MWP

Chapter 12 Traffic and Transportation

An Rínn Rua Hotel and Leisure Park
County Kerry

Rínn Rua Holiday Park Limited

April 2024

Contents

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12. Traffic and Transportation

12.1 Introduction

This chapter of the EIAR quantifies and assesses the impact of traffic generated by the proposed Rínn Rua Hotel and Leisure Park development on the existing and proposed local road and transport network, and recommends mitigation measures, as appropriate.

12.1.1 Scope of Assessment

The scope of the traffic and transportation assessment includes consideration of the following:

- Existing and expected future road and transport network;
- Existing and predicted future baseline traffic volumes on the surrounding local road network;
- Predicted construction traffic volumes associated with the proposed development and likely impacts;
- Proposed construction mitigation measures;
- Predicted operational traffic volumes associated with the proposed development and likely impacts; and
- Proposed operational mitigation measures.

This Traffic and Transportation Assessment chapter has been prepared following pre planning consultation with Kerry County Council and Transport Infrastructure Ireland (TII).

12.2 Methodology/References

This EIAR Traffic and Transportation Assessment has been prepared in the context of the following:

- Kerry County Council's Kerry County Development Plan 2022-2028;
- Kerry County Council's West Iveragh LAP 2019-2025;
- The Transport Infrastructure Ireland (TII) Traffic and Transport Assessment Guidelines May 2014;
- The TII Rural Road Link Design DN-GEO-03031 May 2023;
- The Chartered Institution of Highways and Transportation (CIHT) Trip Rate Information Computer System (TRICS);
- The TII Project Appraisal Guidelines for National Roads Unit 5.3 – Travel Demand Projections PE-PAG-02017 October 2021; and
- The Environmental Protection Agency (EPA) Guidelines on The Information to be Contained in Environmental Impact Assessment Reports May 2022 (EPA EIAR Guidelines).

12.3 Forecasting Methods

PICADY (Priority Intersection Capacity and Delay) is a computer software 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.

12.3.1 Assessment Criteria

Existing baseline traffic volumes have been established on the basis of on-site morning and evening peak period traffic counts carried out by MWP during August 2023 – the highest traffic volumes month during the peak summer tourist season; and reference to automatic traffic counter data recorded by TII.

Future baseline traffic volumes have been established on the basis of TII's Travel Demand Projections.

Rural link road capacities have been established on the basis of TII's Rural Road Link Design Standards.

Traffic capacity junction modelling analysis of priority controlled road junctions has been carried oy using TRL's computer software PICADY.

The definitions of the significance of impacts and the durations of impacts have been identified on the basis of the EPA EIAR Guidelines.

12.3.2 Statement of Limitations and 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 can't be shared until this review is complete. Accordingly, RSA collisions data for the proposed development local road network was unavailable for the preparation of this chapter. A Road Safety Audit was however undertaken for this project (see **Appendix 12-1**).

Otherwise, there were no limitations and difficulties encountered in preparing this EIAR Traffic and Transportation chapter.

12.3.3 Competency of Assessor

This Traffic and Transportation chapter was prepared by Seamus Quigley BE CEng MIEI MCIHT of MWP.

Seamus Quigley has over 33 years' experience in transport planning and traffic engineering projects, including EIS/EIAR traffic and transportation chapters, 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 Malachy Walsh and Partners in 2007, having spent over sixteen years with Atkins.

12.4 Existing Environment

12.4.1 Existing Road Network

A detailed description of the proposed development location is provided in EIAR Chapter 2. The road network in the vicinity of the proposed development site is shown in **Figure 12-1**. The road network local to the site is shown in Figure **12-2**.

Figure 12-1: Road Network Map

Figure 12-2: Local Road Network Map

The proposed development site is located south of the R567 Regional Road and west of the N70 National Road. The proposed development site's existing road entrance is located on the west site of a private access road, circa 300 metres south of its R567 junction, that links with Reenroe Beach. The access road has a road carriageway width of 3.2 metres, with verges on both sides. Approximately 20 metres south of the existing site entrance, the access road widens to circa 6.4 metres, to facilitate a parking area for Reenroe Beach.

The Reenroe Cliff Walk extends from the access road and Reenroe Beach along the seafront adjacent to the proposed site.

The Emlagh Loop Walk extends along the access road and the R567 from the N70.

The access road forms a Yield controlled crossroads priority junction with the R567 and a Local Road, with no signed designated local road number. At the crossroads junction, the R567 has a typical road carriageway width of 4.7 metres, with hard strip and centreline road markings on the east side of the junction. During the site inspection for this chapter in August 2023, the R567 on the west side of the junction to its junction with the R566 had been recently resurfaced with no road markings - temporary construction warning signs were in place. At its junction tie-in with the R567, the access road has been widened and splayed, locally, to facilitate two-way vehicle movements. The Local Road on the north side of the junction has a typical road carriageway width of 3.1 metres, with a local widened section of 4.2 metres in the vicinity of the junction.

The R567 on the east side of the access road junction has a variable width road carriageway, including a reduced width section of circa 4.1 metres. The R567 forms a Stop priority T-junction with the N70, approximately 4.5 kms east of its access road junction. The R567 road carriageway width at its N70 junction is circa 5.3 metres.

At its R567 T-junction, the N70 is on an inclining vertical gradient northbound with a circa 6.2 metres wide road carriageway, hard strips and double centreline road markings. At the junction, the R567 is signed for the Emlagh Loop Walk and Bolus Loop Walk. Cycle signage for the N70 and R567 are also provided.

The R567 forms a Stop priority T-junction with the R566 Regional Road, approximately 1.4 kms west of its access road junction. The R567 road carriageway width at its R566 junction is circa 5.4 metres. At its R567 junction, the R566 has a circa 4.9 metres wide road carriageway with hard strip and centreline road markings. At the junction, the R566 is signed for the Bolus Loop Walk.

The foregoing local road network, in the vicinity of the proposed development site, is located within the 80 km/hour rural speed limit zone.

Waterville is located on the N70 circa 5.0 kms south of its R567 junction. Ballinskelligs is located on the R566 circa 2.0 kms south west of its R567 junction.

The R566 extends from its junction with the N70, approximately 7.1 kms north west of the N70/R567 junction to its junction with the R565 Regional Road, at Portmagee.

The N70 extends from Tralee to Kenmare, via the Iveragh Peninsula, and is part of the Ring of Kerry and Wild Atlantic Way tourist routes. West of the N70, the R567, the western section of the R566 and the R565 are part of the Skellig Ring tourist route. The coastal sections of the Ring of Kerry and Skellig Ring routes are also part of the Wild Atlantic Way.

12.4.2 Existing Pedestrian and Cyclist Facilities

As detailed in section 12.3.1 above, the existing road network in the vicinity of the proposed development site includes the designated Ring of Kerry, Skellig Ring and Wild Atlantic Way tourist routes, including for cyclists and walkers; and the designated Emlagh Loop Walk and Bolus Loop Walk.

12.4.3 Existing Public Transport Services

Ballinskelligs and Waterville are served by the Transport for Ireland (TFI) Local Link Route public transport bus services provided by the National Transport Authority (NTA), as summarised in **Table 12-1**. An extract from the Local Link Route map is provided in **Figure 12-3**.

Table 12-1: TFI Local Link Route Bus Services (Ballinskelligs and Waterville

TFI Local Link Route Number	Route	Days
287b	Dromid-Ballinskelligs-Caherciveen	Monday & Wednesday
E2	Ballinskelligs Area-Waterville	Saturday
E37	The Glen-Ballinskelligs-Cahersiveen-Kells-Glenbeigh-Killorglin-Tralee	Tuesday & Thursday
E40	Ballinskelligs-Caherciveen	Friday
S245a	Ballinskelligs Area	Thursday
S246	Ballinskelligs-The Glen Area	Tuesday
280	Waterville-Caherciveen-Glenbeigh-Killorglin-Beufort-Fossa-Killarney	Monday-Sunday
281	Waterville-Caherdaniel-Castlecove-Sneem-Kenmare	Monday-Sunday
285	Waterville-Caherciveen	Monday-Saturday

Figure 12-3: TFI Local Link Route Bus Services Map Extract

Waterville is served by the Bus Éireann public transport Route 279A Killarney-Killorglin-Caherciveen-Waterville, Monday to Saturday.

12.4.4 Baseline Traffic Volumes (2023)

On-site peak period traffic count surveys were carried out by MWP during the summer tourist peak season on Thursday 10th August 2023 at existing junctions on the proposed development local road network. The traffic counts were carried out during the morning and afternoon/evening peak periods, consistent with the highest hours recorded by TII's automatic traffic counters on the N70. The morning and evening peak traffic volumes' hours occurred during the hours 11.00 a.m. to 12.00 noon and 4.00 p.m. to 6.00 p.m.

The peak period traffic count surveys were carried out at the following junctions:

- N70/R567, north of Waterville;
- R567/Access Road/Local Road, north of the proposed site and Reenroe Beach; and
- R566/R567, north of Ballinskellig.

The recorded morning and evening peak hour link traffic volumes are provided in Table 12-2, including total vehicles, heavy vehicles and pedal cycles. The equivalent recorded morning and evening peak hour junction traffic turning volumes at the N70/R567 and R566/R567 junctions are provided in Table 12-3.

Table 12-2: Recorded 2023 Peak Hour Link Traffic Volumes

Road Link	Total Vehicles (Heavy Vehicles)(Pedal Cycles)	
	Morning Peak Hour	Evening Peak Hour
N70 North @ R567	253 (4)(5)	308 (4)(2)
N70 South @ R567	341 (6)(8)	413 (4)(2)
567 East @ N70	104 (2)(3)	137 (1)(1)
Access Road (Site & Reenroe Beach)@ R567	24 (0)(2)	27 (0)(1)
Local Road North @ R567/Access Road	26 (0)(1)	22 (0)(0)
567 West @ R566	82 (2)(3)	109 (1)(1)
R566 North @ R567	80 (1)(0)	104 (2)(1)
R566 South @ R567	144 (3)(3)	189 (3)(2)

Table 12-3: Recorded 2023 Peak Hour Junction Traffic Volumes

Junction	Approach	Movement	Total Vehicles (Heavy Vehicles) (Pedal Cycles)	
			Morning Peak Hour	Evening Peak Hour
N70/R567 Junction	N70 Southbound	Straight	116 (2)(4)	158 (3)(1)
		Right to R567	4	10
	R567	Left	4	6
		Right	42 (1)(0)	72
	N70 Northbound	Left to R567	54 (1)(3)	49 (1)(1)
		Straight	129 (2)(1)	134 (1)(1)
R566/R567 Junction	R566 Southbound	Left to R567	5	8
		Straight	37	47 (1)(0)
	R567	Left	37 (1)(3)	37 (1)(0)
		Right	4	4
	R566 Northbound	Right to R567	36 (1)(0)	60 (0)(1)
		Straight	34 (1)(0)	45 (1)(1)

The TII recorded Annual Average Daily Traffic(AADT) volumes and the percentage of heavy goods vehicles (HGVs) on the N70 national road, for the latest full year, 2022, and the morning and evening peak traffic hours on the 10th August 2023 (the same date as the foregoing MWP traffic counts), are provided in **Table 12-4**.

Table 12-4: TII Recorded Link Traffic Volumes

National Road Link/Location (TII Automatic Counter Number)	2022 AADT (% HGVs)	Total Vehicles (Heavy Vehicles)	
		2023 Morning Peak Hour	2023 Evening Peak Hour
N70 between Caherciveen and Glenbeigh (20701)	2,279 (3.8%)	350 (12)	353 (6)
N70 between Sneem and Kenmare (1701)	2,218 (2.2%)	303 (4)	359 (5)

The AADT volumes on the proposed development local road network, for the latest full year, 2022, estimated on the basis of the TTI automatic traffic counter data for the N70 in **Table 12-4**, are provided in **Table 12-5**.

Table 12-5: Estimated AADT Volumes

Road Link	2022 AADT (% HGVs)
N70 North @ R567	2,210 (2.1%)
N70 South @ R567	2,971 (1.9%)
567 East @ N70	950 (1.8%)
Access Road (Site & Reenroe Beach)@ R567	201 (0%)
Local Road North @ R567/Access Road	189 (0.5%)
567 West @ R566	753 (2.3%)
R566 North @ R567	725 (2.4%)
R566 South @ R567	1,312 (2.6%)

12.5 Future Baseline Conditions

The roads and transportation aims, objectives and policies of Kerry County Council, for the County Kerry area in the vicinity of the proposed development site, are set out in their Kerry County Development Plan 2022-2028 and West Iveragh LAP 2019-2025.

The Council's Development Plan objectives include the following:

- Protect the capacity and safety of the National Road and Strategically Important Regional Road network in the County and associated national road junctions. The Kerry County Development Plan (KCDP) Strategic Transportation Network Map is shown in **Figure 12-4**;
- Regional and local Roads are of vital importance, linking the national roads with the towns and villages and remaining rural areas within the County. It is the policy of the Plan to continue the ongoing upgrading, strengthening and improvement works on all regional and local roads in a sustainable manner in accordance with the objectives of this Plan and in compliance with the annual Roads Programmes;
- Facilitate the sustainable upgrade and improvement of major tourist routes within the County (as shown on the KCDP Tourist Routes Map in **Figure 12-5**) including realignments, the provision of lay-bys, viewing areas, picnic areas and the improvement of finger-posting and access ways to points of interest, at appropriate locations and in a sustainable manner along such tourist routes; and
- The development of a quality bus system as an alternative to private car use is an essential element of an integrated and balanced land use transport system. Local Link Transport provide an invaluable service connecting rural communities with the towns and villages. The council will work closely with the NTA, Local Link Kerry, Bus Eireann {a range of rural community development groups and allied stakeholders to identify and meet future bus transport requirements through the connecting Ireland initiative.

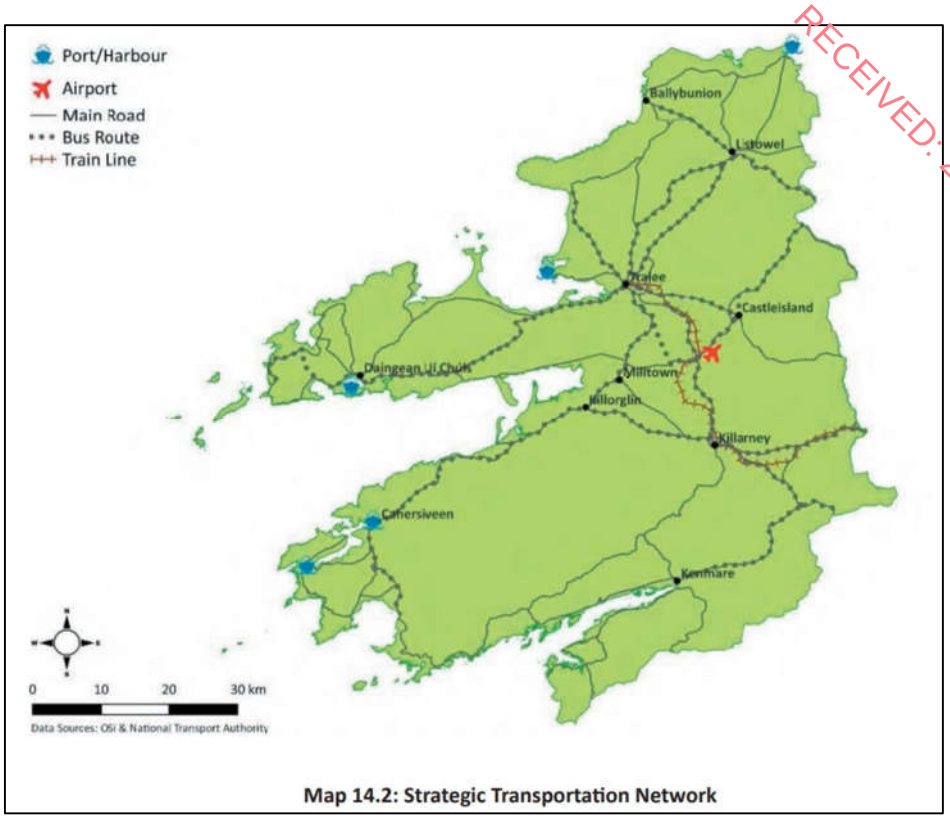

Figure 12-4: KCDP Strategic Transportation Network Map

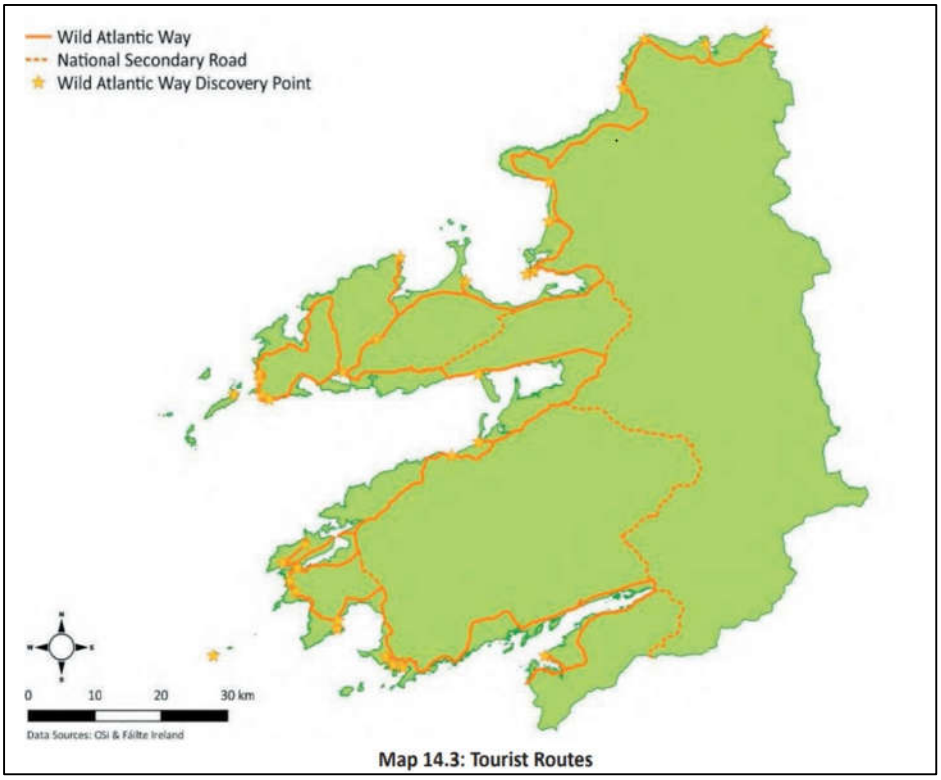

Figure 12-5: KCDP Tourist Routes Map

The Development Plan Priority Roads Infrastructure Projects include the following:

- N70 Tralee to Killorglin and N70 Killorglin-Cahersiveen-Kenmare;
- N70/N72 Killorglin Bypass;
- N70 Milltown Bypass; and
- Kenmare Relief Road (Phase 2).

The Council has developed a Greenway Strategy for the future development of routes throughout the county. The Council will seek to roll out the development on the greenways in a coordinated and linked up manner. The KCDP Greenway Strategy Map is shown in **Figure 12-6**.

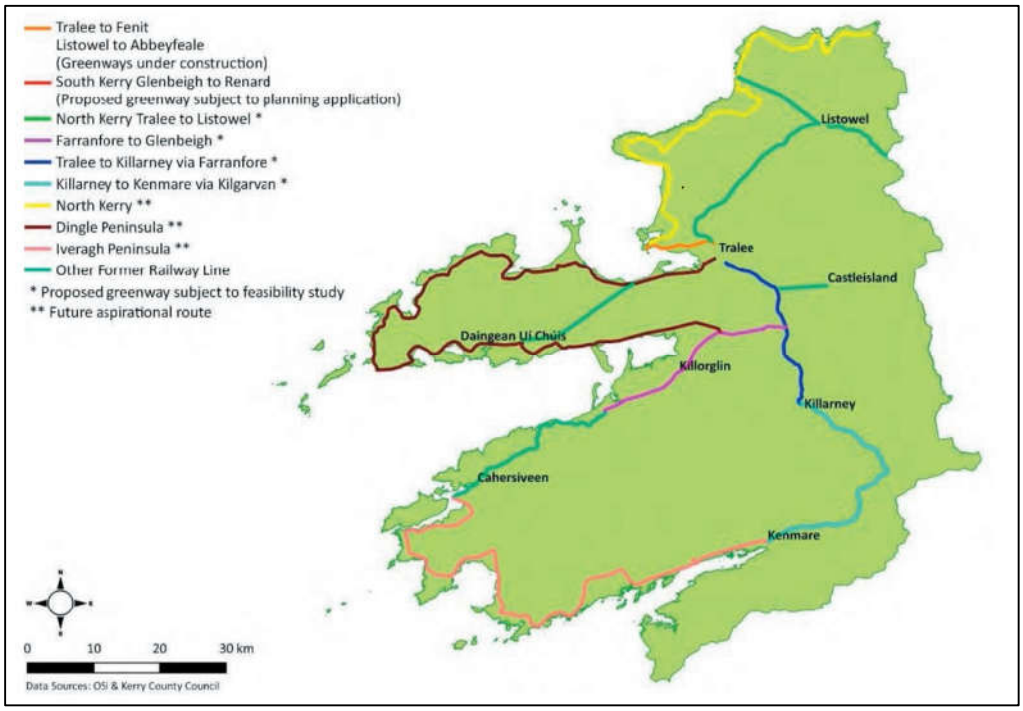

Figure 12-6: KCDP Greenway Strategy Map

The permitted South Kerry Greenway includes a Greenway car park and access at Reenard Point and Caherciveen Marina.

The Council's LAP includes the following:

- The provision of improved parking facilities, particularly for tour buses, are required for Waterville. The LAP objectives for Waterville include the N70 Waterville to Ballybrack Road Improvement Scheme; and
- Significant public investment has taken place to alleviate peak summer traffic in Baile an Sceilg (Ballinskelligs), in particular the car park at the beach has recently been extended. The beach has a Blue Flag designation, offering significant potential to grow visitor numbers. Walking trails in the area are also an amenity for both residents and visitors. The LAP objectives include the improvement of pedestrian connectivity within the settlement by the provision of pedestrian routes and footpaths where required, and the improvement of pedestrian connectivity between the village and the beach.

12.5.1 Future Background Traffic Flows

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. In this case, the opening year is 2026 and the plan years are 2031 and 2041.

TII in their Project Appraisal Guidelines for National Roads Unit 5.3 – Travel Demand Projections PE-PAG-02017 October 2021 envisage that car and light vehicle volumes on County Kerry national roads would increase by an annual factor of 1.0111 during the period to 2030, and by a factor of 1.0285 for heavy vehicles, based on their central growth rates. The equivalent growth rates are 1.0011 and 1.0113, respectively, for 2030 to 2040; and 1.000 and 1.0146, respectively, for 2040 to 2050.

The recorded 2023 traffic volumes have been factored to 2026, 2031 and 2041 levels, on the basis of the foregoing TII growth rates. The predicted morning and evening peak hour link traffic volumes are provided in Table 12-6, and the predicted morning and evening peak hour junction traffic turning volumes at the N70/R567 and R566/R567 junctions are provided in Table 12-7.

Table 12-6: Predicted Peak Hour Link Traffic Volumes With TII Growth

Road Link	Total Vehicles (Heavy Vehicles)					
	Morning Peak Traffic Hour			Evening Peak Traffic Hour		
	2026	2031	2041	2026	2031	2041
N70 North @ R567	261 (4)	274 (6)	278 (6)	318 (4)	335 (5)	337 (5)
N70 South @ R567	352 (6)	369 (8)	375 (8)	427 (5)	449 (6)	452 (6)
567 East @ N70	107 (2)	111 (2)	113 (2)	141 (1)	150 (1)	151 (1)
Access Road (Site & Reenroe Beach)@ R567	25	27	27	28	29	30
Local Road North @ R567/Access Road	27	28	28	23	24	24
567 West @ R566	84 (2)	88 (2)	89 (2)	112 (1)	118 (1)	119 (1)
R566 North @ R567	82 (1)	86 (1)	87 (1)	108 (2)	113 (2)	113 (2)
R566 South @ R567	148 (3)	156 (3)	156 (3)	196 (3)	205 (3)	206 (3)

Table 12-7: Predicted Peak Hour Junction Traffic Volumes With TII Growth

Junction	Approach	Movement	Total Vehicles (Heavy Vehicles)					
			Morning Peak Traffic Hour			Evening Peak Traffic Hour		
			2026	2031	2041	2026	2031	2041
N70/R567 Junction	N70 Southbound	Straight	120 (2)	126 (3)	128 (3)	163 (3)	172 (4)	173 (4)
		Right to R567	4	4	4	10	11	11
	R567	Left	4	4	4	6	7	7
		Right	43 (1)	45 (1)	46 (1)	74	78	79
	N70 Northbound	Left to R567	56 (1)	58 (1)	59 (1)	51 (1)	54 (1)	54 (1)
		Straight	133 (2)	140 (3)	142 (3)	139 (1)	145 (1)	146 (1)
R566/R567 Junction	R566 Southbound	Left to R567	5	5	6	8	9	9
		Straight	38	40	40	49 (1)	51 (1)	51 (1)
	R567	Left	38 (1)	40 (1)	40 (1)	38 (1)	40 (1)	40 (1)
		Right	4	4	4	4	4	4

Junction	Approach	Movement	Total Vehicles (Heavy Vehicles)					
			Morning Peak Traffic Hour			Evening Peak Traffic Hour		
			2026	2031	2041	2026	2031	2041
	R566 Northbound	Right to R567	37 (1)	39 (1)	39 (1)	62	65	66
		Straight	35 (1)	37 (1)	37 (1)	47 (1)	49 (1)	49 (1)

The TII predicted 2026, 2031 and 2041 AADT volumes, with TII's predicted traffic growth rates, provided in **Table 12-8**.

Table 12-8: Predicted AADT Volumes With TII Growth

Road Link	AADT (% HGVs)		
	2026	2031	2041
N70 between Caherciveen and Glenbeigh (TII automatic counter location 20701)	2,388 (4.1%)	2,508 (4.4%)	2,543 (4.9%)
N70 between Sneem and Kenmare (TII automatic counter location 1701)	2,322 (2.4%)	2,435 (2.5%)	2,465 (2.8%)
N70 North @ R567	2,313 (2.3%)	2,426 (2.5%)	2,455 (2.7%)
N70 South @ R567	3,109 (2.1%)	3,260 (2.2%)	3,298 (2.5%)
567 East @ N70	994 (1.9%)	1,043 (2.1%)	1,054 (2.3%)
Access Road (Site & Reenroe Beach)@ R567	210 (0%)	220 (0%)	222 (0%)
Local Road North @ R567/Access Road	198 (0.5%)	207 (0.5%)	210 (1.0%)
567 West @ R566	788 (2.4%)	827 (2.7%)	837 (2.9%)
R566 North @ R567	759 (2.5%)	797 (2.8%)	806 (3.0%)
R566 South @ R567	1,374 (2.8%)	1,441 (3.0%)	1,459 (3.3%)

12.5.2 TII Rural Road Link Capacities

The TII Rural Road Link Design DN-GEO-03031 May 2023 identifies the link capacity of rural national secondary road, with a typical 6.0 metres wide single carriageway, as 5,000 vehicles AADT for Level of Service D.

On this basis, the N70 rural road, at the TII automatic traffic counter locations and at its R567 junction, would operate within its TII AADT link capacity for the predicted 2026, 2031 and 2041 AADT volumes, with the TII growth rates, as detailed in **Table 12-9**. The highest AADT link volume/capacity ratios would be 50.9%, 49.3%, 49.1% and 66.0%, respectively, in 2041.

Table 12-9: Predicted N70 TII AADT Link Volume/Capacity Ratios With TII Growth

N70 Rural Road	Year/Peak Hour	Predicated AADT (Vehicles)	TII Rural Road Link AADT Capacity (Vehicles)	Link AADT Volume/Capacity Ratio (%)
N70 between Caherciveen and Glenbeigh (TII automatic counter location 20701)	2026	2,388	5,000	47.8%
	2031	2,508		50.2%
	2041	2,543		50.9%
N70 between Sneem and Kenmare (TII automatic counter location 1701)	2026	2,322	5,000	46.4%
	2031	2,435		48.7%
	2041	2,465		49.3%
N70 North @ R567	2026	2,313	5,000	46.3%

N70 Rural Road	Year/Peak Hour	Predicated AADT (Vehicles)	TII Rural Road Link AADT Capacity (Vehicles)	Link AADT Volume/Capacity Ratio (%)
	2031	2,426		48.5%
	2041	2,455		49.1%
N70 South @ R567	2026	3,109	5,000	62.2%
	2031	3,260		65.2%
	2041	3,298		66.0%

12.6 Construction Phase Impacts

A detailed description of the proposed construction phase is provided in EIAR Chapter 2 Description of Development.

12.6.1 Construction and Environmental Management Plan

The proposed development construction includes a Construction and Environmental Management Plan (CEMP) detailed in EIAR Chapter 2 Description of Development.

12.6.2 Proposed Construction Traffic Management Plan

12.6.2.1 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 Kerry County Council.

12.6.2.2 Construction Phasing

Other than during the initial construction phase (Phase 1), when the proposed development will not be operational, the proposed construction phases exclude the July and August summer tourist season, which is the peak traffic season locally. No construction works will be carried out during July and August, during construction Phase 2, 3 and 4.

12.6.2.3 Construction Hours

Working hours will be 8.00 a.m. to 6.00 p.m. Monday to Friday and 8.00 a.m. to 2.00 p.m. on Saturday. No work will be undertaken on Sundays and Bank Holidays.

12.6.2.4 Construction Access

The existing beach access road will be upgraded to include a 6.0 metres wide road carriageway and a shared pedestrian/cycle facility from the junction with the R567 to the beach on the east side of the road, with a green

verge between the road carriageway and the shared facility. The existing parallel beach parking area south of the main site entrance on both sides of the road will be retained. The beach access road will remain open to traffic during its proposed road upgrade construction works.

The existing site access will be upgraded to provide the proposed main site access at the existing access location, with a defined pedestrian crossing location on the upgraded beach access road immediately on the south side of the upgraded site access junction. The proposed upgraded main access will be used as the construction access during construction Phase 1.

The new private access road for the adjacent holiday houses in the south-west will be a two-way road, and will also provide access to the proposed maintenance building. This road will also be used by the developers as the construction access during construction Phase 2, 3 and 4.

12.6.2.5 Construction Staff

The number of construction staff working on site will vary over the construction period from 20 to 80 persons, with the peak number of persons expected to be employed during the first two quarters of the second year of construction during construction Phase 1, when all the services will be under construction along with the hotel refurbishment and the delivery of mobile homes and lodges.

Peak construction staff during construction Phase 2, 3 and 4 will be 30 persons.

12.6.2.6 Temporary Construction Compound and Parking

During the first phase of construction, the area for the proposed leisure centre and car park will be cleared and used as the construction compound.

In construction Phase 2, the construction compound will be moved to the site for the camping, camper vans, wash facilities and the last phase of mobile homes, for construction Phase 2, 3 and 4.

12.6.2.7 Construction Staff Welfare Facilities

All welfare facilities for construction staff will be provided on site at the proposed construction compound for each construction phase, including staff canteen facilities.

- 20t 360 Excavators
- 20t Dumper Truck
- 3t Mini Digger
- 5t Dumper truck
- 3t roller
- Road Sweeper
- Block Grab
- Teleporter
- 20m³ Skips
- Articulated Booms
- Scissor Lifts
- 30 kva Generator
- 12T Silo (for trowel ready mortar)
- Kerbing Machine
- Asphalt paver finisher
- MEWPs, platform lifts, hoists

- Mobile cranes
- Temporary sump pumps

It is envisaged that construction staff will travel to and from site by car/van with a typical vehicle occupancy of 1.4 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 construction Phase 1, peak construction staff vehicles would generate 58 daily inbound vehicles and 58 daily outbound vehicles. During construction Phase 2, 3 and 4, peak construction staff would generate 22 daily vehicles, both inbound and outbound.

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 morning peak traffic hour and depart during the evening peak traffic hour. This would generate up to 29 construction staff vehicles during the peak traffic hours during Phase 1; and up to 11 construction staff vehicles during the peak traffic hours during Phase 2, 3 and 4.

12.6.2.8 Construction Demolition and Earthworks Volumes

The demolition activities will be minimal and will take place over two to three weeks during construction Phase 1. All demolition materials will be removed off site by a licensed haulier to a licensed recycling facility. This would generate up to four daily heavy vehicle loads.

All excavated soils and rock will be reused in landscaping on site. No excavated material will be removed from the site.

Peak construction delivery and heavy vehicle volumes would generate a peak total of 20 daily inbound vehicles and 20 daily outbound vehicles.

12.6.2.9 Construction Deliveries Traffic Volumes

The hotel will be refurbished on site, while the lodges and hobbit huts/glamping pods will be delivered, assembled and constructed on site. The mobile park homes will be constructed by the suppliers and delivered by vehicle to site. Mobile homes will be delivered at a rate of up to two per week at night, during the tourist off season.

Peak construction delivery and heavy vehicle volumes would generate a peak total of 16 to 20 daily vehicles, both to and from site. This would occur during the concrete foundations' works during construction Phase 1 and would not coincide with peak construction staff.

Typical daily construction delivery vehicle volumes would be four to six heavy vehicles, both inbound and outbound.

12.6.2.10 Peak Construction Total Traffic Volumes

The predicted peak construction total traffic volumes are provided in **Table 12-10.**

Table 12-10: Predicted Peak Construction Vehicles

Construction Phase [1]	Morning Peak Hour Vehicles		Evening Peak Hour Vehicles		Peak Daily Vehicles	
	Arrivals	Departures	Arrivals	Departures	Arrivals	Departures
Phase 1	30	30	30	30	64	64
Phase 2/3/4	12	12	12	12	28	28

Note [1]: The proposed construction phases exclude the July and August summer tourist season, which is the peak traffic season locally. No construction works will be carried out during July and August.

12.6.2.11 Link Traffic Volumes

As the proposed construction phases exclude the July and August summer tourist season, which is the peak traffic season locally, the proposed construction works will not generate any construction vehicles during the predicted morning and evening peak hour baseline traffic volumes detailed in the foregoing of this chapter.

The proposed construction works would increase AADT volumes by up to 82 vehicles, including five heavy vehicles on the R567, during construction Phase 1; and by up 44 vehicles, including four heavy vehicles, during construction Phases 2, 3 and 4. This would equate to AADT increases of up to 8.2% and 4.4%, respectively.

In a worst case construction traffic scenario, with 100% of all construction traffic either north or south of its R567 junction, the highest increase in AADT volumes on the N70 would be up to 3.5% and 1.9%, respectively, during the peak construction Phase 1 and Phase 2, 3 and 4. These predicted maximum percentage increases are less than the volumetric threshold (5%) identified by TII in their TTA Assessment Guidelines for consideration of sensitive locations.

12.6.3 Mitigation

The proposed construction phases are designed to ensure that no construction works will coincide with the July and August summer tourist season, which is the peak traffic season locally, when the proposed development is operational.

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 each day to maintain public roads, as appropriate. All necessary construction signage and other measures required by Kerry County Council will be provided, including construction traffic warning signage along the R567.

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

12.6.4 Construction Impact Significance and Duration

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

12.6.5 Cumulative Construction Impacts

The existing and planned developments around the proposed development are described in **Section 1.6.2.5** of **Chapter 1 Introduction** of the EIAR. 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.

12.7 Operational Phase Impacts

The proposed development operational periods will be seasonal. The proposed hotel and park homes will be operational for at least 10 months of each year from February to November. The ultimate intention is for these facilities to remain open all year round, but this will depend on demand. The camping, hobbit huts/glamping pods and holiday lodges would be open for five months annually from May to September.

The number of persons employed during the operational phase will range from 40-55 during the peak holiday season and 12-20 during the low season.

12.7.1 Access

A full description of the proposed development access arrangements is provided in Chapter 2 of this EIAR.

The existing beach access road will be upgraded to include a 6.0 metres wide road carriageway and a shared pedestrian/cycle facility from the junction with the R567 to the beach on the east side of the road, , with a green verge between the road carriageway and the shared facility. The existing parallel beach parking area south of the main site entrance on both sides of the road will be retained.

The existing site access will be upgraded to provide the proposed main site access at the existing access location, with a defined pedestrian crossing location on the upgraded beach access road immediately on the south side of the upgraded site access junction.

A new access road will be provided along the northern boundary of the site for two neighbouring holiday residential properties at the south-western corner of the proposed development site.

It is proposed to maintain and upgrade the existing cliff walkway within the proposed development site. Public access to this walkway will be maintained. This walkway will be tarmacked and widened to 3.0 metres to enable accessibility, with all widening on the inland side of the existing walkway.

12.7.2 Parking

A central parking area will be developed to the west of the hotel adjacent to the main entrance, which will include 142 no. car parking spaces, 7 no. accessible parking bays, 40 no. bicycle parking bays, 7 no. EV parking and 2 no. coach parking bays.

In addition, parking spaces will be provided next to each individual accommodation unit, including camping facilities. The surf shop/café at the Beach access point will also include a customer parking area for 7 no. vehicles and one accessible parking space.

12.7.3 Public Transport

The proposed development internal bus bays and turning facility would facilitate a Rural Link bus stop.

12.7.4 CIHT TRICS Trip Rates

The Chartered Institution of Highways and Transportation (CIHT) Trip Rate Information Computer System (TRICS) database vehicle trip rates for the proposed development uses, during the morning peak traffic hour, evening peak traffic hour and the 24 hours daily period, are provided in Table 12-11.

Table 12-11: TRICS Vehicle Trip Rates

TRICS Use	Morning Peak Traffic Hour Vehicles/Unit		Evening Peak Traffic Hour Vehicles/Unit		Daily Vehicles/Unit	
	Arrivals	Departures	Arrivals	Departures	Arrivals	Departures
Residential Holiday Accommodation	0.065/unit	0.104/unit	0.127/unit	0.088/unit	1.100/unit	1.085/unit
Leisure Centre	0.676/100 m^2	0.528/100 m^2	1.025/100 m^2	1.072/100 m^2	9.712/100 m^2	9.719/100 m^2
Hotel Bar/Dining Room/ Lounge/Meeting Room	1.049/100 m^2	0.525/100 m^2	1.291/100 m^2	0.847/100 m^2	29.378/100 m^2	29.620/100 m^2

12.7.5 Phasing

A detailed description of the proposed development phasing is provided in EIAR Chapter 2 Description of Development. Subject planning permission, the proposed initial opening year is Summer 2026, with the Phase 1 proposed refurbished hotel, 24 self-catering apartments, 11 holiday lodges and 53 mobile homes completed and operational.

Subject to planning permission, all proposed phases of the ultimate development would be completed and operational by Summer 2029.

The proposed refurbished hotel bar, dining room, lounge and meeting room, and proposed Leisure Centre, would be open to the public, including the local community.

12.7.6 Vehicle Trips

The predicted vehicle trips generated by the proposed development, including internal trips, during the initial opening (Phase 1) in Summer 2026 and with the ultimate development completed and operational in Summer 2029, are provided in Table 12.12.

A total of 40 tent pitches/hectare is envisaged for the proposed 0.8 hectare tent camping area.

It is envisaged that the fully refurbished hotel bar, dining room, lounge and meeting room would operate at up to 50% of its ultimate development demand, during the initial opening year Summer 2026, when only a total of 35 of the ultimate 271 holiday units (including tents) would be in place. The CIHT TRICS indicates that the highest peak generation hours for a hotel bar/restaurant are 7.00 p.m. to 8.00 p.m. and 8.00 p.m. to 9.00 p.m., after the evening peak traffic hour.

Table 12-12: Predicted Vehicle Trips Including Internal Trips

Development Phase	Proposed Development Units/ Gross Floor Area	Morning Peak Traffic Hour Vehicle Trips, including Internal Trips		Evening Peak Traffic Hour Vehicle Trips, including Internal Trips		Daily Vehicle Trips, including Internal Trips	
		Arrivals	Departures	Arrivals	Departures	Arrivals	Departures
Initial Opening (Phase 1) (Summer 2026)	24 Self Catering Holiday Apartments + 11 Holiday Lodges + 53 Mobile Homes	6	9	11	8	97	96
	652 m^2 Hotel Bar/Dining Room/Lounge/Meeting	4	2	5	3	96	97

Development Phase	Proposed Development Units/ Gross Floor Area	Morning Peak Traffic Hour Vehicle Trips, including Internal Trips		Evening Peak Traffic Hour Vehicle Trips, including Internal Trips		Daily Vehicle Trips, including Internal Trips	
		Arrivals	Departures	Arrivals	Departures	Arrivals	Departures
	Room @ 50% Ultimate Operational Demand						
Ultimate Development (All Phases) (Summer 2029)	24 Self Catering Holiday Apartments + 25 Holiday Lodges + 6 Hobbit Huts + 20 Glamping Pods + 144 Mobile Homes + 20 Campervans + 32 Tents	18	28	35	24	298	294
	652 m² Hotel Bar/Dining Room/ Lounge/Meeting Room	7	4	9	6	192	193
	1,281 m² Leisure Centre	9	7	13	14	125	125

It is envisaged that the majority of the predicted vehicle trips generated by the proposed refurbished hotel bar, dining room, lounge and meeting room would be internal trips, generated by the proposed Leisure Park residential holiday accommodation units, and existing trips generated by the adjacent Reenroe Beach and Reenroe Cliff Walk. Approximately 25%, or less, of vehicle trips generated by the proposed refurbished hotel bar, dining room, lounge and meeting room would be additional external vehicle trips generated to/from the R567, R566 and N70. These external trips would include existing pass-by/diverted trips and new trips. Similarly, it is envisaged that approximately 25% of predicted trips generated by the proposed Leisure Centre would be additional external trips generated to/from the R567, R566 and N70, and approximately 75% would be internal trips generated by the proposed Leisure Park residential holiday accommodation units and existing trips local to Reenroe Beach and Reenroe Cliff Walk.

It is envisaged that all user trips generated by the proposed local shop within the refurbished hotel, and the proposed surf shop and café adjacent to the beach and its access road, would be generated by the proposed Leisure Park residential holiday accommodation units, the proposed refurbished hotel bar, dining room, lounge and meeting room, proposed Leisure Centre and existing adjacent Reenroe Beach and Reenroe Cliff Walk.

The predicted external vehicle trips during the morning peak traffic hour, evening peak traffic hour and daily 24 hours during the summer peak season are provided in Table 12-13, for the operational initial opening and ultimate development scenarios.

Table 12-13: Proposed Development Predicted Peak Season External Vehicle Trips

Year/Development Scenario	Summer Peak Season	Total Vehicles		
		In	Out	Total
Initial Opening (Phase 1) Summer 2026	Morning Peak Traffic Hour	7	10	17
	Evening Peak Traffic Hour	13	9	22
	Daily	121	121	242
Ultimate Development (All Phases) Summer 2029	Morning Peak Traffic Hour	22	31	53
	Evening Peak Traffic Hour	41	30	71
	Daily	377	374	751

The proposed ultimate development would generate a predicted 53 vehicles two-way during the morning peak traffic hour, and 71 vehicles two-way during the evening peak traffic hour, during the summer peak season. The

proposed ultimate development would generate a predicted daily volume of 751 vehicles two-way during the summer peak season.

12.7.7 Link Traffic Volumes

It is envisaged that the distribution of peak season vehicle trips generated by the proposed development would be similar to the existing summer tourist peak season, as recorded in August 2023, and that all vehicle trips generated would travel via the R567 and its N70 and R566 junctions, as detailed in Table 12-14.

Table 12-14: Predicted Distribution of Peak Season Proposed Development Vehicle Trips

Road	Proportion of Vehicle Trips (%)
N70 North @ R567	6%
N70 South @ R567	51%
567 East	57%
567 West	43%
R566 North @ R567	5%
R566 South @ R567	38%

In order to consider a robust basis to assess the operational traffic impact of the proposed development, it is conservatively assumed that all predicted external vehicle trips are new trips on the R567 and external road network, with no reduction for pass-by/diverted trips.

The predicted 2026, 2031 and 2041 peak season morning and evening peak traffic hour link traffic volumes with the proposed development are provided in Table 12-15.

Table 12-15: Predicted Peak Season Peak Hour Link Traffic Volumes With Proposed Development

Road Link	Year	Morning Peak Traffic Hour		Evening Peak Traffic Hour	
		Total Vehicles (Heavy Vehicles)	Change	Total Vehicles (Heavy Vehicles)	Change
N70 North @ R567	2026	262 (4)	+1	320 (4)	+2
	2031	277 (6)	+3	339 (5)	+4
	2041	281 (6)	+3	341 (5)	+4
N70 South @ R567	2026	361 (6)	+9	437 (5)	+10
	2031	397 (8)	+28	485 (6)	+36
	2041	403 (8)	+28	488 (6)	+36
567 East @ N70	2026	117 (2)	+10	153 (1)	+12
	2031	142 (2)	+31	190 (1)	+40
	2041	144 (2)	+31	191 (1)	+40
Access Road (Site & Reenroe Beach)@ R567	2026	42	+17	50	+22
	2031	80	+53	100	+71
	2041	80	+53	101	+71
Local Road North @ R567/Access Road	2026	27	0	23	0
	2031	28	0	24	0
	2041	28	0	24	0
567 West @ R566	2026	91 (2)	+7	122 (1)	+10
	2031	110 (2)	+22	149 (1)	+31

Road Link	Year	Morning Peak Traffic Hour		Evening Peak Traffic Hour	
		Total Vehicles (Heavy Vehicles)	Change	Total Vehicles (Heavy Vehicles)	Change
	2041	111 (2)	+22	150 (1)	+31
R566 North @ R567	2026	82 (1)	0	109 (2)	+1
	2031	89 (1)	+3	117 (2)	+4
	2041	90 (1)	+3	117 (2)	+4
R566 South @ R567	2026	155 (3)	+7	205 (3)	+9
	2031	175 (3)	+19	232 (3)	+27
	2041	175 (3)	+19	233 (3)	+27

The proposed development would increase peak season peak hour vehicles on the proposed upgraded beach access road by up to 71 vehicles, which equates to an additional 1.2 vehicles/minute. The predicted peak season peak hour increases would be up to 40 vehicles on the R567, up to 36 vehicles on the N70 and up to 27 vehicles on the R566. These predicted increases are on the conservative assumption that all predicted external vehicle trips are new trips on the R567 and external road network, with no reduction for pass-by/diverted trips.

The predicted 2026, 2031 and 2041 AADT volumes on proposed development local road network, with the proposed development in place, plus TII's predicted traffic growth, are provided in Table 12-16.

Table 12-16: Predicted AADT Link Traffic Volumes With Proposed Development

Road Link/Location	Year	AADT	
		Total Vehicles (% HGVs)	Change (% Change)
N70 North @ R567	2026	2,322 (2.3%)	+9 (0.4%)
	2031	2,455 (2.5%)	+29 (1.2%)
	2041	2,484 (2.7%)	+29 (1.2%)
N70 South @ R567	2026	3,188 (2.1%)	+79 (2.5%)
	2031	3,503 (2.1%)	+243 (7.5%)
	2041	3,541 (2.3%)	+243 (7.4%)
567 East @ N70	2026	1,082 (2.0%)	+88 (8.9%)
	2031	1,315 (1.8%)	+272 (26.1%)
	2041	1,326 (2.0%)	+272 (25.8%)
Access Road (Site & Reenroe Beach)@ R567	2026	363 (0.7%)	+153 (72.9%)
	2031	696 (0.3%)	+476 (116.4%)
	2041	698 (0.3%)	+476 (114.4%)
Local Road North @ R567/Access Road	2026	198 (0.5%)	0
	2031	207 (0.5%)	0
	2041	210 (1.0%)	0
567 West @ R566	2026	853 (2.3%)	+65 (8.3%)
	2031	1,031 (2.1%)	+204 (24.4%)
	2041	1,041 (2.3%)	+204 24.4(%)
R566 North @ R567	2026	767 (2.5%)	+8 (1.1%)
	2031	821 (2.7%)	+24 (3.0%)

Road Link/Location	Year	AADT	
		Total Vehicles (% HGVs)	Change (% Change)
R566 South @ R567	2041	830 (2.9%)	+24 (3.0%)
	2026	1,431 (2.7%)	+57 (4.2%)
	2031	1,621 (2.7%)	+180 (12.5%)
	2041	1,639 (2.9%)	+180 (12.3%)

The predicted increases are on the conservative assumption that all predicted external vehicle trips are new trips on the R567 and external road network, with no reduction for pass-by/diverted trips. The predicted AADT volumes generated by the proposed ultimate development, when fully operational, would be 476 vehicles.

12.7.8 TII Rural Road Link Capacities

On the basis of TII's Rural Road Link Design DN-GEO-03031 May 2023, the N70 in the vicinity of at its R567 junction would continue to operate within its TII AADT link capacities for the predicted 2026, 2031 and 2041 AADT volumes, with the proposed development in place plus TII's predicted traffic growth, as detailed in Table 12-17.

Table 12-17: Predicted N70 TII AADT Link Volume/Capacity Ratios With Proposed Development

N70 Rural Road	Year/Peak Hour	Predicated AADT (Vehicles)	TII Rural Road Link AADT Capacity (Vehicles)	Link AADT Volume/Capacity Ratio (%)
N70 North @ R567	2026	2,322	5,000	46.4%
	2031	2,455		49.1%
	2041	2,484		49.7%
N70 South @ R567	2026	3,188	5,000	63.8%
	2031	3,503		70.0%
	2041	3,541		70.8%

The highest N70 AADT link volume/capacity ratios north and south of its R567 junction would be 49.7% and 70.8%, respectively, in 2041, compared to 49.1% and 66.0%, respectively, without the proposed development.

The highest predicted N70 AADT link volume/capacity ratios are on the conservative assumption that all predicted external vehicle trips generated by the proposed development are new trips, with no reduction for existing and future pass-by/diverted trips on the N70.

12.7.9 Junction Traffic Volumes

The predicted peak season 2026, 2031 and 2041 morning and evening peak traffic hour junction traffic turning volumes, with the proposed development in place, at the N70/R567 and R566/R567 junctions, are provided in Table 12-18. The predicted traffic volumes include TII's predicted traffic growth.

Table 12-18: Predicted Peak Season Peak Hour Junction Traffic Volumes With Proposed Development

Junction	Approach	Movement	Total Vehicles (Heavy Vehicles)					
			Morning Peak Traffic Hour			Evening Peak Traffic Hour		
			2026	2031	2041	2026	2031	2041
N70/R567 Junction	N70 Southbound	Straight	120 (2)	126 (3)	128 (3)	163 (3)	172 (4)	173 (4)
		Right to R567	4	5	5	11	13	13
	R567	Left	5	6	6	7	9	9
		Right	48 (1)	61 (1)	62 (1)	78	93	94
	N70 Northbound	Left to R567	60 (1)	70 (1)	71 (1)	57 (1)	75 (1)	75 (1)
		Straight	133 (2)	140 (3)	142 (3)	139 (1)	145 (1)	146 (1)
R566/R567 Junction	R566 Southbound	Left to R567	5	6	7	9	11	11
		Straight	38	40	40	49 (1)	51 (1)	51 (1)
	R567	Left	42 (1)	51 (1)	51 (1)	42 (1)	51 (1)	51 (1)
		Right	4	6	6	4	6	6
	R566 Northbound	Right to R567	40 (1)	47 (1)	47 (1)	67	81	82
		Straight	35 (1)	37 (1)	37 (1)	47 (1)	49 (1)	49 (1)

12.7.10 Junction Capacity Analysis

The existing N70/R567 and R566/R567 junctions have been analysed using the computer modelling software PICADY, for the predicted peak season 2026, 2031 and 2041 morning and evening peak traffic hour volumes, with and without the proposed development in place, plus TII's predicted traffic growth.

Full details of the PICADY junction capacity analysis are provided in Appendix 12-2. The predicted results are summarised in Table 12-19.

Table 12-19: Summary of PICADY Peak Hour Junction Capacity Analysis

Junction	Peak Hour Year	Development Scenario	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
N70/R567 Junction	2026 AM	Without	0.098	0.1	0.13
		With	0.108	0.1	0.12
	2026 PM	Without	0.165	0.2	0.13
		With	0.176	0.2	0.13
	2031 AM	Without	0.102	0.1	0.13
		With	0.140	0.2	0.13
	2031 PM	Without	0.178	0.2	0.14
		With	0.214	0.3	0.14
	2041 AM	Without	0.104	0.1	0.13
		With	0.140	0.2	0.13
	2041 PM	Without	0.179	0.2	0.13
		With	0.216	0.3	0.14
	2026 AM	Without	0.071	0.1	0.10

Junction	Peak Hour Year	Development Scenario	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
R566/R567 Junction	2026 PM	With	0.077	0.1	0.10
		Without	0.106	0.1	0.11
		With	0.114	0.1	0.11
	2031 AM	Without	0.074	0.1	0.10
		With	0.096	0.1	0.10
	2031 PM	Without	0.111	0.1	0.11
		With	0.138	0.2	0.11
	2041 AM	Without	0.074	0.1	0.10
		With	0.096	0.1	0.10
	2041 PM	Without	0.113	0.1	0.11
		With	0.139	0.2	0.11

PICADY identifies a Ratio of Flow to Capacity (RFC) of 0.900 as the practical capacity of a junction.

The PICADY analysis indicates that the existing N70/R567 and R566/R567 junctions would operate well within practical capacity, without any significant traffic queues and delays, for the predicted peak season 2026, 2031 and 2041 morning and evening peak traffic hour volumes, with and without the proposed development in place, plus TII's predicted traffic growth.

The existing N70/R567 junction would operate with a highest RFC of 0.216 and delays per vehicle of up to 0.14 minutes, with the proposed development. These compare with a highest RFC of 0.179 and delays per vehicle of up to 0.13 minutes, without the proposed development.

The existing R566/R567 junction would operate with a highest RFC of 0.139 and delays per vehicle of up to 0.11 minutes, with the proposed development. These compare with a highest RFC of 0.113 and delays per vehicle of up to 0.11 minutes, without the proposed development.

12.7.11 Operational Mitigation

The proposed development includes the widening and upgrading of the existing beach access road, including a shared pedestrian and cycle facility, realigned junction tie-in at its R567 junction, and provision for Rural Link public transport.

No additional operational mitigation is warranted.

12.7.12 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 slight negative to moderate negative, and long term to permanent.

12.7.13 Cumulative Operational Impacts

The predicted peak season 2026, 2031 and 2041 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 **slight to moderate and long term to permanent**, on the basis of the EPA EIAR Guidelines.