Chapter 5
Traffic and Transportation

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5. CHAPTER 5 TRAFFIC AND TRANSPORTATION

5.1 Introduction

This chapter of the Environmental Impact Assessment Report (EIAR) assesses the traffic and transport impacts associated with the proposed West Clare Railway Greenway Section 1 Kilrush to Kilkee project (the 'proposed development' hereafter). This chapter examines the existing traffic and transportation network in the vicinity of the proposed development (Section 5.4). Potential traffic and transportation impacts are examined and assessed for both the construction and operational phases of the proposed development (Section 5.5.2 and Section 5.5.3 respectively). Mitigation and monitoring measures are then identified (Section 5.6 and Section 5.7 respectively) followed by an assessment of the residual impacts (Section 5.8).

5.2 Policy and Guidance

5.2.1 Policy

The following policies have been considered in the traffic and transport assessments which are discussed in detail in EIAR Chapter 2:

- **European Policy Context**
  - EU Cycling Strategy 2017 – 2030
- **National Policy Context**
  - National Planning Framework to 2040
  - National Development Plan 2021 – 2030
  - National Sustainable Mobility Policy
  - Strategy for the Future Development of National and Regional Greenways 2018
  - National Investment Framework for Transport in Ireland (NIFTI)
  - Climate Action Plan 2025
  - Tourism Policy Framework 2025-2030
- **Regional Policy Context**
  - Southern Region Regional Spatial and Economic Strategy (S-RSES)
- **Local Policy Context**
  - Clare County Development Plan (2023-2029)

5.2.2 Guidance

The assessment was undertaken following consultation by the Project Team, Clare County Council (CCC) and with reference to the following guiding documents and manuals:

- Environmental Protection Agency (EPA) publication 'Guidelines on the information to be contained in Environmental Impact Assessment Reports' (EPA, 2022).
- Department of the Environment and Local Government (DoELG), the Department of Transport (DoT) and the Dublin Transportation Office (DTO) publication 'Traffic Management Guidelines'. (May 2022)
- Transport Infrastructure Ireland (TII) publication 'Traffic and Transport Assessment Guidelines, PE-PDV-02045' (TTA Guidelines); (May 2014)
- TII publication 'Road Safety Audit Guidelines, GE-STY-01027' (RSA Guidelines); (December 2017)
- TII Publications Design Standards;

- TII Publications Project Appraisal Guidelines
- DoT publication 'Design Manual for Urban Roads and Streets (DMURS)' (2019)
- National Transport Authority (NTA) publication 'Cycle Design Manual' (September 2023)

5.3 Methodology

This section outlines the methodology adopted to assess the potential traffic and transportation impacts associated with the proposed greenway. The assessment has been undertaken in accordance with relevant national guidance, taking into consideration the existing transport network, forecasting traffic changes, and potential impacts during both the construction and operational phases of the development.

5.3.1 General

This traffic and transport assessment has been undertaken in accordance with the TTA guidelines.

To predict and quantify the traffic and transportation impacts that would result from both the construction and operational phases of the development, this assessment has considered the following:

- Description of the Receiving Environment: a review of existing traffic and road characteristics and trends, including the nature of the affected roads and the existing traffic levels;
- Description of Potential Impacts: an assessment of the impact of the proposed development against the baseline conditions;
- Mitigation Measures: details of any proposed mitigation measures to be incorporated into the upgraded road network that could be implemented to avoid any significant impacts; and
- Residual Effects: a summary of the residual effects of the development post mitigation implementation.

5.3.2 Assessment Methodology

To assess the impact of the proposed development on the transport network it is first required to establish the baseline transport conditions based on traffic survey data and TII survey data. Average Annual Daily Traffic (AADT) volumes were established for the study area.

Future-year traffic forecasts were developed for the construction year (2027) and operational year (2029) incorporating:

- Background traffic growth (using TII project appraisal guidelines);
- Anticipated traffic generated by the construction phase; and
- Expected trip generation associated with the Greenway (car-based trips)

The assessment considers the traffic and transport conditions within the study area before and after the proposed development is in place. The following scenarios have been considered:

- Current state of the Environment – This scenario represents the traffic and transport within the study area as per 2024 traffic survey as the baseline scenario.
- Future Receiving Environment Construction Phase (2027) – This scenario outlines the background traffic conditions at the assessment sites on the local road network that will

be used by construction traffic. It effectively presents a 'do-nothing' scenario for the construction phase.

- Future Receiving Environment Operational Phase (2029) – This scenario outlines the background conditions at the assessment sites on the local road network that will be used during year of opening of the Proposed Development, but without the development being operational. It effectively presents a 'do nothing' scenario for the operational phase.
- Assessment of Proposed Development at Construction Phase (2027) – representing the single worst-case period for impacts on the road network at the assessment sites during the construction of the Proposed Development. It effectively presents a 'do-something' scenario for the construction phase.
- Assessment of Proposed Development – Operational Phase (2029) - This scenario assesses the operation of the road network at the assessment sites with the Proposed Development in place. It effectively presents a 'do-something' scenario for the operational phase. The Assessment Year is the year of opening, which is assumed to be 2029.

This assessment was carried out by estimating the amount of traffic, in the form of heavy goods vehicles (HGVs) and light goods vehicles (LGVs), that will be generated during the construction phase and then distributing over the duration of the construction programme.

5.4 Description of Receiving Environment

5.4.1 Road Network

The road network in the vicinity of the proposed development is outlined in Figure 1.1 in Volume 3 of this EIAR. The primary network is provided by the N67. The N67 is a national secondary road providing local connectivity between Kilkee, Moyasta and Kilrush – as part of a longer route from Tarbert in Kerry (via the Tarbert – Killimer Ferry) to Galway City.

A series of regional and local roads provide connectivity from the national road network to the towns and villages which the proposed greenway route passes through. There are two trailheads proposed as discussed further below, one at Moyasta and the larger of the two at Kilrush.

5.4.2 Existing Traffic Flows

The existing traffic flows along the study area was assessed to establish the baseline conditions for the traffic and transportation impact assessment. The assessment focused on the local network road network proving access to the proposed greenway trailheads.

Background traffic flows were established at the assessment locations through:

- Traffic surveys, undertaken between Saturday 3rd of August 2024 – Monday 5th of August 2024.
- Data from the TII permanent traffic monitoring unit (TMU).

Details of the existing traffic volumes are shown in Table 5-1 below – expressed as AADT – Annual Average Daily Traffic (two-way flow over 24 hours).

Table 5-1 Existing Traffic Flows

2024 (Baseline)	AADT	% HGV
N67 Kilkee	2342	0.6%
N67 Moyasta	3345	0.6%
N67 Kilrush	2258	2.0%

This baseline provides the foundation for assessing the potential changes in traffic flows and parking demand associated with the proposed greenway.

5.4.3 Relevant Characteristics of the Proposed Development

Chapter 4 of this EIAR provides a description of the proposed development. The following section is an overview of the of the relevant characteristics of the proposed development that have been considered as part of the traffic assessment.

5.4.3.1 Construction Stage

The staging of the construction works will be subject to detailed programme by the successful contractor in advance of commencement of works. It will be cognisant of a list of timeline constraints included in Contract Documents.

Assumptions taken when preparing the trip generation estimates include:

- Construction stage traffic generation has been estimated based on the preliminary 24-month project construction schedule.
- Construction movements will involve import of approximately 12,000 tonnes (approx. 23,000 m^3) of mainly crushed stone materials in 20 tonne loads which will generate 600 two-way truck movements. Additionally, there will be approximately 4,200 tonnes of topsoil material excavated and removed from source to be redistributed through the site or removed from site to a suitably sourced waste facility. This will generate approximately 210 two-way truck movements. There is a requirement for approximately 1600 m3 of surfacing for the greenway and car parks, which will generate a further 80 truck movements. There will be two main construction compounds along the route at the locations of the proposed trailheads. If the heavy works construction duration is assumed to be 24 months, that gives 480 working days with 2 truck deliveries per day on average. The peak is likely to occur during the earthworks period, and this may involve up to 10 times the number of trucks, or a maximum of 20 two-way movements per day. Due to the long linear nature of the site, the works are likely to be more spread out, and the peak will be short duration while long sections have the sub-surfacing course installed.
- It is assumed that up to 30 construction workers will be on-site per day on average, with additional supervisors, environmental specialists and engineers leading to a maximum of 50 personnel. Each worker is expected to travel to and from the site in light vehicle, resulting in 2 trips per vehicle per day. This would generate up to 100 one-way light vehicle trips (assuming only 1 person per vehicle) a day during peak construction. In reality, the numbers are likely to be lower, allowing for car-pooling of workers.

5.4.3.2 Programme

The proposed development is expected to begin construction in late 2027 subject to planning permission. It is estimated that the construction period duration is 24 months, allowing for seasonal constraints on works in particular areas.

The sequence of works on the greenway will broadly be as follows:

- Establish site compounds in existing car parks and environmental measures;
- Installation of ecological mitigation works;
- Treatment of invasive species;
- Cut back scrub and brush;
- Site clearance and tree felling works (where required and subject to seasonal constraints);
- Construct temporary fencing and crossing points;
- Undertake excavations;
- Construction of structures;
- Bring pavement to formation and form verges;
- Pavement construction;
- Construct permanent fencing, remove temporary fencing and install signage and supporting furniture; and
- Installation and maintenance of landscaping.

5.4.3.3 Construction Access Routes

The work areas can be accessed almost directly by the N67 with short sections of local road required in Kilrush. There are two trailhead access points from the N67 in Moyasta and Kilrush which will form the main access routes for the construction stage. Longer distance access will be via the N67 and N68 only.

5.4.4 Construction Car Parking

Car parking requirements of construction workers will be accommodated in temporary compounds in the proposed trailheads that will be provided for the greenway at Moyasta and Kilrush and in existing public car parks in Kilkee. Where on-site car parking cannot be accommodated at working areas along the route, the Contractor will have to take measures for transporting workers from the site compounds to the works locations. The Contractor will have to take measures to prevent informal on-road parking adjacent to works areas to prevent unnecessary disruption and upset to the local community. This might, for example, be managed by provision of mini-buses.

5.5 Potential Traffic Impacts

This section considers the potential impacts of the proposed development, prior to mitigation, for the construction and operational phases.

5.5.1 Do Nothing Impacts

If the greenway is not constructed, the current land uses and existing modes of transport will continue for the foreseeable future, thereby limiting the potential for walking and cycling as an alternative.

5.5.2 Construction Stage Impacts

The construction work will lead to construction related traffic on the existing public road network over the duration of the construction works. These impacts include:

- Heavy Goods Vehicles (HGVs) transporting materials to and from the site, including materials for pavement construction, fencing and landscaping;
- HGVs transporting conventional earthworks machinery such as excavators, dumper trucks, rollers etc.

- Light Goods Vehicles (LGVs) such as cars, 4x4s and vans used by the workers and supervisory staff involved in the construction works; and
- Cranes for lifting pre-cast structure components (e.g. underpasses and culverts).

Without appropriate mitigation measures, the proposed works have the potential to lead a negative impact on the road network including:

- Delay and disruption to road users, especially on the N67;
- Road safety issues should the works not be carried out in line with good traffic management practices;
- Inappropriate parking of construction related vehicles along the route of the works;
- Soiling of public road leading to general lack of cleanliness and poor skid resistance on roads.

Construction Traffic

For the construction phase, the key compounds will be located at the proposed trailheads. As such, the construction phase assessment has primarily focused on the N67 near the trailheads at Moyasta and Kilrush. An assessment of the construction traffic impact was undertaken for both the 'Do Nothing' and 'Do Something' scenarios.

Under the 'Do Nothing' scenario, no construction activities associated with the greenway would take place; however, background traffic growth has been accounted for by applying TII traffic forecasts to represent 2027 conditions. This provides a baseline against which construction-related impacts can be compared. The 2027 traffic growth flows at the assessment location have been derived using the Central Growth rates for Clare as outlined in Table 6.2 of the TII PAG Unit 5.3 – Travel Demand Projections.

Under the 'Do Something' scenario, additional traffic related to the construction of the proposed greenway has been added.

The assessment comparing the 2027 'Do Nothing' and 'Do Something' scenarios is shown in the table below.

Table 5-2 Estimation of 2027 Construction Stage AADT

Scenario	N67 Kilkee	N67 Moyasta	N67 Kilrush
2024 AADT LV - Baseline	**2342**	**3345**	**2258**
2024 AADT HV - Baseline	**14**	**19**	**45**
2024 % HGV - Baseline	0.6%	0.6%	2.0%
Annual Growth Rates - Co. Clare (2016-2030) LV	1.0156		
Annual Growth Rates - Co. Clare (2016-2030) HV	1.0417		
Growth Factor 2027 - LV	1.0475		
Growth Factor 2027 - HV	1.1304		
2027 AADT LV - Construction Year - Do Nothing	2453	3504	2365
2027 AADT HV - Construction Year - Do Nothing	16	21	51
2027 % HGV - Construction Year - Do Nothing	**0.6%**	**0.6%**	**2.2%**
Anticipated Construction Traffic (LGV)	100	100	100

Scenario	N67 Kilkee	N67 Moyasta	N67 Kilrush
Anticipated Construction Traffic (HGV)*	8	20	40
2027 AADT LV - Construction Year - Do Something	2553	3604	2465
2027 AADT HV - Construction Year - Do Something	22	39	85
2027 % HGV - Construction Year - Do Something	0.9%	1.1%	3.5%

*40 two-way trips assuming all trucks will traverse Kilrush with 50% terminating there, 30% at Moyasta and 20% at Kilkee during peak truck activity (short duration).

The assessment indicates that both light vehicle (LV) and heavy vehicle (HV) flows along the N67 at Moyasta and Kilkee are projected to slightly increase during the construction year in 2027, as shown in Table 5-2 above. There will be a slightly larger increase at Kilrush during the peak earthworks period, which is expected to be short duration, given the relatively modest overall number of truck movements required for materials transportation. The projected increases are relatively small, suggesting that the additional construction traffic associated with the greenway will have minor impact on the existing road network, particularly when considered in the context of projected background growth. The percentage HGV flows will increase more substantially but still represent small numbers when spread across a 9-hour working day.

It is expected that the potential impact from construction activity on the surrounding road network will be '*temporary'* to '*short-term'* in duration, and '*moderate*' in significance. These effects can be managed through the mitigation measures outlined in Section 5.6 of this Chapter.

5.5.3 Operational Stage Impacts

During the operational phase, the greenway is not expected to generate any appreciable heavy vehicles (HGV) traffic, save for infrequent maintenance activities. Vehicle movements will primarily consist of light vehicles associated with visitors accessing the trailhead car parks.

Operational Traffic

An assessment of the operational traffic impacts was undertaken for both the 'Do Nothing' and 'Do Something' scenarios.

Under the 'Do Nothing' Scenario, background traffic growth has been accounted for by applying the forecast to represent 2029 conditions. This provides a baseline against which greenway generated activities can be compared. The 2029 traffic flows at the assessment location have been derived using the Central Growth rates for Clare as outlined in Table 6.2 of the TII PAG Unit 5.3 – Travel Demand Projections. These have then been factored to the design year 15 years hence in 2044 to generate the design user numbers.

Under the 'Do Something' scenario the completed greenway will generate additional car-based trips. The assessment compares the estimated operational trips against the project 2029 baseline traffic to identify the potential impacts on the N67 in Moyasta, Kilrush, and Kilkee. Operational trips have been calculated using TII's MOVE dataset, which provides average daily trips by site, and by season for each site in the data base. The usage of the greenway will peak during the summer months, and therefore, these figures have been used below. Two growth scenarios were assessed: a central growth scenario and a high growth scenario. Both scenarios were analysed to examine how parking demand would respond to a potential increase in users travelling to the greenway by car.

5.5.3.1 Trip Generation

Table 5-3 Estimated Total Daily Greenway Users (Summer Peak)

	Central Scenario			High Growth Scenario		
	Peds	Cyclists	Total	Peds	Cyclists	Total
Annual Average	486	321	807	608	401	1009
Summer Average	474	464	938	593	580	1173
Winter Average	343	87	430	429	109	538
Summer Saturday	505	703	1208	631	879	1510
Summer Sunday	609	756	1365	761	945	1706

Data from the User Intercept Survey (UIS) contained within MOVE was used to establish the average trip characteristics of greenway users in Ireland, from this it was established that 48% of users travel to existing greenways by car. Given the size of the database, this is considered to be a reasonable basis on which to assess the proposed development.

Greenways attract a large proportion of family use, and therefore an average car occupancy of 1.5 has been assumed (meaning for every two single occupancy cars, there will be a car with two people in it). Therefore, the total number of cars to the greenway will be half of 48% of the total number of anticipated users.

In terms of the split of parking across the trailheads, 50% are expected to arrive at the Kilrush trailhead via the N67 and N68, 20% to the existing car parks in Kilkee, and the remaining 30% to the midway trailhead at Moyasta. This is more likely to cater for regional West Clare users. It is expected that most of the usage of the greenway from Kilkee will be from tourists already in the area – hence the lower anticipated additional traffic loading at that end. Locals are expected to avoid traffic around Kilkee and to instead use the Moyasta trailhead. The Kilrush trailhead will be the primary car park for the proposed development and will be marketed as such.

Based on the above, the total number of daily two-way car trips to the Proposed Development was estimated, for both scenarios, as summarised in the table below.

Table 5-4 Estimated Total Daily Car User Trips to the Greenway (peak)

	Kilkee	**Moyasta**	**Kilrush**	**Total**
Central Scenario - Saturday	77	116	193	387
High Growth Scenario - Saturday	97	145	242	483
Central Scenario - Sunday	87	131	218	437
High Growth Scenario - Sunday	109	164	273	546

It is expected that the greenway usage will be spread over the course of the day. Therefore, a worst-case peak usage scenario is 50% of the numbers above.

Table 5-5 Estimated Maximum Car Parking for the Greenway (peak)

	Kilkee	Moyasta	Kilrush	Total
Central Scenario - Saturday	39	58	97	193
High Growth Scenario - Saturday	48	73	121	242
Central Scenario - Sunday	44	66	109	218
High Growth Scenario - Sunday	55	82	137	273

In order to ensure the robustness of the traffic assessment, while usage of the greenway is expected to be spread over 12 hours, the analysis assumes an average stay of 2 hours for the peak period. Based on this average stay, the maximum turnover rate in the car park at Moyasta will typically be 29 - 41 two-way vehicle movements per hour and the turnover rate at Kilrush is expected to be 48 - 69 two-way vehicle movements per hour.

The proposed trailheads can accommodate up to 94 spaces at Moyasta and 157 spaces at Kilrush. These can accommodate the central scenario and high scenarios, thereby avoiding the risk of overspill car parking onto the surrounding road networks. There is extensive existing public parking in Kilkee, both on-street and in Clare County Council car parks, and the provision of further car parking at this location is considered to be inappropriate.

A detailed parking survey was undertaken across the principal parking areas serving Kilkee town centre, including E End Parking and the Chapel Street zones. The survey was undertaken on the Saturday, Sunday and Monday of the August bank holiday weekend in 2024. The survey recorded parking accumulation at 15-minute intervals over a 12-hour period each day, allowing identification of peak parking demand and available spare capacity within the core parking network. Weather records for the bank holiday weekend indicate the weather was generally warm and pleasant, with some precipitation on Sunday afternoon. Unfortunately, the existing car parks at O'Connell Street and Marine Parade were not surveyed. These are conveniently located for the greenway, and are likely to be used by greenway users. Similarly, the existing west end car park at the Diamond Rocks was not surveyed, as it is considered to be quite remote from the greenway connection, however, that too will be available to users of the greenway. The location of surveyed parking areas in Kilkee is shown in Plate 5.1 below.

Plate 5.1 Location of Available Parking Areas in Kilkee

Table 5-6 Kilkee Parking - Existing Observed Peak Usage Saturday 03/08/2024

Location	Total Marked Spaces	Peak Occupancy	Spare Spaces at Peak	Occupancy (%)
E End Parking (Zone 1)	146	77	69	53%
Chapel St Zone 2.1	50	31	19	62%
Chapel St Zone 2.2	21	15	6	71%
Chapel St Zone 2.3	26	19	7	73%
Total	**243**	**142**	**101**	**~63%**

Table 5-7 Kilkee Parking - Existing Observed Peak Usage Sunday 04/08/2024

Location	Total Marked Spaces	Peak Occupancy	Spare Spaces at Peak	Occupancy (%)
E End Parking (Zone 1)	146	84	62	57%
Chapel St Zone 2.1	50	42	8	84%
Chapel St Zone 2.2	21	17	4	81%
Chapel St Zone 2.3	26	23	3	88%
Total	**243**	**166**	**77**	**~68%**

Table 5-8 Kilkee Parking - Existing Observed Peak Usage Monday 05/08/2024

Location	Total Marked Spaces	Peak Occupancy	Spare Spaces at Peak	Occupancy (%)
E End Parking (Zone 1)	146	113	33	77%
Chapel St Zone 2.1	50	29	21	58%
Chapel St Zone 2.2	21	15	6	71%
Chapel St Zone 2.3	26	16	10	61%
Total	**243**	**173**	**70**	**~71%**

There are currently 243 available spaces in the car parks surveyed in Kilkee. Clare County Council charges for parking at the East End and West End car parks during the peak summer seasons, but parking is otherwise free. There is a 2 hour restriction on parking on O'Curry Street but parking is otherwise unlimited. From the survey above, it is evident that there is sufficient capacity to cater for the anticipated peak demand, based on a survey of bank holiday weekend usage in 2024. It is noted that this finding is conservative, since it excludes any additional parking that may be available at O'Connell Street and Marine Parade, which weren't included in the survey.

5.5.3.2 Traffic Impact

An assessment of the operational traffic impacts was undertaken for both the 'Do Nothing' and 'Do Something' scenarios for the peak week in summer. The assessment comparing the 2029 'Do Nothing' and 'Do Something' scenarios is shown in the table below. The Saturday flows have been used for this assessment.

Central Scenario

Scenario	N67 Kilkee	N67 Moyasta	N67 Kilrush
2024 AADT LV - Baseline	**2342**	**3345**	**2258**
2024 AADT HV - Baseline	**14**	**19**	**45**

Scenario	N67 Kilkee	N67 Moyasta	N67 Kilrush
2024 % HGV - Baseline	0.6%	0.6%	2.0%
Annual Growth Rates - Co. Clare (2016-2030) LV	1.0156		
Annual Growth Rates - Co. Clare (2016-2030) HV	1.0417		
Growth Factor 2029 -LV	1.0805		
Growth Factor 2029 - HV	1.2266		
2029 AADT LV - Operational Year - Do Nothing	2530	3614	2440
2029 AADT HV - Operational Year - Do Nothing	16	23	55
2029 Development Traffic	176	262	436
2029 AADT LV - Operational Year - Do Something	2706	3876	2876
Percentage Increase in AADT	7.0%	7.2%	17.9%
2029 AADT HV - Operational Year - Do Something	16	23	55
2029 % HGV - Operational Year - Do Something	0.6%	0.6%	1.9%

The assessment of forecast traffic flows indicates that baseline 2024 AADT levels along the three assed N67 locations at Kilkee, Moyasta, and Kilrush are expected to increase moderately by 2029 in line with the Clare County growth factors for both light vehicles (LV) and heavy vehicles (HV). Under the 'do-nothing' scenario, 2029 AADT figures rise in proportion with the established growth rates, reflecting natural traffic growth independent of the proposed greenway. When the 'do-something' scenario is applied, modest additional increases are observed. Percentage changes in overall AADT relative to the 'do-nothing' scenario ranging from 7.0% at Kilkee, 7.2% at Moyasta, and 17.9% at Kilrush. The most substantial increase is at Kilrush, where demand will increase to 2786 vehicles per day. For context, the Design Manual for Roads and Bridges indicates the capacity of a 6m wide single carriageway national secondary road to be 5,000 for Level of Service D (June 2017 version of DNGEO03031 – capacity guidance removed from May 2023 version and no alternative guidance provided). The projected traffic volumes are 56% of that amount. Heavy vehicle volumes remain unchanged as the scheme is not expected to generate operational heavy vehicle traffic.

Overall, the results confirm that the operational phase of the greenway will have a modest impact on traffic conditions. Further, based on TII's MOVE data, the majority of users of the greenway are likely to be recreational users for exercise/leisure purposes and are unlikely to travel at peak traffic times, so the impacts are likely to arise when the capacity of the road network is most able to absorb them.

High Growth Scenario

Scenario	N67 Kilkee	N67 Moyasta	N67 Kilrush
2024 AADT LV - Baseline	**2342**	**3345**	**2258**
2024 AADT HV - Baseline	**13**	**19**	**45**
2024 % HGV - Baseline	0.6%	0.6%	2.0%
Annual Growth Rates - Co. Clare (2016-2030) LV		1.0156	
Annual Growth Rates - Co. Clare (2016-2030) HV		1.0417	
Growth Factor 2029 -LV		1.0805	
Growth Factor 2029 - HV		1.2266	

Scenario	N67 Kilkee	N67 Moyasta	N67 Kilrush
2029 AADT LV - Operational Year - Do Nothing	2530	3614	2440
2029 AADT HV - Operational Year - Do Nothing	16	23	55
2029 Development Traffic	218	326	546
2029 AADT LV - Operational Year - Do Something	2748	3940	2986
Percentage Increase in AADT	8.6%	9.0%	22.3%
2029 AADT HV - Operational Year - Do Something	16	23	55
2029 % HGV - Operational Year - Do Something	0.6%	0.6%	1.8%

The high growth scenario represents a more robust test of potential future traffic conditions. The high growth 'do something' scenario is applied for the operational year of the greenway, modest additional increases in traffic are observed relative to the 'do-nothing case, with overall AADT increase of 8.6% at Kilkee, 9.0% at Moyasta and 22.3% at Kilrush. This is based on the busiest Saturday in Summer and is a worst case scenario in terms of additional traffic loading. Again, these figures are well within the capacity of the N67. Heavy vehicles remain unchanged as the scheme is not expected to generate heavy vehicle traffic. Overall, even under the high growth scenario, the operation of the greenway is predicted to have a modest impact on the capacity of the N67 corridor during the busiest period of operation, and the road will remain well within its ultimate capacity.

The proposed trailheads include provision for coach set down and parking. The assessment above hasn't taken account of the potential for users to come by these means, which will reduce the number of additional car trips on the network should it arise. It is noted that the use of coaches for transport to existing greenways such as Limerick, Mayo and Waterford is limited.

The proposed development will provide opportunities for a modal shift from private vehicles to active travel for non-recreational users (i.e., those travelling for a specific purpose or to reach a specific destination such as work, school, shopping etc.). The mode shift has not been quantified in terms of potential reduction in traffic volumes during operation of the greenway as the impacts on traffic are expected to be minimal. However, the potential benefits of a mode shift as a result of the proposed development have been assessed in relation to potential greenhouse gas reductions and positive human health impacts as addressed in the relevant chapters of this EIAR.

5.5.3.3 Road Crossings

The Greenway will intersect a number of local roads along the route where crossings will be provided. Signage and traffic calming measures will be provided on approach to crossings as required in accordance with the relevant design standards and guidelines. Zebra controlled crossing facilities are proposed at the trailhead locations crossing the N67 at Moyasta and crossing Merchants Quay in Kilrush. Further detail regarding the provision and design of road crossings for the proposed development are provided in Chapter 4 of this EIAR, Description of the Proposed Development.

5.6 Mitigation Measures

The following section outlines the identified mitigation measures to avoid or reduce the potential impacts of the proposed development on the receiving transportation network.

5.6.1 Construction Phase

A detailed Construction Traffic Management Plan (CTMP) will be developed by the successful contractor, which will detail provisions in respect of traffic management agreed with the Local Authority and other statutory authorities prior to commencement of the construction phase. It will detail the following:

- Traffic Management Coordinator - A dedicated competent Traffic Management Coordinator will be appointed for the duration of the project and this person will be the main point of contact for all matters relating to traffic management on the project.
- Roads to Be Used and Not Used - The CTMP will clearly identify those roads that will be used to access this project and those roads that are not to be used. In some cases, An Garda Síochána and the roads authority may direct/agree that certain roads cannot be used for laden HGVs but can be used for LGVs or unladen HGVs. As outlined above, only the N67 and N68 will be used for deliveries to and from the site, save for essential local circulation for deliveries to the individual works fronts.
- HGV restrictions – HGV movements to facilitate construction of the proposed development will be restricted during school hours. The exact timings will be determined in consultation with Clare County Council based on the proposed HGV routes.
- Road Pre-and Post-Construction Condition Survey - A pre-condition survey will be carried out on all public roads that will be used in connection with the works to record the condition of the road before the works commence. A post construction survey will also be carried out after the works are completed.
- Road Reinstatement – Upon completion of the construction works, all roads will be expeditiously reinstated to their pre-works condition or better and to the satisfaction of the Local / Roads Authority. If, during the construction works, some of the roads used in connection with the development are damaged, then these roads will be made good to the satisfaction of the Roads Authority.
- Site Inductions - All workers will receive a comprehensive site induction which will include, as appropriate, a section on traffic management and clear guidance on the routes to be used/not used.
- 24 Hour Emergency Phone Number - A 24-hour emergency phone number will be maintained for the duration of the construction works and the number will be noted on temporary signage at each site compound.
- Orderly Traffic Management - All necessary temporary traffic management will be planned and executed in accordance with best practice, including Chapter 8 of the Traffic Signs Manual as published by the TII/Department of Transport.
- Letter Drops - Subject to agreement with the planning authority, a letter drop will be carried out to notify members of the public living near the proposed site / route / roadworks where necessary, to advise them of any particularly significant upcoming traffic related matters.
- Clear Signage - A system of clear signage relating to the construction works will be agreed with the planning authority. These signs will also identify those roads to be used (and not to be used) for accessing the site in line with the objectives of the CTMP.

5.6.2 Operational Phase

The assessment indicates that the proposed development will not have a significant negative impact on the road network during operational phase. This assessment was conservative and took a 'worst-case' approach to forecasting potential traffic that could be generated by the proposed development.

5.7 Monitoring

Monitoring of the proposed development once operational is recommended to determine the actual trip generation.

5.8 Residual Impacts

The construction of the proposed greenway will lead to additional construction traffic, including HGVs, during the construction phase. The construction programme will take approximately 24 months. A maximum of 40 additional HGV movements a day is expected during this period.

By adopting the mitigation measures proposed here and through the implementation of an adequately designed CTMP, it is envisaged that the negative impact construction related traffic will be '*temporary'* to '*short-term*' in duration, and a '*slight'* to '*moderate'* in significance.

During the operational phase, there will be a modest increase in motor traffic arising from the use of the trailheads at Moyasta and Kilrush. The largest car park will be at Kilrush which is expected to attract 57-85 vehicles per hour in each direction during the busiest periods (which are expected to be different from general peak traffic conditions on the road network). The assessment has indicated that the receiving environment has ample capacity to absorb this additional traffic. It is therefore considered that the proposed development will not have a significant impact on traffic conditions and that the residual impact will be '*negative*', '*slight to moderate'* and '*permanent'*.

The assessment has not taken account of the modal shift with some local trips that will be diverted from the road network to walking or cycling modes as a result of the provision of the greenway, and the predicted traffic impacts are therefore likely somewhat overstated.