MWP

Inis Cealtra

Traffic and Transport Assessment and Mobility Management Plan

Contents

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1. Material Assets: Traffic & Transport

1.1 Introduction

This document supplementary to statutory requirements for this development. Statutory requirements are fulfilled in the documents provided within the EIAR. This document should be read in conjunction with the EIAR. This document considers the potential effects on traffic and transport material assets arising from the proposed development. A full description of the proposed development, development lands and all associated project elements is provided in Document 2 'Development Description' of the EIAR noted.

1.2 Expertise and Qualifications

The traffic elements have been prepared by Seamus Quigley BE CEng MIEI MCIHT of MWP. Seamus Quigley has 34 years' experience in transport planning and traffic engineering projects, including EIS/EIAR traffic and transportation documents, traffic impact assessments, traffic management studies, mobility management plans, traffic modelling studies, feasibility studies and road safety audits. He is a Chartered Engineer with Engineers Ireland, and also a member of the Chartered Institution of Highways and Transportation. He joined MWP in 2007, having spent over sixteen years with Atkins.

1.3 Proposed Development

A detailed description of the proposed development is contained within Chapter 2 of the EIAR and the Planning Statement that accompanies the application. The statutory notice should also be referenced. The following is a summary description of the development.

The Inis Cealtra Visitor Experience is to be developed on Inis Cealtra (Holy Island) and on the mainland, in two principal locations within Mountshannon Village. The project is comprised of different elements as set out below.

Inis Cealtra Island

- Demolition of an existing concrete shelter adjacent to the existing pier at the north-west of the island.
- Installation of a new L-shaped floating access jetty and walkway at the north-west of the island, consisting of a floating breakwater jetty, a stone and concrete causeway connected by a steel access ramp and a canoe launch jetty with access ramp.
- A series of new mown grass pedestrian paths to allow for enhanced access to the main monuments and natural landscape on the island.
- Provision of three staff and public welfare facility 'pods' including weather shelter, WCs and a rest room for island staff.

Mainland – Mountshannon

- Construction of a new public car park in Mountshannon Village, on the north side of Main Street, incorporating 169 total car parking spaces, together with coach parking and bicycle parking facilities.

- A Visitor Centre in the southern part of the 'Old Rectory Site'. It is a part-one-storey, part-two-storey semi-circular building incorporating a series of spaces for interpretation, exhibition and education associated with the Inis Cealtra Visitor Experience, together with a café and ancillary supporting spaces. Public realm works in front of the main façade, paved in natural stone, will continue the curved geometry of the building, creating a comfortable space for visitors to meet, relax and take in views of Lough Derg and Inis Cealtra.
- Reconfiguration of the existing Mountshannon Harbour car park, providing for 49 total car parking spaces and public realm enhancements.

1.3.1 Relevant Aspects

The aspects of the proposed development that are relevant include the roads and street traffic, and boat traffic, generated by the proposed development construction and operational phases, and their traffic impacts on expected future baselines, including traffic capacities.

1.4 Methodology, Guidance & References

This document has been prepared in the context of the following:

- Clare County Council's Clare County Development Plan 2023-2029;
- The permitted Old Rectory Interpretive Centre, Mountshannon currently under construction;
- The permitted R352 Main Street public realm and mobility plan works for Mountshannon;
- The Transport Infrastructure Ireland (TII) Traffic and Transport Assessment (TTA) Guidelines PE-PDV-02045 May 2014;
- TII's Project Appraisal Guidelines for National Roads Unit 5.3 – Travel Demand Projections PE-PAG-02017 October 2021;
- The UK Traffic Capacity of Urban Roads TA79/99; and
- The Environmental Protection Agency Guidelines On The Information To Be Contained In Environmental Impact Assessment Reports May 2022 (EPA EIAR Guidelines).

The R352/L034 Harbour Road/L4032 junction, R352 Main Street/L4034 Harbour Road/L8078 junction and proposed R352 Main Street/Village Car Park junction have been analysed using the computer programme PICADY for priority controlled junctions.

1.4.1 Site Surveys/Investigations

On-site classified road link and junction traffic counts, for the Inis Cealtra Visitor Experience project, were carried out at Mountshannon from the 22nd to the 28th July 2021 by Irish Traffic Surveys, on behalf of Clare County Council.

Updated on-site peak period classified road link and junction traffic counts were carried out by MWP on the 27th July 2023; together with survey counts of moored and anchored boats, boat arrivals and departures at Mountshannon Harbour; and site inspections and baseline inventories of the existing local traffic and transport environment.

Existing 2023 boat activity levels' data on Lough Derg was provided by Waterways Ireland (WWI), who were consulted for the preparation of this document and the EIAR.

The existing baseline for this traffic and transport material assets document was prepared in 2023 and included baseline traffic surveys during the 2023 peak summer tourist and holidays period, when traffic volumes are highest on the local traffic network at Mountshannon. The next appropriate baseline surveys period – summer 2024 – post-dated the scheduled preparation of this document.

1.4.2 Forecasting Methods

PICADY (Priority Intersection CApacity and DelaY) is a computer programme for calculating estimates of the capacity of major /minor road junctions, where the minor road is controlled by a stop or yield sign. The geometric details of the junction are supplied to the programme, together with details of traffic flows and turning movements. The programme analyses the junction in relation to the various traffic flows and calculates the capacity of each approach. The programme also calculates the average queue length on each approach and the average delay per vehicle. The average queue length may be displayed in graphical form.

PICADY is issued by the UK company, TRL.

1.5 Difficulties Encountered

The Road Safety Authority (RSA) are in the process of reviewing their road traffic collision (RTC) data sharing policies and procedures. Record-level RTC data cannot be shared until this review is complete. Accordingly, current RSA collisions data for the proposed development local road network was unavailable for the preparation of this document.

Otherwise, there were no limitations and difficulties encountered during the preparation of this Assessment.

1.6 Baseline Environment

1.6.1 Site Location

The proposed Inis Cealtra Visitor Experience development is located at Mountshannon and Inis Cealtra on the west side of Lough Derg. A location map for Mountshannon and Inis Cealtra is provided in Figure 6-1.

The proposed new mooring point on Inis Cealtra is located on the north of the island, on its Mountshannon side. Proposed new pods and paths are located on Inis Cealtra island. The proposed upgraded mooring at Mountshannon is located at Mountshannon Harbour on the south side of Harbour Road. The proposed Visitor Centre is located at The Old Rectory site located on the north side of Harbour Road. The proposed off-street car park is located on the north side of Main Street. The proposed Mountshannon Harbour car park reconfigured car park and public realm enhancements are located adjacent to Mountshannon Harbour, on the south side of Harbour Road.

Figure 6-1 Mountshannon and Inis Cealtra Location Map

1.6.2 Transport Accessibility & Infrastructure

Access to Inis Cealtra is provided via Lough Derg at the existing island boat pier facility located on the north west side of the island, as shown in Figure 6-2. A boat slipway and piers are provided on Lough Derg, at the end of the L8070 local cul-de-sac road, located south west of Mountshannon, and circa 0.3 kms from Inis Cealtra pier.

There are no constructed pedestrian footways/facilities on Inis Cealtra Island. All existing pedestrian routes are grass routes.

Figure 6-2 Inis Cealtra Location Map

The boat travel distance between Inis Cealtra pier and Mountshannon Harbour pier is circa 2.0 kms. A boat slipway is provided at the existing harbour wall at Mountshannon Harbour. Mooring facilities for boats are provided at Mountshannon Harbour at its existing harbour piers and pontoons, as shown in Figure 6-3. During the site inspection for this document, boats were also anchored in open water on Lough Derg in the vicinity of the Harbour area.

Private access to Lough Derg and Mountshannon Harbour is also provided at Inis Cealtra Sailing Club, located on the south side of Harbour Road.

Private access to Lough Derg is provided at Lakeside Jetty Holiday Homes, located east of Mountshannon Harbour; and at Lakeside Holiday Park on the east side of Mountshannon, as shown in Figure 6-3.

Figure 6-3 Mountshannon Harbour Area Location Map

Access to the Old Rectory site is provided via an existing gated access on the north side of Harbour Road, as shown in Figure 6-4.

Gated access to the existing site for the proposed off-street car park is provided on the north side of Main Street.

Figure 6-4 Mountshannon Location Map

1.6.3 Road Network Infrastructure & Traffic Conditions

The R352 Regional Road extends along Main Street, through Mountshannon, and links with Ennis and the M18 Motorway in the west, and with Portumna and the N65 National Road in the north east. South west of Mountshannon, the R352 links with the R463 at Scarriff, which extends to Killaloe in the south. Bridge crossings on the River Shannon are provided at Portumna and Killaloe.

Access to Mountshannon Harbour is provided by Harbour Road, which is the designated L4034 Local Road. Mountshannon Harbour car park includes 46 defined car parking spaces, including two disabled access spaces.

As shown in Figure 6-4, Harbour Road extends approximately 850 metres from its staggered crossroads junction with the R352/L4032, on the west side of Main Street, to its crossroads junction with the R352/L8078 at the eastern end of Main Street. Harbour Road is one-way, locally, eastbound from its west end junction with the R352/L4032, to immediately west of the Harbour Car Park. Harbour Road is two-way between the Harbour Car Park and its east end junction with the R352/L8078. The one-way eastbound section of Harbour Road has a road carriageway width of 4.7 metres locally at its east end, which reduces to a typical width of 3.0 metres along it substantial one-way extent, with a typical width of 4.5 metres, locally, at its west end, where it forms a Stop controlled junction with the Harbour Car Park area access road. The one-way western section of Harbour Road has a continuous footway of up to 2.2. metres width along its south west side. A footway is also provided, locally, along its north east side at its western end. Pedestrian access to Harbour Road is provided at Aistear Park. Two recessed perpendicular parking areas are provided on the south west side of Harbour Road, east of the Inis Cealtra Sailing Club access and the Aistear Park pedestrian access.

The two-way section of Harbour Road, between the Harbour Car Park and its east end junction with the R352/L8078, has a typical road carriageway width of 6.0 metres in the vicinity of The Old Rectory access and 6.5 metres, otherwise to south of Main Street. A continuous footway, with intermittent steps, is provided along the north west/west side of the two-way section of Harbour Road, from a location circa 45 metres east of The Old Rectory access. Harbour Road has declining vertical gradients from the R352 to the Harbour Car Park.

Kerbed footway buildouts with 5.9 metres wide carriageways are provided locally on both sides of the L4034 Harbour Road and L8078 at their R352 Main Street junction. Defined uncontrolled crossing locations with dished footways and tactile paving are provided on the L4034 Harbour Road, L8078 and R352 Main Street, west, at the junction, together with protective bollards on the footway buildouts.

The R352 Main Street has a typical road carriageway width of 7.3 metres, with footways and recessed on-street parallel parking along both sides, west of its L4034/L8078 junction, including recessed disabled access parking. A defined uncontrolled pedestrian crossing location with footway buildouts, protective bollards, dished footways and tactile paving, is provided immediately east of the Aistear Park pedestrian access on Main Street.

West of Main Street, the R352 has a typical road carriageway width of 6.0 metres, with a footway along its north east side to immediately east of its L4034 Harbour Road/L4032 junction. A footway is provided locally along the south west side of the R352, from circa 40 metres east of its L4034 Harbour Road/L4032 junction, to the west end of Mountshannon.

Street lighting standards are provided along Main Street, Harbour Road and at the Harbour Car Park.

1.6.4 Public Transport & Accessibility

Mountshannon is served by Bus Éireann Route 346 Limerick-Tulla-Scarriff-Whitegate on Saturdays, with Bus Stop locations on Main Street at The Hotel and Keane's Bar, as shown in Figure 6-4.

Mountshannon is served by Transport for Ireland's (TFI) Local Link bus service, including TFI Local Link C1 Scarriff-Tulla-Ennis- Saturday-Weekly and TFI Local Link C2 Scarriff-Killaloe-Scarriff-Monday to Friday. The TFI Local Link bus stop locations are on Main Street, immediately west of its L3034 Harbour Road/L8078 junction, including at The Hotel.

1.6.5 Current Vehicle Traffic Movements

On-site classified road link and junction traffic counts, for the Inis Cealtra Visitor Experience project, were carried out at Mountshannon from the 22nd to the 28th July 2021 by Irish Traffic Surveys (ITS), on behalf of Clare County Council. The road link traffic counts were carried out 24 hours/day on the R352 on the immediate west side of its L4034 Harbour Road/L4032 and east of its L3034 Harbour Road/L8078 junction. The junction traffic counts were carried out 12 hours/day, from 7.00 a.m. to 7.00 p.m., at the R352/L4034 Harbour Road/L4032 junction and the R352 Main Street/L4034 Harbour Road/L8078 junction.

The highest weekday and weekend morning and evening peak hour traffic volumes were recorded by ITS on Thursday and Sunday, respectively. The highest weekday morning and evening peak traffic hours were 11.00 a.m. to 12.00 noon and 5.00 p.m. to 6.00 p.m. The highest weekend morning and evening peak traffic hours were 11.00 a.m. to 12.00 noon and 4.00 p.m. to 5.00 p.m.

Updated on-site peak period classified road link and junction traffic counts were carried out by MWP on the 27th July 2023 at the same locations as ITS. The volumes recorded at all locations by MWP were marginally lower than those recorded by ITS. Accordingly, the ITS recorded traffic volumes are considered to represent the existing typical summer tourist season baseline.

The existing weekday and weekend morning peak hour and evening peak hour link traffic volumes on the existing Mountshannon local road network, in the vicinity of the proposed development are provided in Table 6-1, together with the recorded volumes of heavy goods vehicles (HGVs). The equivalent existing junction traffic volumes at the R352/L4034 Harbour Road/L4032 junction and the R352 Main Street/L4034 Harbour Road/L8078 junction are provided in Table 6-2.

Table 1-1 Existing Weekday and Weekend Peak Hour Link Traffic Volumes

Location	Road Link	Weekday Peak Hour Vehicles (HGVs)		Weekend Peak Hour Vehicles (HGVs)	
		Morning	Evening	Morning	Evening
R352/L4034 Harbour Road/L4032 Junction	R352 West	183 (12)	296 (8)	258	309
	L4032	19	18	10	17
	R352 East	173 (11)	266 (8)	231	287
	L4034 Harbour Road	23 (1)	46	42	61
R352 Main Street/L4034 Harbour Road/L8078 Junction	R352 West Main Street	155 (12)	252 (7)	221	317
	L8078	10	18	22	20
	R352 East	147 (11)	233 (5)	197	272
	L4034 Harbour Road	44 (1)	83	78	139

Table 1-2 Existing Weekday and Weekend Peak Hour Junction Traffic Volumes

Junction	Approach	Movement	Weekday Peak Hour Vehicles (HGVs)		Weekend Peak Hour Vehicles (HGVs)	
			Morning	Evening	Morning	Evening
R352/L4034 Harbour Road/L4032 Junction	R352 Eastbound	Left to L4032	5	7	3	3
		Straight	69 (2)	132 (6)	94	119
		Right to L4034	15 (1)	35	34	43
	L4032	Left	4	3	1	3
		Straight	0	0	3	2
		Right	6	5	1	3
	R352 Westbound	Left to L4034	8	11	8	18
		Straight	88 (9)	117 (2)	126	141
		Right to L4032	4	3	2	6
R352 Main Street/L4034 Harbour Road/L8078 Junction	R352 Eastbound	Left to L8078	0	0	5	5
		Straight	53 (2)	119 (3)	63	118
		Right to L4034	6	6	12	14
	L8078	Left	2	2	3	3
		Straight	1	1	0	1
		Right	3	11 (2)	10	5
	R352 Westbound	Left to L4034	7	13	11	16
		Straight	74 (9)	76 (2)	98	106
		Right to L8078	2	2	2	1
	L4034 Harbour Road	Left	19 (1)	40	33	69
		Straight	2	2	2	5
		Right	9	21	20	28

1.6.6 Current Boat Traffic Movements

During the summer tourist season, there are typically eight round boat trips daily between Mountshannon Harbour and Inis Cealtra; and typically, one to two round boat trips between the L8070 slipway/pier access and Inis Cealtra.

Waterways Ireland (WWI) has indicated that 2023 levels of boat activity on Lough Derg at the nearest Lock, Victoria Lock, from April to October in 2023 included a total of 4,600 cruisers through the Lock. This equates to a typical circa 22 cruisers daily, and excludes resident boats around Lough Derg, which WWI estimate would be in excess of 200 cruisers.

During the July 2023 peak season surveys, the following boat numbers were recorded at Mountshannon Harbour:

- 12 boats and six small craft boats at the west side pontoon (original buildout concrete);

- 12 boats moored at the harbour wall;
- Nine boats at the east side pontoon;
- Eight boats at the central pontoon;
- 30 boats anchored in the open water; and
- Eight boats moored at Inis Cealtra Sailing Club and 24 small craft boats on land.

1.6.7 Current Inis Cealtra Visitor Numbers

Clare County Council's Visitor Management Plan for the proposed Inis Cealtra Visitor Experience indicates that Inis Cealtra generates circa 10,000 visitors annually.

1.7 The 'Do Nothing' Scenario

In the event that the proposed development does not proceed, the future traffic and transport environment will continue to evolve in line with relevant policy and permitted developments. The future traffic and transport effects in the event that the proposed development does not proceed are set out hereunder in this 'Do Nothing' scenario section.

Clare County Council's traffic and transport policies and objectives for County Clare, are set out in their Clare County Development Plan 2023 – 2029, in respect of access and movement, transport planning, local transport plans, active travel towns, walking and cycling, public transport and bus transport.

Clare County Council's Development Plan objectives include:

"Walking and Cycling

- *To facilitate and support the delivery of a safe, accessible and convenient cycle network and environment across the county and in the Limerick-Shannon Metropolitan Area as set out in the Cycle Network Plans for Shannon and Limerick contained in the LSMATS;*
- *To support the development and enhancement of long distance cycling routes in County Clare, in accordance with the Strategy for the Future Development of National and Regional Greenways;*
- *To provide for cycling trips for people of all ages and abilities from residential areas to town centres, employment centres and school locations, in line with the National Cycle Manual;*
- *To support the enhancement of permeability, footpaths and the provision of safe crossing points in the towns and villages of the county;*
- *To support the creation of a safer environment for cyclists and signposted 'quiet routes' off the arterial roads which include speed limit reviews and junction redesigns where appropriate;*

Bus Transport

- *To support the provision of more regular, efficient and fully accessible bus services throughout the county, including through initiatives arising from the NTA's Connecting Ireland rural mobility plan;*
- *To encourage and support TFI Local Link Limerick Clare private/public/ community partnerships in the provision of a more widespread rural bus services;*
- *To work with all relevant stakeholders to provide new bus pick-up/drop-off locations and bus shelters in towns and villages across the county.*

Strategic Regional Roads

Regional roads provide an important function in linking smaller towns and villages with the larger urban centres and with national primary and secondary routes.

There are several regional roads which have been selected by the Council as strategic routes that act as feeder routes based on the volumes of traffic that they carry on a daily basis. The Council will protect the identified strategic regional roads from a proliferation of access points and will ensure that their key function is retained."

Strategic Regional Roads include the *"R352 Ennis – Tuamgraney"*.

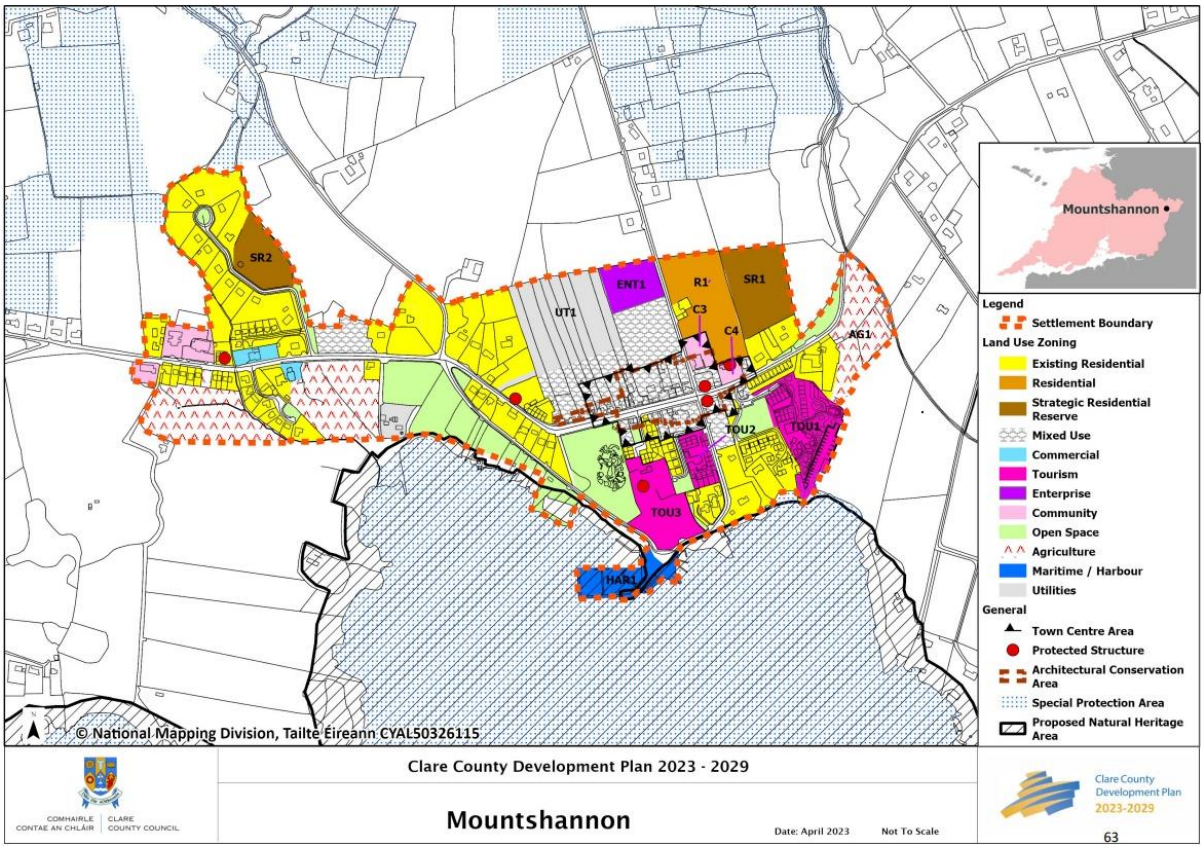
The Clare County Development Plan Volume 3c Killaloe Municipal District Settlement Plans includes Mountshannon. The Development Plan objectives for Mountshannon include the following:

"Transport, Active Travel and Connectivity

Bus Eireann provides a Saturday Service from Limerick to Mountshannon and the expansion of the bus service would greatly support the tourism product in the area and would provide a valuable alternative to the private car for local residents, encouraging a modal shift to a more sustainable transport option. TFI Local Link Limerick Clare provide two bus services from Mountshannon, the C1 Scarriff-Whitegate on Saturdays and the C2 Scarriff-Whitegate (Monday to Fridays). Upgrades to and provision for green infrastructure such as walking and cycling routes would promote active recreation and sustainable travel in the village and its environs. There is an opportunity to develop walks, cycle and recreational routes from the village along the East Clare Way."

The Clare County Development Plan land use zoning and objectives map for Mountshannon is provided in Figure 6-5.

Figure 6-5 Clare County Development Plan Mountshannon Map



1.7.1 Permitted Old Rectory Interpretive Centre

Clare County Council's Part 8 permitted Old Rectory Interpretive Centre in Mountshannon is currently under construction.

Clare County Council's Visitor Management Plan for the proposed Inis Cealtra Visitor Experience indicates that a limited visitor experience and visitor facilities will be provided in the Old Rectory Interpretive Centre, which is scheduled to open in 2025, and will include car and cycle parking facilities located off Harbour Road. Pedestrian access will be provided on Main Street, via Aistear Park, and on Harbour Road. It is projected to attract up to 15,000 visitors annually, including new visitors and existing Inis Cealtra visitors. The Old Rectory Interpretive Centre will be open seasonally, seven days a week, from March to September. Opening times will be 9.00 a.m. to 5.00 p.m., March to June, extended to 6.00 p.m. from July to September.

The permitted Old Rectory Interpretive Centre includes seven staff during peak season.

Clare County Council's Part 8 planning application for the now permitted Old Rectory Building development did not warrant a Traffic and Transport Assessment, as the projected visitor trip generation would include a significant proportion of future baseline visitors, and new visitors are included in TII's expected future traffic growth factors.

The permitted Old Rectory Building development includes 12 car parking spaces, a vehicle set-down space and 20 bicycle parking spaces.

1.7.1.1 Future Baseline Visitors

Clare County Council envisage that future baseline visitors to East Clare would increase by circa 3% annually.

1.7.2 Permitted Main Street Public Realm and Mobility Plan Works

Clare County Council's permitted Mountshannon R352 Main Street Public Realm and Mobility Plan works include enhanced pedestrian facilities on Main Street. The works include provision for the proposed Village Car Park access and a new controlled pedestrian crossing located on the east side of the proposed Village Car Park site at the Aistear Park pedestrian access, which will provide access to the permitted Old Rectory Interpretive Centre.

The Main Street Public Realm and Mobility Plan works also include a new pedestrian crossing located circa 60 metres east of the proposed Village Car Park site. Traffic calming raised tables and enhanced pedestrian crossing facilities are proposed at the R352 Main Street/L4034 Harbour Road/L8078 junction, and at the existing crossing located immediately east of the Aistear Park pedestrian access on Main Street.

The Main Street Public Realm and Mobility Plan construction works are scheduled to commence during late 2024 and to be completed during 2025.

1.7.3 Future Background Traffic Volumes

The TII Traffic and Transport Assessment Guidelines recommend that the opening year of a development proposal and plan years, five and 15 years after the opening year, should be considered for assessing a development proposal.

Subject to planning permission, Phase 1 of the proposed development is scheduled to be open and operational in Q1 2028; and Phase 2 of the proposed development is scheduled to be fully complete and operational in Q3 2042. The proposed development Phase 1 peak construction year is 2027 and the Phase 2 peak construction

year is 2041. The proposed development Phase 1 peak operational initial year is Phase 1 Year 5, 2032. The proposed development ultimate peak operational initial year is Phase 2 Year 5, 2046.

TII in their Project Travel Demand Projections PE-PAG-02017 October 2021 envisage that car and light vehicle volumes on Clare national roads would increase by an annual factor of 1.0156 during the period to 2030, and by a factor of 1.0417 for heavy vehicles, based on their central growth rates. The equivalent factors for the periods 2030 to 2040 and 2040 to 2050 are 1.0038 and 1.0029, respectively, and 1.0157 and 1.0197, respectively.

The existing weekday and weekend morning peak hour and evening peak hour traffic volumes on the existing Mountshannon local road network, in the vicinity of the proposed development, have been factored to 2027, 2028, 2032, 2041 and 2046 levels on the basis of TII's predicted growth rates, and are provided in Tables 6-3, 6-4 and 6-5.

Table 1-3 Predicted Weekday and Weekend Peak Hour Link Traffic Volumes With TII Growth

Year	Location	Road Link	Weekday Peak Hour Vehicles (HGVs)		Weekend Peak Hour Vehicles (HGVs)	
			Morning	Evening	Morning	Evening
2027	R352/L4034 Harbour Road/L4032 Junction	R352 West	196 (14)	315 (9)	275	329
		L4032	20	19	11	18
		R352 East	185 (13)	284 (9)	246	305
		L4034 Harbour Road	25 (1)	49	45	65
	R352 Main Street/L4034 Harbour Road/L8078 Junction	R352 West Main Street	166 (14)	269 (8)	235	337
		L8078	11	19	23	21
		R352 East	158 (13)	249 (6)	210	289
		L4034 Harbour Road	47 (1)	88	83	148
2028	R352/L4034 Harbour Road/L4032 Junction	R352 West	200 (15)	321 (10)	279	334
		L4032	21	20	11	18
		R352 East	189 (14)	289 (10)	250	310
		L4034 Harbour Road	25 (1)	50	45	66
	R352 Main Street/L4034 Harbour Road/L8078 Junction	R352 West Main Street	170 (15)	274 (9)	239	343
		L8078	11	20	24	22
		R352 East	161 (14)	252 (6)	213	294
		L4034 Harbour Road	48 (1)	90	84	150
2032	R352/L4034 Harbour Road/L4032 Junction	R352 West	210 (21)	334 (11)	290	347
		L4032	21	20	11	19
		R352 East	197 (15)	301 (11)	259	322
		L4034 Harbour Road	26 (1)	52	47	69
	R352 Main Street/L4034 Harbour Road/L8078 Junction	R352 West Main Street	178 (17)	285 (10)	248	356
		L8078	11	20	25	23
		R352 East	168 (15)	263 (7)	221	309
		L4034 Harbour Road	49 (1)	93	88	156

2041	R352/L4034 Harbour Road/L4032 Junction	R352 West	219 (19)	349 (13)	301	361
		L4032	22	21	12	20
		R352 East	206 (17)	314 (13)	270	335
		L4034 Harbour Road	28 (2)	54	49	71
	R352 Main Street/L4034 Harbour Road/L8078 Junction	R352 West Main Street	186 (19)	297 (11)	258	370
		L8078	12	21	26	23
		R352 East	176 (17)	274 (8)	230	318
		L4034 Harbour Road	52 (2)	97	91	162
2046	R352/L4034 Harbour Road/L4032 Junction	R352 West	222 (21)	353 (14)	304	364
		L4032	22	21	12	20
		R352 East	210 (19)	318 (14)	272	338
		L4034 Harbour Road	28 (2)	54	50	72
	R352 Main Street/L4034 Harbour Road/L8078 Junction	R352 West Main Street	189 (21)	301 (12)	260	373
		L8078	12	21	26	24
		R352 East	179 (19)	278 (9)	232	324
		L4034 Harbour Road	53 (2)	98	92	164

Table 1-4 Predicted Weekday and Weekend Peak Hour R352/L4034 Harbour Road/L4032 Junction Traffic Volumes With TII Growth

Junction	Year	Approach	Movement	Weekday Peak Hour Vehicles (HGVs)		Weekend Peak Hour Vehicles (HGVs)	
				Morning	Evening	Morning	Evening
R352/L4034 Harbour Road/L4032 Junction	2027	R352 Eastbound	Left to L4032	5	7	3	3
			Straight	73 (2)	141 (7)	100	127
			Right to L4034	16 (1)	37	36	46
		L4032	Left	4	3	1	3
			Straight	0	0	3	2
			Right	6	5	1	3
		R352 Westbound	Left to L4034	9	12	9	19
			Straight	95 (11)	125 (2)	134	150
			Right to L4032	4	3	2	6
	2028	R352 Eastbound	Left to L4032	5	8	3	3
			Straight	75 (2)	143 (7)	102	129
			Right to L4034	16 (1)	38	37	47
		L4032	Left	4	3	1	3
			Straight	0	0	3	2
			Right	7	5	1	3
		R352 Westbound	Left to L4034	9	12	9	20
			Straight	96 (11)	126 (2)	136	152
			Right to L4032	4	3	2	7
	2032	R352 Eastbound	Left to L4032	6	8	3	3
			Straight	78 (3)	150 (8)	106	134
			Right to L4034	17 (1)	39	38	48
		L4032	Left	5	3	1	3
			Straight	0	0	3	2
			Right	7	6	1	3
		R352 Westbound	Left to L4034	9	12	9	20
			Straight	101 (12)	132 (3)	142	158
			Right to L4032	5	3	2	7
	2041	R352 Eastbound	Left to L4032	6	8	4	4
			Straight	81 (3)	157 (10)	110	139
			Right to L4034	18 (2)	41	40	50
		L4032	Left	5	4	1	4
			Straight	0	0	4	2
			Right	7	6	1	4

		R352 Westbound	Left to L4034	9	13	9	21
			Straight	106 (14)	134 (3)	147	165
			Right to L4032	5	4	2	7
	2046	R352 Eastbound	Left to L4032	6	8	4	4
			Straight	83 (4)	159 (11)	111	140
			Right to L4034	19 (2)	41	40	51
		L4032	Left	5	4	1	4
			Straight	0	0	4	2
			Right	7	6	1	4
		R352 Westbound	Left to L4034	9	13	9	21
			Straight	109 (16)	140 (4)	148	166
			Right to L4032	5	4	2	7

Table 1-5 Predicted Weekday and Weekend Peak Hour R352 Main Street/L4034 Harbour Road/L8078 Junction Traffic Volumes With TII Growth

Junction	Year	Approach	Movement	Weekday Peak Hour Vehicles (HGVs)		Weekend Peak Hour Vehicles (HGVs)	
				Morning	Evening	Morning	Evening
R352 Main Street/L4034 Harbour Road/L8078 Junction	2027	R352 Eastbound	Left to L8078	0	0	5	5
			Straight	56 (2)	127 (4)	67	126
			Right to L4034	6	6	13	15
		L8078	Left	2	2	3	3
			Straight	1	1	0	1
			Right	3	12 (2)	11	5
		R352 Westbound	Left to L4034	7	14	12	17
			Straight	80 (11)	81 (2)	104	113
			Right to L8078	2	2	2	1
		L4034 Harbour Road	Left	20 (1)	43	35	73
			Straight	2	2	2	5
			Right	10	22	21	30
	2028	R352 Eastbound	Left to L8078	0	0	5	5
			Straight	57 (2)	129 (4)	68	128
			Right to L4034	7	7	13	15
		L8078	Left	2	2	3	3
			Straight	1	1	0	1
			Right	3	12 (2)	11	5
		R352 Westbound	Left to L4034	8	14	12	17
			Straight	81 (11)	82 (2)	106	115
			Right to L8078	2	2	2	1
		L4034 Harbour Road	Left	21 (1)	43	36	75
			Straight	2	2	2	5
			Right	10	23	22	30
	2032	R352 Eastbound	Left to L8078	0	0	5	5
			Straight	60 (3)	134 (4)	71	133
			Right to L4034	7	7	14	16
		L8078	Left	2	2	3	3
			Straight	1	1	0	1
			Right	3	13 (3)	11	6
		R352 Westbound	Left to L4034	8	15	12	18
			Straight	85 (12)	86 (3)	110	119
			Right to L8078	2	2	2	1
			Left	21 (1)	45	37	78

		L4034 Harbour Road	Straight	2	2	2	6
			Right	10	24	23	31
	2041	R352 Eastbound	Left to L8078	0	0	6	6
			Straight	63 (3)	140 (5)	74	138
			Right to L4034	7	7	14	16
		L8078	Left	2	2	4	4
			Straight	1	1	0	1
			Right	4	14 (3)	12	6
		R352 Westbound	Left to L4034	8	15	13	19
			Straight	90 (14)	89 (3)	114	124
			Right to L8078	2	2	2	1
		L4034 Harbour Road	Left	23 (2)	47	39	81
			Straight	2	2	2	6
			Right	11	25	23	33
	2046	R352 Eastbound	Left to L8078	0	0	6	6
			Straight	64 (4)	142 (5)	74	139
			Right to L4034	7	7	14	17
		L8078	Left	2	2	4	4
			Straight	1	1	0	1
			Right	4	15 (4)	12	6
		R352 Westbound	Left to L4034	8	15	13	19
			Straight	93 (16)	91 (4)	115	125
			Right to L8078	2	2	2	1
		L4034 Harbour Road	Left	23 (2)	47	39	81
			Straight	2	2	2	6
			Right	11	25	24	33

1.7.4 Main Street Urban Road Link Capacity

The UK Traffic Capacity of Urban Roads TA 79/99 identifies an urban road link capacity of 750 vehicles per direction for a 6.1 metres wide busy urban all-purpose street with frontage activity (UAP4 classification).

1.7.4.1 Main Street Link Volume/Capacity Ratios

The urban road link capacity of the R352 Main Street, within the Mountshannon 50 km/hour urban speed limit zone, estimated on the basis of the Traffic Capacity of Urban Roads TA79/99, is provided in Table 6-6. The capacity is per direction based on a 60/40 directional split.

Table 1-6 Estimated R352 Main Street Urban Road Link Capacity

R352 Main Street	Urban Road Link			
	Type	Lanes	Carriageway Width (m)	Capacity/Hour/Direction (Vehicles)
R352 Main Street	UAP4	2	6.1	750

The estimated existing urban road link peak hour volume/capacity ratios for the R352 Main Street, within the Mountshannon 50 km/hour urban speed limit zone, are provided in Table 6-7, on the basis of the Traffic Capacity of Urban Roads TA 79/99, with TII's predicted traffic growth rates.

Table 1-7 Estimated R352 Main Street Urban Road Link Peak Hour Volume/Capacity Ratios With TII Growth

R352 Main Street	Year	Highest Direction Peak Hour Vehicles	Capacity/Hour/ Direction (Vehicles)	Volume/Capacity Ratio
R352 Main Street	2027	175	750	23%
	2028	179		24%
	2032	185		25%
	2041	193		26%
	2046	195		26%

The R352 Main Street, within the Mountshannon 50 km/hour urban speed limit zone, would operate well within its estimated urban road link capacity, with a highest volume/capacity ratio during the 2046 highest direction peak hour of 26%.

1.7.5 Junction Capacity Analysis

The R352/L034 Harbour Road/L4032 junction and R352 Main Street/L4034 Harbour Road/L8078 junction have been analysed using the computer programme PICADY for priority controlled junctions, for the predicted 2032 and 2046 weekday and weekend morning and evening peak hour traffic volumes with TII's predicted traffic growth. These years coincide with the proposed development Phase 1 peak operational year (Phase 1 Year 5, 2032) and the proposed development ultimate peak operational initial year (Phase 2 Year 5, 2046).

Full details of the PICADY junction capacity analysis are provided in Appendix 6-1. The predicted results are summarised in Table 6-8.

Table 1-8 PICADY Junction Capacity Analysis With TII Growth

Junction	Year & Peak Hour	Highest Ratio of Flow to Capacity (RFC) @ 15 Minutes Intervals	Highest Mean Maximum Queue Length (vehicles) @ 15 Minutes Intervals	Junction Delay per Vehicle (minutes) for Total Time Period
R352/L4034 Harbour Road/L4032 Junction	2032 Weekday AM	0.033	0.0	0.12
	2032 Weekday PM	0.076	0.1	0.12
	2032 Weekend AM	0.072	0.1	0.12
	2032 Weekend PM	0.093	0.1	0.13
	2046 Weekday AM	0.039	0.1	0.12
	2046 Weekday PM	0.081	0.1	0.12
	2046 Weekend AM	0.076	0.1	0.13
	2046 Weekend PM	0.100	0.1	0.13
R352 Main Street/L4034 Harbour Road/L8078 Junction	2032 Weekday AM	0.064	0.1	0.11
	2032 Weekday PM	0.134	0.2	0.12
	2032 Weekend AM	0.120	0.1	0.11
	2032 Weekend PM	0.218	0.3	0.13
	2046 Weekday AM	0.071	0.1	0.11
	2046 Weekday PM	0.139	0.2	0.13
	2046 Weekend AM	0.124	0.1	0.11
	2046 Weekend PM	0.228	0.3	0.13

PICADY identifies a Ratio to Capacity (RFC) of 0.90 as the practical capacity of a priority controlled junction.

The analysis confirms that the R352/L034 Harbour Road/L4032 junction and R352 Main Street/L4034 Harbour Road/L8078 junction would operate well within practical capacity, for the predicted 2032 and 2046 weekday and weekend morning and evening peak hour traffic volumes with TII's predicted traffic growth, with no significant traffic queues and delays.

The R352/L034 Harbour Road/L4032 junction would operate with a highest RFC of up to 0.100, in 2046, and highest delays per vehicle of 0.13 minutes.

The R352 Main Street/L4034 Harbour Road/L8078 junction would operate with a highest RFC of 0.228, in 2046, and highest delays per vehicle of 0.13 minutes.

1.7.6 Lough Derg/Mountshannon Harbour/Inis Cealtra (Holy Island)

Clare County Council envisage that future baseline visitors to East Clare would increase by circa 3% annually. It is envisaged that future boat activity on Lough Derg would typically increase at a similar annual rate.

1.8 Phase 1 Construction Effects

The proposed Phase 1 construction includes the upgrade works at Inis Cealtra island and the new Village Car Park at Mountshannon, north of Aistear Park. The Phase 1 construction is scheduled for 12 months. The proposed development Phase 1 peak construction year is 2027.

1.8.1 Construction and Environmental Management Plan (CEMP)

This planning application is accompanied by a Construction and Environmental Management Plan (CEMP). The CEMP provides a comprehensive description of the construction phase and outlines the commitments and mitigation measures to be implemented during the construction phase of the proposed development.

1.8.2 Proposed Construction Traffic Management Plan (CTMP)

A full Construction Traffic Management Plan will be completed prior to the works commencing and this will be agreed between the main contractor and Clare County Council to ensure that traffic is managed during the works safely and with least impact. The preliminary Construction Traffic Management Plan (CTMP) includes the hereunder.

All construction parking and compounds will be provided within the site confines. Construction wheel wash facilities will be provided on-site. A specialist road washing and cleaning vehicle will be used regularly to maintain public roads, as appropriate. All necessary construction signage and other measures required by Clare County Council will be provided, including construction traffic warning signage.

1.8.2.1 Community Liaison

The main construction contractor contract manager and project manager will be based on site and will be available to liaise with the community. Contact phone numbers will be displayed on construction site signage. The construction contractor will provide regular updates to the community on the progress on the project, liaise regarding any construction issues, including regarding other projects in the area that may require coordination, and address any issues that might be raised by local residents. The construction contractor will also liaise regularly with Clare County Council.

1.8.2.2 Construction Hours

Subject to planning conditions, the proposed construction working hours are 8.00 a.m. to 7.00 p.m. Monday to Friday and 8.00 a.m. to 1.00 p.m. on Saturday. No work will be undertaken on Sundays and Bank Holidays.

1.8.2.3 Construction Access

Construction access for the Inis Cealtra Island works will be via Mountshannon Harbour and the construction of new floating access jetty and walkway located at the north west of the island where the existing mooring point is located.

Construction access for the new Village Car Park works at Mountshannon, north of Aistear Park, will be via a single site access on Main Street, at the approximate location of the existing site gated access.

1.8.2.4 Construction Staff

The number of construction staff working on site will vary over the expected 12 months construction period, with a total maximum of up to 45 personnel, comprising a maximum of 20 personnel for the Inis Cealtra Island works and a maximum of 25 personnel for the new Village Car Park works.

1.8.2.5 Temporary Construction Compound and Parking

A temporary construction compound will be provided on Inis Cealtra Island for the Island works. A temporary construction compound will be provided within the new Village Car Park site for the Village Car Park works.

All construction parking will be located within the temporary construction compound at the new Village Car Park site. This will prevent construction staff parking in public on-street locations and at the public Harbour Car Park.

1.8.2.6 Construction Staff Welfare Facilities

All welfare facilities for construction staff will be provided on site at the proposed construction compounds for each construction element, including staff canteen facilities. This will minimise construction staff vehicle trips during construction working hours.

1.8.2.7 Construction Staff Vehicles

It is envisaged that construction staff will travel to and from site by car/van with a typical vehicle occupancy of 1.5 staff/vehicle. During construction, the majority of construction staff will typically arrive and depart outside peak traffic hours and local schools' start and finish times.

During Phase 1 construction, peak construction staff vehicles would generate 30 daily inbound vehicles and 30 daily outbound vehicles.

During certain periods, including restricted daylight hours and adverse weather conditions, it is envisaged that up to 50% of construction staff could arrive during the weekday morning peak traffic hour and depart during the weekday evening peak traffic hour. This would generate up to 15 construction staff vehicles during the weekday peak traffic hours.

1.8.2.8 Construction Demolition and Earthworks Volumes

Demolition volumes generated by the Inis Cealtra upgrade works will be relatively low for removal to a licensed recycling facility. Excavated earthworks volumes for removal off the Island will be minimal.

There will be relatively low demolition volumes for removal off site for the new Village Car Park works, in respect of the existing boundary wall and adjacent footway. Excavated earthworks volumes generated by the new Village Car Park works will include circa 3,200 m^3 of topsoil and circa 4,200 m^3 of bulk excavation for sub formation. These excavated volumes will be temporarily stockpiled on site and then removed off site on a phased basis by truck to a licensed recycling facility. The removal of materials off site would generate up to 25 daily trucks, both inbound and outbound, during the initial period of the proposed Phase 1 construction. The removal of earthworks volumes will be during off-peak traffic periods and outside local schools' start and finish times.

1.8.2.9 Construction Deliveries Traffic Volumes

Peak construction delivery and heavy vehicle volumes would generate a peak total of up to 35 daily vehicles, both to and from site, for the Phase 1 construction works, including up to 25 daily delivery vehicles generated by the Village Car Park works and up to 10 daily delivery vehicles generated by the Island works.

Peak construction deliveries will not coincide with the phased removal of earthworks and demolition volumes to a licensed recycling facility.

1.8.2.10 Peak Phase 1 Construction Total Traffic Volumes

It is envisaged that the distribution of construction vehicles would be all via the R352 at Mountshannon, with a similar directional distribution to the recorded baseline traffic volumes on the R352, of circa 60% west and 40% east.

The predicted Phase 1 peak construction total traffic volumes are provided in Table 6-9.

Table 1-9 Predicted Peak Phase 1 Construction Vehicles

Phase 1 Construction	Morning Peak Hour Vehicles		Evening Peak Hour Vehicles		Peak Daily Vehicles	
	Arrivals	Departures	Arrivals	Departures	Arrivals	Departures
Staff Vehicles	15 (1)	0	0	15 (1)	30	30
Deliveries	8	8	8	8	35	35
Total	**23**	**8**	**8**	**23**	**65**	**65**
Note (1): During restricted daylight hours and adverse weather conditions. Otherwise, construction staff will travel outside peak traffic hours.						

1.8.3 Link Traffic Volumes

The predicted Phase 1 peak construction year, 2027, weekday and weekend morning peak hour and evening peak hour traffic volumes on the Mountshannon local road network, in the vicinity of the proposed development, with the proposed development peak construction, are provided in Table 6-10.

Table 1-10 Predicted 2027 Weekday and Weekend Peak Hour Link Traffic Volumes With Peak Phase 1 Construction

Location	Road Link	Weekday Morning Peak Hour		Weekday Evening Peak Hour		Weekend Morning Peak Hour		Weekend Evening Peak Hour (1)	
		Total Vehicles (HGVs)	Change	Total Vehicles (HGVs)	Change	Total Vehicles (HGVs)	Change	Total Vehicles (HGVs)	Change (1)
R352/L4034 Harbour	R352 West	215 (24)	+19 (10)	334 (19)	+19 (10)	285 (6)	+10 (6)	329	0
	L4032	20	0	19	0	11	0	18	0
	R352 East	204 (23)	+19 (10)	303 (19)	+19 (10)	256 (6)	+10 (6)	305	0

Road/L4032 Junction	L4034 Harbour Road	26 (2)	+ 1 (1)	50 (1)	+ 1 (1)	46 (1)	+1 (1)	65	0
R352 Main Street/L4034 Harbour Road/L8078 Junction	R352 West Main Street	178 (20)	+ 12 (6)	281 (14)	+ 12 (6)	241 (6)	+6 (6)	337	0
	L8078	11	0	19	0	23	0	21	0
	R352 East	170 (19)	+12 (6)	261 (12)	+12 (6)	216 (6)	+6 (6)	289	0
	L4034 Harbour Road	49 (2)	+ 2 (1)	90 (1)	+ 2 (1)	85 (1)	+2 (1)	148	0
Note (1): Subject to planning conditions, weekend construction working hours will be 8.00 a.m. to 1.00 p.m. on Saturdays. No work will be undertaken on Sundays and Bank Holidays.									

The proposed Phase 1 peak construction would increase weekday morning and evening peak hour traffic volumes by up to 19 vehicles on the R352 and up to two vehicles on the L4034 Harbour Road. The peak hour increases in traffic volumes on the R352 would equate to an increase of up to 10.3%. The predicted peak hour increases in traffic volumes on the L4034 would equate to an increase of up to 4.3%.

1.8.4 Main Street Link Volume/Capacity Ratios

The predicted urban road link peak hour highest volume/capacity ratio for the R352 Main Street, within the Mountshannon 50 km/hour urban speed limit zone, with the predicted Phase 1 peak construction during 2027, are provided in Table 6-11, on the basis of the Traffic Capacity of Urban Roads TA 79/99.

Table 1-11 Predicted R352 Main Street Urban Road Link Peak Hour Volume/Capacity Ratio With Phase 1 Peak Construction

R352 Main Street	Year	Highest Direction Peak Hour Vehicles	Capacity/Hour/ Direction (Vehicles)	Volume/Capacity Ratio
R352 Main Street	2027	187	750	25%

The R352 Main Street, within the Mountshannon 50 km/hour urban speed limit zone, would operate well within its estimated urban road link capacity, with the predicted Phase 1 peak construction during 2027, with a highest volume/capacity ratio during of 25%. This compares to a highest ratio of 23% in 2027 without the proposed development Phase 1 peak construction.

1.8.5 Junction Capacity Analysis

As detailed in Section 6.7.5, the R352/L034 Harbour Road/L4032 junction and R352 Main Street/L4034 Harbour Road/L8078 junction would operate well within practical capacity, for the predicted 2032 and 2046 weekday and weekend morning and evening peak hour traffic volumes with TII's predicted traffic growth, with no significant traffic queues and delays. The proposed Phase 1 peak construction in 2027 would not significantly increase peak hour traffic volumes at these junctions, with an even lower, not significant, increase in vehicle

turning volumes. Accordingly, both junctions would continue to operate well within practical capacity during the proposed Phase 1 peak construction in 2027.

The predicted Phase 1 peak hour traffic turning volumes generated by the proposed Phase 1 peak construction, at the proposed Village Car Park site access on Main Street, would be up to 31 vehicles, which would equate to one vehicle every 1.94 minutes, which would be well within the practical capacity of the priority T-junction and significantly less than the predicted traffic turning volumes at the R352/L034 Harbour Road/L4032 junction and the R352 Main Street/L4034 Harbour Road/L8078 junction.

1.8.6 Lough Derg/Mountshannon Harbour/Inis Cealtra (Holy Island)

During the Phase 1 construction, Inis Cealtra Island will generally remain closed for the duration of the works, except where access is required for a burial and by a farmer for livestock.

The proposed Phase 1 construction would generate up to eight round boat trips daily between Mountshannon Harbour and Inis Cealtra Island.

The proposed Phase 1 construction works activity would not increase expected typical future baseline round boat trips daily between Mountshannon Harbour and Inis Cealtra Island. The proposed Phase 1 construction works activity would reduce the expected typical future baseline round boat trips daily between the L8070 slipway/pier access and Inis Cealtra Island.

The proposed Phase 1 construction would not increase expected 2027 levels of boat activity on Lough Derg.

1.8.7 Mitigation

The proposed CTMP and CEMP outline the commitments and mitigation measures to be implemented during the construction phase of the proposed development, and are part of the proposal assessed in this Traffic and Transport document. No further mitigation measures are warranted.

When the construction contractor is appointed, an updated Construction Traffic Management Plan will be submitted to Clare County Council, for approval, prior to the commencement of construction.

1.8.8 Phase 1 Construction Impact Significance and Duration

On the basis of the EPA EIAR Guidelines, the Phase 1 construction effect of the proposed development will be slight negative to moderate negative and temporary-to-short term.

1.8.9 Cumulative Phase 1 Construction Impacts

It is envisaged that any cumulative construction activities traffic impact, occurring during the proposed development construction programme, will be a temporary to short term, slight to moderate effect on the basis of the EPA EIAR Guidelines.

1.9 Phase 1 Operational Impacts

The proposed Phase 1 development includes the upgrade works at Inis Cealtra island and the new Village Car Park at Mountshannon, north of Aistear Park.

Subject to planning permission, Phase 1 of the proposed development is scheduled to be open and operational in Q1 2028. The proposed development Phase 1 peak operational initial year is Phase 1 Year 5, 2032.

1.9.1 Visitor Management Plan (VMP)

The proposed development includes a detailed Visitor Management Plan (VMP). The VMP provides a comprehensive description of projected visitor numbers, types, times, travel modes, parking, management and mitigation measures. The VMP also includes details of staff types, numbers and times.

1.9.2 Access

Access for the new Village Car Park at Mountshannon, north of Aistear Park, will be via a single site access on the north side of Main Street, at the approximate location of the existing site gated access.

Pedestrian access for the Old Rectory Interpretive Centre will be provided on Main Street, via Aistear Park, and on Harbour Road, including for Mountshannon Harbour. Pedestrian crossing facilities will be provided on Main Street as part of Clare County Council's R352 Main Street Public Realm and Mobility Plan enhancement works.

1.9.3 Parking

The proposed Village Car Park for the proposed development will be a public daytime car park, with a total of 169 car parking spaces, six coach/bus parking spaces and bicycle parking spaces. The 169 car parking spaces include 11 accessible spaces, 105 standard spaces and 53 overflow spaces. EV charging points will be provided for 20% of the car parking spaces.

The car park has been designed to accommodate sufficient parking for the projected staff and visitor numbers, considering that full capacity will not be required year-round, with a split between permanent and overflow parking.

Access to the car park will be restricted by barrier out of hours, prohibiting overnight parking.

1.9.4 Hours

The proposed development Phase 1 will be open from March to October annually. The proposed development operational opening hours are provided in Table 6-12.

Table 1-12 Phase 1 Operational Opening Hours

Season	Opening Hours
Low Season	9.00 a.m.to 5.00 p.m.
High Season (July & August)	9.00 a.m. to 6.00 p.m.

1.9.5 Staff

The predicted staff numbers for the Phase 1 operations, with peak Phase 1 visitor numbers by 2032 (Phase 1, Year 5), are provided in Table 6-13.

Table 1-13 Predicted Phase 1 Operational Staff

Phase 1 Operational Development	Staff Type/Location	Number of Staff	
		Low Season	High Season
Phase 1 Peak (Year 5, 2032)	Old Rectory Interpretive Centre	4.3	7.5
	Inis Cealtra Island Tours	1.3	1.3
Total Phase 1 Staff		**5.6**	**8.8**

The permitted Old Rectory Interpretive Centre includes seven staff during peak season. Accordingly, additional staff numbers will be relatively low and could generate up to four additional daily staff vehicle trips two-way during high season, including up to two additional staff vehicle trips during the peak traffic hour.

1.9.6 Visitors

The projected visitor numbers for the Phase 1 operations are provided in Table 6-14.

Table 1-14 Projected Phase 1 Operational Visitors

Phase 1 Operational Development	Annual Visitors	Typical Daily Visitors High Season
Opening Year (Year 1, 2028)	20,000	129
Peak Year (Year 5, 2032)	40,000	258

The permitted Old Rectory Interpretive Centre is projected to attract up to 15,000 visitors annually, including new visitors and existing Inis Cealtra visitors. Accordingly, the proposed Phase 1 development would increase projected visitors by 5,000 visitors annually in Year 1 and by 25,000 visitors by Year 5. This would equate to an average of 33 additional daily visitors in Year 1 and an average of 162 additional daily visitors by Year 5.

1.9.7 Vehicle Trips

During high season, the Old Rectory Interpretive Centre will have a peak daily capacity of 372 visitors, which is significantly higher than the projected typical daily visitors during high season of 258 visitors. In order to consider a worst case traffic impact during high season, it is envisaged that the peak daily capacity of 372 visitors would visit on certain days. This would equate to 276 additional daily visitors compared to the permitted projected typical visitors.

On the basis of the Visitor Management Plan, it is envisaged that circa 30% of visitors would travel via coach/bus, with up to 25 visitors per coach/bus; and up to 70% of visitors would travel via car, with an average of 2.3 visitors per car. It is envisaged that some visitors would travel via bicycle and public transport.

The predicted additional vehicle trips generated by the proposed development during Phase 1 peak operations during high season, by Year 5, are provided in Table 6-15.

Table 1-15 Predicted Phase 1 Peak Operations High Season Additional Operational Vehicles With Peak Capacity Daily Visitors

Phase 1 Development	Morning Peak Traffic Hour Additional Vehicles		Evening Peak Traffic Hour Additional Vehicles		Daily Additional Vehicles	
	Arrivals	Departures	Arrivals	Departures	Arrivals	Departures
Staff	2	0	0	2	4	4
Visitors	10	10	10	10	88	88
Total	**12**	**10**	**10**	**12**	**92**	**92**

The proposed Phase 1 peak operations high season, with peak capacity daily visitors, would generate up to 22 additional vehicles two-way, during the peak traffic hours. The projected typical additional vehicles during high season would be up to 12 vehicles two-way, during the peak traffic hours.

It is envisaged that the distribution of operational vehicles generated by the proposed development would be similar to the recorded during high season baseline traffic volumes on the R352, of circa 60% west and 40% east.

1.9.8 Link Traffic Volumes

The Phase 1 peak operations high season weekday and weekend morning peak hour and evening peak hour traffic volumes on the Mountshannon local road network, in the vicinity of the proposed development, with the proposed development peak capacity daily visitors, during the initial peak year 2032 (Phase 1, Year 5), are provided in Table 6-16.

Table 1-16 Predicted 2032 Weekday and Weekend Peak Hour Link Traffic Volumes With Peak Season Phase 1 Operational Development With Peak Capacity Daily Visitors

Location	Road Link	Weekday Morning Peak Hour		Weekday Evening Peak Hour		Weekend Morning Peak Hour		Weekend Morning Peak Hour	
		Total Vehicles (HGVs)	Change	Total Vehicles (HGVs)	Change	Total Vehicles (HGVs)	Change	Total Vehicles (HGVs)	Change
R352/L4034 Harbour Road/L4032 Junction	R352 West	223 (21)	+13	347 (11)	+13	303	+13	360	+13
	L4032	21	0	20	0	11	0	19	0
	R352 East	210 (15)	+13	314 (11)	+13	272	+13	335	+13
	L4034 Harbour Road	26 (1)	0	52	0	47	0	69	0
	R352 West Main Street	187 (17)	+9	294 (10)	+9	257	+9	345	+9

R352 Main Street/L4034 Harbour Road/L8078 Junction	L8078	11	0	20	0	25	0	23	0
	R352 East	177 (15)	+9	272 (7)	+9	230	+9	3189	+9
	L4034 Harbour Road	49 (1)	0	93	0	88	0	156	0

The proposed Phase 1 peak operations high season, with peak capacity daily visitors, would increase peak hour traffic volumes on the R352 Main Street by up to 13 vehicles two-way, with the proposed development peak capacity daily visitors. This would equate to one additional vehicle every 4.6 minutes and would not be significant. The projected typical increase in peak hour traffic volumes on the R352 Main Street during high season would be up to seven vehicles two-way, during the peak traffic hours.

1.9.9 Main Street Urban Link Volume/Capacity Ratios

The predicted urban road link peak hour highest volume/capacity ratio for the R352 Main Street, within the Mountshannon 50 km/hour urban speed limit zone, with the proposed Phase 1 peak operations high season, with peak capacity daily visitors, during 2032, are provided in Table 6-17, on the basis of the Traffic Capacity of Urban Roads TA 79/99.

Table 1-17 Predicted R352 Main Street Urban Road Link Peak Hour Volume/Capacity Ratio With Peak Season Phase 1 Operational Development With Peak Capacity Daily Visitors

R352 Main Street	Year	Highest Direction Peak Hour Vehicles	Capacity/Hour/ Direction (Vehicles)	Volume/Capacity Ratio
R352 Main Street	2032	198	750	27%

The R352 Main Street, within the Mountshannon 50 km/hour urban speed limit zone, would operate well within its estimated urban road link capacity, with the proposed Phase 1 peak operations high season, with peak capacity daily visitors, during 2032, with a highest volume/capacity ratio during of 27%. This compares to a highest ratio of 25% in 2032 without the proposed development.

1.9.10 Junction Traffic Volumes and Capacity Analysis

As detailed in Section 6.7.5, the R352/L034 Harbour Road/L4032 junction and R352 Main Street/L4034 Harbour Road/L8078 junction would operate well within practical capacity, for the predicted 2032 and 2046 weekday and weekend morning and evening peak hour traffic volumes with TII's predicted traffic growth, with no significant traffic queues and delays. The proposed Phase 1 peak operations high season, with peak capacity daily visitors, would not significantly increase peak hour traffic volumes at these junctions, with no increase in vehicle turning volumes. Accordingly, both junctions would continue to operate well within practical capacity during the proposed Phase 1 peak operations high season, with peak capacity daily visitors.

The total predicted 2032 peak hour junction traffic volumes generated at the proposed Village Car Park access junction on Main Street, during the proposed Phase 1 peak operations high season, with peak capacity daily visitors, including permitted visitors generated by the Old Rectory Interpretive Centre, are provided in Table 6-18.

Table 1-18 Predicted 2032 Weekday and Weekend Peak Hour R352 Main Street/Visitor Car Park Access Junction Traffic Volumes With Peak Season Phase 1 Operations With Peak Capacity Daily Visitors

Junction	Year	Approach	Movement	Weekday Peak Hour Vehicles (HGVs)		Weekend Peak Hour Vehicles (HGVs)	
				Morning	Evening	Morning	Evening
R352 Main Street/Village Car Park Access Junction	2032	R352 Eastbound	Left to Village Car Park	10	8	10	8
			Straight	67 (3)	141 (4)	90	154
		Village Car Park	Right	8	10	8	10
			Left	6	6	6	6
		R352 Westbound	Straight	109 (13)	144 (6)	158	203
			Right to Village Car Park	6	6	6	6

The proposed R352 Main Street/Village Car Park access junction have been analysed using the computer programme PICADY for priority controlled junctions for the predicted 2032 weekday and weekend morning and evening peak hour traffic volumes, with proposed Phase 1 peak operations high season and peak capacity daily visitors, including permitted visitors generated by the Old Rectory Interpretive Centre, plus TII's predicted traffic growth.

Full details of the PICADY junction capacity analysis are provided in Appendix 6-1. The predicted results are summarised in Table 6-19.

Table 1-19 PICADY Junction Capacity Analysis With Peak Season Phase 1 Operations With Peak Capacity Daily Visitors

Junction	Year & Peak Hour	Highest Ratio of Flow to Capacity (RFC) @ 15 Minutes Intervals	Highest Mean Maximum Queue Length (vehicles) @ 15 Minutes Intervals	Junction Delay per Vehicle (minutes) for Total Time Period
R352 Main Street/Village Car Park Access Junction	2032 Weekday AM	0.029	0.0	0.11
	2032 Weekday PM	0.036	0.0	0.12
	2032 Weekend AM	0.030	0.0	0.11
	2032 Weekend PM	0.037	0.0	0.12

PICADY identifies a Ratio to Capacity (RFC) of 0.90 as the practical capacity of a priority controlled junction.

The analysis confirms that the proposed R352 Main Street/Village Car Park access junction would operate well within practical capacity, for the predicted 2032 weekday and weekend morning and evening peak hour traffic volumes with the proposed Phase 1 peak operations high season and peak capacity daily visitors, including

permitted visitors generated by the Old Rectory Interpretive Centre, plus TII's predicted traffic growth, with no significant traffic queues and delays.

The proposed R352 Main Street/Village Car Park access junction would operate with a highest RFC of up to 0.037, in 2032, and highest delays per vehicle of 0.12 minutes.

1.9.11 Lough Derg/Mountshannon Harbour/Inis Cealtra (Holy Island)

The proposed Phase 1 visitors' boat service to/from Inis Cealtra Island from/to Mountshannon Harbour will be seasonal, ranging from two round trip daily boat services during low season to eight round trip daily boat services during high season. The expected high season eight daily round trip sailings is of the same order as the existing summer tourist season - there are typically eight existing round boat trips daily between Mountshannon Harbour and Inis Cealtra.

Accordingly, there will be no increase in total boat traffic generated by Mountshannon Harbour and on Lough Derg with the proposed Phase 1 development in operation.

The maximum daily capacity on the Inis Cealtra island will be 400 persons, with no more than 100 people permitted on the island at any one time.

1.9.12 Phase 1 Operational Mitigation

The proposed development includes a detailed Visitor Management Plan (VMP). Visitor capacity will be limited and visitor access will be on a booked basis only, with pre booking online and a timed visitor entry system to stagger visitor arrivals. The VMP will control visitor traffic generation volumes and times and is part of the proposal. No additional operational mitigation is warranted.

Total operational staff numbers for Phase 1 will be up nine staff, including up to two additional staff with the permitted Old Rectory development. Total operational staff numbers will be significantly less than the 75 employees threshold identified by the Clare County Development Plan 2023-2029 for a Mobility Management Plan.

1.9.13 Phase 1 Operational Impact Significance and Duration

On the basis of the EPA EIAR Guidelines, the operational effect of the proposed development on traffic and transportation will be not significant negative to slight negative, and long term to permanent.

1.9.14 Phase 1 Cumulative Operational Impacts

The predicted Phase 1 development high season 2032 traffic volumes include TII's predicted future traffic growth, which includes traffic generated by other developments. No significant other developments' traffic generation is envisaged in addition to TII's predicted growth rates. The predicted traffic generated by the proposed development is in addition to TII's predicted traffic growth. It is envisaged that any cumulative operational traffic effect will be not significant to slight negative and long term to permanent, on the basis of the EPA EIAR Guidelines.

1.10 Phase 2 Construction Effects

The proposed Phase 2 construction includes the reconfiguration and enhancement of the Harbour Car Park and the new Visitor Centre at Mountshannon, south east of Aistear Park. The Phase 2 construction is scheduled for 18 months with the proposed Phase 1 peak operational development in place. The Harbour Car Park construction works are scheduled for six months and to coincide with the new Visitor Centre construction works schedule for 18 months. The proposed development Phase 2 peak construction year is 2041.

1.10.1 Construction and Environmental Management Plan (CEMP)

This planning application is accompanied by a Construction and Environmental Management Plan (CEMP). The CEMP provides a comprehensive description of the construction phase and outlines the commitments and mitigation measures to be implemented during the construction phase of the proposed development.

1.10.2 Proposed Construction Traffic Management Plan (CTMP)

A full Construction Traffic Management Plan will be completed prior to the works commencing and this will be agreed between the Contractor and Clare County Council to ensure that traffic is managed during the works safely and with least impact. The preliminary construction traffic management plan includes the hereunder.

All construction parking and compounds will be provided within the site confines. Construction wheel wash facilities will be provided on-site. A specialist road washing and cleaning vehicle will be used regularly to maintain public roads, as appropriate. All necessary construction signage and other measures required by Clare County Council will be provided, including construction traffic warning signage.

1.10.2.1 Community Liaison

The main construction contractor contract manager and project manager will be based on site and will be available to liaise with the community. Contact phone numbers will be displayed on construction site signage. The construction contractor will provide regular updates to the community on the progress on the project, liaise regarding any construction issues, including regarding other projects in the area that may require coordination, and address any issues that might be raised by local residents. The construction contractor will also liaise regularly with Clare County Council.

1.10.2.2 Construction Hours

Subject to planning conditions, the proposed construction working hours are 8.00 a.m. to 7.00 p.m. Monday to Friday and 8.00 a.m. to 1.00 p.m. on Saturday. No work will be undertaken on Sundays and Bank Holidays.

1.10.2.3 Construction Access

Construction access for the reconfiguration of Mountshannon Harbour Car Park and the new Visitor Centre will be via the L4034 Harbour Road and the R352.

1.10.2.4 Construction Staff

The number of construction staff working on site will vary over the expected 18 months construction period, with a total maximum of up to 70 personnel, comprising a maximum of 20 personnel for the Harbour Car Park works and a maximum of 50 personnel for the new Visitor Centre Car Park works.

1.10.2.5 Temporary Construction Compound and Parking

A temporary construction compound will be provided at the new Visitor Centre site for the Visitor Centre construction works. A temporary construction compound will be provided at the Harbour Car Park site for the Harbour Car Park works.

All construction parking will be located within the temporary construction compounds for the Phase 2 construction works. During low season, temporary construction staff car parking will also be provided at the Phase 1 construction Village Car Park.

1.10.2.6 Construction Staff Welfare Facilities

All welfare facilities for construction staff will be provided on site at the proposed construction compound, including staff canteen facilities. This will minimise construction staff vehicle trips during construction working hours.

1.10.2.7 Construction Staff Vehicles

It is envisaged that construction staff will travel to and from site by car/van with a typical vehicle occupancy of 1.5 staff/vehicle. During construction, the majority of construction staff will typically arrive and depart outside peak traffic hours and local schools' start and finish times. It is envisaged that the distribution of construction vehicles would be all via the R352 at Mountshannon, with a similar directional distribution to the recorded baseline traffic volumes on the R352, of circa 60% west and 40% east.

During Phase 2 construction, peak construction staff vehicles would generate 47 daily inbound vehicles and 47 daily outbound vehicles.

During certain periods, including restricted daylight hours and adverse weather conditions, it is envisaged that up to 50% of construction staff could arrive during the weekday morning peak traffic hour and depart during the weekday evening peak traffic hour. This would generate up to 24 construction staff vehicles during the weekday peak traffic hours.

1.10.2.8 Construction Demolition and Earthworks Volumes

There will be no significant demolition volumes generated by the Phase 2 construction works for removal off site to a licensed recycling facility.

Excavated earthworks volumes generated by the Phase 2 construction works will include circa 1,600 m^3 of topsoil and circa 7,200 m^3 of excavation for sub formation. These excavated volumes will be removed off site on a phased basis by truck to a licensed recycling facility. The removal off site of excavated earthworks materials would generate up to 20 trucks, both inbound and outbound, during the initial phase of the proposed Phase 1 construction. The removal of earthworks volumes will be during off-peak traffic periods and outside local schools' start and finish times.

1.10.2.9 Construction Deliveries Traffic Volumes

Peak construction delivery and heavy vehicle volumes would generate a peak total of up to 30 daily vehicles, both to and from site, for the Phase 2 construction works, including up to 20 daily delivery vehicles generated by the Visitor Centre works and up to 10 daily delivery vehicles generated by the Harbour Car Park works.

Peak construction deliveries will not coincide with the phased removal of earthworks and demolition volumes to a licensed recycling facility.

1.10.2.10 Peak Phase 2 Construction Total Traffic Volumes

It is envisaged that the distribution of construction vehicles would be all via the R352 at Mountshannon, with a similar directional distribution to the recorded baseline traffic volumes on the R352, of circa 60% west and 40% east.

The predicted Phase 2 peak construction total traffic volumes are provided in Table 6-20.

Table 1-20 Predicted Peak Phase 2 Construction Vehicles

Phase 1 Construction	Morning Peak Hour Vehicles		Evening Peak Hour Vehicles		Peak Daily Vehicles	
	Arrivals	Departures	Arrivals	Departures	Arrivals	Departures
Staff Vehicles	24 (1)	0	0	24 (1)	47	47
Deliveries	7	7	7	7	30	30
Total	**31**	**7**	**7**	**31**	**77**	**77**
Note (1): During restricted daylight hours and adverse weather conditions. Otherwise, construction staff will travel outside peak traffic hours.						

1.10.3 Link Traffic Volumes

The predicted Phase 2 peak construction year, 2041, weekday and weekend morning peak hour and evening peak hour traffic volumes on the Mountshannon local road network, in the vicinity of the proposed development, with the proposed development peak Phase 2 construction and the proposed Phase 1 high season operational phase with peak capacity visitors, are provided in Table 6-21.

Table 1-21 Predicted 2041 Weekday and Weekend Peak Hour Link Traffic Volumes With Peak Phase 2 Construction and Phase 1 High Season Operational Phase With Peak Capacity Visitors

Location	Road Link	Weekday Morning Peak Hour		Weekday Evening Peak Hour		Weekend Morning Peak Hour		Weekend Evening Peak Hour (1)	
		Total Vehicles (HGVs)	Change	Total Vehicles (HGVs)	Change	Total Vehicles (HGVs)	Change	Total Vehicles (HGVs)	Change (1)
R352/L4034 Harbour Road/L4032 Junction	R352 West	219 (19)	+36 (8)	349 (13)	+36 (8)	301	+21 (8)	361	+13
	L4032	22	0	21	0	12	0	20	0
	R352 East	206 (17)	+36 (8)	314 (13)	+36 (8)	270	+17 (4)	335	+13
	L4034 Harbour Road	28 (2)	+ 4 (4)	54	+ 4 (4)	49	+4 (4)	71	0
R352 Main Street/L4034 Harbour	R352 West Main Street	186 (19)	+ 24 (6)	297 (11)	+ 24 (6)	258	+13 (4)	370	+9
	L8078	12	0	21	0	26	0	23	0

Road/L8078 Junction	R352 East	176 (17)	+24 (6)	274 (8)	+24 (6)	230	+15 (6)	318	+9
	L4034 Harbour Road	52 (2)	+ 34 (10)	97	+ 34 (10)	91	+10 (10)	162	0
Note (1): Subject to planning conditions, weekend construction working hours will be 8.00 a.m. to 1.00 p.m. on Saturdays. No work will be undertaken on Sundays and Bank Holidays.									

The proposed development peak Phase 2 construction and the proposed Phase 1 high season operational phase, with peak capacity visitors, would increase weekday morning and evening peak hour traffic volumes by up to 36 vehicles on the R352 and up to 34 vehicles on the L4034 Harbour Road. The peak hour increases in traffic volumes on the R352 would equate to an increase of up to 17.5%. The predicted peak hour increases in traffic volumes on the L4034 would equate to an increase of up to 65.4%.

1.10.4 Main Street Link Volume/Capacity Ratios

The predicted urban road link peak hour highest volume/capacity ratio for the R352 Main Street, within the Mountshannon 50 km/hour urban speed limit zone, with the predicted proposed development peak Phase 2 construction and the proposed Phase 1 high season operational phase, with peak capacity visitors, during 2041, are provided in Table 6-22, on the basis of the Traffic Capacity of Urban Roads TA 79/99.

Table 1-22 Predicted R352 Main Street Urban Road Link Peak Hour Volume/Capacity Ratio With Phase 2 Peak Construction and Phase 1 High Season Operational Phase With Peak Capacity Visitors

R352 Main Street	Year	Highest Direction Peak Hour Vehicles	Capacity/Hour/ Direction (Vehicles)	Volume/Capacity Ratio
R352 Main Street	2041	217	750	29%

The R352 Main Street, within the Mountshannon 50 km/hour urban speed limit zone, would operate well within its estimated urban road link capacity, with the predicted proposed development peak Phase 2 construction and the proposed Phase 1 high season operational phase, with peak capacity visitors, during 2041, with a highest volume/capacity ratio during of 29%. This compares to a highest ratio of 26% in 2041 without the proposed development.

1.10.5 Junction Capacity Analysis

As detailed in Section 6.7.5, the R352/L034 Harbour Road/L4032 junction and R352 Main Street/L4034 Harbour Road/L8078 junction would operate well within practical capacity (RFC = 0.900), for the predicted 2046 weekday and weekend morning and evening peak hour traffic volumes with TII's predicted traffic growth, with no significant traffic queues and delays (highest RFCs of 0.100 and 0.228, respectively). As detailed in Section 6.9.10, the R352 Main Street/Village Care Park Access junction would operate well within practical capacity (RFC = 0.900) with the proposed Phase 1 high season operational phase with peak capacity visitors plus TII's predicted traffic growth, with no significant traffic queuing and delays (highest RFC of 0.037). The proposed Phase 1 peak construction in 2041 would not significantly increase peak hour traffic volumes at these junctions,

to materially affect the predicted not significant traffic queuing and delays; and the junctions would continue to operate well within practical capacity during the proposed Phase 2 peak construction in 2041.

1.10.6 Mitigation

The proposed CTMP and CEMP outline the commitments and mitigation measures to be implemented during the construction phase of the proposed development, and are part of the proposal assessed in this Traffic and Transport document. No further mitigation measures are warranted.

When the construction contractor is appointed, an updated Construction Traffic Management Plan will be submitted to Clare County Council, for approval, prior to the commencement of construction.

1.10.7 Phase 2 Construction Impact Significance and Duration

On the basis of the EPA EIAR Guidelines, the Phase 2 construction effect of the proposed development will be slight negative to moderate negative and temporary-to-short term.

1.10.8 Cumulative Phase 2 Construction Impacts

The proposed Phase 2 construction will be carried out with the proposed Phase 1 operational phase in place, and the cumulative effects have been considered. The cumulative effects will be temporary to short term, slight to moderate negative effects on the basis of the EPA EIAR Guidelines. The cumulative effects of the proposed Phase 2 construction with any other construction works will also be temporary to short term, slight to moderate negative effects on the basis of the EPA EIAR Guidelines.

1.11 Phase 2 Operational Impacts

The proposed Phase 2 development includes the reconfiguration of the Harbour Car Park and the new Visitor Centre at Mountshannon, south of Aistear Park.

Subject to planning permission, Phase 2 of the proposed development is scheduled to be open and operational in Q3 2042. The proposed development Phase 2 peak operational initial year is Phase 2 Year 5, 2046.

1.11.1 Visitor Management Plan (VMP)

The proposed development includes a detailed Visitor Management Plan (VMP). The VMP provides a comprehensive description of projected visitor numbers, types, times, travel modes, parking, management and mitigation measures. The VMP also includes details of staff types, numbers and times.

1.11.2 Access

Access for the Phase 1 Village Car Park at Mountshannon, north of Aistear Park, will be via a single site access on the north side of Main Street, at the approximate location of the existing site gated access.

Pedestrian access for the new Visitor Centre will be provided on Main Street, via Aistear Park, and on Harbour Road. Pedestrian crossing facilities will be provided on Main Street as part of Clare County Council's R352 Main Street Public Realm and Mobility Plan enhancement works.

1.11.3 Parking

The proposed Village Car Park for the proposed development will be a public daytime car park, with a total of 169 car parking spaces, six coach/bus parking spaces and bicycle parking spaces. The 169 car parking spaces include 11 accessible spaces, 105 standard spaces and 53 overflow spaces. EV charging points will be provided for 20% of the car parking spaces.

The car park has been designed to accommodate sufficient parking for the projected staff and visitor numbers, considering that full capacity will not be required year-round, with a split between permanent and overflow parking. Access to the car park will be restricted by barrier out of hours, prohibiting overnight parking.

The reconfiguration of the Harbour Car Park will increase the total car parking spaces at the Mountshannon Harbour Car Park from 46 spaces to 49 spaces, including one additional accessible space to provide three accessible spaces.

1.11.4 Hours

As detailed in the VMP, The proposed development Phase 2 will be open from March to October annually. The proposed development operational opening hours are provided in Table 6-23.

Table 1-23 Phase 2 Operational Opening Hours

Season	Opening Hours
Low Season	9.00 a.m.to 5.00 p.m.
High Season (July & August)	9.00 a.m. to 6.00 p.m.

1.11.5 Staff

The predicted staff numbers for the Phase 2 operations, with peak Phase 2 visitor numbers by 2046 (Phase 2, Year 5), are provided in Table 6-24.

Table 1-24 Predicted Phase 2 Operational Staff

Phase 2 Operational Development	Staff Type/Location	Number of Staff	
		Low Season	High Season
Phase 2 Peak (Year 5, 2046)	Old Rectory Visitor Experience	8.5	14.2
	Inis Cealtra Island Tours &Twilight Tours	1.3	5.3
Total Phase 2 Staff		**9.8**	**19.5**

The permitted Old Rectory Interpretive Centre includes seven staff during peak season. Accordingly, additional staff numbers, for Phase 2, will be up to 12.5 persons and could generate up to 13 additional daily staff vehicle trips two-way during high season, including up to seven additional staff vehicle trips during the peak traffic hour.

1.11.6 Visitors

The projected visitor numbers for the Phase 2 operations are provided in Table 6-25.

Table 1-25 Projected Phase 2 Operational Visitors

Phase 2 Operational Development	Annual Visitors	Typical Daily Visitors High Season
Opening Year (Year 1, 2042)	40,000	258
Peak Year (Year 5, 2046)	75,000	484 (1)
Note (1): Daily maximum during high season.		

The permitted Old Rectory Interpretive Centre is projected to attract up to 15,000 visitors annually, including new visitors and existing Inis Cealtra visitors. Accordingly, the proposed Phase 2 development would increase projected visitors by 25,000 visitors annually in Year 1 and by 60,000 visitors by Year 5. This would equate to an average of 162 additional daily visitors in Year 1 and an average of 388 additional daily visitors by Year 5.

1.11.7 Vehicle Trips

During high season, the Phase 2 peak daily number of visitors will be 484 visitors.

On the basis of the Visitor Management Plan, it is envisaged that circa 30% of visitors would travel via coach/bus, with up to 25 visitors per coach/bus; and up to 70% of visitors would travel via car, with an average of 2.3 visitors per car. It is envisaged that a relatively low proportion of visitors would travel via bicycle and public transport.

The predicted additional vehicle trips generated by the proposed development during Phase 2 peak operations during high season, by Phase 2 Year 5, are provided in Table 6-26.

Table 1-26 Predicted Phase 2 Peak Operations High Season Additional Operational Vehicles

Phase 2 Development	Morning Peak Traffic Hour Additional Vehicles		Evening Peak Traffic Hour Additional Vehicles		Daily Additional Vehicles	
	Arrivals	Departures	Arrivals	Departures	Arrivals	Departures
Staff	7	0	0	7	13	13
Visitors	14	14	14	14	124	124
Total	**21**	**14**	**14**	**21**	**137**	**137**

The proposed Phase 2 peak operations high season would generate up to 35 additional vehicles two-way, during the peak traffic hours.

It is envisaged that the distribution of operational vehicles generated by the proposed development would be similar to the recorded during high season baseline traffic volumes on the R352, of circa 60% west and 40% east.

1.11.8 Link Traffic Volumes

The Phase 2 peak operations high season weekday and weekend morning peak hour and evening peak hour traffic volumes on the Mountshannon local road network, in the vicinity of the proposed development, with the proposed development peak season daily visitors, during the initial peak year 2046 (Phase 2, Year 5), are provided in Table 6-27.

Table 1-27 Predicted 2046 Weekday and Weekend Peak Hour Link Traffic Volumes With Phase 2 High Season Operational Development

Location	Road Link	Weekday Morning Peak Hour		Weekday Evening Peak Hour		Weekend Morning Peak Hour		Weekend Morning Peak Hour	
		Total Vehicles (HGVs)	Change	Total Vehicles (HGVs)	Change	Total Vehicles (HGVs)	Change	Total Vehicles (HGVs)	Change
R352/L4034 Harbour Road/L4032 Junction	R352 West	243 (21)	+21	374 (14)	+21	325	+21	385	+21
	L4032	22	0	21	0	12	0	20	0
	R352 East	231 (19)	+21	339 (14)	+21	293	+21	359	+21
	L4034 Harbour Road	28 (2)	0	54	0	50	0	72	0
R352 Main Street/L4034 Harbour Road/L8078 Junction	R352 West Main Street	213 (21)	+14	315 (12)	+14	274	+14	387	+14
	L8078	12	0	21	0	26	0	24	0
	R352 East	193 (19)	+14	292 (9)	+14	246	+14	338	+14
	L4034 Harbour Road	53 (2)	0	98	0	92	0	164	0

The proposed Phase 2 peak operations high season would increase peak hour traffic volumes on the R352 Main Street by up to 21 vehicles two-way. This would equate to one additional vehicle every 2.9 minutes and would not be significant.

1.11.9 Main Street Urban Link Volume/Capacity Ratios

The predicted urban road link peak hour highest volume/capacity ratio for the R352 Main Street, within the Mountshannon 50 km/hour urban speed limit zone, with the proposed Phase 2 peak operations high season, during 2046, are provided in Table 6-28, on the basis of the Traffic Capacity of Urban Roads TA 79/99.

Table 1-28 Predicted R352 Main Street Urban Road Link Peak Hour Volume/Capacity Ratio With Peak Phase 2 High Season Operational Development

R352 Main Street	Year	Highest Direction Peak Hour Vehicles	Capacity/Hour/ Direction (Vehicles)	Volume/Capacity Ratio
R352 Main Street	2046	216	750	29%

The R352 Main Street, within the Mountshannon 50 km/hour urban speed limit zone, would operate well within its estimated urban road link capacity, with the proposed Phase 2 peak operations high season, with peak capacity daily visitors, during 2046, with a highest volume/capacity ratio during of 29%. This compares to a highest ratio of 26% in 2046 without the proposed development.

1.11.10 Junction Traffic Volumes and Capacity Analysis

As detailed in Section 6.7.5, the R352/L034 Harbour Road/L4032 junction and R352 Main Street/L4034 Harbour Road/L8078 junction would operate well within practical capacity (RFC = 0.900), for the predicted 2046 weekday and weekend morning and evening peak hour traffic volumes with TII's predicted traffic growth, with no significant traffic queues and delays (highest RFCs of 0.100 and 0.228, respectively). The proposed Phase 2 peak operations high season would not significantly increase peak hour traffic volumes at these junctions, with no increase in vehicle turning volumes. Accordingly, both junctions would continue to operate well within practical capacity during the proposed Phase 2 peak operations high season.

The total predicted 2046 peak hour junction traffic volumes generated at the proposed Village Car Park access junction on Main Street, during the proposed Phase 2 peak operations high season, including visitors generated by the permitted Old Rectory Interpretive Centre, are provided in Table 6-29.

Table 1-29 Predicted 2046 Weekday and Weekend Peak Hour R352 Main Street/Visitor Car Park Access Junction Traffic Volumes With Peak Season Phase 2 Operations

Junction	Year	Approach	Movement	Weekday Peak Hour Vehicles (HGVs)		Weekend Peak Hour Vehicles (HGVs)	
				Morning	Evening	Morning	Evening
R352 Main Street/Village Car Park Access Junction	2046	R352 Eastbound	Left to Village Car Park	15	10	15	10
			Straight	91 (6)	204 (9)	125	226
		Village Car Park	Right	10	15	10	15
			Left	7	9	7	9
		R352 Westbound	Straight	103 (16)	108 (4)	130	145
			Right to Village Car Park	9	7	9	7

The proposed R352 Main Street/Village Car Park access junction have been analysed using the computer programme PICADY for priority controlled junctions for the predicted 2046 weekday and weekend morning and evening peak hour traffic volumes, with proposed Phase 2 peak operations high season, including permitted visitors generated by the Old Rectory Interpretive Centre, plus TII's predicted traffic growth.

Full details of the PICADY junction capacity analysis are provided in Appendix 6-1. The predicted results are summarised in Table 6-30.

Table 1-30 PICADY Junction Capacity Analysis With Peak Season Phase 2 Operations

Junction	Year & Peak Hour	Highest Ratio of Flow to Capacity (RFC) @ 15 Minutes Intervals	Highest Mean Maximum Queue Length (vehicles) @ 15 Minutes Intervals	Junction Delay per Vehicle (minutes) for Total Time Period
R352 Main Street/Village Car Park Access Junction	2046 Weekday AM	0.036	0.0	0.12
	2046 Weekday PM	0.054	0.1	0.13
	2046 Weekend AM	0.036	0.0	0.12
	2046 Weekend PM	0.055	0.1	0.13

PICADY identifies a Ratio to Capacity (RFC) of 0.90 as the practical capacity of a priority controlled junction.

The analysis confirms that the proposed R352 Main Street/Village Car Park access junction would operate well within practical capacity, for the predicted 2046 weekday and weekend morning and evening peak hour traffic volumes with the proposed Phase 2 peak operations high season, including visitors generated by the permitted Old Rectory Interpretive Centre, plus TII's predicted traffic growth, with no significant traffic queues and delays.

The proposed R352 Main Street/Village Car Park access junction would operate with a highest RFC of up to 0.055, in 2046, and highest delays per vehicle of 0.13 minutes.

1.11.11 Lough Derg/Mountshannon Harbour/Inis Cealtra (Holy Island)

The proposed Phase 2 visitors' boat service to/from Inis Cealtra Island from/to Mountshannon Harbour will be seasonal, ranging from six round trip daily boat services during low season to 14 round trip daily boat services during high season. The expected high season 14 daily round trip boat sailings would be six additional to the existing summer tourist season - there are typically eight existing round boat trips daily between Mountshannon Harbour and Inis Cealtra.

Accordingly, there will be up to 12 additional boat traffic movement volumes generated by Mountshannon Harbour and on Lough Derg with the proposed Phase 2 development in operation.

The maximum daily capacity on the Inis Cealtra island will be 400 persons, with no more than 100 people permitted on the island at any one time.

1.11.12 Phase 2 Operational Mitigation

The proposed development includes a detailed Visitor Management Plan (VMP). Visitor capacity will be limited and visitor access will be on a booked basis only, with pre booking online and a timed visitor entry system to stagger visitor arrivals. The VMP will control visitor traffic generation volumes and times and is part of the proposal. No additional operational mitigation is warranted.

Total operational staff numbers for Phase 2 will be up 20 staff, including up to 13 additional staff with the permitted Old Rectory development. Total operational staff numbers will be significantly less than the 75 employees threshold identified by the Clare County Development Plan 2023-2029 for a Mobility Management Plan.

1.11.13 Phase 2 Operational Impact Significance and Duration

On the basis of the EPA EIAR Guidelines, the operational effect of the proposed development on traffic and transportation will be not significant negative to slight negative, and long term to permanent.

1.11.14 Phase 2 Cumulative Operational Impacts

The predicted Phase 2 development high season 2046 traffic volumes include TII's predicted future traffic growth, which includes traffic generated by other developments. No significant other developments' traffic generation is envisaged in addition to TII's predicted growth rates. The predicted traffic generated by the subject proposed development is in addition to TII's predicted traffic growth. It is envisaged that any cumulative operational traffic effect will be not significant to slight negative and long term to permanent, on the basis of the EPA EIAR Guidelines.

1.12 Risk of Major Accidents or Disasters

Vehicle traffic, boat traffic and pedestrians generated by the proposed development could be involved in collisions, resulting in potential material damage and injuries, including fatal injuries.

The mitigation measures inherent in the proposal, including as detailed in the CEMP and VMP, would reduce the risk of collisions. When the construction contractor is appointed, an updated Construction Traffic Management Plan will be submitted to Clare County Council, for approval, prior to the commencement of construction, which would reduce the risk of collisions.

1.13 Interactions

Traffic generated by the proposed development could have interactions with other environmental effects considered in this document and the EIAR, including noise and vibration, air quality and climate, and hydrology.

1.14 Monitoring

Traffic and transport monitoring is not required, as the predicted traffic volumes and effects are identified in this document.

1.15 Summary of Mitigation and Monitoring

The construction phase mitigation measures are detailed in the proposed CTMP and CEMP, and are part of the proposal assessed in this Traffic and Transport document. A summary of the proposed construction phase mitigation measures and monitoring are provided in Table 6-31.

Table 1-31 Summary of Construction Phase Mitigation and Monitoring

Likely Significant Effect	Mitigation	Monitoring
Construction Phase Generated Traffic Volumes	Mitigation measures are provided in the CTMP & CEMP as part of the proposal.	None

The operational phase mitigation measures are included in the proposed VMP, and are part of the proposal assessed in this Traffic and Transport document. A summary of the proposed operational phase mitigation measures and monitoring are provided in Table 6-32.

Table 1-32 Summary of Operational Phase Mitigation and Monitoring

Likely Significant Effect	Mitigation	Monitoring
Operational Phase Generated Traffic Volumes	Mitigation measures are provided in the VMP as part of the proposal.	None