Ramp



Standing on Rochester Road facing east towards Roundabout



Standing on Roundabout Road facing north towards N28 Slip Road

### Issues

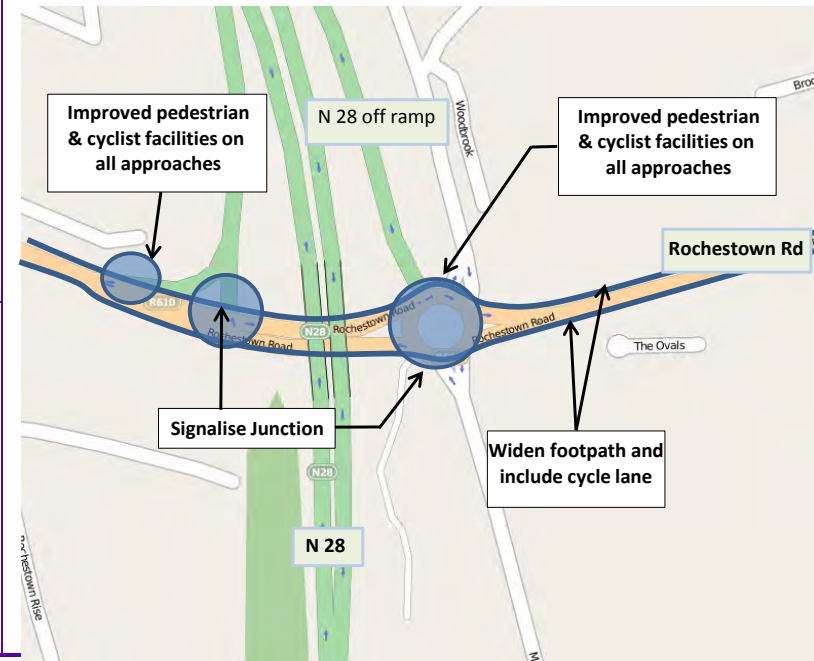
- This junction experiences significant operational and capacity problems in the morning period, mainly due to the restricted capacity right turn onto the N28 northbound ramp. The level of congestion is significant and prolonged, with queue lengths extending beyond Coach Hill Junction about 1km from the junction;
- In the evening the situation reverses with queues forming on the N28 southbound off-ramp and the roundabout working at or close to capacity. Queues extend back to the off-ramp, but not onto the N28; and
- The junction has poor pedestrian facilities, with incomplete and unsafe pedestrian routes through the junction meaning pedestrians potentially have to walk on the carriageway or grass verge to complete their journey through this junction.

### Proposed Improvements

- Convert to a signalised roundabout linking with junction 17 ( N28 on Ramp);
- Widen footpaths on all approaches; and
- Improve pedestrian and cyclist crossing facilities.

### Benefits

- Improve safety for cyclist and pedestrian using the junction;
- Address the causes of queuing on Rochester Road in the morning peak; and
- Reduce queues, delays and emissions.



## Junction 11 – Rochestown Road / Coach Hill



Standing on Rochestown Rd facing north towards Coach Hill



Standing at Coach Hill facing south towards Rochestown Rd.

### Issues

- There are no operational and/or capacity issues outside of the morning peak period when blocking back from St Patrick's Roundabout causes problems;
- Drivers wishing to avoid queues at Clarke's Hill junction enter network at this junction;
- Sightlines are poor for traffic on the Clarke's Hill arm of this junction.

### Proposed Improvements

- Improve pedestrian and cycle facilities; and
- Cut back hedging to improve sightlines.

### Benefits

- Improvements to upstream junction should relieve any congestion.



## Junction 12 – Rochestown Road / Clarke’s Hill



Rochestown Rd facing west towards St Patrick’s Roundabout



Standing Rochestown Rd facing north towards Clarke’s Hill.

### Issues

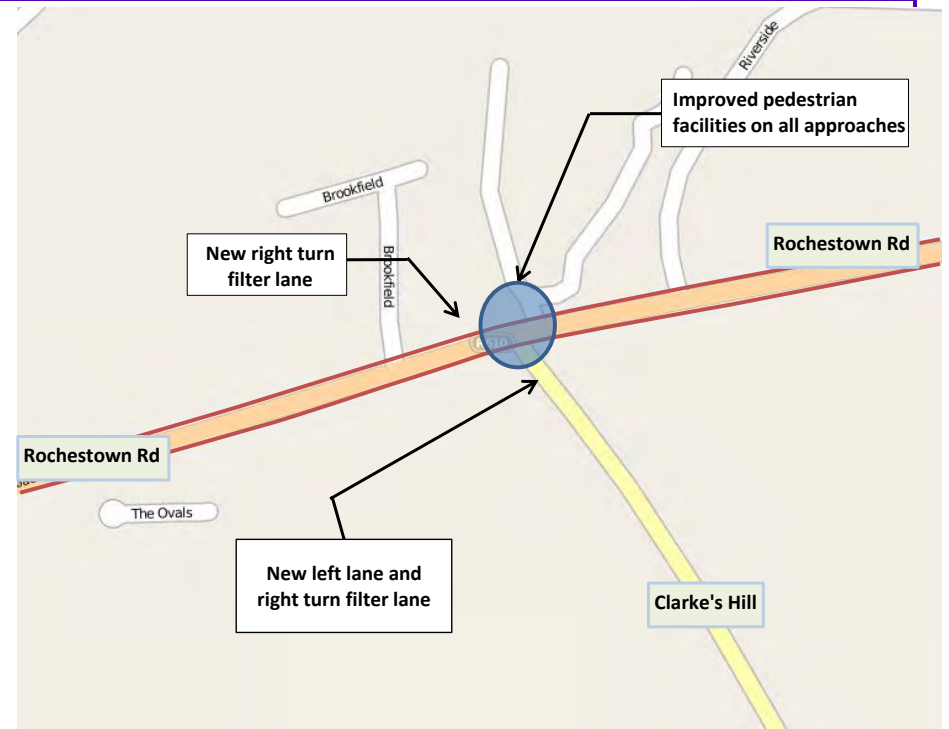
- Clarke’s Hill has operational and capacity problems in the morning period due to the operational and capacity issues at the St Patrick’s Roundabout and right turn to the northbound N28 on-ramp;
- This junction operates as a merge ‘in turn’ in the morning peak, although the level of courtesy does occasionally deteriorate at times during the peak, with some driver frustration evident; and
- The queues on Clarke’s Hill approach are significant. The use of Coach Hill and the acceptance of a place at the end of a 1km queue (200 vehicles) indicate that operational and capacity issues at St. Patrick’s Roundabout and the N28 on and off ramps are now at an unacceptable level.

### Proposed Improvements

- Widen existing footpaths
- The addition of a right turn flare lane from Rochestown;
- Addition of a new right turn filter lane on Clarke’s Hill.

### Benefits

- Improvements to upstream junction should help relieve congestion.



## Junction 13 – Fingerpost Roundabout



Ped Crossing on Rochestown Rd arm of Roudabout



Ped Crossing on Carrigaline Rd arm of Roudabout

### Issues

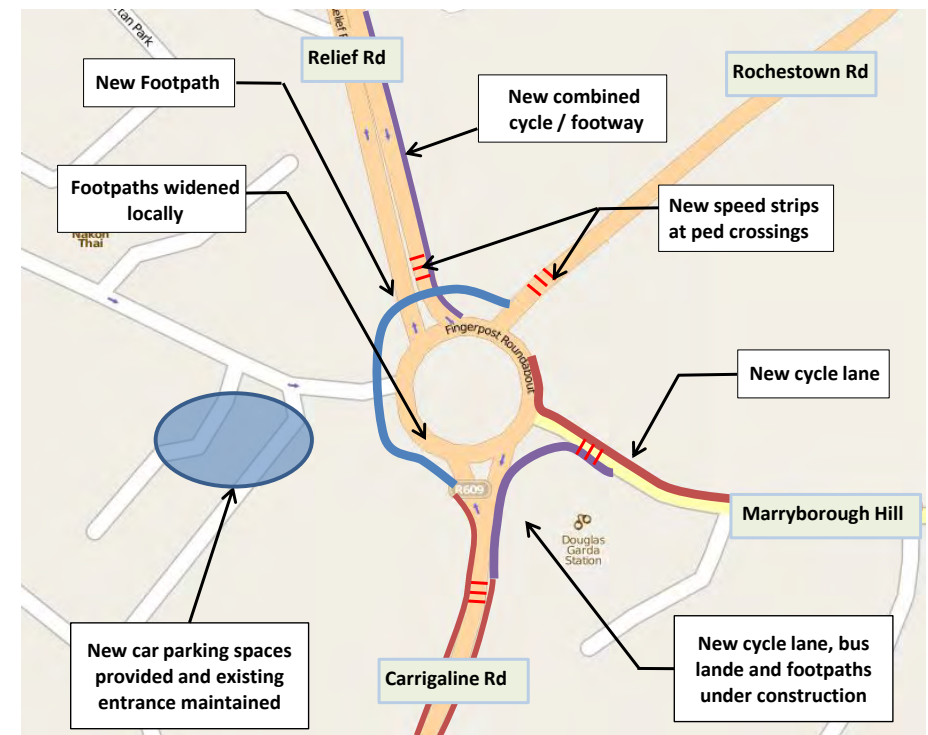
- No apparent operational issues;
- Experiences capacity issues at peak periods, although due to the good design of the roundabout, operates effectively at peak times; and
- Pedestrian facilities are lacking on some arms of the roundabout. For example on the Maryborough Hill approach some pedestrians cross closer to the roundabout, away from the pedestrian crossing, utilising the roundabout splitter island. This may suggest the crossing is not aligned to the pedestrian desire line. Also there is a lack of priority for pedestrians crossing the Eastern Link Road arm of the junction.

### Proposed Improvements

- Improve pedestrian and cycle crossing facilities;
- Introduce new speed strips on all approaches;
- Widen existing footpaths where necessary; and
- Construct new footpath helping pedestrians travel round the roundabout.

### Benefits

- Improving the pedestrian and cycle crossing facilities on all arms will improve safety.



## Junction14 – Coach Hill / Clarke’s Hill



Standing at junction facing north towards Coach Hill



Standing at junction facing west towards Clarke’s Hill.

### Issues

- There is a dedicated pedestrian crossing facility at the junction which has been installed to a high standard; and
- Since this is a recent installation we would expect the form and nature of the junction to be appropriate for the flows observed, therefore no capacity and/or operational issues would be expected.

### Proposed Improvements

- Addition of advanced stacking locations for cyclists; and
- New road markings at the junction with Upper Belmont.

### Benefits

- Junction has been upgraded recently and operates within capacity.



## Junction15 –Clarke’s Hill / Ballyorban Road



Standing on Clarke's Hill facing south towards Ballyorban Road



Clarke's Hill facing west towards junction with Ballyorban Rd.

### Issues

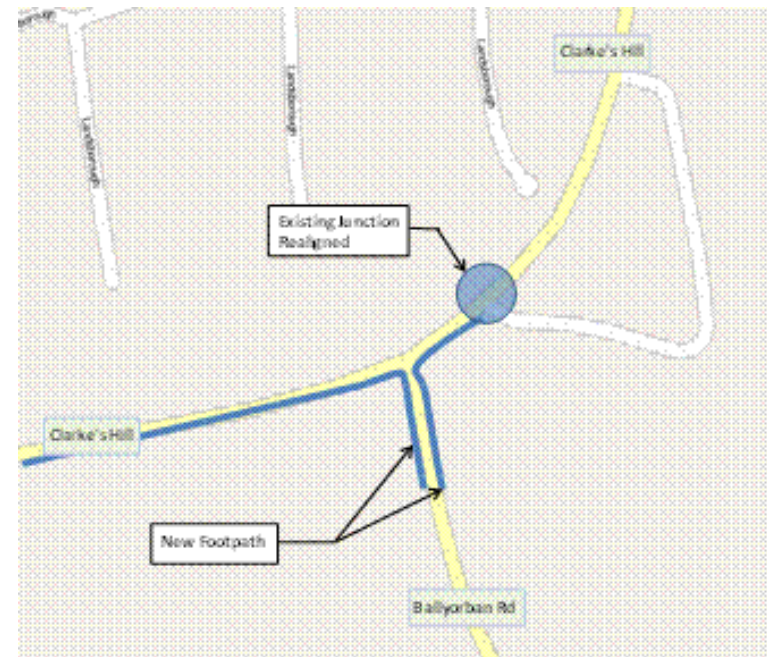
- The main road (Clarke's Hill) has primarily detached residential housing with drive way access at irregular intervals. There are no footpaths to the west of this junction and there are no footpaths on Ballyorban Road;
- Ballyorban Road is a narrow single carriageway rural road with no pedestrian footways. The junction of Clarke's Road has poor visibility to the left and right due to the vegetation on either side; and
- Some operational issues due to poor sight line, the geometry of the road and capacity issues relating to the volume of traffic experienced in the area.

### Proposed Improvements

- Improve sightlines at junction; and
- Improve pedestrian facilities by adding footpaths.

### Benefits

- Improved sightlines will enhance safety as well as capacity.





## Junction 16 – Donnybrook Hill / Scart Cross



Standing on Scart Hill facing south towards Braken Court



Standing on Bracken Court facing north towards Scart Cross.

### Issues

- There is a nursery on Calderwood Road, close to the junction of Donnybrook Hill, and it is expected that there would be operational issues at various times of day due to this facility; and
- This junction of Calderwood has been upgraded in recent years whereby the junction layout has been compacted and there has been an introduction of a stop line instead of a give way. Therefore, operationally this junction should work effectively and safely, although this may be to the expense of capacity. However, it is believed that a good balance has been achieved at this junction.

### Proposed Improvements

- Improve pedestrian crossing facilities.

### Benefits

- Safer environment for pedestrians.



## Junction 17 - Rochestown Road / N28 Off Ramp



Standing on Rochestown Road facing north towards Slip Road



Standing at junction facing west along Rochestown Road

### Issues

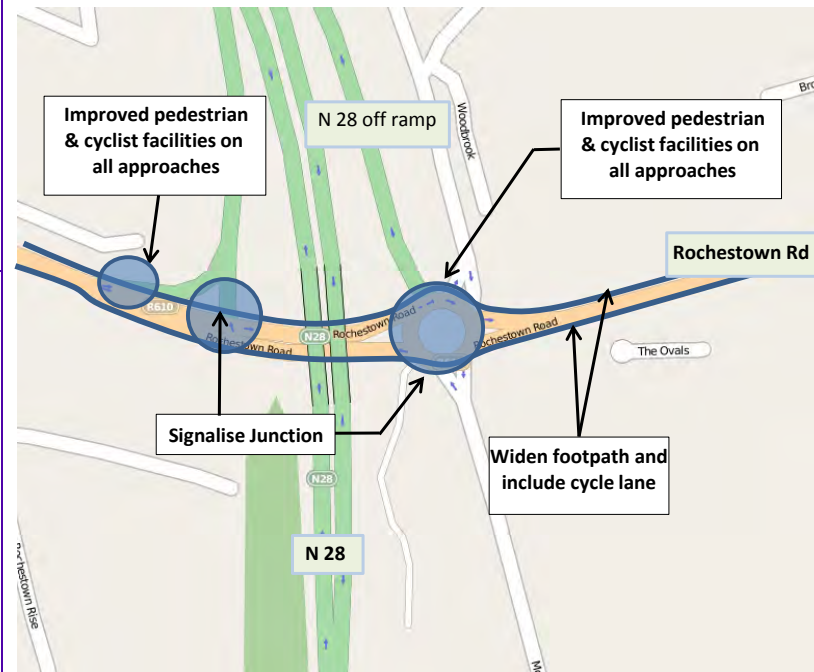
- This junction experiences significant operational and capacity problems in the morning period, mainly due to the restricted capacity right turn onto the N28 northbound ramp. The level of congestion is significant and prolonged, with queue lengths extending beyond the Coach Hill junction;
- In the evening the situation reverses with queues forming on N28 southbound off-ramp and the roundabout working at or close to capacity. Queues extend back to the off-ramp, but not onto the N28; and
- The junction has poor pedestrian facilities, with incomplete and unsafe pedestrian routes through the junction meaning pedestrians potentially have to walk on the carriageway or grass verge to complete their journey through this junction;

### Proposed Improvements

- Signalise in conjunction with junction 10; and
- Improve pedestrian and cycle facilities.

### Benefits

- Improved safety for cyclists and pedestrians using the junction;
- Address the causes of the queuing on Rochestown Road in the morning peak; and
- Reduce queues, delays and emissions.



## Junction 18 - New Link Road / East Douglas Street (Topaz Junction)



Standing on Douglas Rd facing West towards New Link Road



Standing on Douglas Rd East facing north towards New Link Road

### Issues

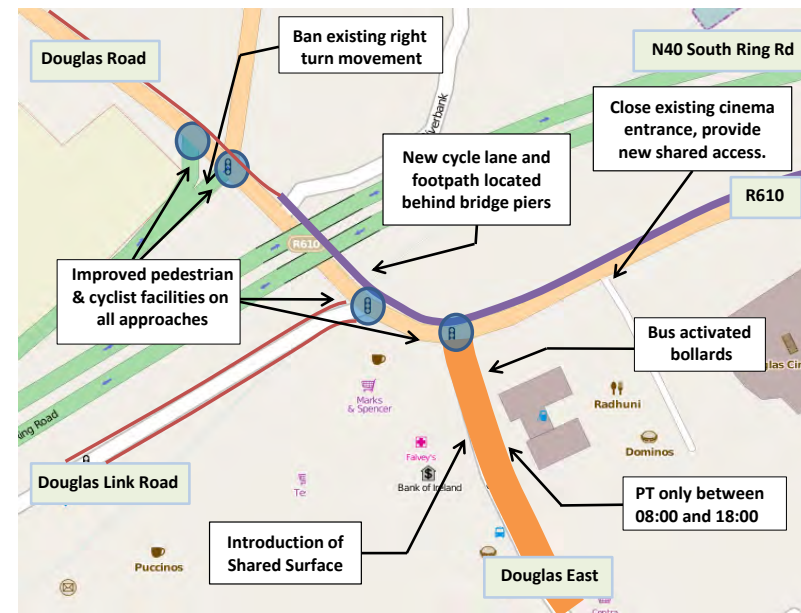
- Experiences both operational and capacity issues;
- The signal staging and phasing is not coordinated correctly, resulting in an under-utilised green time with internal queuing occurring regularly;
- The main approaches all display significant queuing during peak periods;
- The traffic levels, and the associated queues and delays on the East Link Road are acceptable, due to the nature of the road. However, on East Douglas Street the traffic volumes with associated queues, delays, emissions, noise, severance and safety are out of keeping with the surrounding network and do not serve the town centre or wider community well.

### Proposed Improvements

- New cycle and pedestrian lanes beneath N40 overpass;
- Bus and taxi only on East Douglas Street during business hours;
- Local access only to the Topaz Petrol Station;
- Increase priority on R610;
- Incorporated into wider SCOOT UTC system.

### Benefits

- By removing through traffic from East Douglas Street, the severance is removed and Douglas Village Centre becomes better connected.
- Enhanced pedestrian and cycle environment; and
- Inclusion in SCOOT UTC will optimise the flows on R610 New Link Road.



## Junction 19 - New Link Road / West Douglas Street



Standing on Douglas St West facing North towards New Link Road



Standing at Junction facing east towards New Link Rd.

### Issues

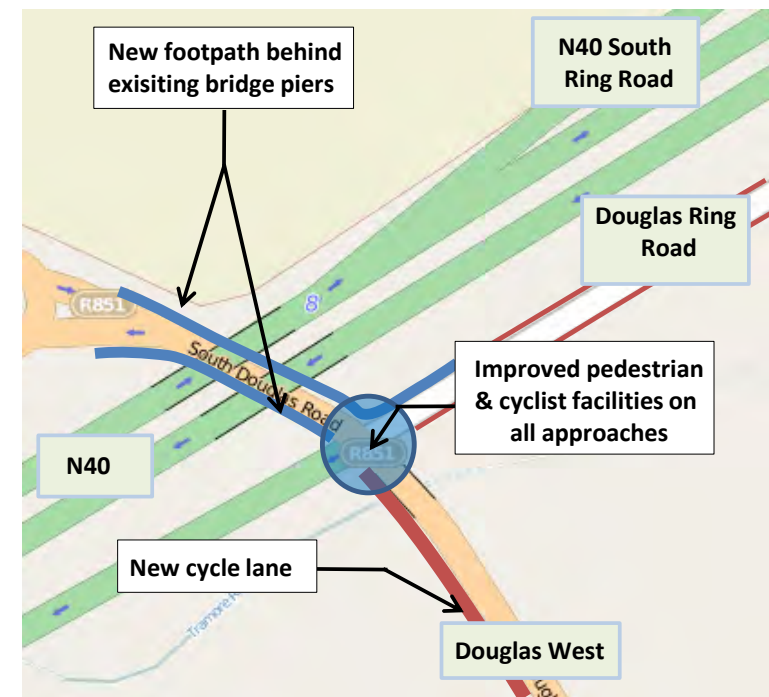
- A minor operational issue is that a pedestrian push button unit (pbu) is orientated in the wrong direction and needs to be changed, as this will cause confusion to users with impaired vision;
- No other apparent operational issues at this junction; and
- The roundabout at the northern end of the junction experiences capacity problems during peak periods.

### Proposed Improvements

- Improve pedestrian and cycle facilities;
- New footpaths and cycle lanes behind existing bridge on the N40 overpass; and
- Junction to be included in the Cork City SCOOT UTC system.

### Benefits

- Improved support of sustainable modes at the junction; and
- Enhanced SCOOT UTC will optimise the flows at this junction.



## Junction 20 – St Patricks Mill / West Douglas Street



Ped Crossing on Rochestown Rd arm of Roudabout



Ped Crossing on Carrigaline Rd arm of Roudabout

### Issues

- Operational issues at this junction relate to poor road geometry and poor visibility for traffic exiting St Patrick’s Mills.

### Proposed Improvements

- Move signalised pedestrian crossing from north of the junction to south of the junction; and
- Widen footpaths.

### Benefits

- The signalised crossing causes delays at present and interrupts the efficient operation of the upstream junction. The relocation of the existing pedestrian crossing will ensure that pedestrian facilities are coordinated with adjacent junctions to minimise queues and delays as well as emissions.



## Junction 21 – Douglas Court Roundabout



Standing on Link Rd facing north towards Roundabout



Standing at exit from Douglas Court facing west towards Roundabout.

### Issues

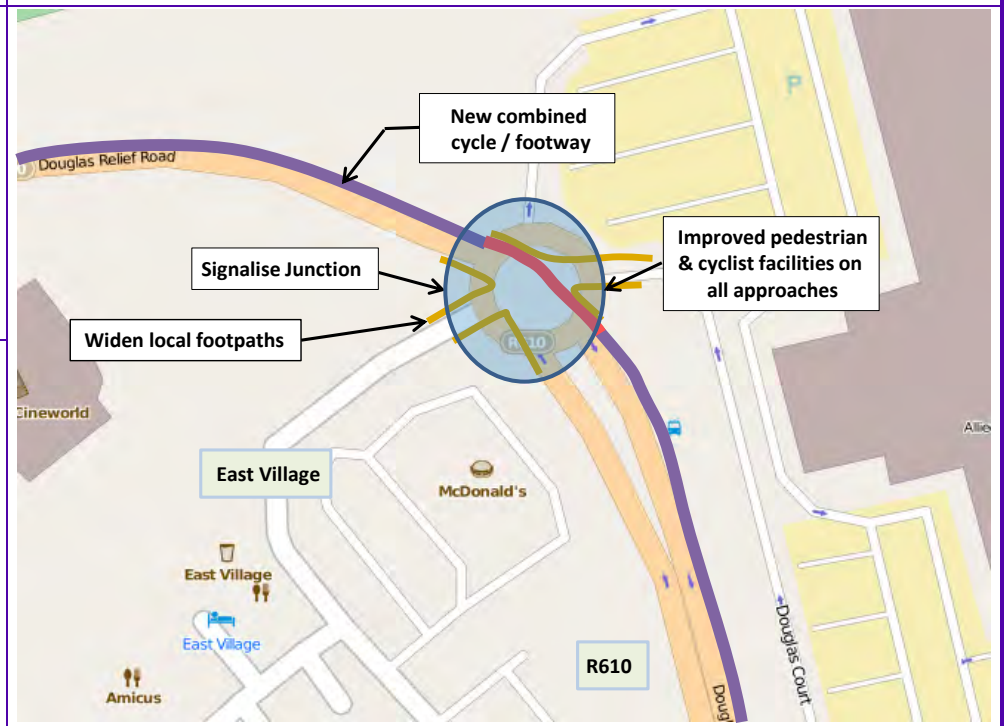
- Experiences capacity issues at peak periods, with blocking back from the junction at Douglas Road and the New Link Road; and
- There are currently no crossing facilities in place for pedestrians travelling from north to south or south to north. Crossing facilities for pedestrians crossing east to west are not aligned with existing desire lines.

### Proposed Improvements

- Upgrade to signalised junction;
- Introduce advanced stacking locations for cyclists;
- Improve pedestrian crossing facilities; and
- Junction to be included in the Cork City SOOT UTC system.

### Benefits

- Improves pedestrian and cycle environment; and
- Enhanced SCOOT UTC system will optimise the flows at this junction.



## Junction 22 – N40 Slip Road / Douglas Road



Standing on Douglas Rd facing West towards Off Ramp



Standing on Douglas Rd facing south towards junction with off ramp.

### Issues

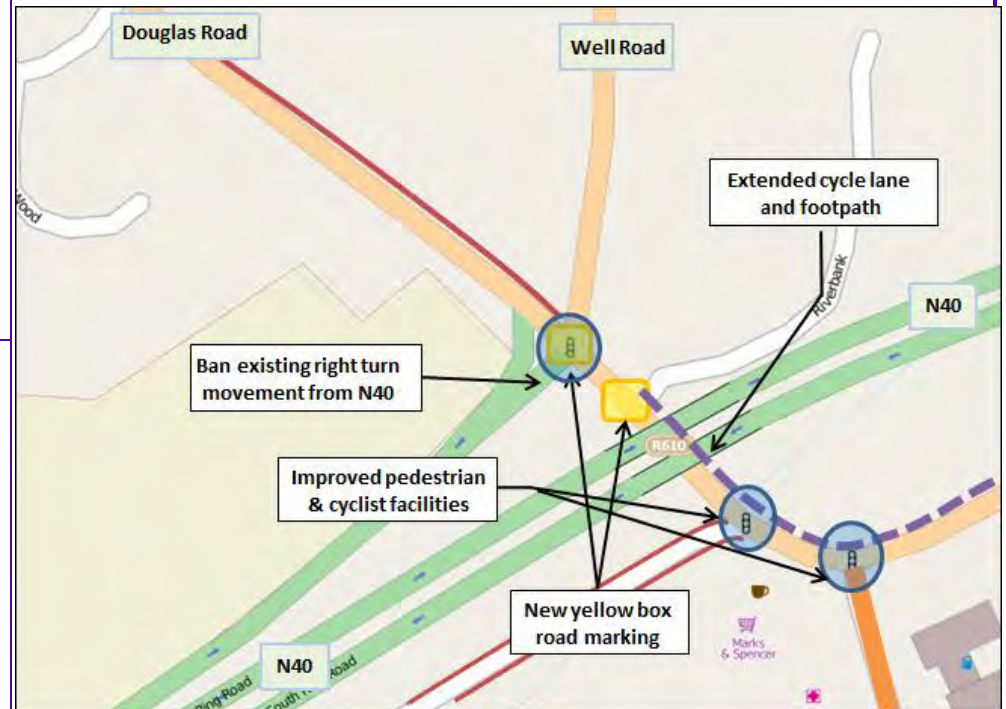
- Traffic exiting from riverbank estate finds it difficult to make a right turn towards Cork City due to large traffic flows; and
- Long delays experienced on Well Road during peak periods.

### Proposed Improvements

- Extend existing cycle lane to link in with new lanes under N40 overpass;
- Ban right turn from Eastbound N40 off-ramp;
- Yellow box in front of Well Road;
- Yellow box in front of Riverbank Estate; and
- Junction to be included in the Cork City SCOOT UTC system.

### Benefits

- Encourage traffic to exit South Ring Road (N25) early to reduce demand on this junction; and
- With enhanced junction 18 (Topaz), we would expect this junction to operate more effectively, with increased green time given to the north to south movement (R610).



## Junction 23 – Willow Park / South Douglas Road



Standing on South Douglas Rd facing north towards Roundabout



Standing at exit from Willow Park facing south towards Roundabout.

### Issues

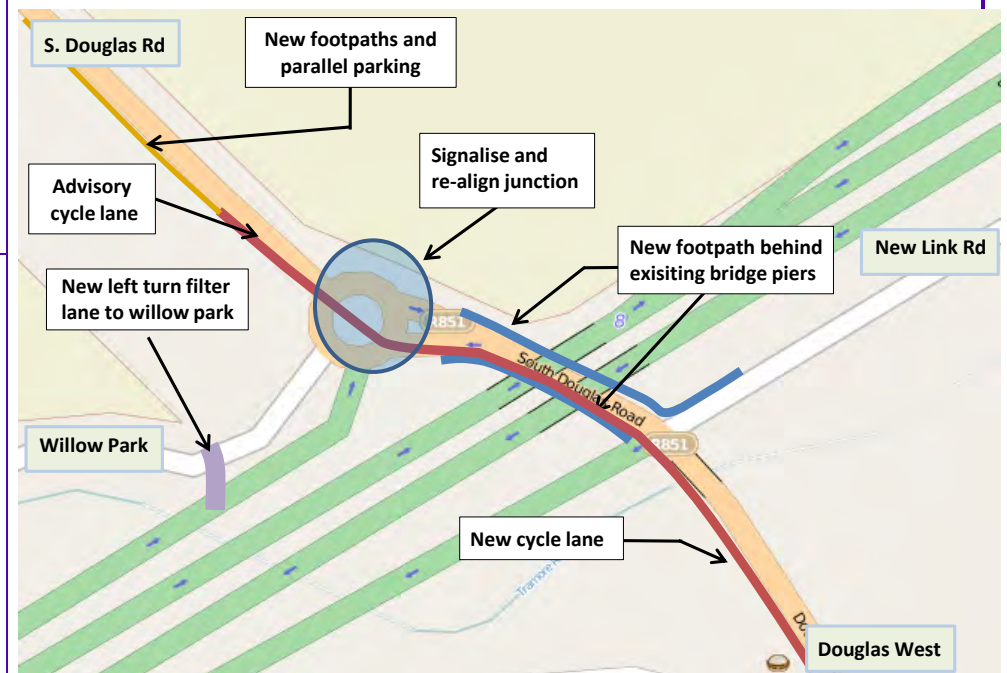
- School located in Willow Park creates large amounts of traffic during the AM peak; and
- Some queuing experienced on all arms of the roundabout during the AM peak due to school traffic.

### Proposed Improvements

- Replace roundabout with signalised junction; and
- Junction to be included in the Cork City SCOOT UTC system.

### Benefits

- The proposed signalisation will manage the queues and delays effectively as well as enhancing pedestrian and cycle safety in the area especially those associated with local schools; and
- Co-ordinate with the adjacent signalised junctions to improved operational efficiency.







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## Appendix 5 – Photomontages

# DLUTS – Final Report

## Appendix 5 – Photomontages

Report for Cork County Council Cork County Council

In Association With Brady Shipman Martin

February 2013



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**Figure 1: Douglas Road / N40 Overpass**



**Figure 2: Douglas Street East**



Figure 3: Douglas Street East



BRADY SHIPMAN MARTIN



Figure 4: West Douglas Street



Figure 5: West Douglas Street



Figure 6: West Douglas Street and Church Road



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Figure 7: Church Street



**Figure 8: Douglas Court Roundabout**



**Figure 9: Fingerpost Roundabout**



**Figure 10: Fingerpost Roundabout**



BRADY SHIPMAN MARTIN

**Figure 11: Grange Road / Donnybrook Hill**





**Figure 12: Ballybrack River Walk and Cycle way**



**Figure 13: Tramore Valley Walk and Cycle way**



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Figure 14: St Patrick's Mills



Figure 15: St Patrick's Mills





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# Appendix 6 – 3<sup>rd</sup> Public Consultation Report

# Appendix 6 – 3<sup>rd</sup> Public Consultation Report



# Douglas Land Use & Transport Strategy (DLUTS)

## 3<sup>rd</sup> Public Consultation Report

Prepared for Cork County Council

June 2013

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# 1 Introduction

## 1.1 Background

- 1.1.1 The consultation process forms an important component of the development of the DLUTS as the responses play a key role in developing a detailed understanding of the current issues affecting Douglas and its environs. The consultation process also provides an insight into potential solutions to these issues and a view as to how Douglas should develop in terms of land use and associated transport improvements.
- 1.1.2 At the outset of the Douglas Land Use and Transport Strategy (DLUTS) an extensive public and stakeholder consultation was undertaken, similarly after the publication of the Baseline Report a 2<sup>nd</sup> round of public and stakeholder consultation was undertaken. Furthermore, a third round of consultation was undertaken in January 2013 following the 3<sup>rd</sup> Public Exhibition and to coincide with the completion of the DLUTS Draft Final Report. This consultation report provides an overview of the written responses relating to land use, urban design and transportation issues received by MVA Consultancy and Cork County Council during the 3<sup>rd</sup> phase of the public consultation process.

## 1.2 Consultation Process

- 1.2.1 The 3<sup>rd</sup> public consultation process carried out for DLUTS involved a two day public exhibition and following on from this direct correspondence was received from a number of local stakeholders in the study area.

### Public Exhibition

- 1.2.2 On the 29<sup>th</sup> and 30<sup>th</sup> of January 2013 the third and final public exhibition was held in the Rochestown Park Hotel between the hours of 16:00 and 21:00. Members of the public were invited to attend and the event was advertised in local newspapers and on local radio. The purpose of the exhibition was to present the future strategy for development in Douglas and to give members of the public and stakeholders a further opportunity to give their opinions on the Douglas Land Use and Transportation Strategy.
- 1.2.3 The event was hosted by eight members of the DLUTS team from both Cork County Council and MVA consultancy. Visitors who attended were invited to view a number of presentation boards which outlined the DLUTS, and included:
- Land Use Strategy;
  - Urban Design Strategy;
  - Pedestrian and Cycle Strategy;
  - Schools Strategy;
  - Village Centre Circulation; and
  - Traffic Management Measures.
- 1.2.4 The exhibition was well attended, with a constant flow of visitors throughout the day. In total over 250 people attended the exhibition.

### 1.3 Structure of Report

1.3.1 The remainder of this report is structured as follows:

#### **Chapter 2 - Submissions Received**

- This chapter summarises all the submissions made by the aforementioned stakeholders following the 3<sup>rd</sup> public consultation meeting.

#### **Chapter 3 – Proposed Changes to DLUTS Draft Final Report**

- Chapter Three outlines the proposed changes to the DLUTS Draft Final Report resulting from the 3<sup>rd</sup> Public Consultation process.

## 2 Submissions Received

### 2.1 Introduction

- 2.1.1 This chapter outlines and summarises the submissions received from stakeholders and the public during the 3<sup>rd</sup> round of public consultation.
- 2.1.2 This process forms an important part of the development of DLUTS as the responses play a key role in developing a detailed understanding of the current issues affecting Douglas and of potential solutions to these issues. The responses received during the 3<sup>rd</sup> Public Consultation inform the development of the DLUTS Final Report.

### 2.2 Overview of Submissions Received

- 2.2.1 Local land owners and private individuals were encouraged to make submissions with any relevant issues as part of the 3<sup>rd</sup> consultation process.
- 2.2.2 Approximately six weeks was allowed for the receipt of submissions in relation to the study.

#### **Submissions received from Stakeholders**

- 2.2.3 Those stakeholders who prepared submissions following the 3<sup>rd</sup> consultation public exhibition include:

<u>Submission No.</u>	<u>Stakeholder Name</u>
S.1	Owen Shinkwin on behalf of the National Transport Authority;
S.2	Tara Spain on behalf of the National Roads Authority;
S.3	Adrian Wilkinson on behalf of St. Luke's Church;
S.4	Anthony Foy on behalf of the Grange Frankfield Partnership;
S.5	Aislinn Stanton on behalf of Cork Chamber;
S.6	Clayton Love on behalf of the Shipton Group;
S.7	<b>Coakley O'Neill Town Planning on behalf of Resource Property Investment;</b>
S.8	<b>Conor O'Brien on behalf of Douglas Golf Club;</b>
S.9	Cork Cycling Campaign;
S.10	Green Property Ltd on behalf of Douglas Developments Ltd;
S.11	John Crean on behalf of Tesco;
S.12	McCutcheon Halley Walsh on behalf of Ann Murphy;
S.13	<b>McCutcheon Halley Walsh on behalf of Anna O'Toole and the executors of Mary Hegarty;</b>
S.14	McCutcheon Halley Walsh on behalf of St Patricks Woollen Mills Ltd;

S.15	Olwen Anderson on behalf of the Board of Management for St. Luke's National School;
S.16	Padraig Sheehan on behalf of the Douglas Business Association;
S.17	Sean Collins on behalf of the Cork Taxi Council;
S.18	<b>Teddy O'Sullivan on behalf of St. Columba's Church;</b>
S.19	Tim O'Donovan on behalf of Douglas Gymnastics Club;
S.20	Valerie O'Sullivan on behalf of the Cork City Council.

### Submissions from the Public

2.2.4 Those who prepared submissions following the 3<sup>rd</sup> consultation public exhibition include:

<u>Submission No.</u>	<u>Stakeholder Name</u>
S.21	Sean Fitzgerald
S.22	Anne Ryan;
S.23	Anonymous;
S.24	Anonymous 2;
S.25	Anthony Foy;
S.26	<b>Brian O'Mahony;</b>
S.27	Claire Fox;
S.28	Collette Finnegan;
S.29	<b>Daniel O'Mahony;</b>
S.30	David O'Mahony;
S.31	<b>Denis O'Regan;</b>
S.32	Edmund Borrigan;
S.33	Edward Lahiff;
S.34	Dr. Eugene Cassidy;
S.35	F Lynch;
S.36	Hillary Cooney;
S.37	Imelda McSweeney;
S.38	J Lynch;
S.39	John Bruton;
S.40	Kevin Dalton;
S.41	Liam Higgins;
S.42	Lisa Boland;

- S.43 Members of the Douglas Gymnastics Club;  
 Alissa Blake, Angela Carazza, Anne Noonan, Anthony Holmes, Antoinette Mansfield, Arlen Corbette, Assumpta Whelton, Audrey Colwell, Carol Dalton, Carol Feller, Carol Moore, Catriona Horgan, Clare Ruddock, Daphne Sheehan, Deirdre Finn, Deirdre Hallahan, **Deirdre O'Neill**, Elaine Dilworth, Emma Hammill, Fionnuala Hartnett, Gillian Forde, Harriet Jones, Jeffrey and Bernadette Fox, Jo Goodyear, Kate Luttrell, Katherine Kelly, Lizanne McArtain, Louisa Barry, Maebh **O'Connor**, Mairead Kavanagh, Mairead McKennedy, Margeurite Waters, Maria Martínez Galvez, Marianne Walsh, **Mark O'Gorman**, Mary Keniry, Mary McGinn, **Mary O'Keefe**, Mary Trindle, **Meryl O'Neill**, **Michael O'Connell**, Miriam Casey, Muireann Carbery, **Niamh O'Callaghan**, Nicola Murray, Nicola Swanton, Nicole **O'Callaghan**, Olive Kenny, Olivia Fylnn, Oonagh Boyle, Orla Hyde, Orla Murphy, Patricia Atkinson, Paul Kenny, **Rachel O'Byrne**, Rosemary Walsh, Sarah Harding, Sharon Cagney, Síle Quinlan, Sinéad Glennon, Siobhán Hurley, Stacey Duggan, Tina Sutton, **Tom O'Connor**, Torlac Hodkinson, Tracey Dilloughery, Úna Barrett, **Val O'Mahony**.
- S.44 Members of the Douglas Ladies Football Club;  
 Áine Cunningham, Ben Kiely, Brendan and Valerie Deane, Carol; Clodagh Wall, David Nason, Dónal and Ber Horgan, **Dorothy O'Leary**, Fiona Creamer, Hayley Nason, **Jamie O'Leary**, Joan Cottrell, Kieron and Helena Cremin, Kim Barry, Marian and Ted Curtin, Michelle Dennehy, Patricia Walsh, **Philip O'Sullivan**, Rita Murray, Rose Nason, Seán and Siobhán Downey, Ted Curtin, John Hallahan, **Brian and Maeve O'Shea**, **Meryl O'Neill**;
- S.45 **Meryl O'Neill**;
- S.46 Michael Clifford;
- S.47 Michael Rea;
- S.48 **Noel O'Keefe**;
- S.49 Pat Tangney;
- S.50 Patricia Hayes;
- S.51 Patricia Tangney;
- S.52 Penny and Brian Sheehan;
- S.53 Philip Collins;
- S.54 Philip Shine;
- S.55 Ray Hegarty; and
- S.56 Suzanne Buckley.

2.2.5 The key aspects of these submissions have been summarised and are presented below. It should be noted that some of the submissions received were lengthy and have been summarised below. Those submissions that have been summarised are included in their entirety in Appendix C.



### 2.3 Submissions Received from Stakeholders

#### Stakeholder Name: S.1 National Transport Authority (Owen Shinkwin)

##### Summary of Submission:

Having reviewed the Douglas LUTS Draft Final Report, the National Transport Authority (NTA) is satisfied that the issues raised and discussed during a succession of meetings with Cork County Council and the Public Agencies Consultative Group have been adequately reflected in the outcome of the Study. It is understood that the Study will provide the basis for future investment in transport measures and that the design of those measures will follow on from the completion of the Study. During the course of the Study, the purpose of the NTA's involvement has been to advise the County Council in regards to the Study key objective – to ensure that there is an integrated approach to land use and transport planning for the future development of Douglas and how this relates to the NTA's primary functions in the Cork Metropolitan Area, namely:

- The planning and regulation of public transport services;
- Transport integration and Transport Demand Management;
- Facilitating and influencing the integration of land use and transport planning at a strategic level; and
- The operation of the Five Year Transport Investment Frameworks (2013-2017) for the Cork Metropolitan Area.

In regards to the Five Year Transport Investment Framework, the NTA is satisfied that the measures identified in the Study for implementation are, in general, consistent with the current focus of investment in the Douglas area and in particular, those measures which focus on the promotion of local accessibility to the Village Centre by walking and cycling modes and the facilitation of improved public transport services into and through the Village Centre, coupled with complementary traffic management and targeted transport demand management measures such as parking management. It is expected that the prioritisation of transport investment in Douglas will be undertaken in tandem with that of the Five Year Transport Investment Framework over the coming years. The NTA looks forward to working with Cork County Council in this regard.

##### Issues Emerging:

- Basis for future investment
- Integrated approach to land use and transport planning
- Five Year Investment Programme
- Targeted transport demand management measures and parking management

##### Response:

Issues raised by NTA have been adequately reflected in report. NTA is satisfied that the measures identified in the Study for implementation are consistent with the current focus of investment in the Douglas area, coupled with complementary traffic management and targeted transport demand management measures such as parking management.

Submission by NTA is to be welcomed.

**Stakeholder Name: S.2 National Roads Authority (Tara Spain)****Summary of Submission:**

The NRA seeks clarification, consultation and agreement on certain matters before the strategy is adopted so as to protect the N40 national road:

1. Banned right turn from the N40 Off-Ramp at Douglas Road
2. Proposed Traffic Signal Control System for most significant junctions near Douglas Village

These measures may have a significant impact on the N40 which may be unacceptable.

**Issues Emerging:**

- Item 10.8.16 Banned right turn from the N40 Off-Ramp at Douglas Road (Transport Policy T-09).
- Item 10.8.17 Improved Traffic Signals Control system (Transport Policy T-10) especially with regards to junctions 1-4 indicated in Figure 10-16.
- Impact on the N40.

**Response:**

We welcome that the Authority commends the production of the land use and transportation strategy for Douglas. Every effort has been made in the development of DLUTS to take on board all the suggestions the NRA have made through the consultative process to ensure that the strategy objectives and recommendations relating to land use, transport and urban design contribute to the maintenance of the operational efficiency and safety of the national road network and are in accordance with best practice and national policy. Furthermore the integrated approach to land use and transport planning suggested by the NRA to deliver more sustainable travel patterns in the future has been fully embraced by DLUTS.

In relation to the two specific issues outlined above the following is our response to these:

- ***Item 10.8.16: Banned Right Turn from N40 Off-Ramp at Douglas Road (Transport Policy T-09).***

As mentioned in the draft final report the purpose of the banned right turn from N40 Off-Ramp at Douglas Road is to encourage traffic on the N40 which is destined for Douglas Village to exit earlier (at the junction with South Douglas Road) or later (at the junction with Rochestown Road) thereby helping to reduce demand on Douglas Road. The removal of this right turn from the signal phasing will also allow more green time to be allocated to the Douglas Road and Well Road arms of the junction and further help to relieve congestion at this point. Furthermore the link road parallel to Douglas Village Shopping Centre will carry more traffic than under this arrangement further reducing traffic levels on the N40.

The DLUTS Model has been queried to further examine the impact of the banned right turn from the N40 Off-Ramp at Douglas Road. The assessment indicates that there will be some minor increases in traffic exiting at the South Douglas Road Off-Ramp (N40) and Rochestown Road Off-Ramp (N28). The increase is in the order of 50 vehicles on both Off-Ramps in the AM Peak and

less in the PM Peak.

It should be noted, however, that one of the main benefits of the strategy is to reduce use of the strategic road network through the enhancement of the operation of the local road network and the ability to manage traffic levels and maximise the efficiency of the local road network. Furthermore the land use policy focusses on reducing trip length and delivering more sustainable travel patterns and this is coupled with public transport, walking and cycling initiatives aimed at encouraging a shift from using the private car. Modelling shows, that the overall impact of DLUTS, therefore, is to reduce traffic levels on the strategic road network through the provision of a better managed local road network working in tandem with sustainable land use and transport policies.

Additional model testing using the DLUTS model indicates that traffic levels on the N40 can be further reduced by configuring the signals within the Douglas area to maximise the use of the East-West Link, for example. This has the added benefit of reducing traffic approaching the Bloomfield Interchange in the AM Peak as some traffic exits off the N28 at the Carrigaline Exit to avail of the east west movement provided by the East-West Link. This traffic reduction is in the order of 100 vehicles (or 9% of the flow in the AM Peak 08.00-08.30). This further reduces traffic travelling westbound on the N40 and has a beneficial impact at the Kinsale Interchange.

- ***Item 10.8.17: Improved Traffic Signal Control Systems (Transport Policy T-10) especially with regards to junctions 1-4 indicated in Figure 10-16.***

As mentioned in the draft final report it is proposed to include a number of junctions in Douglas Village into the Cork City SCOOT (Split Cycle Offset Optimisation Technique) UTC (Urban Traffic Control) system. This system is designed for managing and controlling traffic signals in urban areas. It is an adaptive system that responds automatically to fluctuations in traffic flow through the use of on-street detectors embedded in the road. SCOOT has been proven to be extremely effective in urban centres world-wide and can typically reduce traffic delay by an average of 20%.

To further protect the strategic road network we recommend that on the N40 South Douglas Road Off-Ramp and the N28 Rochestown Road Off-Ramp be fitted with a Double Loop Vehicle Detection system to ensure queuing does not back onto the N40 and N28 from the Off-Ramps and South Douglas and Rochestown roads respectively (i.e. if the queue formation on the off-ramp exceeded an agreed **length, a 'hurry' call is introduced to 'Flush' the queue**). We would also advise that some form of ramp-metering be applied at the Rochestown On-Ramp at the N28 to maintain the efficient operating capacity of the N28 at this point.

We would recommend that the operation of the traffic control system proposed for the Douglas area will have to work in tandem with demand management policies and proposals envisaged by the NRA for the N40 and N28.

It is the intention of Cork County Council to continue with the **stakeholders' consultative group** (that has been used successfully to develop DLUTS) through the implementation of the strategy. The NRA will be a key member of this consultative group and will have the opportunity to advise and make recommendations through the delivery phase to ensure that DLUTS reacts to changing national road policy objectives and can be changed accordingly. Furthermore it is worth noting **that each DLUTS traffic management proposal will be delivered through the statutory 'Part 8' process**. Cork County Council is at all times open to direct contact by NRA technical offices to consider any matter relating to National Roads/Local Roads which may be of benefit to either organisation.

**Stakeholder Name:** S.3 St. Luke's Church (Adrian Wilkinson)

**Summary of Submission:**

I write on my own behalf and on behalf of parishioners of St. Luke's (Church of Ireland) Church in Douglas, with regard to the above strategy. In general terms I welcome this plan which seeks to address the considerable congestion which at times manifests itself in Douglas. However, I am aware that my Roman Catholic colleague, Very Rev. Canon Teddy Sullivan P.P., from St. Columba's Church has made representations to you regarding the proposals in the plan to make Church Road one-way eastbound. The Church of Ireland community would have similar concerns about this aspect of the plan. In addition to these concerns, I have noted that Policy No. TC-03 regarding Barry's Field states that 'consideration will be given to the construction of a new Municipal Car Park of at least 200 bays with the provision of pedestrian linkage from the Community Park through the Church of Ireland churchyard.' I also note that one of the Desire Lines listed in Table 9:1 of the report proposes an 'East West connection from West Douglas Street through the grounds of St. Luke's Church to East Douglas Street.' While I appreciate that these are aspirations at this stage, I know that members of the Church of Ireland community would be very reluctant to see any public path way put through the Cemetery. Those visiting graves would like the Churchyard remain a place for prayer and reflection and would be worried that allowing large numbers of the general public walk through would disturb this peace and contribute to loitering and vandalism. I do hope this suggestion will be reconsidered. I am respectfully requesting your kind consideration of this matter and I would very much appreciate your considered response in due course. I am available to meet with you to discuss these issues.

**Issues Emerging:**

Welcomes the plan in general. Concerned about proposals to make Church Road one-way. Also object to proposal to provide a public path through the Cemetery. Specifically:

- Proposals for one way east-bound on Church Road;
- Barry's Field car parking proposals; and
- East west connection from West Douglas Street through the grounds of St. Luke's Church to East Douglas Street.

**Response:**

Proposed one-way on Church Road is required because it is narrow (Dry Bridge) and there is a safety issue here. However this proposal will not come into effect until East-West Link Bridge has been provided, thereby providing an alternative route for car traffic. The desire to provide path through cemetery is a medium to long term objective and should remain in the Strategy.

The car parking policy for new development has been prepared as an amendment to the DLUTS Strategy as a result of submissions made on the draft report.

It is recognised that the proposed east west connection from West Douglas through the grounds of St. Luke's Church to East Douglas is a sensitive issue. This proposal is a long term aspiration and further examination of its potential is required.

**Stakeholder Name: S.4 Anthony Foy – Grange Frankfield Partnership****Summary of Submission:**

GFP would like to congratulate the authors on this fine piece of work, which we believe will provide a balanced and sustainable set of land use and transport proposals for Douglas village and its' environs. We welcome in particular the transport consultant's emphasis on traffic management techniques, rather than on further massive road building. The only exception to this is the proposed bridge link from the Old Carrigaline Road to the Grange Road, which we also welcome. We also welcome the emphasis on public transport and cycling and pedestrian modes. Douglas needs an opportunity to breathe and to display its attractive urban qualities. The planning consultants' proposals for a significant upgrade of the public realm are timely and very welcome as the village has suffered inordinately from traffic and congestion. GFP is also heartened by the unequivocal recommendation that both the existing GAA facility, within the village, and the Douglas Golf Club be retained for their present use in their current, long established locations. We welcome, also, the recommendation that open lands immediately west of the former be retained for further recreational uses. Such recommendations are compatible with the County Plan's amenity and recreational objectives for Douglas and will help ensure accessibility and diversity of amenity for the surrounding population.

Finally, we strongly recommend the cycling and walkway network proposed for Douglas as it will offer connectivity and access to a large hinterland population in both county and city, and to the propose Tramore River Valley Park

**Issues Emerging:**

- Support for DLUTS especially for walking and cycling network proposals

**Response:**

Support for DLUTS welcomed.

**Stakeholder Name: S.5 Cork Chamber (Aislinn Stanton)****Summary of Submission:**

Cork Chamber welcomes the publication of the DLUTS Draft Final Report dated February, 2013.

We note that the vision for Douglas as set out in the strategy, is:

**'To secure a successful vibrant urban centre** with a more efficient transport network for Douglas that provides an improved public realm, reduces congestion, encourages greater levels of walking % cycling and improves the quality of life for the community, thereby enabling sustainable future growth''.

Cork Chamber fully supports the objectives of this vision statement, as they will lead to an improved environment that will foster economic activity in a key suburban centre of the Cork Gateway.

Cork Chamber notes the transport network proposals including:

- Optimisation of 12no. junctions and improved pedestrian and cycle facilities
- Signalisation of 8no. junctions
- The banned right turn from the Ramp onto Douglas Road
- 30kph Zone
- East – West link
- The optimisation of the use of existing parking, reducing the overall requirement for parking
- Proposals for school transport plans

Cork Chamber believes that these will bring significant improvements to the transport network in terms of movement and safety all users. We believe that the short term proposal for the Shared Space and Public Transport only on East Douglas Street between Church Street and relief road, with public transport only corridor operating between 08.00 and 18.00 hours, need to take into consideration the implications for existing business on East Douglas Street, which currently have access off East Douglas Street, including the Topaz service station. The overall land use strategy for DLUTS which focuses on the infilling of vacancy in the short term coupled with a modest growth in comparison and convenience retail facilities in line with the local demand and current commitments, is to be welcomed. The draft DLUTS, however, must clarify that the medium and long term proposals for an additional 25, 000 square metres of floor space can be supported by the identified transport network proposals. A more detailed implementation strategy would be welcome to give certainty and clarify to all parties in this regard.

#### **Issues Emerging:**

Fully supportive of vision for Douglas. Supportive of proposed transport interventions. Concerned about impact on existing businesses of the proposed Public Transport Only corridor on East Douglas Street. More detailed implementation strategy is required. Specifically issues raised include:

- Impacts on businesses needs to be considered from proposed public transport corridor on East Douglas Street between 08.00-18.00hrs including impact on Topaz
- Accommodation of additional medium to longer term land use proposals within identified transport network proposals.
- More detailed implementation plan requested.

#### **Response:**

- It is the intension of the DLUTS to improve the overall environment of the village so that people can go about their activities with ease and safety. The East Douglas Street is the heart of the village and will become a focal point for commercial activity. The enhancements intended for this street will include dedicated bus routes, safer pedestrian movements, more efficient car parking and traffic movements all of which will increase footfall for existing businesses.
- Three key objectives which are central to the DLUTS strategy:
  1. Reducing/eliminating through traffic from East Douglas Street (rat-running);
  2. Prioritisation of public transport movement through Douglas village; and
  3. Reduce turning movements at Junction 18 so as to provide improved traffic management and capacity for movement through this junction thereby reducing traffic conflicts that generate current traffic delays and congestion.
- These objectives can be met by alternative means other than the "PT Only" proposal

contained in the Draft Final Report:

- Bus only (Bus Lane) access to East Douglas Street from Douglas Road;
- Retain left in from Relief Road (R610);
- Retain left out from East Douglas Street;
- Unrestricted access from Church Street to East Douglas Street;
- Bus only (Bus Lane) access to East Douglas Street North from Old Carrigaline Road; and
- Two-way traffic (Bus and Cars) retained on East Douglas Street.

This new traffic management arrangement for East Douglas Street to prioritise public transport movement is now recommended for the DLUTS Final Report as a result of this submission.

In terms of the accommodation of medium to longer term land use proposals, DLUTS includes a number of proposals which will help encourage travel by sustainable modes and therefore reduce the number of car trips on the road network particularly during peak times. The strategy will also significantly improve the operating efficiency of the transport network and reduce traffic congestion during peak trafficked periods. Similarly it is proposed that all new developments in Douglas will involve a mix of uses that will reduce the need for people to travel outside the Douglas Area (particularly during peak times) and will generate significantly more walking and cycling trips. In this way the additional development envisaged can be accommodated without the need for large capital expenditure on the highway network. DLUTS also contains recommendations to greatly improve the operating environment for public transport through the Douglas Area which will encourage people to use public transport.

It should also be noted that the strategy proposes a number of significant network enhancements including the provision of an East – West Road linking Donnybrook Hill to Carrigaline Road; this will have the effect of reducing traffic levels within Douglas Village significantly.

**Stakeholder Name: S.6 Shipton Group (Clayton Love)****Summary of Submission:**

We would like to make the following comments:

- The timeframe allowed for the Public to consider this very substantial amount of information you have just published is far too short and should have been extended.
- The timeframe allowed for consideration of submissions by your good selves is also far too short and clearly does not allow you time to make a meaningful assessment of any submission received, no matter how efficient you are.

Taking these two points together and noting the amount of time taken to prepare this Draft Final Report along with the amount of detail published there is a serious danger that this element of consultation process might be seen to be somewhat token in nature and that the Draft Final Report will not change in any substantial way. No doubt this is not the case but it is important that not only will it not be the case but it also must be seen not to be the case. Thus you need to allow extra time to consider any submissions and any of the suggestions that these may throw up and this extra time will allow you to meet with anybody who wishes to meet with you and discuss their submission details. Your plan is very comprehensive but we have serious concern **that it doesn't adequately focus on or recommend appropriate solutions to the "Douglas Thru Traffic Issue"**. This is the key to unlocking Douglas and hopefully you will find favour with the various suggestion attached which are largely focused on solving the "Douglas Thru Traffic Issue", which will then allow much of your vision for Douglas to be delivered.

**Proposed Solutions:**

Submission has identified problems, suggestions and benefits under the following headings with regards the report which can be seen in the Appendix:

- 1) West Douglas Street
- 2) Community Park
- 3) Schools / GAA / Woollen Mills
- 4) 3rd Crossing South Ring road
- 5) Ballybrack Housing Crossing
- 6) South ring West Down Ramp / South Douglas Road / North Road
- 7) South Ring East Down Ramp / Well Road / Douglas road
- 8) Douglas East
- 9) Cinema / Old TSB Bank / Topaz
- 10) Douglas Court / Rochestown Road / Finger Post Roundabout
- 11) Public Car Park
- 12) Office Locations
- 13) Bus Services
- 14) Taxi Facilities
- 15) Cycle / Pedestrians
- 16) Flooding

**Issues Emerging:**

Public consultation period and period for consideration of submissions is too short. Issue of "Douglas Through Traffic" not adequately focussed on and not adequately addressed.



Suggestions have been submitted covering 16 different items related to the transportation recommendations of DLUTS. Specifically issued raised include:

- Timeframe for submission
- Accommodation of Douglas through traffic
- Suggested improvements for 16 key areas identified above.

### **Response:**

#### **Timeframe:**

Timeframe set from start and must be adhered to.

#### **Accommodation of Douglas through traffic:**

Much of proposed solutions put forward involve the construction of large stretches of additional roads. This is contrary to national policy and will not encourage use of sustainable modes. Additional roads generate additional car trips making problem worse. Traffic problems on Douglas are caused by poor junction set up and signal co-ordination, unsustainable levels of car use, traffic generated by schools and the lack of an East-West Link.

**West Douglas Street** - The proposal to introduce a gyratory one way road system along West Douglas Street and the community park is not supported because: -

- The construction of the East West Link will reduce excess traffic from this street, thereby enabling the rehabilitation of the buildings, pavements, wirescape to acceptable levels.
- The community park is a valuable open space used by all residents and any reduction in its size or function should be avoided.

**3rd Crossing South Ring road-** This would involve large capital expenditure and is contrary to National Policy and Government Guidelines.

**East West Link -** The East – West Link Road, referred to in sections 10.8.1 – 10.8.6 of the final report, will be designed to the highest safety specifications. The link will provide a convenient and more direct route for students, pedestrians and cyclists travelling from east to west and west to east. Before construction the proposed road has to undergo full feasibility and planning which will include an Environmental Impact Assessment and safety evaluation. The Strategy will improve the safety of pedestrians and cyclists throughout Douglas through the introduction of significant levels of pedestrian and cycle safety and priority measures.

**South Douglas Road** - The Transport Modelling evaluation has demonstrated that an additional southbound lane on South Douglas road is not required. Including this junction plus the surrounding junctions into the Cork City Council SCOOT system will lead to an increase in the operating efficiency of the network. Also there is limited space available for the provision of an extra traffic lane due to the presence of the N40 over-pass supports.

**Douglas Road / Well Road Proposals** - The introduction of a gyratory system as proposed would involve large capital expenditure and is contrary to existing sustainable development policies.

**East Douglas Street** - Three key objectives which are central to the DLUTS strategy:

1. Reducing/eliminating through traffic from East Douglas Street (rat-running);
  2. Prioritisation of public transport movement through Douglas village; and
  3. **Reduce turning movements on "Topaz" junction so as to provide improved traffic management and capacity for movement through this junction thereby reducing traffic conflicts that generate current traffic delays and congestion.**
- These objectives can be met by alternative means other than the "PT Only" proposal

contained in the Draft Final Report, as follows:

- Bus only (Bus Lane) access to East Douglas Street from Douglas Road;
- Retain left in from Relief Road (R610);
- Retain left out from East Douglas Street;
- Unrestricted access from Church Street to East Douglas Street;
- Bus only (Bus Lane) access to East Douglas Street North from Old Carrigaline Road; and
- Two-way traffic (Bus and Cars) retained on East Douglas Street.

This new traffic management arrangement for East Douglas Street to prioritise public transport movement is now recommended for the DLUTS Final Report as a result of this submission.

**Cinema Site** – The Douglas LUTS has a 20 year land use vision for development sites and indicative concepts have been drawn up for the Cinema Site suggesting future development potential. The Strategy will acknowledge the planning permission granted to ALDI's by Bord Pleanála for a discount retail facility on the cinema site. It is the intension of the strategy to make a change to the text to reflect this planning permission and acknowledge its possible implementation and likely change to the future development potential.

**Public Car Park**- The central location of Barry's Field provides an alternative destination for car parking thus providing a choice to the consumer. The DLUTs proposals for Barry's Field will adequately serve the municipal parking needs of the village and therefore the need for another parking floor on DVSC shopping centre is not required.

**Fingerpost** – The addition of an extra eastbound lane or new road to the north of Douglas Court Shopping Centre would involve large capital expenditure and is contrary to existing sustainable development policies.

**Office locations** – (a) The DLUTS identifies a number of sites which are suitable the provision of office development including the Cinema site, Barry's field, St. Patricks Woollen Mills and the potential redevelopment of Douglas Court shopping centre.

(b)The provision of large amounts of car parking for office workers would continue to encourage the unsustainable travel patterns that exist in the Douglas. The focus of this strategy has been to encourage shifts to sustainable modes of travel. The car parking policy for new development has been prepared as an amendment to the DLUTS Strategy as a result of submissions made on the draft report.

**Bus Services (non- stop rolling service to city from Douglas)** – the improved public transport priority measures in DLUTS will provide a much improved environment for buses to operate. DLUTS would support any measure to increase public transport usage.

**Taxi** –Current DLUTS proposals involve the provision of additional taxi rank facilities and it is considered that these will be sufficient and conveniently located.

**Pedestrian and Cycle** – Initiatives such as street lighting and clear sightlines from passing roads will be used to increase security for off road routes.

**Flooding** – There are no changes to the DLUTS draft Report recommended because the flood event of 28<sup>th</sup> June 2012 are officially recorded on Floodmaps.ie. However, a minor change to the Habitats Screening Report will be made to reflect the observation contained in the submission.

## Stakeholder S.7 Resource Property Investment (Coakley O'Neill Planning)

### Name:

### Summary of Submission:

The submission is made on behalf of Resource Property Investment Fund Plc. and relates to the **matters raised in the Council's public consultation notification issued in January 2013 and the draft Strategy as published on the 22<sup>nd</sup> February 2013.** Our clients request consideration of the following in the Final Strategy:

- The commitment to support and promote economic activity in the county set out in policy objectives SET 2-1, SET 2-2, ECON 1-1
- The commitment to ensuring that Local Area Plans are consistent with the planning framework established by the hierarchy of plans, including the NSS, the Retail Planning Guidelines and the CASP

In considering these commitments, we submit the Final Douglas LUTS should acknowledge the following in respect of the existing Topaz service station:

- Its long established and permitted nature
- It functions as an existing business providing employment
- Its sustainable location and function as a neighbourhood service
- It is an essential requirement for continued access for vehicles from East Douglas Street

In relation to the proposal for redevelopment it must be clearly stated that it is a long term objective that it should not, and will not, in any way interfere with the continued operation of the service station until such a time as its owners consider that redevelopment is necessary or appropriate. It should also be stated that transport proposals which have a detrimental impact on existing businesses will not be implemented until such time as they do not have such an impact.

Our clients welcome the preparation of the Douglas Land Use and Transportation Strategy and the opportunity to make a submission. The subject of the submission is the existing Topaz Service Station in the heart of Douglas town centre. It has been used as a garage/service station since the 1960s. The purpose of the submission is to respond to the specific land use and transportation proposals set out in the Draft LUTS which impact on the existing service station. One of the key transportation objectives of the draft LUTS is to remove traffic from the central village area and particularly from the East Douglas Street between the hours of 8.00 and 18.00. This will have **terminal impacts on the operation and viability of our client's service station business. It will also** negatively impact on the value of their property. On this basis, our clients cannot consent to or accept the proposals set out in the Draft LUTS. They are not fair, reasonable or proportional. They are ill thought out and directly threaten to undermine the viability of an existing business. Furthermore the impact on the clients constitutional rights as property owners and amount to the taking away of these rights without compensation. Our client therefore expects that the proposals and objectives in the final LUTS, particularly those addressed in this submission, will not **undermine either the operation of the existing service station or the site's future commercial viability.**

### Issues Emerging:

On behalf of Topaz Filling Station:

**Concerned about the impact on the operation of the filling station of the proposal for a "PT only" corridor in East Douglas Street.** The proposals for East Douglas Street will have a detrimental

impact on existing businesses and should not be implemented until such time as they do not have such an impact.

**Response:**

- It is the intension of the DLUTS to improve the overall environment of the village so that people can go about their activities with ease and safety. The East Douglas Street is the heart of the village and will become a focal point for commercial activity. The enhancements intended for this street will include dedicated bus routes, safer pedestrian movements, more efficient car parking and traffic movements all of which will increase footfall for existing businesses.
- Three key objectives which are central to the DLUTS strategy:
  1. Reducing/eliminating through traffic from East Douglas Street (rat-running);
  2. Prioritisation of public transport movement through Douglas village; and
  3. Reduce turning movements on Junction 18 so as to provide improved traffic management and capacity for movement through this junction thereby reducing traffic conflicts that generate current traffic delays and congestion.
- These objectives can be met by alternative means **other than the "PT Only" proposal** contained in the Draft Final Report, as follows:
  - Bus only (Bus Lane) access to East Douglas Street from Douglas Road;
  - Retain left in from Relief Road (R610);
  - Retain left out from East Douglas Street;
  - Unrestricted access from Church Street to East Douglas Street;
  - Bus only (Bus Lane) access to East Douglas Street North from Old Carrigaline Road; and
  - Two-way traffic (Bus and Cars) retained on East Douglas Street.

This new traffic management arrangement for East Douglas Street to prioritise public transport movement is now recommended for the DLUTS Final Report as a result of this submission.

**Stakeholder Name:****S.8 Douglas Golf Club (Conor O'Brien)****Summary of Submission:**

I would be obliged if you could confirm that the designation of Douglas Golf Club's revert to its status prior to the designation as a 'Special Policy Area' (Douglas Golf the Carrigaline Electoral Area Local Area Plan (2011)).

**Issues Emerging:**

- Confirmation required for Douglas Golf Club's designation
- No transportation issue raised

**Response:**

The Zoning of land is the remit of the Electoral Area Local Area Plan. Any re-zoning of land will be considered under the Local Area Plan or Local Area Plan Amendment process however DLUTS does not recommend developing the Douglas Golf Club lands.

**Stakeholder Name: S.9 Cork Cycling Campaign****Summary of Submission:**

We are delighted to have the opportunity to make this submission to the proposed Douglas Land Use & Transport Strategy. While we were aware in 2012 that this strategy was being prepared, the presentations in April 2012 and subsequent possibility to make submissions escaped our attention. We apologize for this omission and hope that our present submission can still have a positive impact. The draft strategy contains many elements that have the potential to make participation in traffic by vulnerable road users (pedestrians and cyclists) safer and more comfortable. However we have a point of concern (or a few related points) which we shall explain below. The following are the topics discussed in the detailed submission from Cork Cycling Campaign and can be seen in full in the Appendix C:

- Cycle Lanes
- Shared Pedestrian/Cycle Paths
- Hierarchy of Interventions
- Cycle Network / Cycle Lanes - comments re points in the DLUTS draft
- Shared Lane Markings
- Uphill Cycle Lanes
- Junction Re-design
- Design Details
- Photo Montages
- Shared Space
- Permeability
- Free Left Turn through Red

**Issues Emerging:**

Welcome many of the recommendations however, also have a number of concerns: have preference for an alternative approach to cycling provision.

**Response:**

Walking and cycling improvements are key recommendations of DLUTS, with 23km of off-street and 19 km of on-street cycle-ways being recommended. Delivery will be done in **accordance with NTA's** National Cycle Manual.

**Stakeholder Name:** S.10 Douglas Development Ltd. (Green Property Limited)

**Summary of Submission:**

Stakeholder has submitted detailed plans for Town Centre Area 05 (TC-05) which is shown in full in the appendix of this report.

The Stakeholder has requested that this part of the policy objective should therefore be omitted and asked that the proposed masterplan be incorporated into the final LUTS.

Furthermore they have requested that the final TC-05 policy objective acknowledges the need to rejuvenate the Shopping Centre in the short term and explicitly state that development proposals in accordance with the masterplan will be supported in principle.

**Issues Emerging:**

- Proposal for Town Centre Area 05
- Seeks to increase connectivity with Douglas Village Centre
- A new public park in the wetland area to the rear of the Shopping Centre
- A new civic space to the front of the shopping centre
- The reconfiguration of the internal parking layout and of traffic routes

**Response:**

- The proposed master plan submitted by Green Property Limited as part of their submission to the DLUTS 3rd Public Consultation Event is acknowledged. The extent of changes proposed in the submission need to be considered as part of a wider public consultation process. It is recommended that these are considered in their entirety during the preparation of the Amendment to the Local Area Plan. The reference to the inappropriateness of terms 'action area plans or development briefs' is also acknowledged and an amendment to the wording of the text will be made to include reference to 'the need for an overall development scheme'.
- All other issues emerging are in line with the current DLUTS policies.

**Stakeholder Name: S.11 Tesco (John Crean)**

**Summary of Submission:**

"In effect, the Council is presenting a possible scenario whereby Douglas Court may be subject to development proposals up to 2032 which would be far beyond any current statutory plan timeline. Having regard to the above we submit that the Council should:

- Identify a schematic layout for Douglas Court now.
- State that other development in Douglas will not be considered premature pending the resolution of issues over Douglas Court.
- State what uses the proposed 7,500 sq. metres of "non-residential floor space" **proposed for Douglas Court** is to be allowed to contain.
- Abandon the concept of an Action Area Plan or Development Brief for Douglas Court guiding development to 2032 as it would have no statutory basis.

In addition, we submit that the Draft LUTS should not be finalized until the Review of the Retail **Strategy is complete as this may have significant implications for "floorspace" in Douglas.**

**We welcome the Council's call for submissions** to facilitate the Draft LUTS for Douglas.

However, we submit that there are certain areas within the Draft LUTS that need more clarity and need to express in a more explicit manner the relationship of the proposed LUTS provisions with the hierarchy of Statutory Plans and Guidelines that apply to statutory planning decisions in Douglas." Full proposal is detailed in the Appendix C.

**Issues Emerging:**

- Identify schematic layout now.
- Clarify that other development in Douglas will not be delayed by or be premature development prior to the resolution of issues surrounding Douglas Court
- What uses will be contained in the proposed 7,500m2 new floor space?
- Questions the statutory validity of Action Area Plans or Development Briefs in the proposed policy statement (TC-05)

**Response:**

- The requirement of a schematic layout now is considered to be too prescriptive and should be done by the owner/developer as and when required in accordance with the overall planning principles and policy laid out in the DLUTS strategy.
- The DLUTS Strategy does not prioritise development opportunities on any one site as this will be dealt with by the Local Area Plan Amendment and the Joint City and County Retail Strategy. The DLUTS Strategy will be consistent with the requirements of the Joint City and County Retail Strategy in the period 2013-2022.
- The future non-residential floor space of 7,500m2 has been tested by the traffic model and it is intended that it be a mix of development comprising retail, retail services, offices, entertainment, community uses, cultural and leisure facilities. It is not possible to specify the quantum of each use until an overall planning or development scheme is completed.
- The reference to the inappropriateness of terms 'action area plans or development briefs' is also acknowledged and an amendment to the wording of the text will be made to include reference to 'the need for an overall development scheme'.



**Stakeholder Name: S.12 Ann Murphy (McCutcheon Halley Walsh)**

**Summary of Submission:**

"We wish to make this follow up submission to the Douglas Land Use and Transportation Strategy (LUTS) on behalf of our client Ann Murphy, who is the owner of St. Patricks Mills, Douglas, Cork (copy of previous submission dated May 2012 attached). Overall, we broadly welcome the direction and information presented at the recent exhibition in relation to our clients' site at St. Patricks Mills and note that there are a lot of positive and constructive proposals relating to our clients lands including the following:

- St. Patrick's Woollen Mills is identified as one of four "main retail shopping centres" along with Douglas Court, Douglas Village Shopping Centre and East Village;
- St. Patrick's Woollen Mills is identified as having an important role in relation to providing a specialist or niche showroom type retail for the Douglas area;
- The Mills site is identified as a "Point of Interest" and as a pedestrian draw which can provide shopping, restaurants, amenities etc. and with the potential to provide a strong retail draw and "bookend" a pedestrian link connecting through Douglas to Douglas Court;
- The Mills site is identified as an area with potential to upgrade and provide urban connections.

All of the above provisions are very positive and are welcomed. We would now ask that the positive direction that the LUTS is taking towards our client's site is reciprocated in terms of a positive "Town Centre" zoning for our clients entire site. As pointed out in our previous submissions our clients' lands are strategically located within Douglas and have significant potential in relation to delivering the Council's objectives for the area in relation to retail / commercial, employment and other uses based on the following strengths:

- These lands will offer a logical and immediate extension of the existing town centre area and can be developed within a short timeframe if appropriately zoned in the LUTS;
- The lands constitute brownfield development lands. This is not only a more sustainable means of development for Douglas to meet its growth targets, particularly in relation to traffic and transportation, it is also consistent with the CASP Update and the Outline Strategy for the Carrigaline Electoral Area;
- The Council's Outline Strategy for the Carrigaline Electoral Area has already identified our clients lands to accommodate town centre uses;
- The St. Patricks Mills site will provide an important opportunity to provide an alternative and unique town centre and retail environment within Douglas, based upon the sites built heritage and unique characteristics;
- The lands are very accessible, are already serviced and do not have any significant topographical or other constraints which would inhibit their development potential.

As pointed out in our previous submissions, our clients' site in St. Patricks Mills provides an important opportunity to provide an alternative and unique town centre and retail experience based upon a "street orientated" and more pedestrian friendly environment based around the existing built heritage that exists within St. Patricks Mills. To date the existing town centre and

retail environment in Douglas has been based on “shopping mall” type developments based around large convenience and comparison anchor retail units – our **client’s** site will provide a welcome alternative to this.

By zoning the entire St. Patricks Mills site for town centre uses the following objectives would be delivered for the Douglas area:

- A new and different retail and town centre development will be delivered which will be based upon the existing strengths of the built heritage of the site;
- The re-use the existing mill buildings as the basis of a new and different retail and town centre experience in Douglas will provide a unique town centre / retail location and will guarantee the long-term use and viability of the existing buildings;
- The zoning will provide a mix of uses [e.g. employment, offices, residential etc.] on the remaining western and undeveloped portion of the site;
- It will provide a location for retail / employment uses which would be within easy walking distance for a large population catchment in Douglas;
- It will improve accessibility and circulation within the Douglas area by reducing the need for vehicular traffic by providing an alternative traffic and transportation options, including the option of providing additional access opportunities to / from the west of the site.

To fulfil all of the above objectives, we are proposing that all of our **client’s** lands be zoned for “Town Centre” to include a mix of uses including retail, office, employment, residential, restaurants/ cafes and community facilities.

We trust that this submission will be taken in to consideration as part of the final steps of the LUTS process.”

#### **Issues Emerging:**

- Town Centre zoning requested for entire site

#### **Response:**

- Zoning of land is the remit of the Electoral Area Local Area Plan. Any re-zoning of land will be considered under the Local Area Plan or Local Area Plan Amendment process.
- The land use policies presented in the draft DLUTS give an indication of the types of development which are deemed appropriate for each of the town centre precincts. The specifics of the overall site will be decided in the Local Area Plan and there will be a **requirement for an ‘overall development scheme’ for the entire site.**
- The DLUTS allows for any developer, who wishes to increase the proposed density within any one precinct, the opportunity to demonstrate that their preferred density will not have a negative net impact on the proposed improvements to the existing transport network.

**Stakeholder Name: S.13 Anna O'Toole and the executors of Mary Hegarty (McCutcheon Halley Walsh)**

**Summary of Submission:**

"We act on behalf of Ms. Anna O'Toole and the Executors of the Estate of Mary Hegarty who are the owners of lands to north and south of Ballybrack House, Douglas, Co. Cork. Ballybrack House and its attendant grounds have recently been sold and no longer form part of the holding.

The lands are located within the development boundary of the Cork City Southern Environs as defined by the Cork City South Environs Map 2. As highlighted on the extract from the zoning map, the lands straddle the line separating 2 zoning objectives. The southern portions of the **lands are zoned 'Existing Built-Up Area'** and the northern portion of the lands form part of the Special Zoning Objective X-03a.

We note that based on the population targets outlined in the 2009 Cork County Development Plan the South Environs is only set to grow by 100 in population terms. However, given falling household sizes it is envisaged that 12,434 households will be required to cater for the 2020 target population of 30,102. This will require an increase of 2,467 households on the 2006 figure. Given its range of services and amenities Douglas remains a popular location for housing in the South Environs and this trend is likely to continue. Therefore, the Planning Authority will have to cater for the future demand.

Having regard to the limited availability of land in Douglas it will be challenging to provide for adequate land to cater for the demand. The subject lands are strategically located immediately adjacent to Douglas Village and they could provide for quality, sustainable development within walking distance of amenities and services. Therefore, the forthcoming Douglas Land Use Transport Study should recognise the strategic value of the lands and make provision for appropriate access so that the lands can contribute to the future development of Douglas.

We note that the 3rd & Final Public Consultation Exhibition indicated the provision East –West Link joining Donnybrook Hill & Rochestown to Grange and Frankfield. In previous submissions we highlighted that the landowners had been in discussions with Cork County Council regarding the **provision of a 'Link Road'** linking Donnybrook Hill and Carrigaline Road. The landowners remain amenable to any future discussions regarding the provision of this road or other proposals. The Council have also indicated plans to upgrade Junction 7 West Douglas Street/Church Road and Donnybrook Hill, which the landowners also welcome.

However, given the strategic location of the lands and the contribution they can play in the future development of Douglas we consider that the final Douglas LUTS and the subsequent Amendment to the Carrigaline Electoral Area Local Area Plan should provide for access to the lands and propose an appropriate land use zoning objective. In this regard we request that the upgrade of the existing Inchvale Road/ West Douglas Street & Donnybrook Hill junction is proposed to make provision for future access and to cater for the development of the lands. If this is deemed not feasible then we request that alternative access arrangements are identified which will ensure that the full strategic value of the lands can be released, which will be in the proper and sustainable development of Douglas."

**Issues Emerging:**

Landowners remain amenable to discussion concerning proposed "East West Link". Final report

should identify satisfactory access to development land. Suggest "Inchvale Road/Donnybrook Hill junction should be upgrade for this purpose. Specific issues include:

- Request for rezoning of lands for development uses.
- Request for appropriate access to the lands.

**Response:**

- Zoning of land is the remit of the Electoral Area Local Area Plan. Any re-zoning of land will be considered under the Local Area Plan or Local Area Plan Amendment process.
- The issue of access should be addressed at planning permission stage and will be treated on its merits. Consideration should only be given to this proposal following the completion of the East West Link. Prevailing conditions shall then be assessed.

**Stakeholder Name:** S.14 St Patrick's Woollen Ltd (McCutcheon Halley Walsh)

**Summary of Submission:**

This submission is made by McCutcheon Halley Walsh on behalf of St. Patrick's Woollen Mills Ltd. And relates to lands at St. Patrick's Woollen Mills, Douglas, Co. Cork. The submission deals with the relevant proposals presented by the Council in the final consultation phase of the Douglas LUTS issued in February 2013.

**Planning Policy Context:**

Cork County Council is currently in the final stages of developing the Douglas Land Use and Transportation Strategy (DLUTS). The vision for the strategy is:

**"To secure a successful vibrant urban centre with a more efficient transport network for Douglas that provides an improved public realm, reduces congestion, encourages greater levels of walking & cycling, and improves the quality of life for the community,"**

Central to the DLUTS strategy are sustainable transport and land use policies to improve the movement and environment for pedestrians, cyclists, public transport users and for general traffic in Douglas. The strategy offers a plan led approach rather than an ad hoc approach to retail development for Douglas. The strategy aims to consolidate the town centre into five precincts and prioritises the infilling of existing vacancy. It is also stated that residential units are to be provided in precincts as part of mixed use development. The DLUTS public transport strategy aims to enhance accessibility to public transport in Douglas by improving reliability and pedestrian and cycle networks. The strategy also aims to ensure adequate support infrastructure is provided.

**Woollen Mills Site**

The DLUTS identifies the Woollen Mills site as having a total retail floor space of 7077m<sup>2</sup>. A breakdown of this floor space is shown in the pie chart in fig 1. The site is also identified as having the highest vacancy rates of the seven retail districts acknowledged within the strategy. The strategy identifies the Woollen Mills site as currently being an unattractive urban space with poor quality materials, visual clutter and little definition of special use. However, the strategy also recognises the sites potential to upgrade mill complex and urban connections. Proposals for

the site, includes improvements at the entrance to the St. Patrick Woollen Mills site (shown in figure 2) to maximise the connectivity of the area and improve the legibility and permeability of the space making the area more user friendly. The DLUTS proposes five Town Centre precincts for Douglas with the Woollen Mills site being identified as Town Centre 1 for which a number of policies are proposed. In terms of land use it is stated that proposals shall include a variety of town centre uses including offices, retail and some residential. This is to be achieved while protecting and enhancing the historic buildings within the site. The strategy also states that the redevelopment of the site will give priority to the pedestrian and enhancing connectivity to and from the existing village with traffic calming measures and additional crossing points proposed. An increase of 3000m<sup>2</sup> above the existing non-residential floor space is also listed for the site as well as an additional 70 residential units. The existing surface car park to the rear of the site is also to be replaced with a multi-storey car park.

### **Proposed Amendments to Provisions for Woollen Mills Site**

Overall, our client welcomes and supports the proposed town centre zoning for the Woollen Mills site. To date the existing town centre and retail environment in Douglas has been based on "shopping mall" type developments based around large convenience and comparison anchor retail units. This proposed town centre zoning on our clients site provides for an alternative and unique town centre and retail experience based upon a "street orientated" and more pedestrian friendly environment based around the existing built heritage that exists within St. Patricks Mills. This proposed zoning will also enable the delivery of office, retail and some residential development in an optimal location and is in accordance with the 2008 CASP Update and the Outline Strategy for the Carrigaline Electoral Area. In addition, our client fully supports the proposed road improvements and traffic calming measures on the public road at the entrance to the Woollen Mills, including in particular the additional pedestrian facilities and the additional pedestrian crossing, which is to ensure enhanced connectivity to the rest of Douglas Village. However there are two aspects of the proposal which our client would like to address in relation to:

1. Car Parking
2. Development Potential / Future Additional Floorspace

Each of the above are dealt with in greater detail below.

#### **Car Parking**

It is suggested that the existing surface car park on **the western end of our clients' site, should** be replaced in time with a multi-storey car park. It is not stated whether this site is intended as a public or private facility, however it is assumed that the car par is intended as a private facility which would be provided as part of a **private development proposal on our clients' site**. It is considered that that such a proposal is too prescriptive at the current strategy stage of the DLUTS. Car **parking on our clients' site would be ancillary to any development** proposal and in terms of its location and form, should be determined at design stage and not at such an early stage.

#### **Development Potential / Future Additional Floorspace**

The DLUTS also proposes an increase of 3,000m<sup>2</sup> above existing non-residential floor space and an additional 70 residential units within the overall Mills complex. The existing retail / commercial space are stated in the strategy as being 7,077m<sup>2</sup>. Therefore, adding the existing floor space of 7,000m<sup>2</sup> and the proposed areas of 3,000m<sup>2</sup> and 70 residential units, would suggest a plot ratio of approximately 0.5, given that the site area is 26 approx. 4.08 hectares. While we appreciate that the figures may be tentative proposals rather than a fixed projection of

the future development potential **of our clients' site, the projection does nonetheless appear to** be quite low for a town centre location. While the vision for a mixed-use development of the area future development is welcome, it is felt that the projections for future floor space should not be overly prescriptive. It is again recommended that proposals should be more flexible, allowing for details to be decided at design stage.

### Summary and Conclusion

To conclude our client broadly welcomes and supports the proposed zoning strategy for the site as well as the proposed improvements at the site entrance and the enhanced connectivity to the other centres within Douglas. We do however request a less prescriptive approach to the non-residential floor space, residential units and car parking envisaged for the site to allow a more flexible approach, with more specific details being established at design stage. We would be happy to discuss this submission further with the Council or alternatively if further information is required please do not hesitate to contact our offices.

### Issues Emerging:

- Recommendation in DLUTS draft final report re provision of multi-storey car park is too prescriptive
- Level of development proposed for Woollen Mills appears quite low given for a town centre designation

### Response:

- The car parking policy for new development has been prepared as an amendment to the DLUTS Strategy as a result of submissions made on the draft report.
- This Strategy has been developed to ensure that all future developments in Douglas form part of an overall development strategy and to try and avoid the ad hoc, or case by case planning approach which has prevailed in the past.
- The Zoning of land is the remit of the Electoral Area Local Area Plan. Any re-zoning of land will be considered under the Local Area Plan or Local Area Plan Amendment process.
- The land use policies presented in the draft DLUTS give an indication of the types of development which are deemed appropriate for each of the town centre precincts. The specifics of the overall site will be decided in the Local Area Plan and there will be a **requirement for an 'overall development scheme' for the entire site.**
- The DLUTS allows for any developer, who wishes to increase the proposed density within any one precinct, the opportunity to demonstrate that their preferred (increased) density will not have a negative net impact on the proposed improvements to the existing transport network.
- The car park on the western area of the Woollen Mills is presently run as a public car park under the administration of the County Council. The arrangement is temporary and it is the intension of the DLUTS Strategy that this will eventually be replaced by a municipal car park **in Town Centre Precinct 2 (Barry's Field).**

**Stakeholder Name: S.15 St. Luke's National School (Olwen Anderson)**

**Summary of Submission:**

We write on behalf of the Board of Management of St. Luke's School, Douglas, regarding the DLUTS strategy. We have a large number of pupils in our school who live in the Maryborough, Rochestown, Carrigaline areas. The proposed one-way system outside the school will cause difficulties for parents of these pupils as it will require them to travel through Douglas Village every morning at a time when traffic is already at its peak. The proposal to change the road outside the school to a one way system will result in a very large volume of traffic through Douglas Village and consequently on Churchyard Lane. If St. Luke's N.S. is difficult to get to, prospective parents may consider this when making a choice of school and consequently, it may have an impact on enrolment. We request that you examine the impact of these proposals on local schools including St. Luke's N.S.

**Issues Emerging:**

- One way system outside school
- Large volumes of through traffic transferred to village centre

**Response:**

Sections of Church Road are very narrow at present and in order to improve safety for pedestrians, cyclists and vehicles it is necessary to make this section of the road one way only. This proposal will only come into effect once the East-west Link road is in place and thus provide an alternative route for cars which avoids Douglas Village Centre. This proposal combined with the 30kph speed limit will lead to increased levels of safety for the large numbers of pupils who currently go to school at St Luke's and St Columba's Schools. The proposals set out in DLUTS will make Douglas more accessible by all modes of transport and provide a far safer environment for those modes to operate particularly for school children.

**Stakeholder Name: S.16 Douglas Business Association (Padraig Sheehan)**

**Summary of Submission:**

"The DBA is a voluntary association of members with a common purpose of having business interests in the Douglas Area. Our members are owners, occupiers and employees of businesses in Douglas. Our stated agenda and primary role is to represent members and promote business in Douglas. As part of our role we see it as important to make appropriate representation to Cork County Council. We are concerned as an association to note that Douglas is not being considered as a destination for business in Cork City and County. Douglas does not compare well with Mahon and Blackpool vis a vis infrastructural expenditure and development within the last 10 years.

We believe it is appropriate to promote business in Douglas without seeking to apportion individual advantage or disadvantage to the already established business in Douglas. Our aim is to raise important issues as the DBA sees it, through its members, to the planners and stake holders in Douglas. It is recognised that individual parties may seek advantage from our overall proposals but the DBA does not seek to apportion advantage to any member over another, or disadvantage of any member over the others.

We canvassed our members and it is felt the following are the appropriate submissions for consideration under the Douglas Land Use and Transportation Survey. As a representative body we have encouraged members to make their own individual submissions also which do not form part of this communication.

**1) Development of an entry ramp into Douglas from the N40 South Ring Road West Bound**

It is noted that currently traffic seeking to access Douglas has either to exit for Carrigaline/Rochestown or continue to the Kinsale Road Roundabout and double back to the entry ramp at Douglas West and/or Douglas East. Infrastructure and ease of access to Douglas will assist business and encourage new business into the area. Currently parties wishing to access Douglas from the main arterial N40 are unable to access the village.

**2) Use of Public Amenity and Common Space within Douglas**

The public park in Douglas might be better utilised as a natural centre point of the village. An improved amenity in this regard might not immediately benefit business in Douglas but it might attract more people to Douglas with the knock on advantage to business. Firm social inclusive policy for the use of this public amenity at the heart of Douglas is critical.

**3) Public Parking in Douglas**

The current municipal parking arrangements are unsatisfactory. It is noted that the uptake in parking at the Woollen Mills Douglas is extremely limited. It is also noted that no discretion is available to the parking wardens in the exercise of their supervision and ticketing of vehicles parked without a valid ticket. There has been anecdotal evidence and frustration voiced by members of their issues in respect of parking arrangements.

**Issues Emerging:**

- Development of an entry ramp into Douglas from the N40 South Ring Road West Bound
- Use of Public Amenity and Common Space within Douglas
- Public Parking in Douglas



**Response:**

The construction of a westbound off ramp from the N40 into Douglas Village would involve significant capital expenditure. It is also contrary to National Road Authority policy to provide additional access to from national strategic routes such as the N40.

DLUTS seeks to improve the public park and make it available for use by all members of the community. It is intended that major interventions including the cutting back of trees and possibly the installation of CCTV and improved lighting will enhance **the park's attractiveness to all users** young and old. These improvements will lead to significantly greater use of the park and consequently elimination of anti-social behaviour which currently impacts the park and its environs.

The car parking policy for new development has been prepared as an amendment to the DLUTS Strategy as a result of submissions made on the draft report.

Current municipal parking arrangements in Douglas village are considered by the Council to be operating satisfactorily.

It is the intention of the DLUTS to improve the overall environment of the village so that people can go about their activities with ease and safety. The East Douglas Street is the heart of the village and will become a focal point for commercial activity. The enhancements intended for this street will include dedicated bus routes, safer pedestrian movements, more efficient car parking and traffic movements all of which will increase footfall for existing businesses.

**Stakeholder Name: S.17 Cork Taxi Council (Sean Collins)**

**Summary of Submission:**

More taxi spaces/ranks required.

**Proposed Solutions:**

Two taxi rank spaces on the Carrigaline Road have been converted to a 24hour loading bay, which we are requesting revert back to a night rank from 6.30pm each evening.

With reference to East Village, we have no official rank space, and as explained to you on our phone conversation we are regularly summoned. We are requesting an official rank to be put in place as **Also by John O’Sullivan’s Pub, same story no official rank.** We are requesting a rank to be put in place in front of Tesco’s by the loading bay area across from John O’Sullivan’s. This could accommodate 4-5 taxis. Also a night time feeder rank on Church Yard Lane.

**Issues Emerging:**

- More taxi ranks / spaces requested

**Response:**

A number of additional taxi ranks have been proposed as part of DLUTS and the revised proposals are considered adequate.

**Stakeholder Name: S.18 St. Columba’s Church (Teddy O’Sullivan)**

**Summary of Submission:**

I write on my own behalf and of the numerous parishioners of St. Columba’s R.C. church in Douglas, who have made representations to me in recent weeks about the above strategy. The many people who avail of the services provided by St. Columba’s Church, on a daily basis, are very upset by the proposals in the plan to make Church Road one-way eastbound. Those most likely to be adversely effected by this proposal are the many people who come to St. Columba’s from the Maryborough Estate/Rochestown Road/Carrigaline Road areas. According to this proposal they will be obliged to take the altogether circuitous routes around Douglas to get to church. We have a large senior population for whom life and getting around is already difficult enough. This proposal will obviously impact negatively on the traffic but most of all the people themselves. I am respectfully requesting your consideration of this matter and I would very much appreciate your considered response in due course. I am available to meet with you to discuss these issues.

**Issues Emerging:**

- One way proposal on Church Road

**Response:**

Proposed one-way on Church Road is required because it is narrow (Dry Bridge) and there is a safety issue here. However this proposal will not come into effect until East-West Link Bridge has been provided, thereby providing an alternative route for car traffic.

**Stakeholder Name: S.19 Douglas Gymnastics Club (Tim O'Donovan)**

**Summary of Submission:**

Many thanks for your email on 30/04/2012. I believe you already have a submission from one of our committee members, Charlie Crowley, who attended the public consultation session in Rochestown Park on 17<sup>th</sup> April. **We don't have any specific comments on Traffic & Transportation** in the Douglas area, except that many members experience delays in getting to training, especially at peak times, 32 approx. 16:00 -18:30. Our submission deals mostly with where we **see our organisation's plans in relation to Douglas area**, and a requirement for the Council to zone/allocate land for indoor sports & recreational facilities. While this submission is naturally specific to our needs, I think they reflect well on the requirement for other recreational groups within the wider Douglas Area. If you have any queries on our submission, or require clarification **on any matter, please don't hesitate to contact me.**

**Issues Emerging:**

- Requirement for indoor sports & recreational facilities in the Douglas area.

**Response:**

- Douglas LUTS recognises the need for sporting clubs to identify land and build their facilities to satisfy growing demand for the sport. The DLUTS strategy cannot allocate land to sporting bodies but can identify the potential of certain lands for recreational purposes and has identified various locations for the development of lands which could be used for sporting or community facilities within the study area. There are alternative lands within Douglas that are outside the study area of the DLUTS which are zoned for recreational purposes.
- The zoning of land for open space and recreation is the remit of the Electoral Area Local Area Plan. Any re-zoning of land will be considered under the Local Area Plan or Local Area Plan Amendment process.

**Stakeholder Name: S.20 Cork City Council (Valerie O’Sullivan)**

**Summary of Submission:**

Cork City Council makes this submission in respect of a long-term location for Douglas Library. Douglas Library is currently located in Douglas Village Shopping Centre. It is a unique facility in that it is provided by Cork City Council, although located in the county area, and is jointly funded by City Council and County Council. Cork City Council requests that the aim of a central location for a public library be included in the Douglas Land Use and Transportation Strategy. The Library would be at the heart of a vibrant Douglas town centre, located close to shopping, schools, and other facilities, and would:

- be a resource firmly focused on the needs of the communities it serves;
- serve the historic Douglas village, older established suburban areas, and newer estates;
- be an iconic, welcoming and attractive space;
- **act as a ‘window on the world’: where people can explore other worlds through books and creative expression;**
- be the Douglas area’s ‘front room’.

It should be a prominent and iconic building, and an integral part of the community facilities in the area. It should be open plan in design, except for multi-purpose spaces, toilets and staff facilities. It should be a fully accessible building, of circa 1,200 M<sup>2</sup>, and house:

- **Children’s area;**
- **Teenagers’ area;**
- Adult Fiction, music (CD, DVDs & books), films etc. on DVD;
- Study area, with Reference, Information, Lifelong Learning;
- Adult Non-fiction, Periodicals;
- PCs for internet access, e-learning, classes, etc.;
- Multi-purpose and group study rooms;
- Space for exhibitions, talks, and events;
- Fully accessible public toilets, including baby-changing facilities;
- Staff facilities, office, workroom, storage.

**Issues Emerging:**

- Requirement for a stand-alone building for the library

**Response:**

- Douglas LUTS recognises the need for more community facilities within Douglas. The DLUTS strategy cannot allocate land for specific community facilities but can identify the potential of certain lands for community purposes and has identified various locations for the development of lands which could be used for sporting or community facilities within the study area.
- The Zoning of land is the remit of the Electoral Area Local Area Plan. Any re-zoning of land will be considered under the Local Area Plan or Local Area Plan Amendment process.

**Stakeholder Name: S.21 Daly's Corner (Sean Fitzgerald)**

**Summary of Submission:**

I own the commercial properties on the south side of Church Road, just east of its junction with West Douglas Street/Donnybrook Hill. A sketch included on page 9:19 of the study seems to show parallel parking to the kerb outside my property whereas there is currently nose to kerb parking, and thus far more parking spaces than would be the case with parallel parking.

As you may know, I have been in dispute with Cork County Council in relation to this issue for a number of years, and the matter has still not been resolved. I object to any alteration to the current parking arrangements outside my property and I wish to be consulted in advance about any proposals to alter it.

I assume that a detailed design for this area has not yet been drawn up but I am anxious to have an input into any alterations which are proposed and which may affect my property. In particular, I am anxious to meet the design team for the project in advance of any firm proposals being drawn up.

**Issues Emerging:**

- Removal of perpendicular parking resulting in loss of parking

**Response:**

This is one of the most significant junctions in the DLUTS area. It is essential that this junction operates efficiently, particularly for the purpose of creating safe schools access. The recommended changes for this junction are key recommendations for DLUTS.

The DLUTS recommendation is that inclined parking spaces be removed and replaced by parallel park. The road-space gained by this change will allow for the provision of footpaths and pedestrian stacking areas at crossings thus increasing the safety of the large numbers of pupils who use footpaths and crossings at this location. Angular parking also poses a danger to cyclists as it is difficult for drivers to see cyclists as they are reversing out of the angled parking spaces

The extra space provided by replacing angular parking with parallel parking will allow the road to be realigned making turning movements in and out of Church Road easier and safer thereby greatly improving the operating capacity of this junction.

**Stakeholder Name:** S.22 Anne Ryan

**Summary of Submission:**

At a time when childhood obesity and adult obesity are on the increase it is essential that an area the size of Douglas has sufficient facilities to occupy its citizens. Most educated people, be they children or adults recognise the need for exercise. This serves to occupy teenagers, exercise adults and build good habits in children so that in the future our population will be health conscious, fit and so not costing the state scarce resources in medicating unfit, obese populations. The proposed area would also be easily accessed from outlying areas.

**Issues Emerging:**

- Provision of facilities to occupy residents to reduce obesity

**Response:**

DLUTS recognises the need to encourage people to use more sustainable modes of travel than the car, this is shown in Section 7.4.2 of the Final Report, DLUTS performs significantly better than the Do-Nothing option under the Health and Safety Evaluation Framework. The proposed walking and cycling network proposals will encourage more children to walk and cycle to school and will also encourage the general population living in Douglas to walk and cycle. These measures will encourage a healthier lifestyle.

**Stakeholder / Organisation Name:** S.23 Anonymous

**Summary of Submission:**

The junction in front of Douglas Village is not satisfactory – I did not note any reference to it other than the “banning” of the right hand turn off by pass into the village. I expected to see more on the effects of car parking vis-à-vis nearby estates (Maryborough?).

**Issues Emerging:**

- Junction at East Douglas Village and R610 (i.e. Junction 18 in DLUTS)
- Parking in nearby estates

**Response:**

There are significant proposals for Junction 18 shown in Section 8.9.3 of the Final Report. The proposals to change the cinema site and the area where the filling station is located are shown under policy number TC-04. It is proposed to have an iconic landmark building representing the entrance into Douglas Village.

The operational efficiency at Junction 18 will improve with the implementation of public transport priority corridor and the SCOOT system at junctions; this is a system designed for managing and controlling traffic signals in urban areas. Refer to Section 10.8.7 – 10.8.22.

**Stakeholder Name:****S.24 Anonymous 2****Issues Emerging:**

- Ring road around Douglas Village
- Pedestrianise the village
- Create a pop-up market zone

**Response:**

- The East-West link road will remove significant amounts of through traffic from Douglas Village Centre.
- The proposed changes for Douglas Village Centre will give increased priority to pedestrians and cyclists where possible. Refer to Section 10.8.8 of the DLUTS final report for further information on the proposed changes.
- Currently there **are already** 'farmers markets' in Douglas village and Cork County Council will encourage and facilitate these activities. Markets shall be in accordance with licensing and other relevant regulation framework.

**Stakeholder Name:** S.25 Anthony Foy

**Summary of Submission:**

I am very interested in the DLUTS. I have always wondered why Douglas was so disjointed and not an attractive place to walk around. Your report has got to the nub of these problems for me. Thank you for that. The Village has several different areas but these areas are practically isolated. Interconnectivity between them is difficult for pedestrians. Could CPOs be used to create better connections between, the East Village area, the cinema and Douglas main street? There is a large space behind the old bank on Douglas Street that could connect these 3 areas.

With regard to encouraging non car commuting, improved connections between estates would help a lot. I live in Broadale on Maryborough hill and I feel it suffers from being a cul-de-sac estate with only one road access and one other pedestrian access point. The bus service at the entrance of the estate has improved in the last few years but the majority of school journeys are done by car with bus being 2nd most popular method. There is no safe pedestrian access to the nearest school (Scoil Pdraig Naofa) located in Foxwood Estate or to Garryduff a local sports centre. There is a possible connection that could be made between Broadale and the Landsdowne estates (No. 1 on the map) which would improve the situation. This could be a pedestrian and cycle access area only. It would mean that pedestrian journeys from Broadale could be made to the school and the sports centre, for the most part on estate paths. Currently the only access is along a pathless, narrow and unlit road by Moneygourney. It is almost un-walkable. An even better connection would be a pedestrian link from the Heights and Broadale to Mount Oval Estate, which would bring us directly to the school by footpath/cycle path and create a pedestrian and cycle access to the businesses in these two estates. I have attached a map with a rough sketch of the routes. Businesses: In Broadale there are the following businesses; the dentist practice, the chemist shop, the hair dressers, the barbers, the Montessori school and one closed grocery shop. In Mount Oval, there is a grocery shop, hairdressers, crèche/Montessori, dentist, chemist, some pubs and restaurants, dry cleaners, gym and some other vacant units. These measures would also increase access for the residents of Landsdowne estate and Mount Oval to the bus routes that use Maryborough Hill (e.g. the Caragaline, and Fountainstown busses).

**Issues Emerging:**

- Isolation of areas within Douglas
- Better connections between estates required

**Response:**

- Significant improvements will be made for both cyclists and pedestrians in DLUTS. The interconnectivity between estates and the connectivity between estates and major cycling/walking routes will be drastically improved. Refer to Sections 10.5.9 & 10.5.10.
- Issues raised shall be considered when implementing the strategy elements concerned with improving accessibility between estates and walking / cycling routes etc.



**Stakeholder Name: S.26 Brian O'Mahony**

**Summary of Submission:**

I have viewed the plan for the greater Douglas area - co-authored by MVA Consultancy and Cork County Council. A lot of work has gone into this and this in itself must be progress.

From your own data you deduce the following:

- The population of Douglas (36188) has increased by 12.2% since 2006 (poster 4)
- 20% of retail space is vacant (poster 7)
- "There is no general office space in Douglas..." (poster 7) (MVA must have missed those huge, ugly, ever-present, signs on Douglas Village SC advertising tens of thousands of square feet of office space for lease or sale?)

You do not comment (poster 5) on the traffic survey, local experience knows it to be chronically congested. As for leisure, parks etc., I will just leave that to one side - as the Council have for many years. (See attached image of the Council's solution to recent Douglas flooding. That pesky little grill on the stream by the "Community Park" which collected debris has been removed. At times of floods, it demanded cleaning and maintenance but the Council decided it should be removed - presumably to reduce the risk of further flooding. Job done except.....any child that now follows their ball into the stream is destined for a close look at the bowels of Douglas Shopping Centre. Who wrote the risk assessment on this?) The Traffic permutations listed are admirable - but Cork City Council also has an input into elements of this? For example: the Well Rd, City traffic, is presently syphoned into the greater Douglas Village area. Although the traffic is the scourge of Douglas we can leave it aside to see further solutions:

Town Centre 1 - Woollen Mills:

3000 sq. metres additional retail and 70 residential - plus a multi-storey car park

Town Centre 3 - Barry's Field:

Another 4000 sq. metres of Office and Commercial development - plus 200 parking spaces

Town Centre 4 - Cinema Site:

Another 5500 sq. metres of "mixed use" plus 50 residential - not forgetting (of course) "appropriate enhancements to public realm". After all, man doesn't live by concrete alone? Resident parking is where?

Town Centre 5 - Douglas Court SC:

Another 7500 sq. metres of commercial development - plus a multi-story car park. Now, to be fair, the "wetlands" to the East of Douglas Court SC have been included as a "park or community facilities" - albeit un baffled from attendant, heavy, bypass traffic.

This was a "Douglas Land Use and Transportation Study" - not a plan for further property development. Initially the plan (from 2013) is "Transport" but this is also has unspecified overtones of "Land Use" and "Urban Design" (poster 31) All of this Land Use and Urban Design is couched in terms such as: Infilling of Vacancy; Improve and Enhance Public Realm; All Committed Development. What does this all mean? If local residents saw some (further) competence in roads, footpaths, cycle paths, urban leisure design, parks (see above), planning, traffic circulation etc., they would have more confidence that this plan is not a carte blanche for in situ property

developers, who have contrived to make Douglas the mess that it is today.

(The plan is available here:

<http://www.corkcoco.ie/co/web/Cork%20County%20Council/Departments/Planning/DLUTS%20Douglas%20Land%20Use%20%26%20Transportation%20Strategy>)

**Other Comments:**

Best suggestion – connect Grange Road to Carrigaline Road

Landmark building at Topaz a good idea

Where will the money come from?

**Issues Emerging:**

- General commentary on proposals
- Funding of strategy
- Previous change in Douglas – developer driven

**Response:**

- The terms of infilling, public realm and committed development are explained in the text of the strategy (Chapters 8 and 9 of the draft strategy)
- The quantum of development that are presented in this strategy have been tested against the transport model, which takes into account improvements to existing network.
- There are existing sites that have not reached their development potential in Douglas and they should be developed so that Douglas can adequately compete with other similar district centres in Cork.
- The overall development of the Cinema site will seek a coordinated approach to improving the public realm in terms of surface finishes, landscaping, appropriate signage and furniture.
- Initial funding has already been committed for the implementation of certain elements of the project and it is anticipated that further funding will be received in the future.

**Stakeholder Name:** S.27 Claire Fox

**Summary of Submission:**

I find going to Columba's Church from Maryborough Hill will be so difficult while coming home will be the same

Can't understand why Grange people would be channelled into the Finger Post Roundabout. 8.30 AM is bad enough there as things stand, why make it worse?

The whole thing makes no sense to me

**Issues Emerging:**

- One way on Church Road
- Increased traffic using Fingerpost Roundabout

**Response:**

- Proposed one-way on Church Road is required because it is narrow (Dry Bridge) and there is a safety issue here. However this proposal will not come into effect until East-West Link Bridge has been provided, thereby providing an alternative route for car traffic.
- DLUTS recommendations will lead to more balanced flows on the Fingerpost roundabout leading to greater efficiency.

**Stakeholder Name:** S.28 Collette Finnegan

**Summary of Submission:**

Excellent transport proposals

Recognition of poor infrastructure for pedestrians/cyclists/vulnerable users (children, elderly)

**Issues Emerging:**

- Support for DLUTS

**Response:**

Support for DLUTS. No Response required.

**Stakeholder Name: S.29 Daniel O'Mahony**

**Summary of Submission:**

I am proposing a single one way road which runs from Slip Road, west of Douglas, on to entrance to Vernon Mount Road. It is marked in red on the maps included in my submission. The two way road to Vernon Mount would become a one way system west to the Kinsale Road Roundabout. The cost of this road would be borne by the developer of our site.

Access/Entrance:

This access/entrance to land for Tramore Park is the same distance from the Kinsale Road Roundabout as it is from the exit of Vernon Mount. Far greater traffic will be generated from Tramore Park i.e. concerts and other events. Dunnes Stores have now obtained a slip road onto **their premises in Bishopstown. I, Dan and Margaret O'Mahony should be granted the same conditions as Dunnes Stores. I, Dan O'Mahony** had a long meeting with the NRA in Glanmire. They informed me that under no circumstances will the NRA allow any playing pitches or pitch and putt facilities to be adjacent to the South Ring Road. The Douglas GAA sold some land adjacent to this road. They could not get planning or insurance due to walkway and cycle safety. The pathway from Douglas along Inchvale Lane onto my lands from the walkway/cycle lane from Grange Road to Tramore Park is proposed by Mr. Ger Lehane and Brendan Kelliher of the Grange Frankfield Association. Vernon Mount house would be handed over to Cork County Council or some other interested body. I have just received a mail from Mr. Tom McGarry of the I.D.A. and his team will meet with all land owners in the area over the next few months. My plan is a very comprehensive plan for Douglas. This plan will create badly needed jobs. I will also forward my plan to Mr. Seán O'Driscoll, **Chairman of the Cork Foundation Strategic Alliance Board.** I hope to meet Seán shortly.

The Douglas Business Association (DBA) meeting suggested that our cinema be put into Barry Field. I think this is a fantastic idea. Barry Field is a great centre for old and young alike. We will have a full meeting in the DBA in the next few weeks. I will be putting down a motion regarding this. I will also be having a meeting with the Minister of Transport when he returns from Japan.

My local TD Mr. Jerry Buttimore is now putting a question in regards to my proposed road west of Douglas to the minister.

**Issues Emerging:**

- Proposal for single one way road from the N40 on-ramp to Vernon Mount Road (same conditions granted as that of Dunnes Stores (Bishopstown) regarding the provision of slip road into premises
- Plan to create jobs for the area
- Cinema placed in **Barry's field**

**Response:**

- Much of proposed solutions put forward involve the construction of large stretches of additional roads. This is contrary to national policy and will not encourage use of sustainable modes. Additional roads generate additional car trips making problem worse. Traffic problems on Douglas are caused by poor junction set up and signal co-ordination, unsustainable levels

of car use, traffic generated by schools and the lack of an East-West Link.

- Road proposal providing access from the N40 is unlikely to achieve support of NRA as it is contrary to their policy for this road.
- The DLUTS identifies a number of development sites (Town Centre Precincts) which could result in an increase of 25,000sqm of non-residential floor space. This additional floor space could result in the creation of more than 1,250 jobs for Douglas over the next 20 years.
- The DLUTS identifies a number of town centre sites which can facilitate the development of a new cinema if required.
- The land west of the GAA playing fields is constrained by a number of large underground regionally significant strategic services serving the south city suburbs. The current wayleaves will restrict the use of the land to recreational uses. The proximity of the land on the western boundary of Douglas and its proximity to Vernon Mount and Tramore Valley Park provide an opportunity for improved connectivity for cycle and pedestrian movement. There is currently no road access to the site from the N40 in the north.
- The Zoning of land is the remit of the Electoral Area Local Area Plan. Any re-zoning of land will be considered under the Local Area Plan or Local Area Plan Amendment process.

**Stakeholder Name: S.30 David O'Mahony**

**Summary of Submission:**

**Cyclists and Cycle Lanes**

The sharing of pavement space by cyclists and pedestrians is likely to be problematic. This will be compounded where cycle lanes are two-way e.g. under the fly-over near the junction with the Well Road. Appropriate lane marking and signage will help alleviate the problem. The cycle lanes under the fly-over, near the junction with the Well Road are two-way but the cycle lane on the Douglas Road is one-way. The pedestrian crossing lanes at this junction do not include a crossing point on the Douglas side of the junction - only on the other three sides of the junction. **Some consideration needs to be given to the "connection of the two cycle lanes and how cyclists travelling Douglas to City Centre will safely cross the Douglas Road at this junction.**

**Road Space allocated to cyclists:**

From my study of the maps and diagrams provided and speaking to representatives at the exhibition I believe the space allocated to cycle lanes is inadequate at a number of points:

- The Relief Road: (Topaz – Douglas Court – Fingerpost) - A two-way cycle lane is proposed along with the existing three lanes of vehicle traffic. Unless some space is conceded by Douglas Court and the new Cinema Development the available space allocation to cyclists is going to be inadequate.
- Tramway terrace: I was told by representatives at the exhibition that parking will still be allowed on Tramway Terrace. I have serious concerns that the (one-way) vehicle traffic will pose a danger to cyclists.
- General Comments regarding Cycling Facilities: The criteria of success for improvements in cycling facilities must include the enabling of local children and teenagers to cycle to school safely. To achieve this objective a more dramatic approach to the allocation of road space is required.

**For example: Douglas Road and South Douglas Road (SDRd)**

- Make each road one-way only for vehicle traffic. Douglas Road for City Centre to Douglas; SDRd for Douglas to City Centre
- Allocate half the road to cyclists
- Many of the residential parks linking the two roads are already one-way
- A similar approach could be taken with the Blackrock Road and Boreenamana Road. I realise these two examples are in City Council territory but the Douglas to City Centre commuting route needs to be considered to make a success of any redesign of Douglas village.

**Pedestrian Facilities:**

I welcome any improvements in pedestrian access to make Douglas more pleasant for pedestrians. At present too many pedestrian are forced to walk alongside noisy, smelly vehicle routes. The Well Road junction is a very unpleasant barrier to pedestrians accessing the village. Traffic noise is unpleasant. Sound-proofing panels on the fly-over would help – and additionally reduce distraction to drivers on the fly-over. Parking on pavements especially on the main street, East Douglas Street is inconvenient and dangerous to pedestrians.

**Motor Vehicles: Traffic Flow, Parking:**

I find it difficult to see that the level of vehicle traffic will be reduced as much as the graphics in the exhibition suggest e.g. at **Daly's Corner, Douglas West**. The new road link **Grange** to Carrigaline Road will be of great benefit to redirect Carrigaline traffic but significant vehicle numbers will continue to travel via **Daly's Corner and the Fingerpost**.

Short-term parking in the village centre is a problem. Cars on the pavement outside the Permanent TSB, drivers ignoring the pedestrian crossing and double yellow lines. Is it feasible to include physical deterrents such as bollards without presenting undue hazards to pedestrians especially the visually-impaired or those in wheelchairs?

School Traffic - A significant portion of the vehicle traffic through Douglas is the school run traffic. Observing the traffic jams at 3pm any school day will confirm this. A glaring omission from the exhibition was an effective strategy to help deal with this problem. I had the impression that the display poster was paying only lip-service to the topic. An immediate option to help alleviate school traffic would be school buses with associated bus parking and drop-off points.

**Community Park Entrance - Rear Entrance to Douglas Shopping Centre:**

The open and easy access to the redesigned entrance to the park looks attractive. However there is a problem with anti-social behaviour and vandalism in the park. I would expect that removing the gates and railing will make it more difficult for the Community Association and Gardai to deal with the problem. **I've seen taxi drivers remove the metal traffic bollards at the entrance** to the park to facilitate the turning and parking of vehicles. In general, vehicle drivers often drive and park inconsiderately at this location. Any redesign of the location should further consider these issues.

**Community Facilities:**

A primary focus of the reports relates to traffic and commercial development. There seems little related to residents and community facilities. The **Cinema site, Barry's field and Topaz** sites are all marked for commercial development. The report (as far as I have read it) does not propose any allocation of additional land for public use or to enhance bio-diversity in the area. There is no mention of additional youth facilities such as a basketball court, skate park or bmx park.

**Issues Emerging:**

- Cyclists & Cycle lanes sharing with pedestrians
- Roadspace allocated to cyclists
- Douglas Road and Sth Douglas Road make one way to provide greater space for cyclists
- Pedestrian facilities
- Traffic flow reductions
- Parking
- Traffic generated by schools
- Anti-social behaviour in community park
- Provision of community facilities

**Response:****Cyclists & Cycle lanes sharing with pedestrians:**

One of the key recommendations of DLUTS is to deliver a significant improvement to cycling and walking facilities within the Douglas Area. This will include 23kms of off street and 19kms of on-street cycle ways. The delivery of the DLUTS cycle network proposals will be done in accordance with the National Transport Authority Cycle Manual and best international practice to ensure the safe and efficient movement of cyclists and pedestrians through junctions and where sharing is required.

**Roadspace allocated to cyclists:**

See above response.

**Douglas Road and Sth Douglas Road make one way to provide greater space for cyclists:**

This is not considered feasible for the simple reason that the people living along these roads will be forced to travel one way which will impede their movement.

**Pedestrian facilities:**

DLUTS provides for significant improvement for pedestrians in terms of safe movement through the junctions, better public space in the Douglas area, 30 kph zone in Douglas village, reduced traffic levels in Douglas village and proposals for better connectivity across the DLUTS area.

**Traffic Flow Reductions:**

The provision of the East-West Link, Schools Plan, better public transport priority through central Douglas, the significant walking and cycle network proposals coupled with a much better managed traffic network to allow for a more efficient transport network will generate reductions in traffic flow. Furthermore the land use strategy envisaged for DLUTS focusses on generating more trips by sustainable modes than the car.

**Parking:**

Current municipal parking arrangements in Douglas village are considered by the Council to be operating satisfactorily.

**Traffic generated by schools:**

DLUTS proposes a Schools Transport Strategy which focusses on reducing car use to school. There are proposal to greatly improve junctions close to schools in the area, to provide a walking and cycling network that connects directly with schools and the introduction of the Green Schools Programme into each school in Douglas to promote sustainable travel.

**Anti-social behaviour in community park:**

The DLUTS recognises that anti-social behaviour is a problem within Douglas and is especially associated with the community park. The DLUTS presents a number of potential solutions to this problem. These solutions will result in improved surveillance and improved access by making the community park more open, visible and permeable. The improved openness and visibility will act as a deterrent to anti-social behaviour

**Provision of community facilities:**

Douglas LUTS recognises the need for more community facilities within Douglas. The DLUTS strategy cannot allocate land for specific community facilities but can identify the potential of certain lands for community purposes and has identified various locations for the development of lands which could be used for sporting or community facilities within the study area. The Zoning of land is the remit of the Electoral Area Local Area Plan. Any re-zoning of land will be considered under the Local Area Plan or Local Area Plan Amendment process.



**Stakeholder Name: S.31 Denis O'Regan**

**Summary of Submission:**

Link Douglas to Blackrock Line Mahon Walk via Estuary

This would give the estuary back to Douglas to passage avoiding Rochestown Road. All done on the North side of the South Link. Possibly on stilts in places

**Issues Emerging:**

- Connecting Douglas with Blackrock to Mahon walkway via Estuary

**Response:**

- This idea is welcomed however the feasibility of connecting Douglas with Blackrock to Mahon walkway via Douglas Estuary will be considered under the Local Area Plan Process. The environmental feasibility of such a connection will need to be investigated.

**Stakeholder Name: S.32 Edmund Borrigan**

**Summary of Submission:**

In 1986 there were 400 bicycles in the school and all full up. We never had enough. In 2012 there were only 5 bikes in the yard. I am glad to see there are more cycle lanes but to change the mind set of pupil and parent is a difficult one. A colour card showing the cycle routes and how they connect and good signs and gradually make it more difficult for cars.

**Issues Emerging:**

- Support for DLUTS
- Support of re-prioritisation towards cyclists

**Response:**

Support for DLUTS, no response needed.

**Stakeholder Name: S.33 Edward Lahiff**

**Summary of Submission:**

As a resident of Douglas I would like to offer the following points for your consideration. I am a cyclist, a walker and a motorist, and my children attend school in Douglas village.

- I feel it is virtually impossible for a child cyclist to navigate Douglas village safely, in any direction, and extremely difficult for an adult. Particularly problematic are the Topaz junction, the link to Douglas Court S.C. and the village main street (including Barry's corner). As far as I can see, there is no provision for cyclists in this area (unlike the Douglas Rd to the city which has been greatly improved of late).
- I have yet to discover a safe pedestrian route from the Well Road junction to Douglas Court S.C. The problem is at the Douglas Court where pedestrians must step across a busy road with no protection and no road markings. Cars coming off the roundabout and entering the S.C. do not have any reason to stop here or to give priority to pedestrians. Using the other side of the road (the R610) is little better, as pedestrians still have to cross at the McDonald's junction (exit from Douglas East), where there is again no provision for pedestrians.
- There is very poor walking route from Douglas village to St Luke's primary school; a pedestrian crossing is badly needed at the corner of Church Street and Churchyard lane (north end).

As a parent, I do my best to encourage my children to exercise and use my car only when absolutely necessary. They (and I) are frustrated that they cannot cycle to school (which is a perfect cycling distance for them) or walk without having to navigate unacceptable traffic risks. We are one of the few families in the area to travel to school by either foot or bicycle, and while I'm aware that safety is not the only reason for this, it must be a major contributor.

**Proposed Solutions:**

If the DLUTS is to live up to its ambitious vision of encouraging 'greater levels of walking & cycling' then I feel that urgent attention should be given to these basic issues of accessibility and safety.

**Issues Emerging:**

- Urgent attention needs to be given to improving the walking and cycling network in Douglas.

**Response:**

DLUTS recommendations are sufficient to meet this correspondent's needs. Significant changes have been proposed regarding walking and cycling. Section 10.5 of the final report addresses the issues mentioned above. DLUTS will provide 19km of additional on street cycle lanes and 23km of off street cycle lanes and walkways. Section 10.7.6 and Figure 10-10 detail the proposed changes for future walkways and cycle links to schools

**Stakeholder Name: S.34 Dr Eugene Cassidy****Summary of Submission:**

There is an urgent need for a dedicated gymnastics facility for the Douglas community. With 750 members and a large waiting list, it is a travesty that we don't have one. This club puts Douglas on the map and has the potential to put it on the map internationally, given its network of gymnastics expertise among its volunteers from Cork. The Premier Gymnastics club in the Southern Region need a facility but more importantly the children of Douglas and Cork need it for recreation and the pursuit of sporting excellence.

**Issues Emerging:**

- Requirement for a gymnastics facility

**Response:**

- The Zoning of land is the remit of the Electoral Area Local Area Plan. Any re-zoning of land will be considered under the Local Area Plan or Local Area Plan Amendment process.
- Douglas LUTS recognises the need for sporting clubs to identify land and build their facilities to satisfy growing demand for the sport. The DLUTS strategy cannot allocate land to sporting bodies but can identify the potential of certain lands for recreational purposes and has identified various locations for the development of lands which could be used for sporting or community facilities within the study area. There are alternative lands within Douglas that are outside the study area of the DLUTS which are zoned for recreational purposes.

**Stakeholder Name: S.35 F Lynch****Summary of Submission:**

I am concerned that the bottleneck of west and city bound traffic at Junction 18 will remain, particularly at 08:40 – 09:00 and 13:00 – 14:00. Traffic on the relief road tends to be channelled into one lane on the relief road (inside lane) while the outer lane (for the Well Road) remains relatively empty. I have seen traffic accidents and near misses at the junction caused by "lane jumping"

**Issues Emerging:**

- Inadequacy of Junction 18

**Response:**

- There are significant proposals for Junction 18 shown in Section 8.9.3 of the Final Report. The proposals to change the cinema site and the area where the filling station is located are shown under policy number TC-04. It is proposed to have an iconic landmark building representing the entrance into Douglas Village.
- The operational efficiency at Junction 18 will improve with the implementation of public transport priority corridor and the SCOOT system at junctions; this is a system designed for managing and controlling traffic signals in urban areas. Refer to Section 10.8.7 – 10.8.22.

**Stakeholder Name:** S.36 Hillary Cooney

**Summary of Submission:**

I have recently learnt of a proposed extension of the Grange Road, to connect with Carr's Hill. As a resident of Ballybrack Heights I wish to express my deep concern at this plan.

- As a mother of two young boys I am gravely concerned at the risks that this road will bring to their safety: on a physical level, it is well documented that carbon emissions have a very negative effect on human health, especially on two boys with established symptoms of asthma. Not to mention the increased risk of road traffic accidents, this could very easily spill over on to our estate. Also it is inevitable (even with sound barriers) that there would be an increase in the levels of noise pollution in the area with increased volumes of traffic. The new road would also impact on their psychological and emotional well-being as I would no longer feel comfortable in permitting the boys to go outside to play. Currently our estate is a quiet area where with an open door/ window we always know that the boys are nearby and whether or not they are in danger. A luxury that would be denied us should this development go ahead. And believe me with a house as small as ours; **time spent outside is a vital part of the children's day.**

I would also have concerns on how the junction we currently navigate to get down to **Douglas and how its' expansion** would alter all our safety.

I can only assume that some form of bridge would need to be built, the shadow of which would impact on the throw of light upon our estate.

- Property de-valuation is a natural consequence of major infrastructural change, to houses on the far side of the development. This would be devastating to us.

**Other Comments:**

I implore you to take my points on board and to re-evaluate this plan, our estate is small and lovely and our quality of life here is top notch, please do not allow this project go-ahead and jeopardise this.

**Issues Emerging:**

- Impact of proposed East -West Link from Grange Road to Carrigaline Road

**Response:**

- Statutory Planning process (i.e. Part 8 Planning or EIA) will be undertaken before this proposal goes ahead. This process will involve a public consultation and issues raised will be addressed, all adverse impacts will be mitigated so far as is practicable.

**Stakeholder Name:** S.37 Imelda McSweeney

**Summary of Submission:**

As regards the leisure facility, the proposed entrance to it from Inchvale Lane would affect us greatly. The volume of traffic is huge. Any entrance to a leisure facility would greatly increase the amount of traffic. I strongly oppose the suggestion.

**Other Comments:**

Very detailed report

**Issues Emerging:**

- Strongly oppose any entrance to the proposed leisure facility from Inchvale Road

**Response:**

- The proposal for a Multi-purpose Leisure Facility west of the GAA playing fields is dependent on a satisfactory access road being constructed by the developer. Two options were given in the DLUTS Strategy for access from the Woollen Mills or Inchvale Road. The latter has capacity for larger volumes of non-peak hour traffic and would need traffic management measures to be introduced at the junction with Donnybrook Hill.
- The development of lands as referred to in this submission can only take place on foot of planning permission. The planning process will facilitate 3rd part submissions and for the consideration of objections. The entrance will be considered in the context of any such planning permission application.

**Stakeholder Name:** S.38 J Lynch

**Summary of Submission:**

PT requires bus stops to be located at frequent and convenient locations. Example, stop for 216 on Maryborough Hill near Paddocks is the first and only bus stop for those travelling into the city. It is an uphill climb and creates a problem for the elderly.

**Issues Emerging:**

- A stop located just after the turn onto the Carrigaline Road after the finger post roundabout would give access to both the 216 and the Carrigaline buses for those in the vicinity of the finger post.

**Response:**

Section 10.6.4 in the Final Report, has identified the need to support the existing public transport services through providing appropriate infrastructure such as taxi ranks and bus stops.

**Stakeholder Name:** S.39 John Bruton

**Summary of Submission:**

My main concern is the construction of the West/East link road and the bridge over the Mangula and the Ballybrack River. I would be grateful if you would take on board my comments below. The West/East link is to be constructed to the back of my house and will affect the quality of our life, at present it is a green field site

- Noise level to be monitored at all times and to what is an acceptable level
- Dust levels to be monitored at all times
- Vibration and piling to be monitored as this can have a detrimental effect to the foundations of my house and other homes
- Visual effects
- Sound barriers as they will affect the future quality of our lives

Working hours: 8-5 and half days on Saturday and no work on Sunday

**Issues Emerging:**

- Concerns regarding the impact of the proposed link from Grange Road to Carrigaline Road

**Response:**

- Statutory Planning process (i.e. Part 8 Planning or EIA) will be undertaken before this proposal goes ahead. This process will involve a public consultation and issues raised will be addressed, all adverse impacts will be mitigated so far as is practicable.

**Stakeholder Name: S.40 Kevin Dalton**

**Summary of Submission:**

Removal of overhead wires should be prioritised

DLUTS suggests a signature development at the cinema – the county council have given permission for ALDI supermarket. Does this make sense?? Imagine the additional congestion. Do they really care?

Delighted to see long term plan to remove Topaz garage as it is a horrible landmark building for town centre as it is.

Great to see so many trees in the photograph. Why can't the council incorporate the tree planting into the 2013-2022 delivery programme and start planting as soon as strategy is finalised and agreed. Douglas town centre needs greenery badly.

**Issues Emerging:**

- Urban design improvements should be prioritised
- Permission granted to ALDI

**Response:**

- The overall development of Douglas will seek a coordinated approach to improving the public realm in terms of surface finishes, landscaping, appropriate signage and furniture.
- The Douglas LUTS has a longer term land use and urban design vision for development sites. Indicative concepts have been drawn up for the Cinema Site suggesting future development and urban design potential. DLUTS will acknowledge the planning permission granted for this site by An Bord Pleanala for a discount retail facility. It is the intention of DLUTS to take account of this planning permission.

**Stakeholder Name: S.41 Liam Higgins**

**Other Comments:**

I am glad that a cycling lane rather than a road is proposed to run parallel with Inchvale Road, Shamrock Lawn and on the south side of St. Columbas school.

"Will this cycling lane be located on the existing green belt area of Shamrock Lawn or on the now defunct Inchvale Lane?"

As a long-time resident my preference would definitely be Inchvale Lane (I am not sure if Inchvale Lane is the correct name.)

**Issues Emerging:**

- Support for DLUTS
- Support for Cycle Link from Inchvale Road to St. Columbas

**Response:**

- Support for DLUTS. Final route selection will be established during the detailed design stage. Part 8 planning will be required and public consultation will be undertaken.

**Stakeholder Name: S.42 Lisa Boland**

**Summary of Submission:**

I live on a side road that connects Maryborough Hill to Lime Trees Road (Douglas, Cork) since July 2002. The road and footpath outside our house is in very poor condition. It is used as an access road to Douglas village by the residents of Maryborough estate (both pedestrians and vehicles) to get to Douglas village.

Because the road and footpaths are in such poor condition, pedestrians walk in the middle of the road and cars frequently drive on the wrong side because of the pot holes. There have been extensive works carried out in this area since Oct 2012. The road outside our houses has been extensively used for parking heavy vehicles. As a result of this the road and footpaths have been further damaged (I have photographed the work throughout). I have spoken to the engineer who is supervising the work on behalf of Martin O Callaghan (the contractors for Cork County Council). The council will not engage with us. I have also spoken to Bernard Parkes (Roads Cork County Council) and expressed my concerns. He assured me he would inspect the road and get back to me, but hasn't as yet.

Our house (Invergordon, Maryborough Hill, Douglas) was built by a Jagoe family in 1950, it pre dates Maryborough Estate. The road is lit by public lighting. In the last ten years, road markings and signage have been put on it. During the recent works, the entrance has been altered. The contractors have also loosely filled the pot holes outside our house (this will be washed when we have the next heavy rain shower).

Please consider the road for improvement work for safety of the public.

**Issues Emerging:**

- Poor condition of footpaths and roads that connect Maryborough Hill to Lime Trees Road and in the vicinity

**Response:**

- DLUTS will seek to improve roads and footpaths to support the movement of all modes of transport



**Stakeholder Name: S.43 Members of Douglas Gymnastics Club****Summary of Submission:**

Douglas Gymnastics Club has been operating since 1978, and currently has over 700 underage members training across two venues in the Douglas area, as well as over 200 additional children on a waiting list.

The club urgently needs a dedicated gymnastics facility, either as a standalone building, or in partnership with others, and we would hope that the DLUTS study would identify areas within the Douglas Catchment Area that would be suitable for the location of a gymnastics centre to serve the needs of the community.

I feel that it is important that the council prioritise community organisations and recreational facilities when considering the Douglas Land Use and Transport Study.

**Issues Emerging:**

- Request for gymnasium in Douglas

**Response:**

- The Zoning of land is the remit of the Electoral Area Local Area Plan. Any re-zoning of land will be considered under the Local Area Plan or Local Area Plan Amendment process.
- Douglas LUTS recognises the need for sporting clubs to identify land and build their facilities to satisfy growing demand for the sport. The DLUTS strategy cannot allocate land to sporting bodies but can identify the potential of certain lands for recreational purposes and has identified various locations for the development of lands which could be used for sporting or community facilities within the study area. There are alternative lands within Douglas that are outside the study area of the DLUTS which are zoned for recreational purposes.

**Stakeholder Name: S.44 Members of Douglas Ladies FC**

**Summary of Submission:**

We/I wish to make a submission to the Douglas Land Use and Transportation Strategy. We have lived and are raising our family in the Douglas area for many years and we are members of the Douglas Ladies Football Club which is the largest club in Munster. Despite being members of the fastest growing club in the area, we do not have vital facilities which will enable our children to continue to benefit from such a wonderfully dedicated team of Coaches, Committee, Mentors and supporters. It is vital that we have access to land and necessary facilities to support these girls and enable them to learn all that participation in sport can teach them. Whilst, the DLUTS has plans to address the traffic congestion, and identify residential and commercial needs for the area, it also needs to highlight the lack of suitable facilities and land for amenities for clubs such as ours. We urge you to explore and deliver realistic, timely and sustainable options for us now and for our future needs. **The County Development Plan** states that no substantial development shall come before the Planners without first having recourse to the Social, Recreational, Educational and Community needs of the people of Douglas. This in effect, places an onus on the DLUTS to ensure that **Developers, land owners and statutory bodies aren't the only sectors to have a successful outcome.** Please treat this submission with the due weight it deserves.

**Issues Emerging:**

- Requirement for football pitch & associated facilities in Douglas Area

**Response:**

- The Zoning of land is the remit of the Electoral Area Local Area Plan. Any re-zoning of land will be considered under the Local Area Plan or Local Area Plan Amendment process.
- Douglas LUTS recognises the need for sporting clubs to identify land and build their facilities to satisfy growing demand for the sport. The DLUTS strategy cannot allocate land to sporting bodies but can identify the potential of certain lands for recreational purposes and has identified various locations for the development of lands which could be used for sporting or community facilities within the study area. There are alternative lands within Douglas that are outside the study area of the DLUTS which are zoned for recreational purposes.
- **The elected representatives expressed the following views:**  
***"The elected representatives expressed serious concerns that only one potential site could be identified for playing pitches and sporting amenities within the Douglas LUTS area.***  
***It was deemed imperative that this deficit is urgently addressed not only in the context of the area plan review but is also seen as a critical priority with development in the Douglas area in the short to medium term."***

**Stakeholder Name:** S.45 Meryl O'Neill

**Summary of Submission:**

Zoned land for Douglas Gymnastics Club!!

Get rid of Topaz Garage as it is very ugly in the centre of Douglas and put in nice building/pedestrian street

Very much need a sports complex/cinema where existing cinema is

**Issues Emerging:**

- As above

**Response:**

- The Zoning of land is the remit of the Electoral Area Local Area Plan. Any re-zoning of land will be considered under the Local Area Plan or Local Area Plan Amendment process.
- Douglas LUTS recognises the need for sporting clubs to identify land and build their facilities to satisfy growing demand for the sport. The DLUTS strategy cannot allocate land to sporting bodies but can identify the potential of certain lands for recreational purposes and has identified various locations for the development of lands which could be used for sporting or community facilities within the study area. There are alternative lands within Douglas that are outside the study area of the DLUTS which are zoned for recreational purposes.
- There are significant proposals for Junction 18 shown in Section 8.9.3 of the Final Report. The proposals to change the cinema site and the area where the filling station is located are shown under policy number TC-04. It is proposed to have an iconic landmark building representing the entrance into Douglas Village.

**Stakeholder Name: S.46 Michael Clifford**

**Summary of Submission:**

The picture of the proposed development at Topaz site is surely is too big (height) and personally I feel would ruin the village appeal. Across the road you can see old Douglas, Driscoll's, Barry's etc. So it would be a total mis-match , just like the Tesco shopping centre and car park which looks ugly and destroys the village ambiance.

**Issues Emerging:**

- Height of development at Topaz shown in photomontage is too big.

**Response:**

- The quantum of development that are presented in this strategy have been tested against the transport model, which takes into account improvements to existing network.
- There are existing sites that have not reached their development potential in Douglas and they should be developed so that Douglas can adequately compete with other similar district centres in Cork.
- **The Douglas LUTS has a 20 year land use vision for development sites and indicative concepts have been drawn up for the Cinema Site suggesting future development potential.** The overall development of this site will seek a coordinated approach to improving the public realm in terms of surface finishes, landscaping, appropriate signage and furniture
- If the Topaz site is ever redeveloped, it is in a strategic location at the entrance to Douglas Village and a landmark building would enhance the street and counterbalance the Douglas Village Shopping Centre. The photo-montage is an indicative graphic of what a landmark building could look like together with traffic management and public realm measures along the East Douglas Street.

**Stakeholder Name: S.47 Michael Rea**

**Summary of Submission:**

Lots of cars leaving Rochestown for St.Anthony's in Ballinlough – no available bus route to use as alternative. Exit from road to Carrigaline onto Maryborough Hill or Moneygourney would reduce traffic onto Rochestown Road from Bloomfield Interchange.

**Issues Emerging:**

Traffic leaving Rochestown for St Anthony's school, Ballinlough. Recommends additional road links

**Response:**

The DLUTS recommendation for Schools Travel Planning is sufficient to address this issue.

**Stakeholder Name: S.48 Noel O'Keefe**

**Summary of Submission:**

From Westward to Eastern side, a dangerous decline exists presently causing confusion by motorists who are attempting to enter Frankfield Golf Club. In the opposite direction from Ballycureen Cross towards Frankfield Church, excessive speed is dangerous for pedestrians.

**Proposed Solutions:**

Suggest traffic calming measures between the Maples and Ballycureen Cross. The bus lane may need to be used by motorists as a filter from East to West.

**Issues Emerging:**

- Dangerous entrance to Frankfield GC. Excessive speed on Grange Road.

**Response:**

- DLUTS recommends improvements on Grange road including the provision of cycle lanes which will have a traffic calming effect. Local issues can be addressed at the detailed design stage for this project.

**Stakeholder Name: S.49 Pat Tangney**

**Summary of Submission:**

Traffic priority for Maryborough Hill through 1st junction in Maryborough Estate should be changed. Major traffic flow has to yield to minor

**Issues Emerging:**

- As above

**Response:**

- DLUTS does not support this proposal

**Stakeholder Name: S.50 Patricia Hayes**

**Summary of Submission:**

I wish to make a suggestion in relation to the changing of Church Road in Douglas to a one way roadway. Apart from the fact that such a change could militate against church attendance of those living in the eastern section of Douglas I fear also that the risk to pedestrians may increase if it becomes one way especially under the bridge as traffic may be then travelling faster. At present unofficial procedure is that drivers in giving way to oncoming traffic wait their turn before proceeding in single file under the bridge thus ensuring greater safety for pedestrians and cyclists.

It worries me also that the entire new proposed plan for Douglas is predicated on an integrated lights system- a blip in the lights system does not bear thinking about because of the ensuing gridlock and chaos.

**Issues Emerging:**

- Objects to proposed one-way system for Church Road. Concerned about integrated traffic signal system and its vulnerability.

**Response:**

- Proposed one-way on Church Road is required because it is narrow (Dry Bridge) and there is a safety issue here. However this proposal will not come into effect until East-West Link Bridge has been provided, thereby providing an alternative route for car traffic. Vulnerability concerns will be dealt with at detailed design stage.

**Stakeholder Name: S.51 Patricia Tangney**

**Summary of Submission:**

Major objection to Garish red lit gable end of Essentials shop on the left side of Rochestown Road. Lit up all day and evening. Our house is directly opposite and light visible from 6 rooms and hall every time **I come down the stairs. Wouldn't be allowed in** Patrick Street. This is a totally residential neighbourhood.

**Issues Emerging:**

- As above

**Response:**

- The issues raised in this submission do not fall under the remit of the DLUTS. These issues relate to enforcement and should be dealt directly with the enforcement department of Cork County Council.

**Stakeholder Name: S.52 Penny and Brian Sheehan**

**Other Comments:**

- No need for any more shops in Douglas Village
- Do not develop the cinema area and use as amenity not shopping
- Drain Mangla

**Issues Emerging:**

- As above

**Response:**

- The quantum of development that are presented in this strategy have been tested against the transport model, which takes into account improvements to existing network.
- There are existing sites that have not reached their development potential in Douglas and they should be developed so that Douglas can adequately compete with other similar district centres in Cork.
- The draining/dredging of the Ballybrack river does not fall under the remit of this strategy.

**Stakeholder Name: S.53 Phillip Collins**

**Summary of Submission:**

Badly need swimming pool near GAA

Street lights should have mast type poles to accommodate "sails" as sails were made in Douglas for English and French fleets - can advertise

**Proposed Solutions:**

Preserve some old cottages on West Douglas Street

East Village always known as "Merries" should be re-instated

Old home from Mill working area

Public seating to encourage communication

Woollen Mills – Some buildings suitable for museum of milling machines etc.

More green landscaping

**Issues Emerging:**

- As above

**Other Comments:**

Living over shops is a great idea

Link Road Grange-Rochestown is a great idea

**Response:**

- A proposal has been made in the DLUTS for a multi-purpose leisure facility, which would contain a swimming pool, on land to the west of the GAA playing fields.
- In the draft DLUTS, the photo montages and images of the lights are indicative only, designed to give a sample. No final design has been agreed.
- Again DLUTS will seek to improve and provide additional greenery in the study area.

**Stakeholder Name: S.54 Phillip Shine**

**Summary of Submission:**

Excellent concept, but priority should be to improve footpaths and pot hole repair, cleaning services and general maintenance. The boarded up vacant and un kept units should be made available for housing elderly in need. However some good work, if we live to see it.

**Issues Emerging:**

- General support for DLUTS
- Supports recommendations however points out that priority needs to be given to improving footpaths and pot hole repair

**Response:**

- No comment necessary

**Stakeholder Name: S.55 Ray Hegarty**

**Summary of Submission:**

There is an old saying "I don't know much about art but I know what I like". I think it is a wonderful conception. I think the layout and the footwalks are outstanding. It is pedestrian friendly, I am delighted. Well done

**Issues Emerging:**

- General support for DLUTS

**Response:**

- Support for DLUTS. One of the aims of DLUTs is to improve the public realm in Douglas and as stated in the submission actions will include making the village pedestrian friendly



**Stakeholder Name: S.56 Suzanne Buckley**

**Summary of Submission:**

Thank you for the opportunity to comment on the recommendations for the LUTS plan for Douglas.

This represents an opportunity to get it right. Currently Douglas village is ruined, defined by two shopping centres and a main ring road with "No sense of place for the village community". I hope that the new strategy will achieve the vision: "To secure a successful vibrant urban centre with a more efficient transport network for Douglas that provides an improved public realm, reduces congestion, encourages greater levels of walking & cycling, and improves the quality of life for the community, thereby enabling sustainable future growth".

To do this I believe we need to learn lessons from Jane Jacobs. Check her out on wiki - Her influential book *The Death and Life of Great American Cities* (1961) argued that urban renewal did not respect the needs of most city-dwellers. The book also introduced sociology concepts such as "eyes on the street" and "social capital". This fits in with "Poor vibrancy due to lack of daytime population in town centre" and "Motor car has priority of place in Douglas".

Jacobs is well-known for organizing grassroots efforts to protect existing neighbourhoods from "slum clearance"-and particularly for her opposition to Robert Moses in his plans to overhaul her neighbourhood of Greenwich Village. She was instrumental in the eventual cancellation of the Lower Manhattan Expressway, which would have passed directly through Washington Square Park, and was arrested in 1968 for inciting a crowd at a public hearing on the project. After moving to Canada in 1968 she joined the opposition to the Spadina Expressway and the associated network of expressways in Toronto planned and under construction.

Please prioritise section 12 Land Use and Urban Design. It is not always about travelling from A to B in the most efficient manner, rather it is about community.

**Issues Emerging:**

- General support for DLUTS

**Response:**

- Support for DLUTS no response necessary.

# 3 Proposed Changes to DLUTS Draft Final Report

## 3.1 Proposed Changes to Draft Final Report following Submission Review

3.1.1 The outcome of the 3<sup>rd</sup> Public Consultation is that there are required changes to be made to the DLUTS Draft Final Report is shown below in Table 3.1.

**Table 3.1 Proposed Changes to DLUTS Draft Final Report**

Change No.	Proposed Change	Submission Reference
<b>General</b>		
1	All references to public transport only corridor to be replaced by public transport priority corridor on East Douglas Street.	S5, S6, S23, S35
2	All reference to hours of operation of the public transport corridor (i.e. 08.00-18.00) on East Douglas Street to be removed.	S5, S6, S23, S35
3	All reference to the removal of Topaz to be replaced with a desire to relocate the filling station in the longer term. The Topaz Garage will be referred to as the filling station.	
<b>Chapter 1 Introduction</b>		
4	<p>Insert the following text at 1.1.5: - The DLUTS Strategy is not a zoning plan but the recommendations may be incorporated into an amendment to the Carrigaline Electoral Area Local Area Plan.</p> <p>Insert the following text into 1.5.21: -</p> <p><b>"Carrigaline Electoral Area Local Area Plan 2011</b></p> <p><i>The Carrigaline Electoral Area Local Area Plan (2011) identified an opportunity for the Douglas area "to evolve into a fully functional mixed use higher order centre in terms of its development density and its retail offer with an improved public transport, accessibility and parking demand management system". It proposed in the Local Area Plan that a Land Use and Transportation Study (LUTS) should be prepared for the Douglas areas as a priority.</i></p> <p><i>The proposed Douglas Land Use and Transport Study (DLUTS) is a response to resolving the competing demands for more housing and retail development and balancing this with the provision for better transportation, environment and community facilities. This LUTS Study will be prepared for Douglas and the Local Area Plan has zoned two Special Policy Areas around the Douglas Town Centre (X-03a) and around</i></p>	S8, S12, S13, S14, S19, S20, S29, S30, S34, S43, S44, S45

	<i>the land described as the Douglas Golf Course (X-03b)."</i>	
<b>Chapter 2 DLUTS Methodology</b>		
	No Changes Necessary	
<b>Chapter 3 Existing Land Use Conditions in Douglas</b>		
5	<p>Insert the following text at 3.7.11: - "The recent planning permission from An Bord Pleanala for the change of use from a cinema to a discount food store and ancillary retail facilities."</p> <p>Insert the following text in paragraph 3.10.5: -  <b>"Other sporting facilities in close proximity or adjacent to the study area include Douglas Tennis Club, Nemo Rangers GAA Club, Tramore Athletic Soccer Club, Ceanntar na Cathrach GAA pitches in Ballinlough, Gus Healy Swimming Pool and Cork Con Rugby Club."</b></p> <p>Insert bullet point under Issues emerging: -</p> <ul style="list-style-type: none"> <li>• Whilst there are numerous sporting facilities in Douglas, there is a need for additional playing pitches to be provided to serve the growing demand in the area.</li> </ul>	<p>S6, S40</p> <p>S43, S44</p>
<b>Chapter 4 Existing Public Realm Conditions in Douglas</b>		
	No Changes Necessary	
<b>Chapter 5 Existing Transport Conditions in Douglas</b>		
	No Changes Necessary	
<b>Chapter 6 Guiding Principles</b>		
	No Changes Necessary	
<b>Chapter 7 Developing and Evaluating DLUTS</b>		
	No Changes Necessary	
<b>Chapter 8 DLUTS Land Use Strategy</b>		
6	<p>Insert the following text at 8.1.4: - The DLUTS Strategy is not a zoning plan but the recommendations may be incorporated into an amendment to the Carrigaline Electoral Area Local Area Plan.</p> <p>Delete "Action Area Plans" and replace with "Overall Development Scheme" in LU-01</p>	S19, S20, S34, S43, S44, S45
7	National policy regarding flooding	S6
8	<p>Insert the following text in paragraph 8.4.20</p> <p><i>"On the basis of public consultation, submissions received and endorsed by public representatives, the study recognises the growing demand for playing pitches and other community facilities in Douglas. The DLUTS Study area is the preferred location for a multi-purpose leisure facility however, it may not be possible or practicable to accommodate the demand for sports pitches here. Other locations within the wider Douglas area outside of the DLUTS Study area or locations within the adjoining Green Belt have the potential to accommodate this additional demand. In the short to medium term, Clubs wishing to provide sports pitches should be encouraged to consider these options".</i></p>	S43, S44.

Amend the following text in paragraph 8.4.21

*"There is a requirement for a multi-purposes leisure facility in Douglas to cater for sports clubs, community organisations and leisure. This facility should be located in or near to the Town Centre to serve the community as a whole. The preferred location for this facility is adjacent to the existing GAA playing pitches and schools for ease of access for the users. Road access to the lands to the west of the GAA playing pitches will require careful assessment."*

Insert new paragraph 8.4.23 and existing paragraph 8.4.20 to be inserted before paragraph 8.4.17 and titled Douglas Golf Course.

In order to address this need there are three key steps to delivering of this facility

1. Put a land use zoning framework in place reflecting the recommendations of this study through an amendment to the Local Area Plan
2. Consider acquisition and ownership issues and take appropriate steps
3. If unsuccessful consider a broader approach to identify alternatives

**Amend Table 8.5: Land Use Policy LU-05 (all new text)**

Policy No.	General Land Use Policies – Community Facilities and Recreation
LU-5	<p>The DLUTS study area is the preferred location for the provision of a multi-purpose leisure facility in Douglas to cater for sports clubs, community organizations and leisure activities. In addition, playing fields, parks and walkways/cycleways that provide a link to the Tramore Valley Park over the N40 and access to Vernon Mount walkway through to Grange, should be provided.</p> <p>Improved access from the south to the community park via the Mangla and from the north via improved crossing points should be provided. Within the park, improved lighting, landscaping and security measures should also be provided.</p> <p>Existing schools will remain the in their present locations and future schools will need to be located in close proximity to their residential areas.</p> <p>Existing recreational and sports facilities will be retained in their present locations</p>

S8

	<p>(including Douglas Golf Club and Douglas GAA).</p> <p>It may not be possible or practicable to accommodate the demand for sports pitches in the DLUTS study area. Other locations within the wider Douglas area, outside of the DLUTS Study area, or locations within the adjoining Green Belt have the potential to accommodate this additional demand. In the short to medium term, Clubs wishing to provide sports pitches should be encouraged to consider these options.</p>					
	<p>Change to Golf Course – insert new bullet point under 8.4.17</p> <ul style="list-style-type: none"> <li>• The golf course sensitivity test for the 2032 Land Use Evaluation was done using the performance indicators in Chapter 7 (7.4.6) which showed that the location of large amounts of residential development on the periphery of the village will result in more unsustainable car dependency and further traffic congestion for the village.</li> </ul>					
9	<p>Insert new text and policy box after Table 8.5 for Car Parking as follows: -</p> <p><b>Car Parking for New Development</b></p> <p><i>8.4.24 A county wide strategy for parking is under consideration in the County Development Plan review process currently underway. It is envisaged that the parking strategy will place greater emphasis on walking, cycling and public transport use. Therefore, in Douglas, car parking in any new development shall adhere to the revised parking policy in the County Development Plan that will support national policies in relation to Sustainable Travel.</i></p> <table border="1" data-bbox="416 1429 1161 1865"> <thead> <tr> <th data-bbox="416 1429 639 1536"><b>Policy No</b></th> <th data-bbox="639 1429 1161 1536"><b>General Policy - Car Parking for new development</b></th> </tr> </thead> <tbody> <tr> <td data-bbox="416 1536 639 1865"><b>LU -06</b></td> <td data-bbox="639 1536 1161 1865"><i>The car parking standards for new development within the Town Centre Precincts shall be guided by the revised parking policy in the County Development Plan that will support current national policy, (Smarter Travel – A Sustainable Transport Future - 2009).</i></td> </tr> </tbody> </table>	<b>Policy No</b>	<b>General Policy - Car Parking for new development</b>	<b>LU -06</b>	<i>The car parking standards for new development within the Town Centre Precincts shall be guided by the revised parking policy in the County Development Plan that will support current national policy, (Smarter Travel – A Sustainable Transport Future - 2009).</i>	S3, S6, S10, S12, S14, S16, S30
<b>Policy No</b>	<b>General Policy - Car Parking for new development</b>					
<b>LU -06</b>	<i>The car parking standards for new development within the Town Centre Precincts shall be guided by the revised parking policy in the County Development Plan that will support current national policy, (Smarter Travel – A Sustainable Transport Future - 2009).</i>					
10	In TC-01 remove the reference to "Action Area Plan or Development Brief" and replace with "Overall Planning or	S13, S14				

	<p><i>Development Scheme."</i></p> <p>Change to Section 8.6 Woollen Mills – in TC-01 on Table 8.6 remove <i>"The majority of the existing surface car park should be removed and replaced with a multi storey car park"</i> and replace with <i>"Car parking for new development should follow the policy identified in LU -06."</i></p>	
11	<p>Change to Section 8.8 Barry's Field – remove part of 8.8.3 which says <i>"However, it should not be a surface level car park but possibly a landscaped surface car park with commercial activity on the ground floor."</i> Insert the following in TC-03 at the end <i>"Car parking for new development should follow the policy identified in LU -06."</i></p> <p>Change the text in TC-03 as follows:- <i>"Consideration of the construction of a new municipal car park of at least 200 bays with the provision of improved pedestrian linkages from west to east."</i></p>	<p>New Car parking Policy</p> <p>S3</p>
12	<p>Insert the following text in 8.9.2 as a bullet point at the end: - <i>"The recent planning permission from An Bord Pleanala for the change of use from a cinema to a discount food store and ancillary retail facilities."</i></p> <p>Change to Table 8.10 Cinema Site – remove the reference to <i>"Action Area Plan or Development Brief"</i> in TC-04 and replace with <i>"Overall Planning or Development Scheme for the entire site, taking account of the planning permission granted to the existing cinema. Development on the site can be implemented on a phased basis."</i></p>	S10, S11
13	<p>Also in TC-04, remove <i>"Parking provision shall be based on the Metropolitan Parking Strategy."</i> And replace with <i>"Car parking for new development should follow the policy identified in LU -06."</i></p>	New Car parking Policy
14	<p>Change to Section 8.11 Douglas Court Shopping Area - Change to Table 8.10 Douglas Court Shopping Centre – remove the reference to <i>"Action Area Plan or Development Brief"</i> in TC-05 and replace with <i>"Overall Planning or Development Scheme."</i></p>	S10, S11
15	<p>Also in TC-05, remove <i>"The extensive surface car park is open and lacks definition and is not appropriate for this site and should be removed and replaced by a multi-storey car park which is more appropriate to town centre urban form"</i> and replace it with <i>"Car parking for new development should follow the policy identified in LU -06."</i></p>	<p>S10, S11</p> <p>New Car parking Policy</p>
<b>Chapter 9 Urban Design Strategy</b>		
16	<p>Change text in UD-04 as follows:-<i>"Beneficial desire lines</i></p>	

	<p><i>have been identified in Douglas (see Table 9.1) and these shall be sensitively and sustainably improved where possible."</i></p> <p>In paragraph 9.5.9 remove the reference to <i>"Action Area Plan or Development Brief"</i> and replace with <i>"Overall Planning or Development Scheme."</i></p> <p>Also in paragraph 9.5.9 insert the following text:- <i>"The recent planning permission from An Bord Pleanala for the change of use from a cinema to a discount food store and ancillary retail facilities."</i></p> <p>In UD 9 remove the reference to <i>"Comprehensive Design Brief"</i> and replace with <i>"Overall Planning or Development Scheme."</i></p>	S3				
<b>Chapter 10 Transport Strategy</b>						
17	<p>Public Parking Policy outline- Replace text under Parking Management (10.4.26 and 27) with the following: -</p> <p><b>Car Parking for New Development</b></p> <p>8.4.26 A county wide strategy for parking is under consideration in the County Development Plan review process currently underway. It is envisaged that the parking strategy will place greater emphasis on walking, cycling and public transport use. Therefore, in Douglas, car parking in any new development shall adhere to the revised parking policy in the County Development Plan that will support national policies in relation to Sustainable Travel.</p> <table border="1" data-bbox="411 1283 1166 1727"> <thead> <tr> <th><b>Policy No</b></th> <th><b>General Policy - Car Parking for new development</b></th> </tr> </thead> <tbody> <tr> <td><b>LU -06</b></td> <td>The car parking standards for new development within the Town Centre Precincts shall be guided by the revised parking policy in the County Development Plan that will support current national policy, (Smarter Travel – A Sustainable Transport Future - 2009).</td> </tr> </tbody> </table>	<b>Policy No</b>	<b>General Policy - Car Parking for new development</b>	<b>LU -06</b>	The car parking standards for new development within the Town Centre Precincts shall be guided by the revised parking policy in the County Development Plan that will support current national policy, (Smarter Travel – A Sustainable Transport Future - 2009).	S3, S6, S10, S12, S14, S16, S30
<b>Policy No</b>	<b>General Policy - Car Parking for new development</b>					
<b>LU -06</b>	The car parking standards for new development within the Town Centre Precincts shall be guided by the revised parking policy in the County Development Plan that will support current national policy, (Smarter Travel – A Sustainable Transport Future - 2009).					
18	Sections 10.6.14 to 10.6.16 to be rewritten to include reference to Public Transport Priority Corridor.	S5, S6, S23, S35				
19	Figure 10.7 (Public Transport Corridor on East Douglas Street) – remove reference to <i>PT Only between 08.00 and 18.00</i> and replace with Public Transport Priority Corridor.	S5, S6, S23, S35				

20	Sections 10.8.7 - Presentation of the benefits of Douglas Village circulation plan to be included focussing particularly on the rationale/benefit of making Church Road one-way eastbound and discuss access options to the Church and school.	S3, S15, S18, S27, S50
21	Section 10.8.8 to be reworded to include new description for East Douglas Street Public Transport Priority Corridor supporting traffic management arrangements.	S5, S6, S23, S35
22	Figure 10.13 (Village Centre Primary Traffic Management Measures) to be replaced with new figure showing arrangements for East Douglas Street.	S5, S6, S23, S35
23	Section 10.8.9 to describe Public Transport Priority Corridor.	S5, S6, S23, S35
24	Figure 10.14 (Proposed Shared Space on East Douglas Street) to be changed. Reference to <i>PT Only between 08.00 and 18.00</i> to be replaced with Public Transport Priority Corridor.	S5, S6, S23, S35
25	Figures 10.17 and 18 (Future Village Centre Circulation) to be removed	S5, S6, S23, S35
26	Add new paragraph after 10.8.21, as follows:  <i>“To further protect the strategic road network we recommend that on the N40 South Douglas Road Off-Ramp and the N28 Rochestown Road Off-Ramp be fitted with a Double Loop Vehicle Detection system to ensure queuing does not back onto the N40 and N28 from the Off-Ramps and South Douglas and Rochestown roads respectively (i.e. if the queue formation on the off-ramp exceeded an agreed length, a ‘hurry’ call is introduced to ‘Flush’ the queue). It is also recommended that some form of ramp-metering be applied at the Rochestown On-Ramp at the N28 to maintain the efficient operating capacity of the N28 at this point. It is further recommended that the operation of the traffic control system proposed for the Douglas area should work in tandem with future demand management policies and proposals envisaged by the NRA for the N40 and N28.”</i>	S2
27	Reference to a pedestrian crossing on Grange Road to be added at paragraph 10.9.3	
28	Reference to traffic calming on Inchvale Road to be added at paragraph 10.9.3	S37, S41
<b>Chapter 11 Implementation of DLUTS</b>		
29	Insert the following text in paragraph 11.3:  <b>Implementation and Monitoring Strategy</b> <b>1. Introduction</b> <i>The DLUTS is a 20 year programme of multi-disciplinary actions covering sustainable land use planning, urban design and transportation. In order</i>	Relevant to all submissions



to manage appropriately this programme, it is necessary to introduce an Implementation and Monitoring Group (IMG), that will co-ordinate both the programme of works and monitor its progress in relation to its overall vision.

## **2. Structure of Implementation and Monitoring Group (IMG)**

The Implementation and Monitoring Group (IMG) will be set up within the Cork County Council, reporting directly to the Assistant County Manager (ACM) and comprising the following persons:-

- Director of Service (Chair of the Group and Champion of the Project)
- Area Engineer – Carrigaline
- Development Management Planner
- Planning Policy Unit
- Architects Department
- Transport Engineer

## **3. Function of IMG**

The first function of the IMG will be to prepare an Inception Report of work to be carried out. In principle, the following functions will need to be included in the Inception Report:-

- Preparation of the Amendment to the Carrigaline Local Area Plan.
- Implementation of the programme of works in association with the NTA.
- Implementation of Sustainable Schools Travel Plan
- Statutory Planning Processes (Part 8)

The IMG will meet bi monthly and will inform the Carrigaline Area Committee and the Key Stakeholders regularly. Consultation with the City Council will be necessary on cross boundary issues. Once the Town Centre Management Group is set up, it will provide the IMG with information on current issues being faced in Douglas.

The second function of the IMG will be to identify indicators for monitoring the progress of the project.

These indicators can be divided into:-

- land use planning (land availability, retail vacancy, employment surveys, planning applications)
- urban design indicators (public realm improvements and new buildings)
- transport indicators (to include pedestrian counts at key locations to monitor footfall, transfer to other sustainable modes, improvements to public transport journey times, queuing and car journey times on the road network, increases in walking and cycling network, number of junction improvements)
- environmental indicators (habitats, water quality, population and human health, air

	<p>quality, cultural heritage, landscape and material assets).</p> <p>4. <b>Outputs of IMG</b> – progress reports on the above.</p>	
<b>Chapter 12 Conclusions &amp; Recommendations</b>		
30	All above changes to be incorporated into Chapter 12 as required.	All submissions
<b>Habitats Directive Screening Report</b>		
31	<p>Remove the sentence on item 3.1 on page 6 of the Habitats Directive Screening Report :</p> <p><i>" There has been flooding in Douglas at times of heavy rainfall in recent years when flows have exceeded the capacity of this river."</i></p>	S6
<b>Environmental Report</b>		
32	<p>Replace "Ballybrack River" with "Ballybrack Stream" in the whole document.</p> <p>Delete the following text in paragraph 6.5.34 :-</p> <p><i>"It flowed through the community park and blocked the trash screen at the Church Street culvert with debris collected upstream. This resulted in storm water flooding properties on Church Street and entering the Douglas Village Shopping Centre. Serious flood damage was incurred in the shopping centre and also along Douglas East and West Roads"</i></p> <p>and replace with the following: -</p> <p><i>"Flood waters then flowed onto Church Road, then made its way down Church Lane, West Douglas Street and in an easterly direction to East Douglas Street. Douglas Community Park also encounters flood waters as the Ballybrack Stream burst its banks. The Ballybrack trash screen became blocked due to the volume of debris being conveyed in the stream as a result of the extreme rainfall event."</i></p> <p>Insert new paragraph 6.5.40 as follows: -</p> <p><b>"Proposed Flood Mitigation Works/Studies</b>  <i>The Douglas area was considered in the OPW's Lee CFRAM study but no works were suggested. Following the June 2012 event, the OPW have asked Cork County Council to progress a study of the catchment. Cork County Council is currently preparing the Consultants brief for the Douglas Flood Risk Assessment and Management Study. This study will be</i></p>	S6

	<i>procured shortly."</i>	
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#### **Offices also in**

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# Appendix A – Copy of Adevertisements

# Douglas Land Use and Transportation Strategy



## 3<sup>rd</sup> Public Consultation Exhibition

Venue: Rochestown Park Hotel

Date: 29<sup>th</sup> and 30<sup>th</sup> January 2013

Time: 3pm to 9pm

Cork County Council is currently developing the Douglas Land Use and Transportation Strategy. The vision for the strategy is:

*To secure a successful vibrant urban centre with a more efficient transport network for Douglas that provides an improved public realm, reduces congestion, encourages greater levels of walking & cycling, and improves the quality of life for the community, thereby enabling sustainable future growth*

This is an important opportunity for you to inform the strategy and to let us know your views on the following:

- Baseline land use survey undertaken for the Douglas area;
- Baseline traffic surveys covering all road users;
- Urban Design Strategy for Douglas Village;
- Land Use Strategy for Douglas Village;
- Transport Strategy for Douglas Village;

Also being presented at the exhibition for your consideration are:

- The **Pedestrian and Cycle Plan** proposed for Douglas;
- **Public Transport and Schools Plan** for Douglas;
- Benefits of the DLUTS Proposals; and
- **Next Steps and timeline** for developing the strategy.

MVA Consultancy has been commissioned to assist Cork County Council in the preparation of the strategy. Representatives from Cork County Council and MVA Consultancy will be in attendance at the public consultation meeting.

If you cannot attend the public consultation exhibition and would like to participate in the consultation process, please email your comments to Sinéad Canny ( [scanny@mvaconsultancy.com](mailto:scanny@mvaconsultancy.com) ) or write to Sinéad at MVA Consultancy, 1<sup>st</sup> Floor, 12/13 Exchange Place, IFSC, Dublin 1.

Log on to Cork County Council's website ([www.corkcoco.ie](http://www.corkcoco.ie)) for updates on consultation activities. Closing date for submissions on the 3<sup>rd</sup> public consultation is the 28<sup>th</sup> February 2013.

# Douglas Land Use and Transportation Strategy

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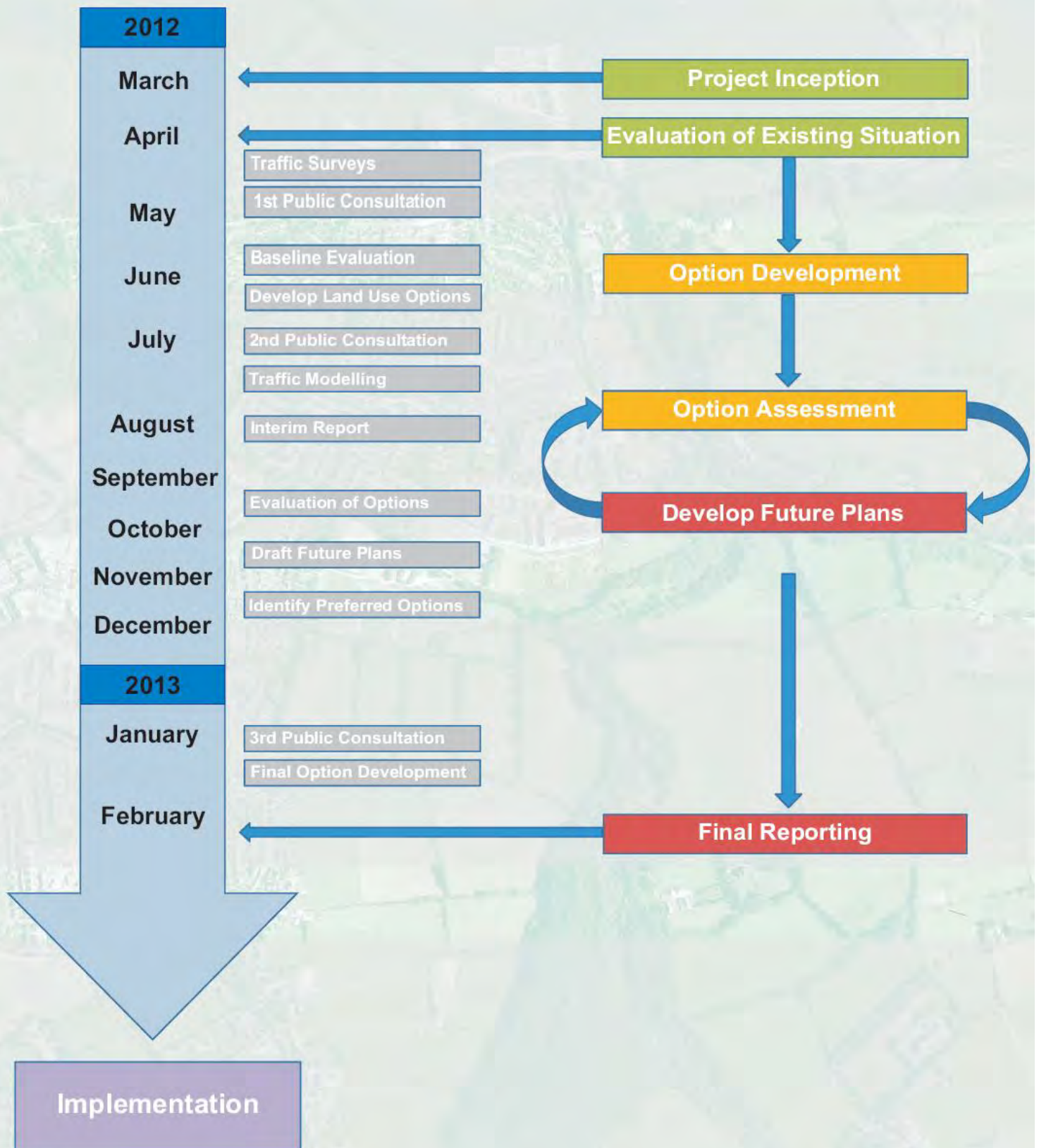
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Log on to Cork County Council's website ([www.corkcoco.ie](http://www.corkcoco.ie)) for updates on consultation activities. Closing date for submissions on the 2<sup>nd</sup> public consultation is the 10<sup>th</sup> August 2012.

# Appendix B – 3<sup>rd</sup> Public Consultation Presentation Boards

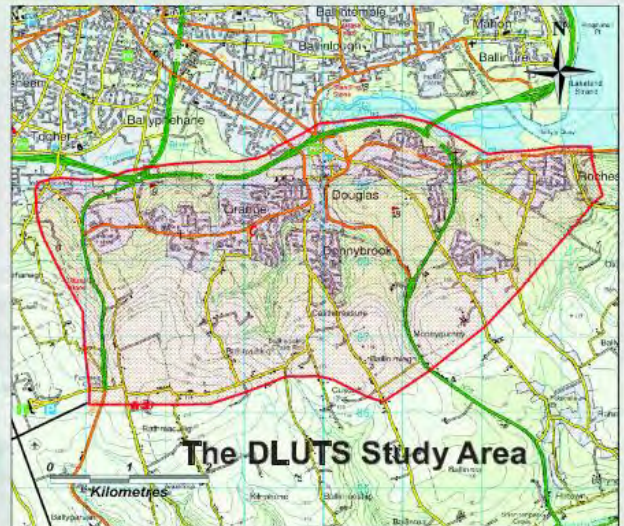


# 1. Progress & Timeline



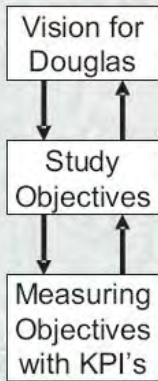
# 2. Introduction

Cork County Council is preparing the Douglas Land Use and Transportation Strategy, DLUTS. The overall aim of the strategy is to ensure that there is an **integrated approach** to land use and transportation planning for the Douglas Area. MVA Consultancy has been commissioned by Cork County Council to assist in the preparation of the Strategy.



## the DLUTS Vision

to secure a **successful vibrant urban centre** with  
 a **more efficient transport network** for Douglas,  
 that provides an **improved public realm**,  
**reduces congestion, encourages greater levels of walking & cycling**,  
 and **improves the quality of life** for the community,  
 thereby **enabling sustainable future growth**

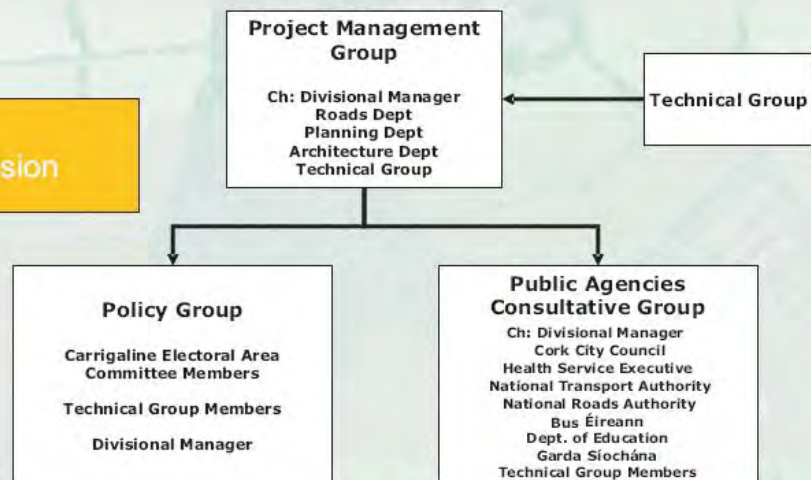


The achievement of the Vision is determined or measured through study objectives. These study objectives will be classified under the following headings:

- ▶ **Economy**      ▶ **Safety**      ▶ **Environment**
- ▶ **Integration**    ▶ **Accessibility & Social Inclusion**

The performance of each objective is measured using key performance indicators

## The Team Structure aiming to realise the Vision

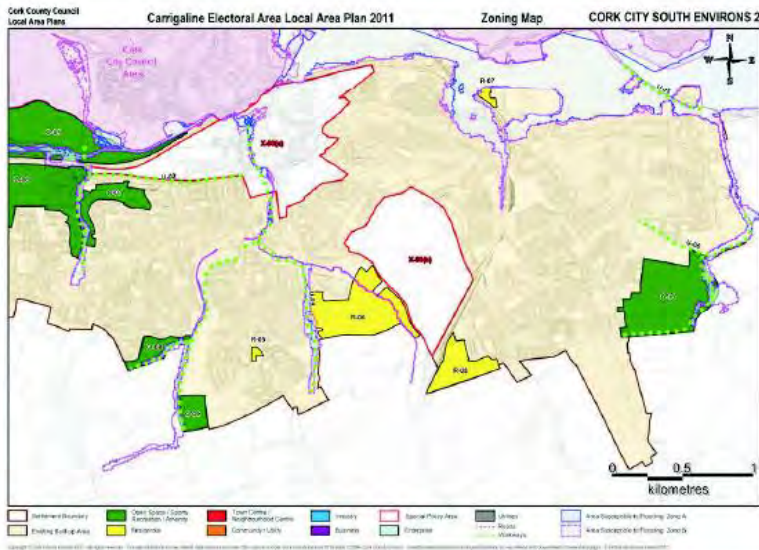


## 3. Exhibition Content

1. Progress & Timeline
2. Introduction - Where, What, How, and Who?
3. Exhibition Content
  
4. Existing Population, Land Use, Heritage and Environment
5. Traffic Survey Results (1)
6. Traffic Survey Results (2)
7. Retail, Land Use and Diversity Survey
8. Urban Design Constraints
9. Urban Design Potentials
10. Stakeholder Consultation Results
11. Emerging Themes - Transport
12. Emerging Themes - Land Use and Urban Design
  
13. Principles of Land Use, Urban Design and Transport
14. Land Use Scenarios for Evaluation
15. Urban Design Strategy
16. Woollen Mills Concepts
17. Daly's Corner Concepts
18. East Douglas Street Concepts
19. Cinema Site Concepts
20. Transport Strategy
21. Recommended Network Enhancements
22. Circulation Plan for Traffic Movement
23. Pedestrian and Cycle Plan
24. Schools Plan
25. Public Transport Plan
  
26. 2032 Land Use Policies
27. Town Centre Policies
28. Town Centre Policies
29. Community Facilities, Open Space and Recreation
30. Benefits of the Strategy
31. Strategy Implementation
  
32. Next Steps
33. Photomontages

# 4. Population, Land Use, Heritage & Environment

## Existing Douglas Zoning Map



The purpose of this study is to develop **planning guidelines** for the village centre Development Area (X-03a)

Majority of land uses in catchment area are **residential**

Existing **housing stock** of 15,066 houses in catchment area

Significant **open space** and **community facilities** provision within the study area

### Population

The Study Area comprises **Douglas ED**, part of **Lehenagh ED** and 7 wards of **Cork City**;

Population of catchment Area in 2011 was **36,188**;

**12.2%** increase in population in Douglas ED since 2006;

**45%** of the population is aged between **20-44** years old.

### Built Heritage

Rich **built** and **archaeological** heritage in central Douglas

Prime attraction in **St Luke's church**

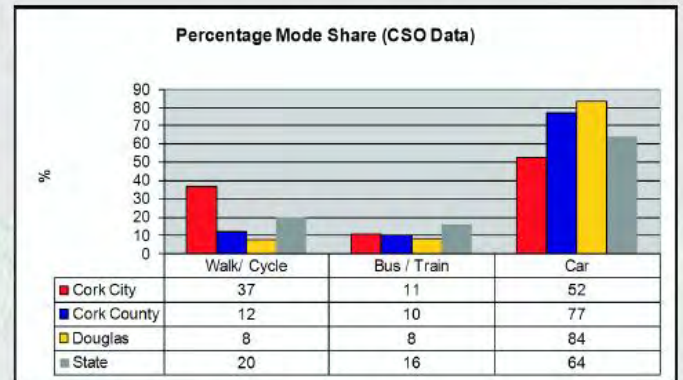
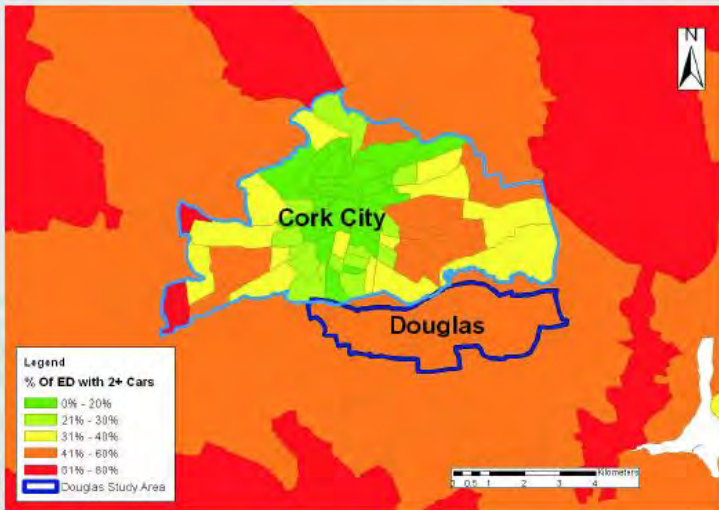
Accessibility to **Heritage and Environmental Sites** for **pedestrians** and **cyclists** needs to be improved.

### Ecological Corridors

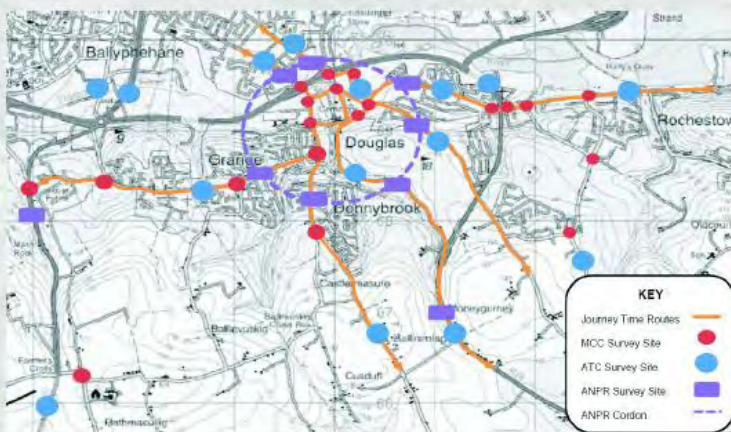


# 5. Traffic Surveys & CSO Data

## Car Ownership Levels and Mode Share Data from 2006 Census



## Traffic Survey Locations



- ▶ Manual classified junction turning count (MCC) surveys (21 locations)
- ▶ Registration plate (ANPR) surveys (9 locations)
- ▶ Journey time surveys (4 routes, each way)
- ▶ Automated traffic counters (ATCs) over seven survey days (15 locations)
- ▶ Link Counts, surveying pedestrian and Cyclist flows (16 locations)

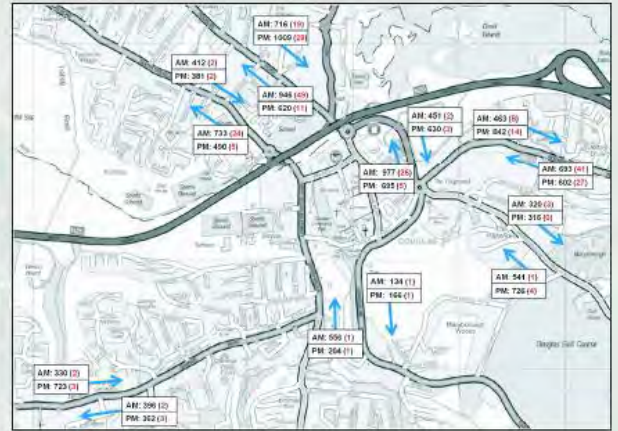
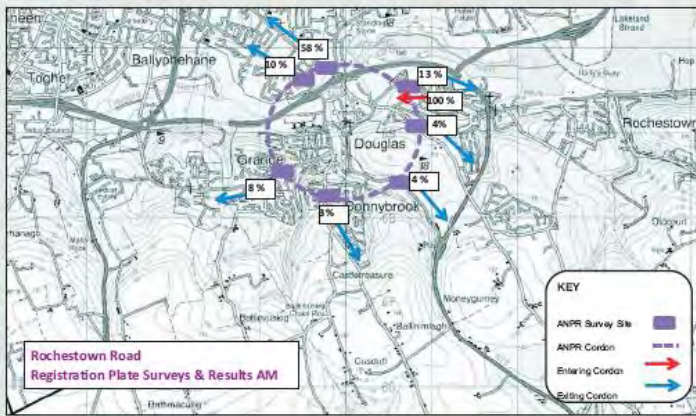
## Existing Journey Times Through Douglas



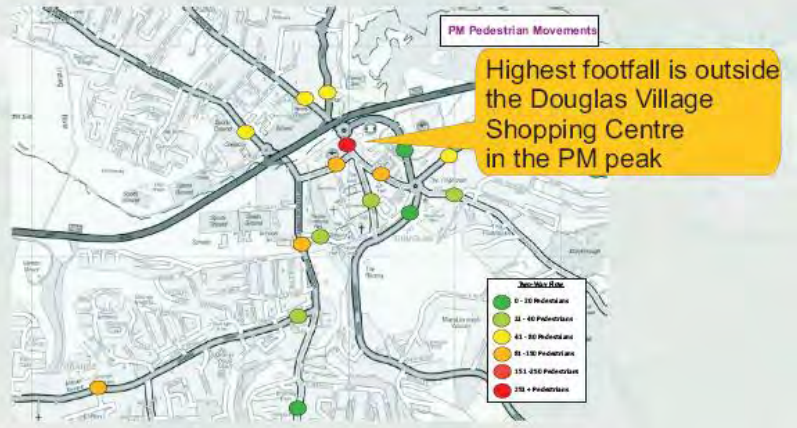
# 6. Traffic Surveys - Results



## Traffic Movements



## Pedestrian Movements



## Cyclist Movements



### AM Peak

- Highest count – 18 on South Douglas Road towards Cork City
- Next highest – 14 on Douglas Road towards Cork City

### PM Peak

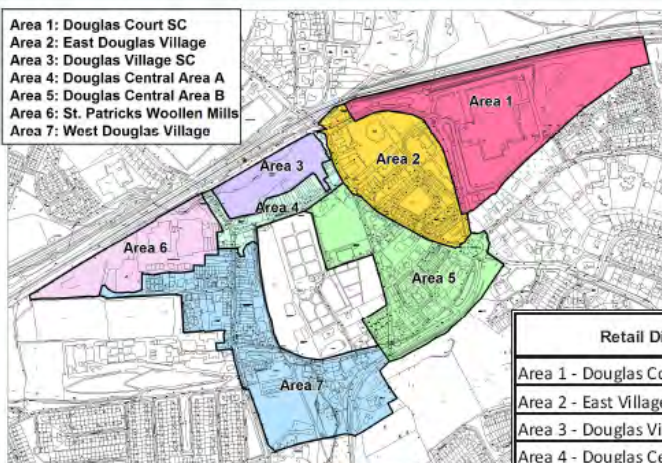
- Similar to AM Peak in opposite direction



# 7. Retail Land Use & Diversity Survey

## Retail Survey Areas

- Area 1: Douglas Court SC
- Area 2: East Douglas Village
- Area 3: Douglas Village SC
- Area 4: Douglas Central Area A
- Area 5: Douglas Central Area B
- Area 6: St. Patrick's Woollen Mills
- Area 7: West Douglas Village



Douglas is a major urban district (retail) centre in Cork

Each of the retail survey areas show a different mix of floor space retail uses

Overall, 20% of the retail floor space is vacant

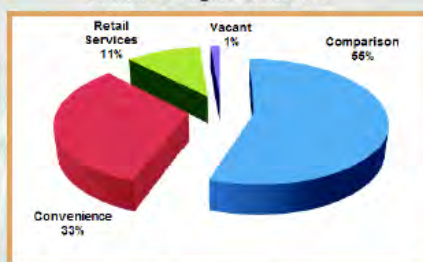
Retail District	Comparison	Convenience	Retail Service/ Other Uses	Vacant	TOTAL
Area 1 - Douglas Court SC	5,380	3,160	1,058	135	9,733m <sup>2</sup>
Area 2 - East Village	729	771	6,458	1,447	9,406m <sup>2</sup>
Area 3 - Douglas Village SC	4,355	4,357	1,607	4,097	14,415m <sup>2</sup>
Area 4 - Douglas Central A	193	-	3,526	197	3,916m <sup>2</sup>
Area 5 - Douglas Central B	184	30	3,541	206	3,960m <sup>2</sup>
Area 6 - St. Patrick's Woollen Mills	1,991	425	1,533	3,129	7,077m <sup>2</sup>
Area 7 - Douglas West	668	233	2,056	160	3,117m <sup>2</sup>
<b>TOTAL</b>	<b>13,500</b>	<b>8,975</b>	<b>19,779</b>	<b>9,371</b>	<b>51,625m<sup>2</sup></b>

Four main retail destinations: Douglas Court, Douglas Village Shopping Centre, St. Patrick's Woollen Mills and East Village

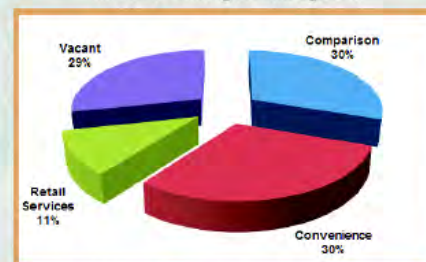
Woollen Mills has the highest vacancy levels

Each retail destination has a different mix of retail floor space.

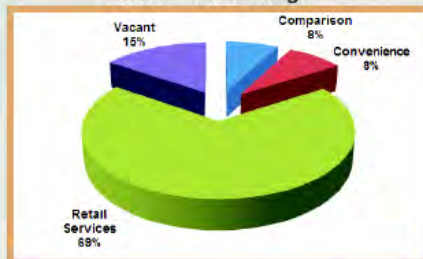
Area 1 - Douglas Court SC



Area 3 - Douglas Village SC



Area 2 - East Village



Area 6 - St Patrick's Woollen Mills



## Diversity of Use

Type of Use	No. of Outlets	Percentage (%)
Comparison	86	24
Convenience	26	7
Retail Service	44	12
Leisure Service	48	13
Other Retail Service	-	-
Financial & Business Service	39	11
Health & Medical	30	8
Public Service	14	4
Religious Service	2	1
General Offices Use	0	-
Overall Vacancy	74	20
<b>Total</b>	<b>363</b>	<b>100</b>

Good diversity of retail floor space with three major super markets.









Majority of retail outlets are owned and run by small independent businesses

There is no general office floor space in Douglas resulting in a lack of day time population, vibrancy in the Village Centre etc

Vibrancy and vitality in Douglas has declined with lower footfalls and higher vacancy rates.





-  FLY OVER: VISUAL AND PHYSICAL SEGREGATION, BARRIER TO THE CITY AND NOISE POLLUTION
-  HEAVY TRAFFIC SEGREGATION BOUNDARY. AGGRESSIVE EDGE TO BE VISUALLY SCREENED + ACOUSTICALLY ISOLATED.
-  RELIGIOUS AND PRIVATELY OWNED BUILDING AND LAND WHICH IS A CONSTRAINT BUT CAN BE ENJOYED AS AN VISUAL AMENITY
-  UN-ATTRACTIVE JUNCTIONS. NO DEFINITION OF CAR AND PEDESTRIAN SPACE. NO IDENTITY OF PLACE
-  VISUALLY WEAK LANDSCAPE & ARCHITECTURAL URBAN EDGE
-  UNATTRACTIVE URBAN SPACE. POOR QUALITY MATERIALS, VISUAL CLUTTER, LITTLE DEFINITION OF SPACIAL USE
-  MAJOR BARRIERS TO PEDESTRIAN CIRCULATION ROUTES TO POI (POINT OF INTEREST AND AMENITIES). CAUSE OF CAR PREFERENCE FOR DESTINATION CONNECTIVITY
-  RIVER NOT VALUED AS AMENITY. HIDDEN FROM THE PARK AND NO ACCESS FOR RESIDENTS. NEGATIVELY AFFECTED BY ADJACENT BUILT ENVIRONMENT.

 SOLAR GAIN



FLY OVER: VISUAL SEGREGATION, BARRIER TO CITY AND NOISE



GREEN PRIVATE SPACE AND CHURCH AS BOTH CONSTRAINT AND AMENITY



UNATTRACTIVE URBAN SPACE



CUL DE SAC HOUSING ESTATE AS PEDESTRIAN BARRIER



VISUALLY WEAK LANDSCAPE & ARCHITECTURAL URBAN EDGE

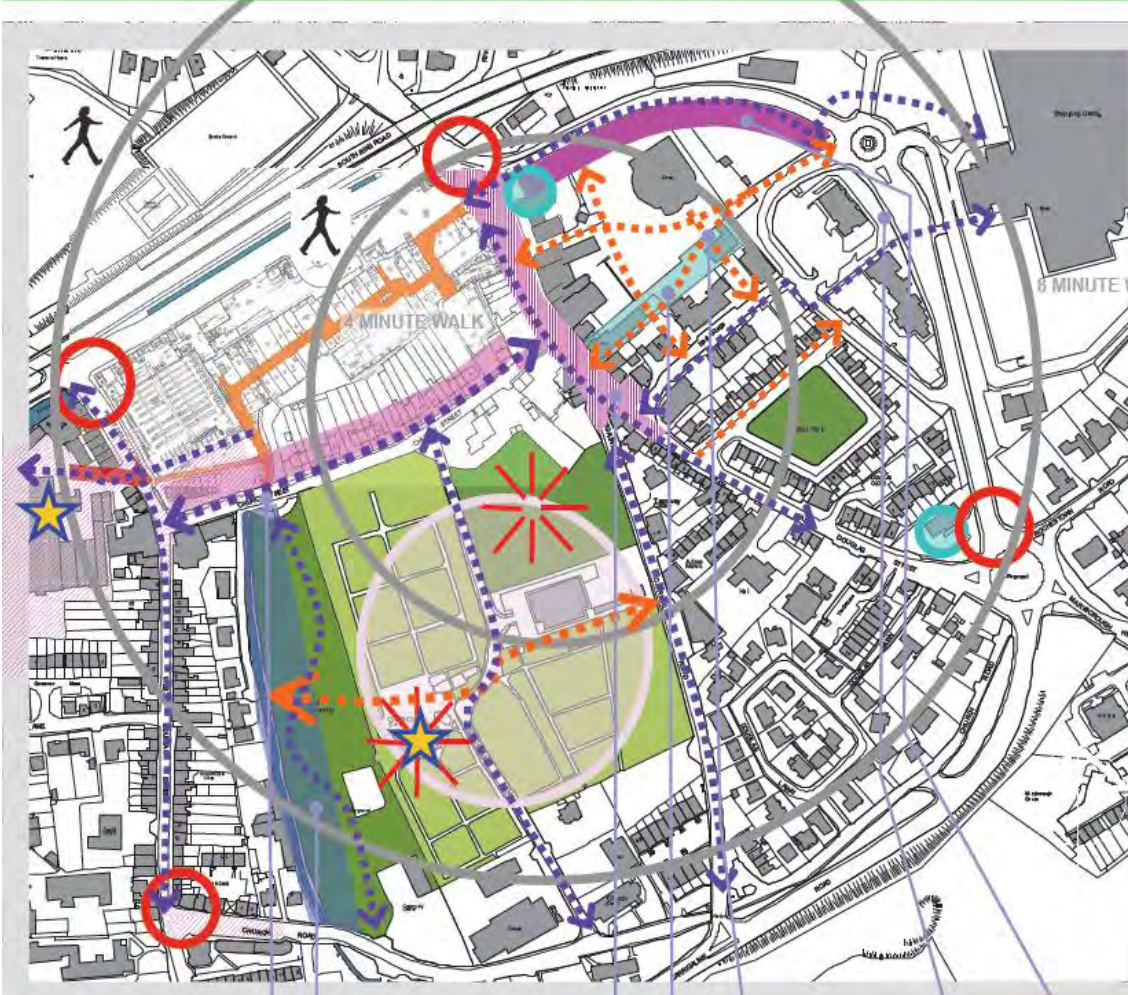


UN-ATTRACTIVE JUNCTIONS



HEAVY TRAFFIC SEGREGATION BOUNDARY





-  HIGH DENSITY DEVELOPMENT TO SHELTER NOISE & TRAFFIC ENVIRONMENT ISSUES.
-  LOWER DENSITY MIXED USE FORMING AN EDGE, LIVING ABOVE THE SHOP
-  POTENTIAL FOR QUALITY PUBLIC REALM INTERVENTION TO ALLOW FOR SOCIAL ACTIVITY. URBAN DESIGN LED REGENERATION.
-  ONE WAY TRAFFIC TO IMPROVE PEDESTRIAN PERMEABILITY
-  POTENTIAL TO UPGRADE MILL COMPLEX AND URBAN CONNECTIONS
-  GATEWAYS, UNATTRACTIVE. TRAFFIC CALMING IS REQUIRED TO ALLOW FOR SAFE PEDESTRIAN PATHS.
-  RELIGIOUS BUILDING AND PRIVATELY OWNED AS OPPORTUNITY
-  RIVER TO BE OUTLINED AND ENHANCED TO PROVIDE FOR PARK AMENITY FOR LOCAL RESIDENTS AND VISITORS
-  ENHANCED EXISTING PEDESTRIAN ROUTES
-  PROPOSED NEW PEDESTRIAN ROUTES
-  UNIQUE RURAL AND HERITAGE ENVIRONMENT TO BE RETAINED AS AMENITY
-  OPPORTUNITY FOR GATEWAY BUILDING
-  OPPORTUNITY FOR SITE REDEVELOPMENT TO CREATE ACCESS TO MAIN STREET
-  HERITAGE SITES TO BE EMBRACED BY THE COMMUNITY



REDEVELOPMENT OF PARK AS PUBLIC AMENITY AND RECREATION SPACE



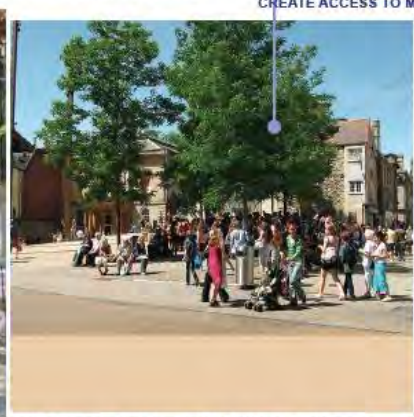
OPPORTUNITY FOR SITE REDEVELOPMENT TO CREATE ACCESS TO MAIN STREET



HIGH DENSITY DEVELOPMENT TO SHELTER NOISE & TRAFFIC



STREET AS RECREATIONAL SPACE



STREETScape INTERVENTION ON MAIN STREET TO



QUALITY PEDESTRIAN SPACE



POSITIVE UTILISATION OF 'LEFTOVER' SPACE



# 10. Public & Stakeholder Consultation

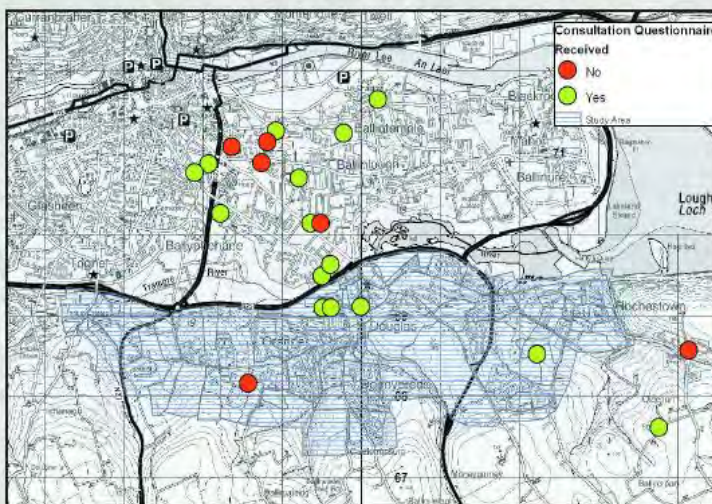
## People Contacted

Group, organisation or individual consulted	Method of consultation	Number contacted	Response
Local Sport groups	Contacted by letter and invited to respond by letter or email.	6	2 submission received
Local community groups	Contacted by letter and invited to respond by letter or email.	4	2 submission received
Religious stakeholder organisations	Contacted by letter and invited to respond by letter or email.	3	0 submissions received
Local Schools (including primary and secondary and Department of Education)	Contacted by letter and in person and invited to respond by letter or email.	23	16 submissions received
Health Organisations	Contacted by letter and phone call and invited to respond by letter or email.	2	0 submission received
Business representatives (Douglas Chamber of Commerce)	Contacted by letter and phone call and invited to respond by letter or email.	1	1 submission received
Transport stakeholders	Contacted by letter and phone call and invited to respond by letter or email.	5	4 Submissions received
Local Land owners and private individuals	Invited to make submissions at public consultation meeting and in adverts in local media	Open invitation	9 Submissions received
<b>Total</b>		<b>43</b>	<b>33</b>

## Submissions Received From

Stakeholders and Public Groups	Individuals and Landowners
Bus Éireann	Anna O'Toole
Cork Taxi Drivers Association	Claran O'Callaghan
Department of Education	Dan and Margaret O'Mahony
Douglas Business Association	Deirdre Whelan
Douglas Community Association	Dennis O'Regan
Douglas Golf Club	Emer Hunt
Douglas Gymnastics Club	Michael Dowling
Dublin Airport Authority	O'Brien & O'Flynn Contractors
Grange Frankfield Partnership	Rodney Daunt
National Roads Authority	Shipton Group
An Garda Síochána	St Patrick's Mills
	William Loftus

## Schools Contacted



## Characteristics of Schools who Responded

School	Description	Pupils	Staff Full-time/Part-time
Bairntemple National School	Primary School	216	17/11
Bunscoil Christ Ri	Primary School	574	38/4
Gaelscoil na Dúglaise	Primary Gaelscoil	355	23/1
Scoil Bhríde Eglantine	Primary School	553	35/5
Scoil Phádraig Naofa	Primary School	244	15/1
St Anthony's BNS	Primary School (Boys)	788	58/1
St Columba's BNS	Primary School (Boys)	507	50/1
St Columba's GNS	Primary School (Girls)	515	58/12
St Luke's National School	Primary School	217	12/7
Ashton School	Secondary School	500	50/17
Christ King Girls	Secondary School (Girls)	1011	70/20
Colaiste Christ Ri	Secondary School	640	51/7
Douglas Community School	Secondary School (Boys)	570	50/50
St Mary's Special School	Special School	61	17/4
School of the Divine Child	Special School	22	10/10

## Summary of Issues Raised

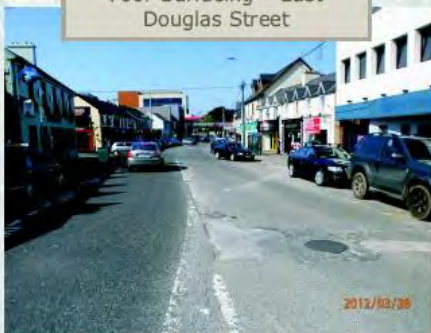
- Traffic Congestion especially during peak periods;
- Schools Traffic causes major congestion near schools in the AM peak;
- Traffic Signals in the study area need to be optimised to run more efficiently;
- A number of junctions in the village centre including the Topaz Junction and Donnybrook Hill are over capacity during peak periods;
- There is a need for more public walkways and cycleways in Douglas;
- There is a need for more public amenities and facilities in Douglas;
- Pedestrian facilities are mixed in the Study Area, some schools are lacking pedestrian crossing facilities near their entrances;
- Most of the local schools participate in the Green Schools Programme, though only one has so far implemented travel initiatives under the programme, a number of others are intending to do so in the near future;
- There is scope to improve the planning and management of travel to school and to implement sustainable

# 11. Emerging Themes - Transport

## Key Transport Issues for Douglas:

- Poor **permeability**
- Pedestrian 'desire lines' not catered for
- Very low mode share by **sustainable** modes
- High level of **through traffic** during peak periods
- Car mode share to school is very high
- Car ownership very high
- Trip distribution pattern varied (difficult to serve by public transport)
- East west movement through Douglas very slow (by car)
- **Pedestrian / Cyclist facilities** very poor, reflected in mode share results
- Many **severance** issues inhibiting movement by sustainable modes
- Poor signage
- Road hierarchy not obvious to road users
- Many junctions require changes

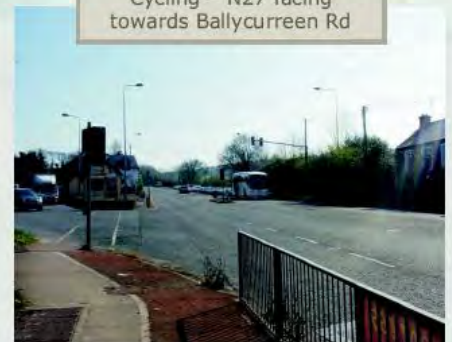
Poor Surfacing – East Douglas Street



Parking – Church Road Facing West Douglas Street



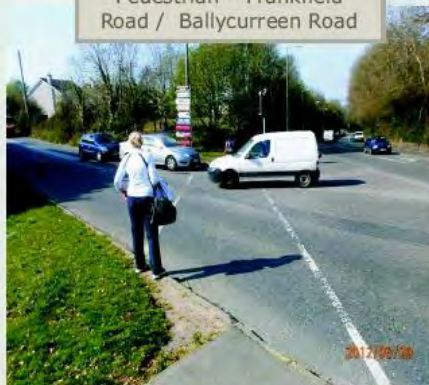
Cycling – N27 facing towards Ballycurreen Rd



Poor everything - Church St facing East Douglas Street



Pedestrian – Frankfield Road / Ballycurreen Road



Wrong Priority – East Douglas Street facing R610

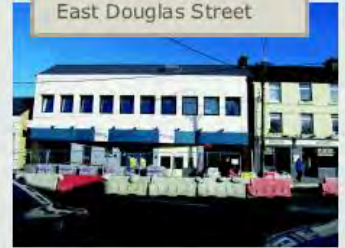


# 12. Emerging Themes - Land Use & Urban Design

## Key Land Use Issues for Douglas:

- High population growth in Douglas (12,2% since 2006)
- Falling household size creates demand for new growth
- High proportion of economically active population (aged 20-44)
- Uncoordinated **piecemeal development** in town centre
- Noise pollution from N40 through the town centre
- Barriers to **connectivity** between land uses
- Part of the town centre susceptible to flood risk
- Poor **vibrancy** due to lack of daytime population in town centre
- Usually high vacancy and lower footfalls contribute to loss of vitality
- Potential for connectivity between Douglas town centre and the city centre
- Improvements in **access** to the town centre from housing areas
- Rich built and natural heritage for preservation

High Vacancy Rate - East Douglas Street



Heritage & Recreation - Community Park

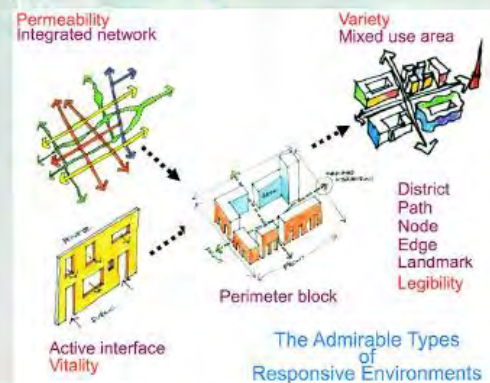


Barriers to Connectivity - East Village



## Key Urban Design Issues for Douglas:

- Lack of pedestrian **permeability**
- **No sense of place** for the village community
- The Motor Car has priority of place in Douglas
- The continuity of the linear park amenities are interrupted by private development
- Rebranding of Douglas will create a strong **sense of place**
- Establishment of a quality public realm fosters a sustainable community
- Providing an urban landscape which incorporates **pedestrian priority** will reduce the impact of cars on public space
- **Improved access** to public park needed



# 13. Principles of Land Use, Urban Design and Transport

## Transport Principles:

Protect vulnerable road users



Improve overall safety of all road users



Promote sustainable travel by walking, cycling and public transport



Promote sustainable travel to schools



Improve the operation of the road network for all users

Provide a transport network to enable Douglas to grow in a sustainable way

Improve the operating environment of Public Transport and ensure reliability

Enhance integration between transport modes

Improve circulation and connectivity within Douglas Village & environs

ensure land use, urban design and transport are improved in an integrated way

## DLUTS Integrated Strategy

### Land Use Principles:

Douglas Village shall continue as a fully functional district centre

Future development will be primarily mixed use in nature

Improve the vibrancy and vitality of Douglas by increasing the day time population

Focus future development in town centre rather than on the periphery

Protect and enhance existing recreation and open space land and ensure provision of adequate community facilities

Any new retail development must consider the provisions of retail planning guidelines and the joint retail strategy

Partnership approach to town centre management



### Urban Design Principles:

Places for people need to be safe, comfortable, varied and attractive

Enrich the existing urban form and the natural and built environment

Make connections and remove obstacles to connectivity for all forms of movement

Work with the landscape

Promote mixed use to connect people to jobs and services

Manage the Investment

Flexibility in the design for change

Design guidance on public realm finishes, street furniture, signage and lighting

More efficient use of existing land in town centre i.e. back lands development and surface car park

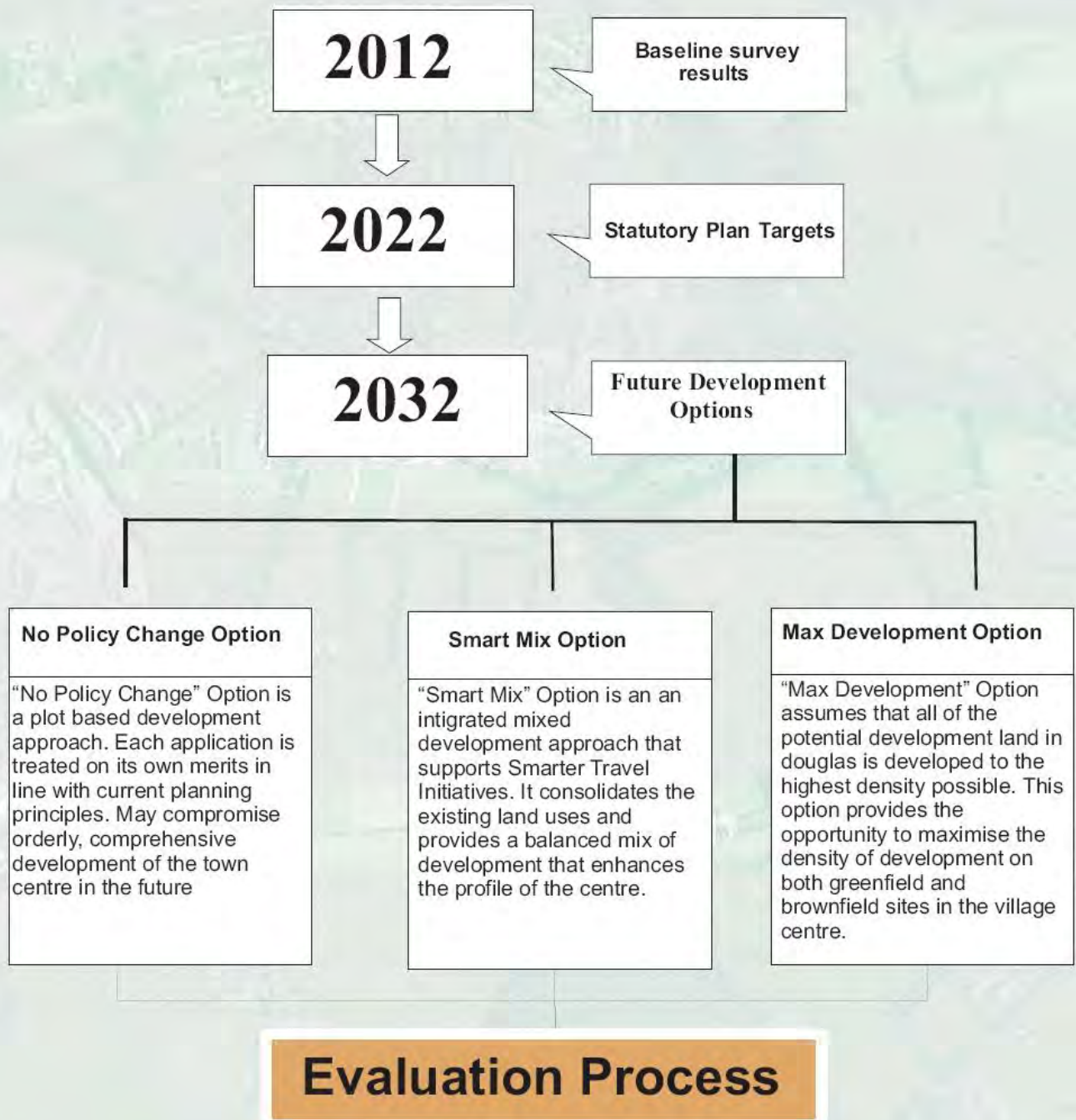


# 14. Land Use Scenarios for Evaluation

All population and economic targets of statutory plans will be adhered to up to 2022

Economic indicators show that limited retail development (filling vacancy and committed development) will take place before 2022

After 2022, new development will need to be guided by three different concepts.





POTENTIAL FOR A SIGNATURE BUILDING AT ENTRANCE TO DOUGLAS VILLAGE

GENERAL PUBLIC REALM IMPROVEMENT TO INCLUDE FOR CONTEMPORARY STREET FURNITURE, THE REMOVAL OF CLUTTER, THE PROVISION OF UNIFORM SIGNAGE, NATURAL HIGH QUALITY MATERIALS TO PROVIDE FOR A CALMING ENVIRONMENT WHERE THE USERS AND VENDORS CAN CREATE THE VIBRANCY AND VITALITY.

NEW WIDTH OF PAVEMENT ALLOWS FOR EXTRA PEDESTRIAN ACTIVITY AND FOR THE GREENING OF DOUGLAS



POTENTIAL FOR MIXED USE DEVELOPMENT AS LINK BETWEEN VILLAGE CENTRE AND THE MILL AND WITH LIVING ABOVE THE SHOP



NEW DEVELOPMENTS TO SCREEN THE SOUTH RING ROAD  
NEW DEVELOPMENTS TO CREATE AN EDGE TO THE BUSY TRAFFIC

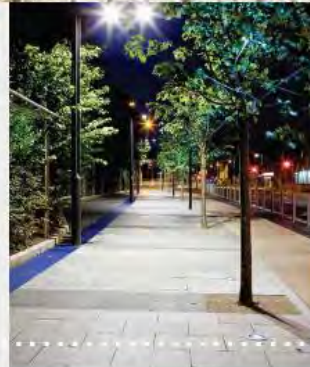


REDUCE ROAD WIDTH AND INCREASE FOOTPATH WIDTH  
PUBLIC TRANSPORT ACCESS ONLY DURING DAYTIME  
PROVIDE QUALITY OPEN SPACE IN BACKLAND AREAS TO PROMOTE USE BY DEVELOPERS AND THE PUBLIC

THE HEART OF DOUGLAS VILLAGE  
PROVIDE NORTH SOUTH AND EAST WEST LINKS THROUGHOUT THE VILLAGE

POTENTIAL REDEVELOPMENT OF DERELICT LAND TO CREATE CONNECTIONS AND A HIERARCHY OF OPEN SPACES TO ADD TO THE VITALITY OF DOUGLAS VILLAGE

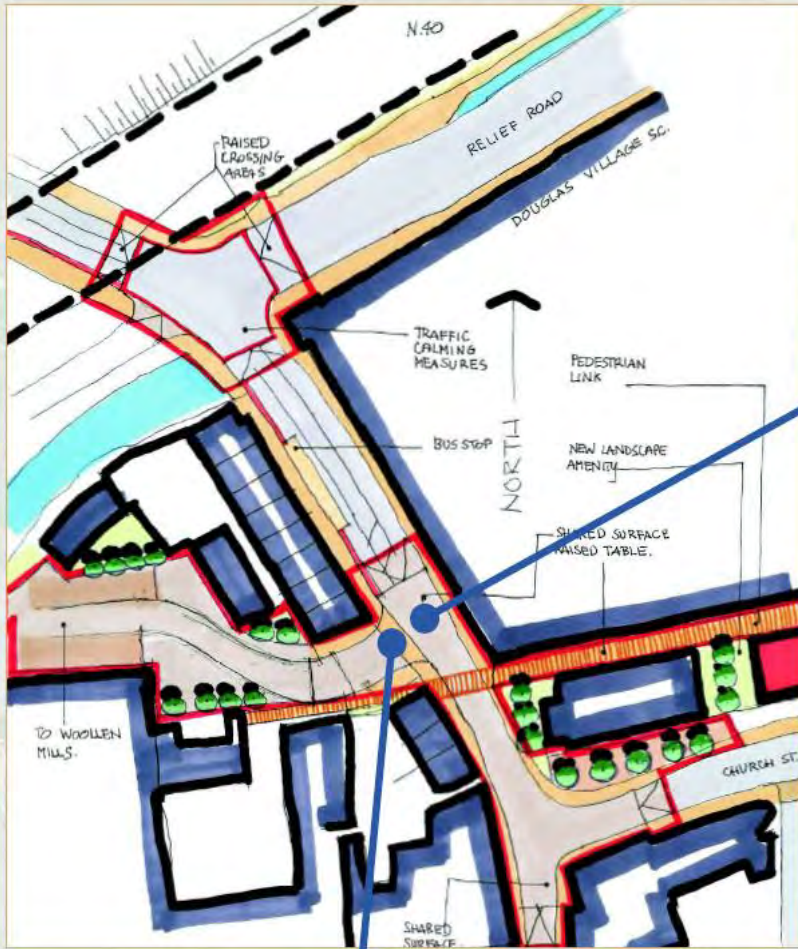
ROAD AND PAVEMENT LEVELS TO BE THE SAME AND CONTINUITY OF MATERIALS TO ENSURE PEDESTRIAN PRIORITY



From this.....

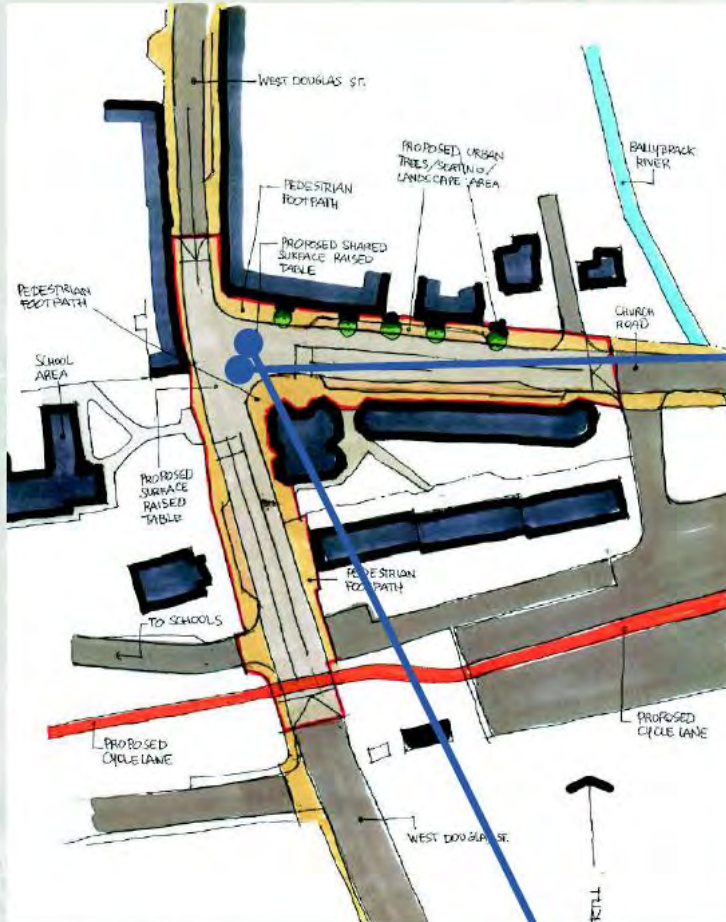
.....to this?

# 16. Woollen Mills Concepts

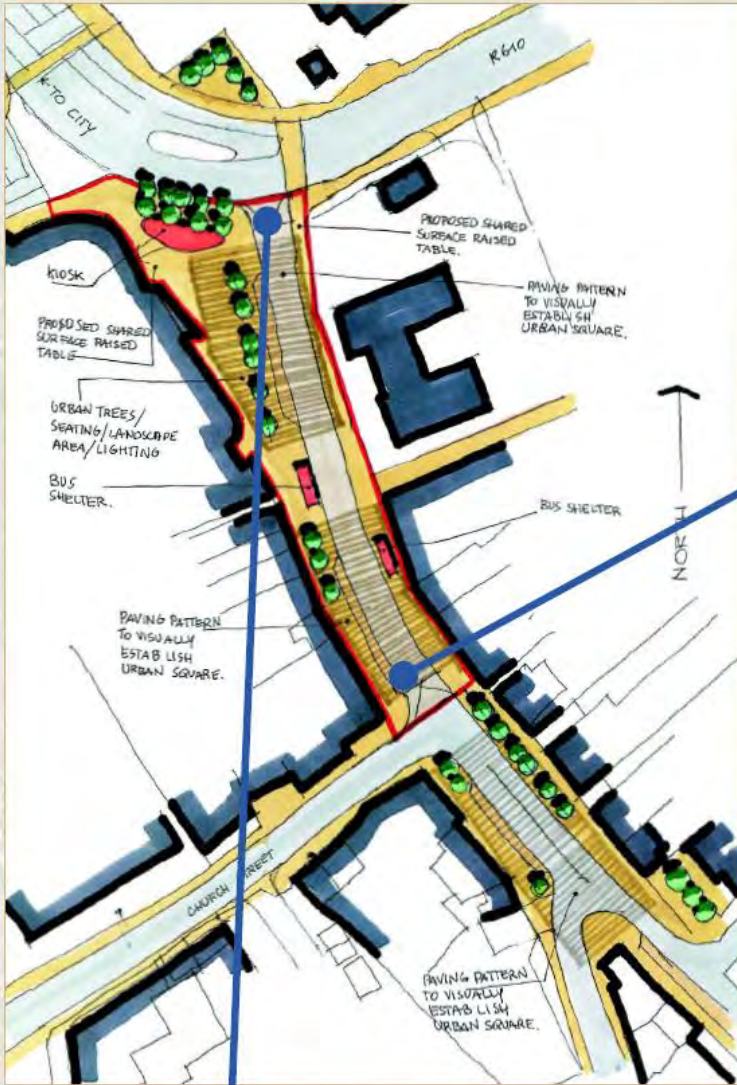




# 17. Daly's Corner Concepts



# 18. East Douglas Street Concepts



# 19. Cinema Site

# concept of permeability



Pedestrian street



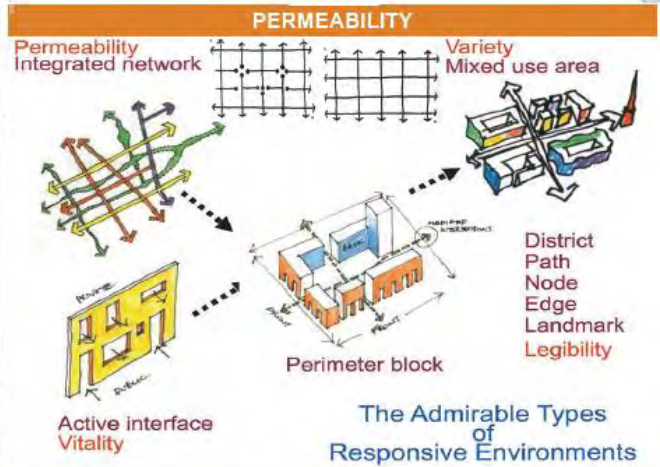
Edge building to street



Pedestrian priority crossing



Courtyard as amenity space

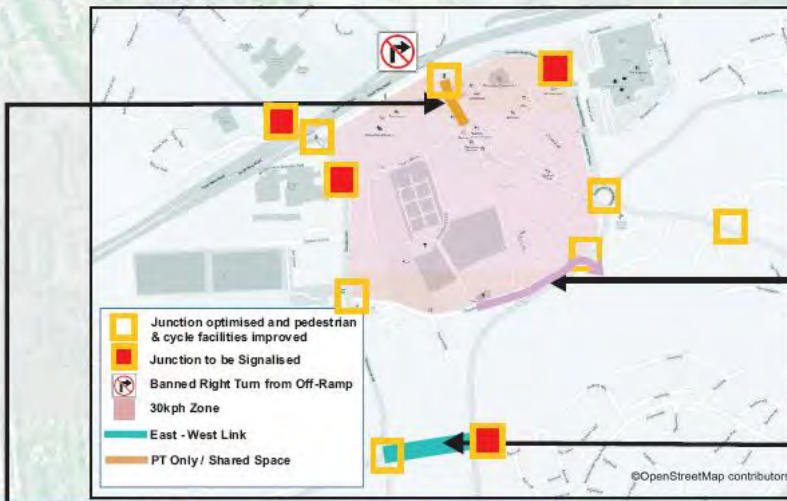
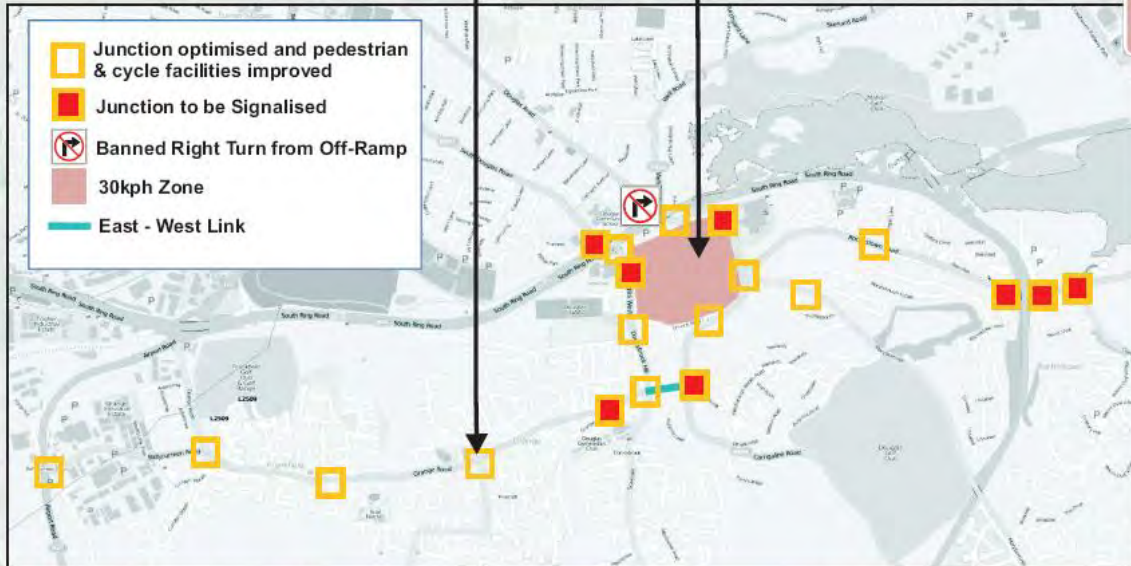


# 20. DLUTS Network Proposals



23 junctions upgraded to improve operational efficiency & pedestrian and cycle facilities.

30 Kph Zone to improve safety and encourage a village atmosphere



East - West Link Road Joining Donnybrook Hill and Rochestown to Grange and Frankfield

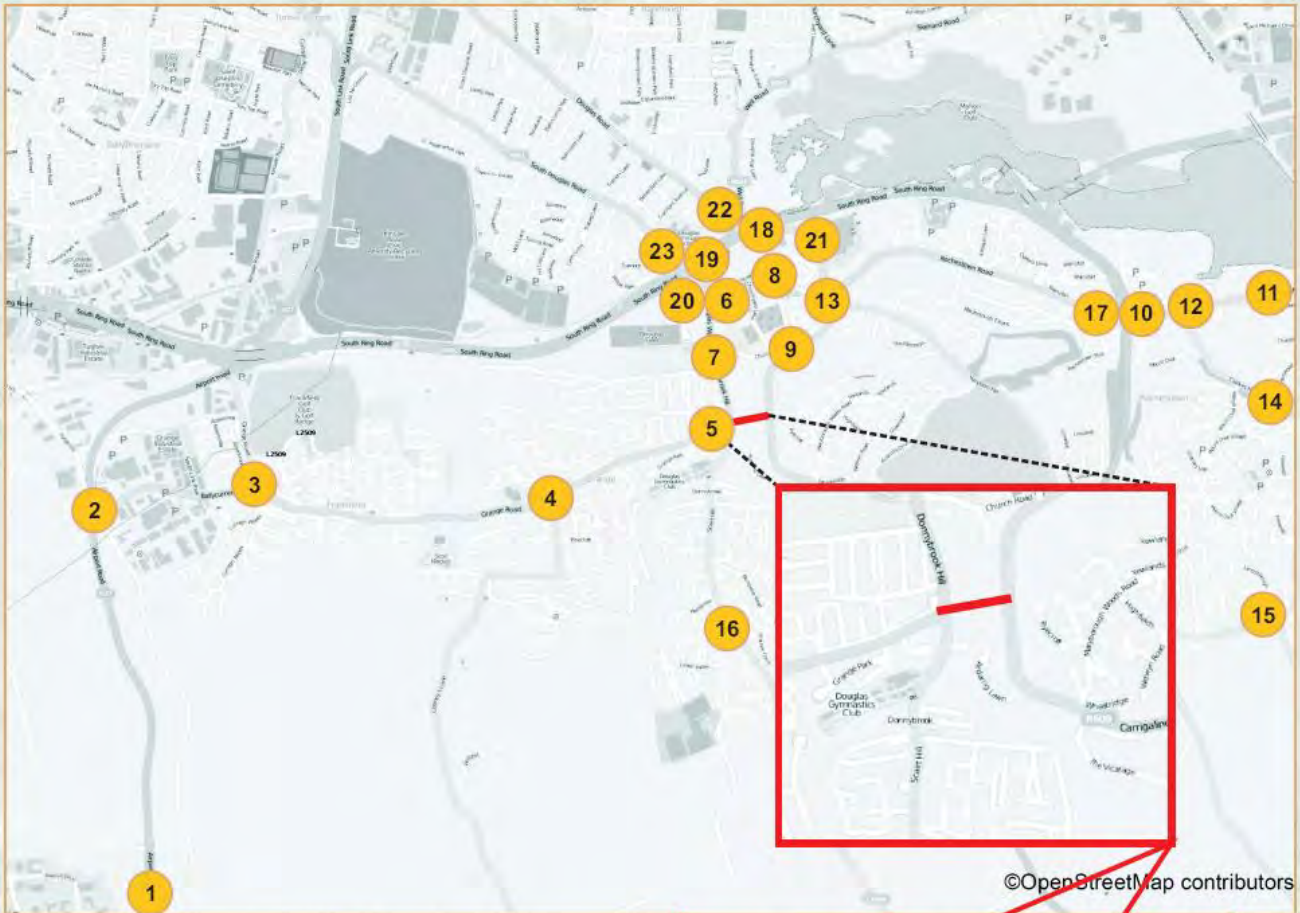
Public Transport Corridor on East Douglas Street to improve journey times and operational efficiency of public transport in Douglas.



One-way eastbound on Church Road to improve traffic circulation and increase safety.



# 21. Recommended Network Enhancements



©OpenStreetMap contributors

**Benefits of the East - West Link:**  
 More direct E - W route for traffic, public transport, walking & cycling  
 Relieves congestion at Daly's Corner  
**Reduces** traffic on Church Road  
 Maximises Capacity on Carrigaline Road  
 Reduces "rat running" and allows traffic movement to be managed in a better way

Location				
Jct 1. Airport Road /Amberley				
Jct 2. Forge Hill / Ballycureen Road	✓	✓	✓	✓
Jct 3. Grange Road / Ballycureen Road	✓	✓	✓	✓
Jct 4. Grange Road / Cooneys Lane	✓	✓	✓	✓
Jct 5. Grange Road / Donnybrook Hill	✓	✓	✓	✓
Jct 6. West Douglas St. / Church St	✓	✓	✓	✓
Jct 7. West Douglas St. / Church Road/ Donnybrook Hill	✓	✓	✓	✓
Jct 8. Church St / East Douglas St	✓	✓	✓	✓
Jct 9. Junction at Dry Bridge	✓	✓	✓	✓
Jct 10. St. Patrick's Roundabout	✓	✓	✓	✓
Jct 11. Rochestown Rd. / Coach Hill	✓	✓	✓	✓
Jct 12. Rochestown Rd. / Clarkes Hill	✓	✓	✓	✓
Jct 13. Rochestown Rd. / Maryborough Hill	✓	✓	✓	✓
Jct 14. Coach Hill / Clarkes Hill	✓	✓	✓	✓
Jct 15. Clarkes Hill / Ballyorban Road	✓	✓	✓	✓
Jct 16. Scairt Cross on Donnybrook Hill	✓	✓	✓	✓
Jct 17. On Ramp N28 / Rochestown Road	✓	✓	✓	✓
Jct 18. New Link Road / East Douglas Street	✓	✓	✓	✓
Jct 19. New Link Road / West Douglas Street	✓	✓	✓	✓
Jct 20. St Patrick's Mills / West Douglas Street	✓	✓	✓	✓
Jct 21. Douglas Court Shopping Centre Roundabout	✓	✓	✓	✓
Jct 22. N28 Off-Ramp / Douglas Road	✓	✓	✓	✓
Jct 23. South Douglas Road / Willow Park	✓	✓	✓	✓

- Enhancements to cycle facilities to provide for the safe movement of cyclists
- Enhancements to Public Transport to improve reliability
- Enhancements to pedestrian facilities to provide for the safe movement of pedestrians
- Enhancements to improve efficiency of traffic movement



# 22. Circulation Plan



Right turn ban from South Ring Rd

More Public Transport Priority

one-way on Church Road to improve traffic circulation

New Link Road to provide important east/west strategic link



Transport Modelling results show more reliable journey times on these routes:



## Taxi Facilities

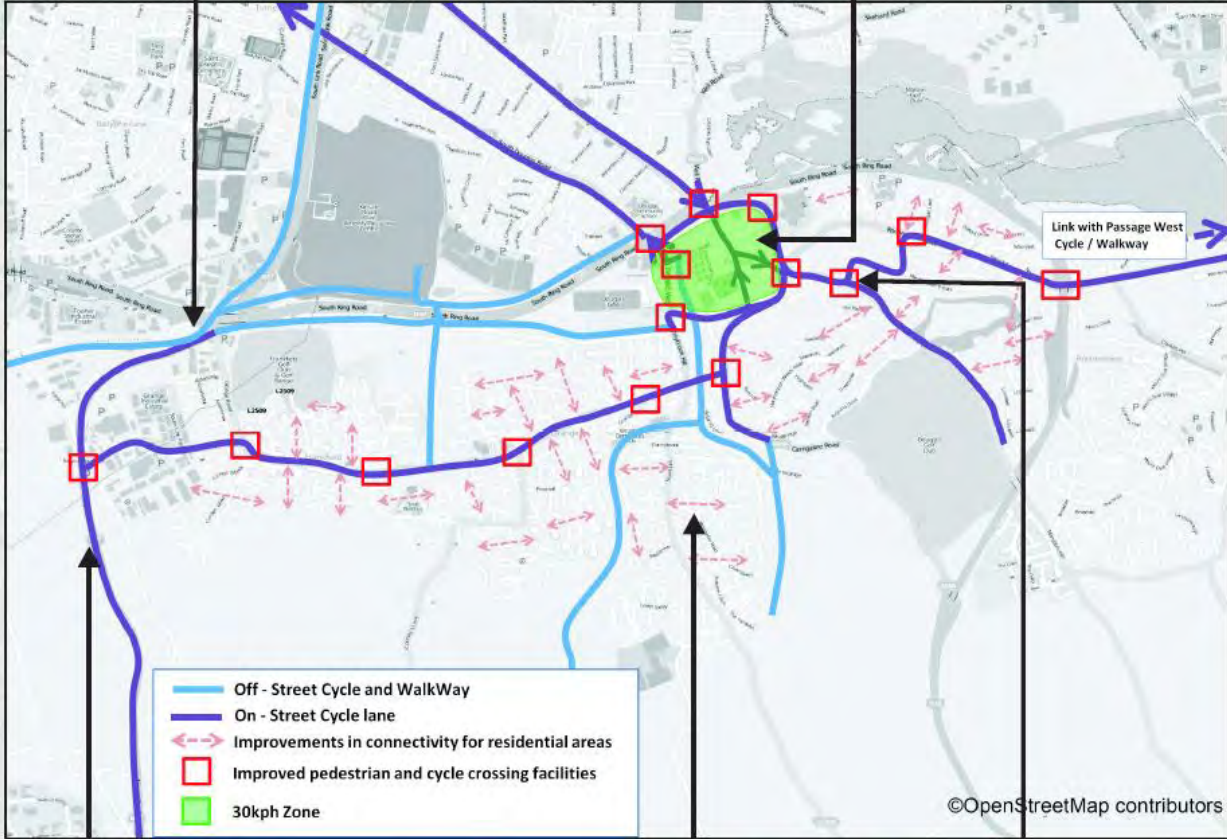


# 23. DLUTS Pedestrian and Cycle Plan

Tramore Valley, Mangala and Kinsale Walk and Cycleways will give an additional 36kms of off-street pedestrian and cycle links.



30 kph Zone will lead to Increased safety for pedestrians and cyclists.



11 km of additional on-street cycle lanes

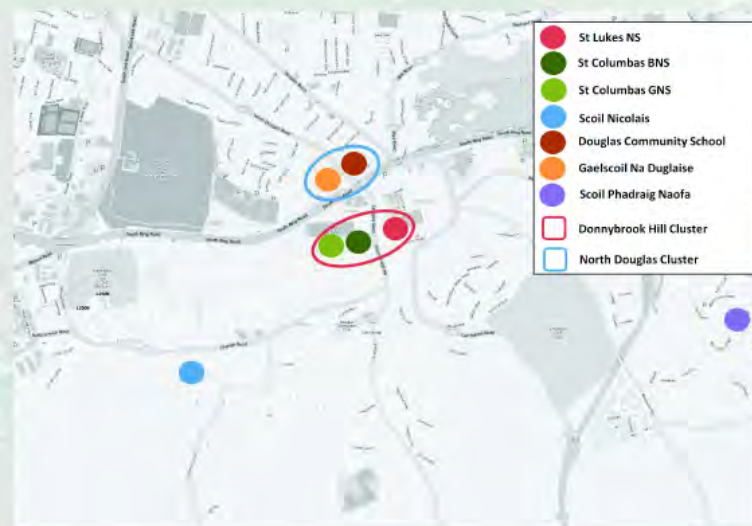


Improved pedestrian and cyclist facilities at key junctions

Improve Residential Connectivity by creating direct routes for Walking and Cycling



# 24. DLUTS Schools Plan



## current issues

Low levels of walking & cycling to school

Limited use of Public Transport

Large number of car trips  
→ leads to congestion

## recommendations arising from DLUTS

implement **Green Schools** transport initiatives

- will promote walking, cycling and public transport as alternatives to car travel
- can reduce the number of school trips by car by over 50%



walking bus

improve walking & cycling networks

- will connect large residential areas directly to schools
- will support a shift away from car towards sustainable travel modes

upgrade junctions near schools

- increase kerb build outs to improve pedestrian space
- achieve full pedestrian signalisation
- provide advanced stoplines for cyclists
- increase provision of cycle lanes
- widen footpaths



the delivery of DLUTS School Plan will:

- ⇒ improve the walking & cycling environment
  - ⇒ reduce traffic congestion around schools
  - ⇒ support healthier lifestyles for children





# 25. DLUTS Public Transport Plan



**Today:**  
 Douglas is well served by a number of frequent bus routes  
 Quality of bus stop infrastructure varies & could be improved  
 low number of trips to work and education by bus (8.6%)  
 ➔ could be increased

## the DLUTS Public Transport Strategy will

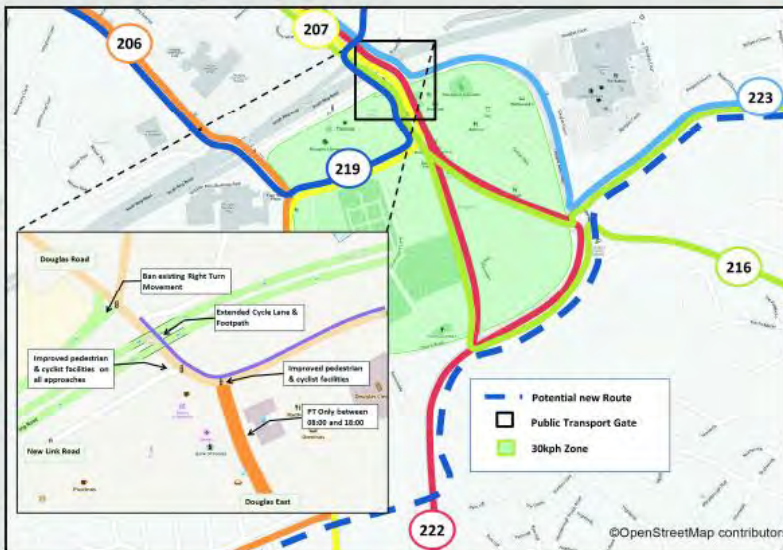


➔ enhance accessibility to Public Transport by improving pedestrian and cycle networks

➔ ensure adequate support infrastructure is provided for example, better bus stop shelters

➔ improve Public Transport reliability by improving priority, for example on East Douglas Street

➔ help achieve the Government Policy of a 20% reduction in trips to work by car



## East Douglas Street Public Transport Corridor

Public Transport Only on northern section of East Douglas St

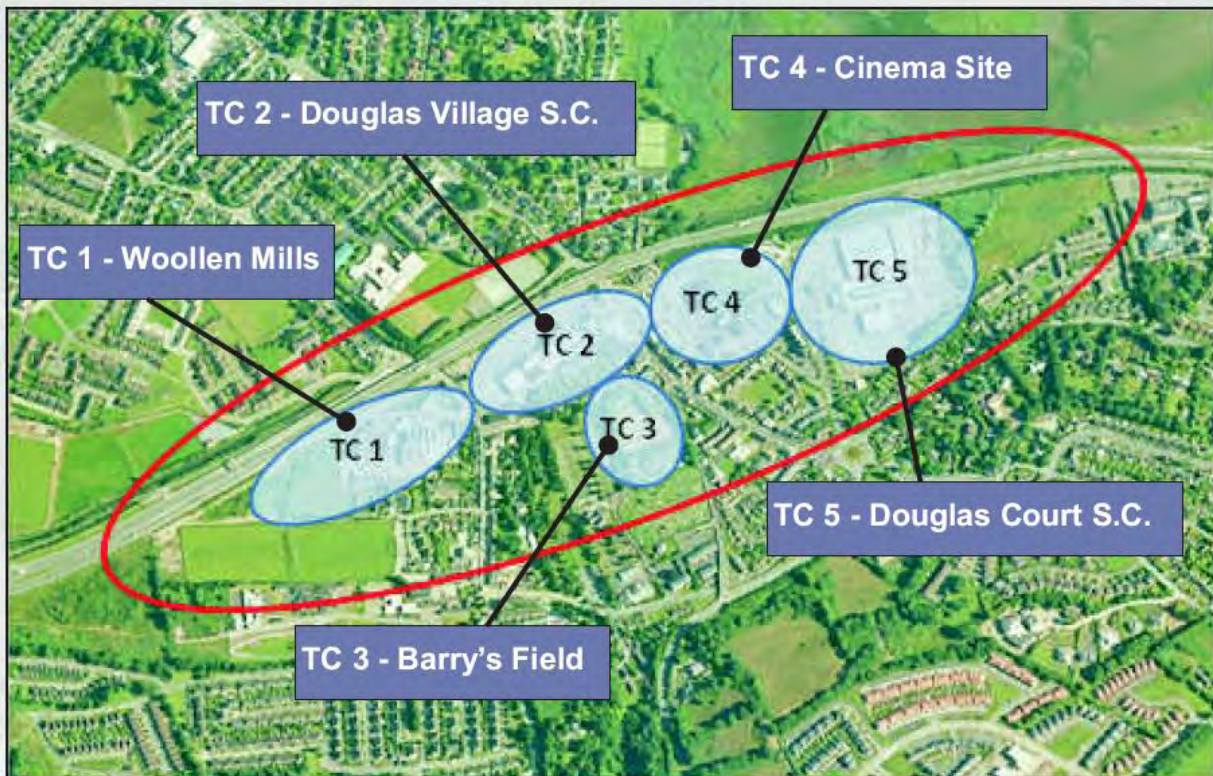
➔ more priority for Public Transport travelling through Douglas Village

➔ improved journey times and reliability for 83% of routes through Douglas Village



# 26. 2032 Land Use Policies

## Land Use Development Framework



### Overall Policies:

Improved **Accessibility**

**Plan led** rather than add hoc approach to retail development

**Consolidate** town centre into 5 precincts

Prioritise **infilling** of existing **vacancy**

Residential units provided as part of **mixed use** in precincts

### New Development:

Additional 25,000m<sup>2</sup> **mixed use** development by 2032

11,000 m<sup>2</sup> Retail

14,000 m<sup>2</sup> Offices

175 Residential Units



### Town Centre Management

Establish **Town Centre Partnership** to provide guidance on town centre management. Co-ordinate town **marketing campaigns**, Special Occasions and events.

Douglas Village should aim to achieve "purple flag" accreditation. The purple flag is set to be an indicator of where to go for a good night out and brings a **raised profile** and **improved public image** as well as wider patronage and increased spending



### Environmental Assessments

A Strategic Environmental Assessment including flood risk assessment has been prepared for the DLUTS. An environmental report on the likely significant effects on the environment is available.

A screening report under the Habitats Directive Assessment, the EU Birds Directive and Planning & Development Act has also been completed for the project.



# 27. Town Centre Policies

## Town Centre 1 - Woollen Mills

### Policies:

Proposals shall include a variety of town centre uses including **offices, retail** and some **residential**

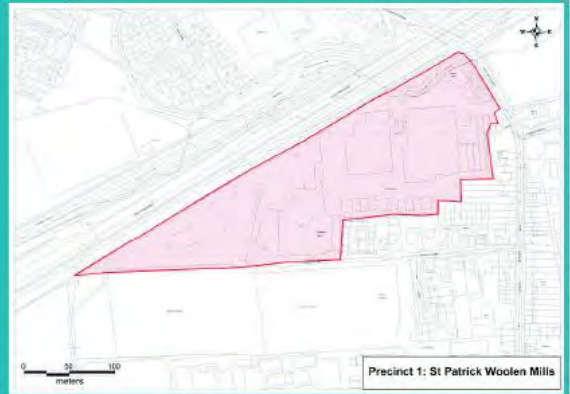
Re-development of the site will give priority to the **pedestrian** and enhancing **connectivity** to and from the existing village

Increase of 3000m<sup>2</sup> above existing non-residential floor space and additional 70 residential units

Traffic calming and additional crossing points to **enhance connectivity** with Douglas Village

Surface car park to be replaced with multi-storey car park

Historic buildings **protected** and **enhanced**



## Town Centre 2 - Douglas Village S.C.



### Policies:

Vacancy to be filled as a matter of urgency

Improved connectivity to be provided as part of the urban design public realm programme



## Town Centre 3 - Barry's Field

### Policies:

Acquisition of Eircom storage yard as part of the Barry's Field site

Provision of mixed use development of office and commercial development of 4000m<sup>2</sup>

Removal or incorporation of existing dwelling into overall site development

Relocation of existing Barry's car park into new municipal car park on the site of at least 200 bays

Provision of pedestrian connection through Community Park to link with East Village Complex and East Douglas Street



# 28 - Town Centre policies

## Town Centre 4 - Cinema Site

### Policies:

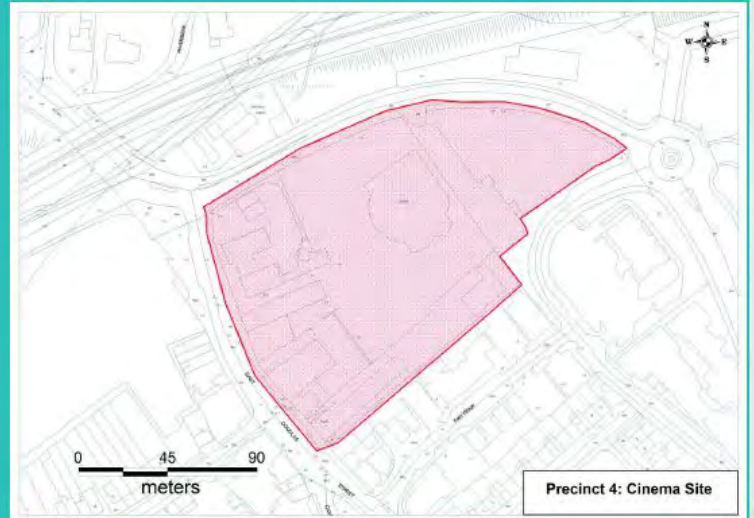
Provision of a comprehensive **mixed use development** with **active ground floor uses**, anchor store, **residential units** and **office space**

The future buildings should form an edge to the site along the relief road to the north

An additional 5,500m<sup>2</sup> of mixed use plus 50 residential units. Also to include appropriate enhancements to public realm

Provision of a number of **pedestrian linkages** through the site **linking** with Douglas Court, Douglas Village and East Village Complex

In the medium to long term, removal of Topaz Garage and rehabilitate the site for the construction of a **landmark building** that will represent an **entrance to Douglas Village**



## Town Centre 5 - Douglas Court S.C.

### Policies

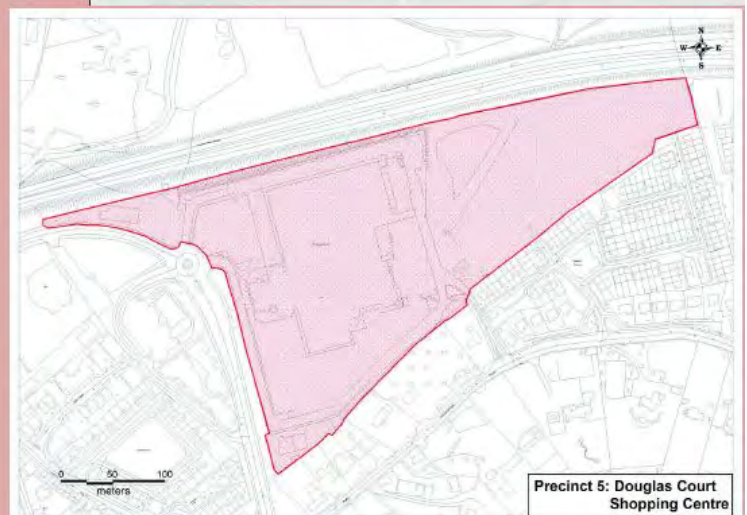
Give **priority to the pedestrian** and allow for **improved connectivity** to and from Douglas Village centre

Any redevelopment to include comprehensive proposals for a **mixed use development** of an additional 7,500m<sup>2</sup>

**Reduce the severance** effect from the existing site to the rest of Douglas Village

Replace open air car park with multi-storey car park

Include the wetland to the rear of the site for use as a **park** or other **community facilities**



## Golf Course

### Policies:

Preserve existing recreation amenities and provide for more community facilities in Douglas

Existing Golf club at Douglas have no intention of closing down or relocating

Existing schools at St Columba's have no intention of closing down or relocating

Deficit in the provision of educational facilities in Douglas and there is a need for additional primary schools in the southern suburbs

Serious loss of amenity for the community if the Golf Course was to relocate

Construction of new residential suburb on Golf Course site would be contrary to the intended objective to provide mixed use, high density urban form in Douglas that promotes sustainable travel



## Community Facilities, Open Space & Recreation

### Policies

Existing schools at St Columba's, St Luke's and School for the Deaf will remain in their current locations

Future Schools will need to be located close to their residential areas

Existing GAA fields and clubhouse to remain in its current location. Additional facilities could be located on adjacent lands as and when required

Urgent need for a multi-purpose leisure facility to cater for sports clubs, community organisations and leisure. This facility could be located close to existing GAA fields and schools for ease of access for users

Location of this facility would be subject to provision of satisfactory road access from Inchvale Lane or Galway's Lane

Lands to the west of the GAA fields is suitable for additional playing fields and the provision of parks and cycle ways as proposed by the DLUTS pedestrian & Cycle plan and Tramore Valley Park proposals.



## 30. Benefits of the Strategy

Integrated approach to Land Use and Transport Strategy  
**will deliver:**



additional 46 km on-street & off-street  
Cycle Priority Measures

30kph Zone in Village Centre  
→ increased safety for cyclists

advanced stop lines for cyclists  
at all key junctions

Shared Surface, pedestrian friendly, area  
linking Douglas Village Centre and East Village

30kph Zone in Village Centre  
→ increased safety for pedestrians

Improved pedestrian  
crossing facilities

18km of off-street pedestrian routes



improved journey time and reliability  
for 80% of bus routes serving Douglas Village

More Bus Priority

→ more efficient public transport  
operating environment



Reduced Traffic in Village Centre

Better use of Strategic Routes

key junction improvements will  
ensure more efficient traffic movement



Better Connectivity  
→ improves accessibility to open  
space and amenity areas

Improved walking and Cycling  
returns the village to the people

Improved permeability between precincts  
Improved public realm features

Larger daytime population will  
increase footfall for local businesses

Consolidation of retail precincts  
improves vitality and vibrancy

Diversity of retail service offer

Increased floor space improves competitive  
advantage over other urban centres



Transport Modelling results show

⇒ less traffic queueing

⇒ less congestion

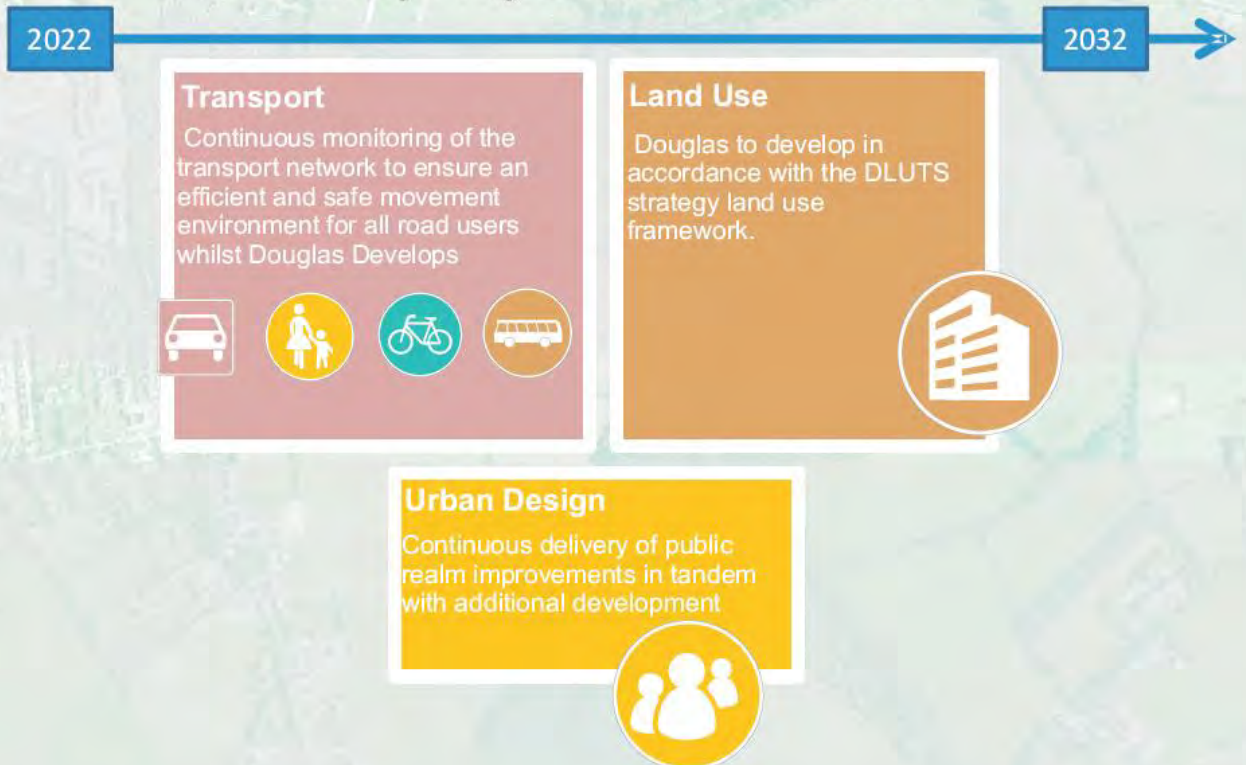
⇒ more efficient transport network for all

# 31. Strategy Implementation

## Delivery Programme - 2013 to 2022



## Delivery Programme - 2022 to 2032



## 32. Next Steps



This is the 3rd public consultation exhibition.

This is your opportunity to inform the strategy.



Let us know your views on the DLUTS recommendations presented at this exhibition in terms of:

- Land Use Proposals;
- Transport Proposals; and
- Urban Design Proposals;



If you would like to participate in the consultation process, please

**email** your comments to Sinéad Canny  
([scanny@mvaconsultancy.com](mailto:scanny@mvaconsultancy.com))

or

**write** to Sinéad at  
MVA Consultancy, 1<sup>st</sup> Floor, 12/13 Exchange Place, IFSC, Dublin 1.



Log on to Cork County Council's website ([www.corkcoco.ie](http://www.corkcoco.ie)) for updates on consultation activities.



Closing date for submissions on the 3<sup>rd</sup> public consultation is the **15<sup>th</sup> March 2012.**