Land Use		No. Units	Cycle Parking Spaces Ratio		Cycle Parking Spaces Proposed	
			Resident	Visitor	Resident	Visitor
3-bed	Houses -Mid-terrace-	22	5	0	110	
4-bed	Houses -Mid-terrace-	0	6	0	0	
1-bed	Duplex	8	2	1	8	4
2-bed	Duplex	4	3	1.5	24	12
Total resident and visitors cycle parking spaces					142	16
Total cycle parking spaces					158	

Table 14.13: Cycle Parking Spaces Proposed

The subject development included a total of 142 no. cycle parking spaces for residents and 16 no. for visitors. The house units, those are provided with access to their rear garden with the possibility of storage the cycle and it is not considered necessary to provide any external bicycle store.

14.4.2 Proposed Development- Plot 2 (St. Mochta's LRD).

Development Description

The proposed development will consist of the construction of 302 no. residential units comprising 97 no. houses and 205 no. apartment / duplex units. The breakdown of the units is shown in Table below:

Description	1-bed	2-bed	3-bed	4-bed	Total
House			62	35	97
Apartment / Duplex	98	88	19		205
Total	98	88	81	35	302 units

Table 14.14: Schedule of Accommodation

The access to the site is from Kellystown Link Road, via the internal street of the under construction Kellystown Development -Phase 1- (Reg. Ref. No. ABP-312318-21, as amended by Reg. Ref. No. LRD0034-S3).

The development includes associated car, motorcycle and bicycle parking, storage, services and plant areas, and landscaping. The proposed application includes all site landscaping works, boundary treatments, lighting, servicing, signage, and associated and ancillary works, including site development works and services above and below ground.

Internal Layout and Vehicular Access

The internal roads have been designed to comply with DMURS as required by the County Development Plan. The internal roads generally vary between 4.8m and 5.5m in width. All footpaths are 2.0m wide and connect the internal spaces.

The proposed development includes "home-zones" (also called shared surfaces), which have been designed primarily to meet the needs of pedestrians, cyclists, children, and residents. The aim is to reduce the speed and dominance of cars.

Figure 14.43 below shows the shared surfaces, and the segregated roads included in the subject development.

The "home-zones" consist of a shared-surface carriageway with a differentiated rolling surface (in texture and level) to make it easily identifiable by the driver. This was done in accordance with Section 4.3.4 of DMRUS, which indicates:

- Use a variety of materials and finishes that indicate that the carriageway is an extension of the pedestrian domain. A different finish from the rest of the pavement has been chosen to identify these areas.

- Avoid raised kerb lines. Any Kerb line should be fully embedded within the street surface. Small ramps have been used to start and terminate the shared spaces, raising them over the other pavements.
- Minimise the width of the vehicular carriageway and /or corner radii. A reduction in the width of the carriageway has been implemented, from 5.50 m to 4.80 m.

Furthermore, it has been included calming measures through the site as narrow the carriageways on both, home-zones and segregated roads, to encourage drivers to reduce the speed and raised tables on segregated roads to provide a safe environment for pedestrian crossing.

Moreover, the implementation of calming measures through the site has been proposed, including the reduction of the width of carriageways within both home zones and segregated roads. This initiative is designed to encourage drivers to reduce their speed. Additionally, the installation of raised tables has been included on segregated roads to reduce the car speed and to provide a secure environment for pedestrians.

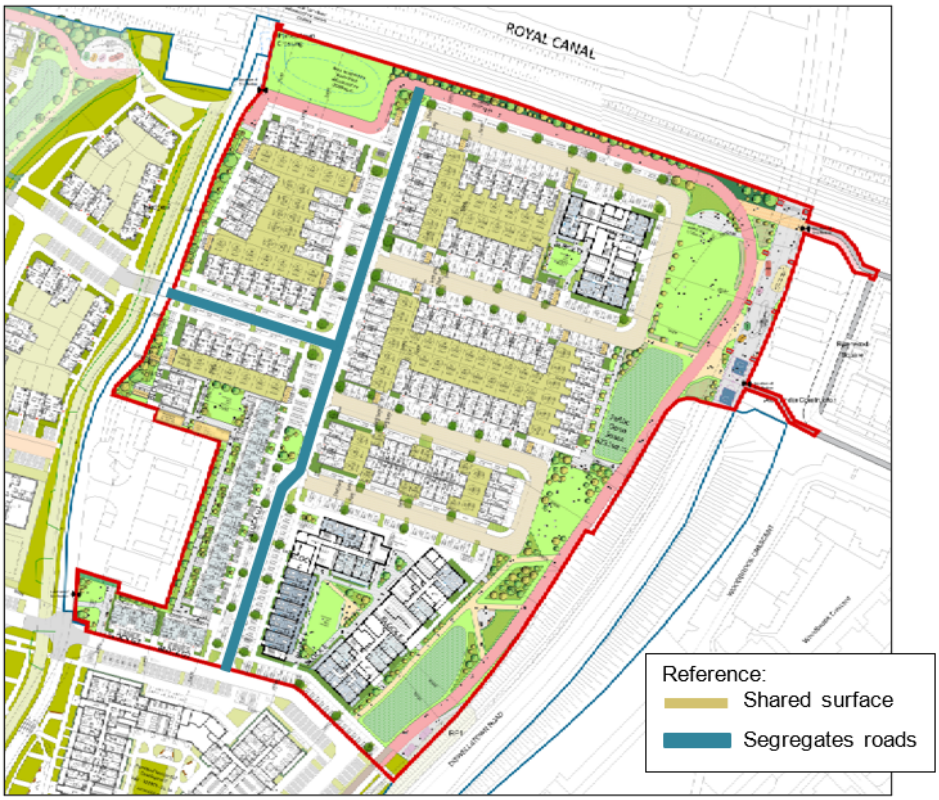

Figure 14.43: Proposed development - Internal roads

All internal roads within the proposed development have been designed with a speed limit of 30km/h. The shared road will have a speed limit of 20km/h. All junctions within the development itself will be priority junctions with raised tables where appropriate.

The low design speeds and traffic calming measures will ensure the safe operation of these junctions and a safe/secure environment for pedestrians and cyclists.

The design and layout of the proposal has been prepared to fully comply with the current relevant design standards and specifications applicable to this form of development.

The development includes sufficient parallel and perpendicular parking spaces, as outlined in local guidelines. The car parking and cycle parking spaces assessments are presented below in this section.

Additionally, all road intersections within the development itself have been designed as priority junctions. The visibility splays of which these junctions have been designed in accordance with the requirements set out in the Design Manual for Urban Roads and Streets (DMURS), which recommends

visibility splays of 23m x 2.4m on roads without bus routes. The internal junctions have been designed with low speeds to ensure safe operation.

Vehicular access is provided off Kellystown Link Road via the internal roads of the ongoing Kellystown Development -Phase 1- (Reg. Ref. No. ABP-312318-21, as amended by Reg. Ref. No. LRD0034-S3) as can be seen in **Figure 14.44** below.

The main junction located at Kellystown Link Road has been designed to provide access for residents of the entire Kellystown development, which includes the Phase 1 development, the subject site and the future potential development on Molloy Lands, located to the east of the subject site. The junction was designed as part of the traffic and transport assessment carried out by Waterman Moylan Consulting Engineers as part of the Kellystown Development -Phase 1- (Reg. Ref. No. ABP-312318-21, as amended by Reg. Ref. No. LRD0034-S3).

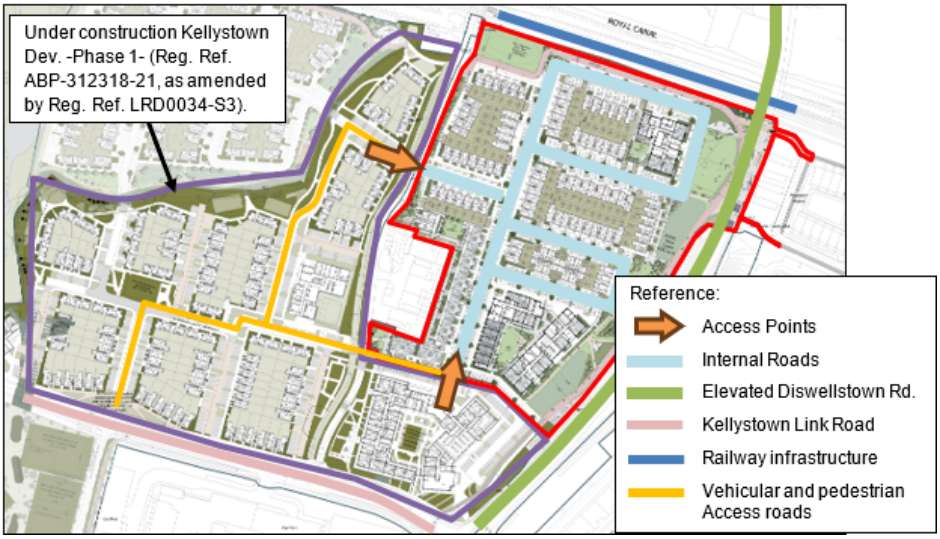

Figure 14.44: Proposed development – Vehicular Access

Pedestrian and Cyclist Infrastructure

The proposed development has been designed with a well-interconnected footpath network providing permeability through the site, to the adjacent Kellystown Development -Phase 1- and to the surrounding area.

All footpaths within the proposed development have been designed as 2.0m wide. This is in accordance with Section 4.3.1 of the DMURS which suggests that a minimum 1.8m footpath should be provided.

There is a cycle path around the subject site connectivity the internal residential units with the main shared pedestrian/cyclist path on Porterstown Road. In addition, the development includes sufficient cycling parking spaces, as outlined in local guidelines. The cycle parking spaces assessments is presented below in this section.

The main pedestrian and cycle paths are shown in the **Figure 14.45** below.

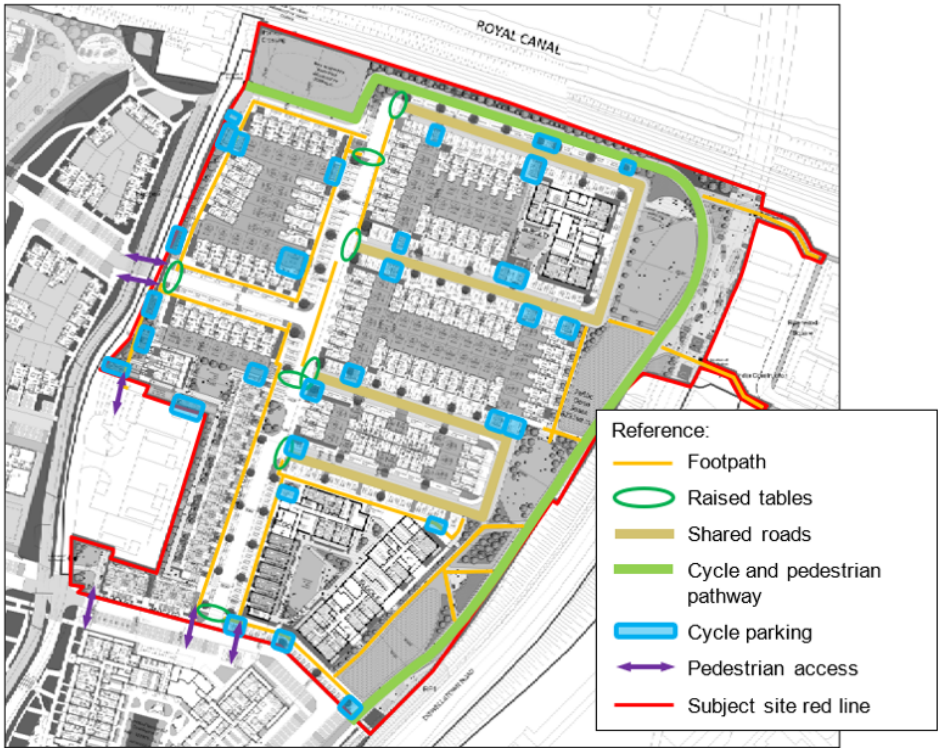

Figure 14.45: Proposed Development – Pedestrian and Cycle Infrastructure

Car Parking

Based on the *Fingal Development Plan 2023-2029 Standards,* it is proposed for the 4-bed houses a total of 2 No. car parking spaces for each unit, 14 No. visitor car parking spaces distributed across the development, and 2 No. car parking spaces for sharing cars. **Table 14.15** below shows the breakdown of car parking spaces.

Land Use		No. Units	Car Parking Spaces		Land Use	
			Resident	Visitor	Resident	Visitor
3-bed	Houses	62	1.00	1 car / 10 units	62	30
4-bed	Houses	35	1.26		44	
1-bed	Apartments / Duplex	98	0.50		49	
2-bed	Apartments / Duplex	88	0.50		44	
3-bed	Apartments / Duplex	19	0.50		8	
Car Sharing parking spaces						2
ESB Parking Spaces						2
Total resident and visitor car parking spaces					207	34
Total car parking spaces					241	

Table 14.15: Car Parking Spaces Proposed

The car parking proposed in table above reflects a total of 241 No. car parking spaces comprehensive 207 No. Car parking spaces for residents and 30 no. spaces for visitors. The car parking spaces indicated in table above, include:

- Accessible Car Parking: 10 No. accessible car parking spaces are distributed through the development.

- Electric Vehicle Parking: 48 No. EV parking spaces are distributed through the development. This represents 20% of the total number of proposed car parking spaces.
- Car sharing parking: 2 No. car parking spaces reserved for sharing cars.
- ESB Parking Spaces: 2 No car parking spaces.

In addition, it is proposed:

- Motorcycle Parking: 24 no. parking spaces.

The proposed parking numbers fall within the maximum car parking spaces outlined in both the Fingal Development Plan 2023-2029 and the Sustainable Residential Development and Compact Settlements Guidelines for Planning Authorities (2024).

It is important to note that the minimum distance from the site to Coolmine Rail Station is 1,100 metres. However, some residents will be located further away (i.e., a minimum of 1,400 metres). This means that some residents will be situated beyond the boundary defined as Zone 1 in the Fingal Development Plan.

Therefore, it has been considered that the proposed car parking spaces align with the maximum specified in the Fingal Development Plan: 0.5 space per unit for the apartments/duplexes and the 3-bed apartments. However, the proposed development has increased the car parking ratio for the 4-bed houses from 1 parking space, as advised in the Fingal Development Plan, to 1.4 parking spaces, in accordance with the Compact Settlement guidelines for 4-bed houses. Additionally, some visitor car parking spaces have been included to align with the maximum rates set out in the Compact Settlement Guidelines.

Cycle Parking

Cycle parking is based on Fingal Development Plan 2023-2029 Standards.

It is considered that the end-terrace house units, which are designed with private side access to rear gardens on one side, will be able to park their bicycles in the rear gardens of the units without having to pass through the interior of the houses. Bicycle parking spaces for the mid-terrace units are proposed with the integration of bicycle lockers at the front of the units.

The proposed Cycle Parking is shown in the **Table 14.16** below.

Land Use		No. Units	Cycle Parking Spaces Ratio		Cycle Parking Spaces Proposed	
			Resident	Visitor	Resident	Visitor
3-bed	Houses -Mid-Terrace-	38	5	0	190	
4-bed	Houses -Mid-Terrace-	22	6	0	136	
1-bed	Apartments / Duplex	98	2.04	1 / 2 units	200	49
2-bed	Apartments / Duplex	88	3.01	1 / 2 units	265	44
3-bed	Apartments / Duplex	19	5	1 / 2 units	95	9
Total resident and visitor cycle parking spaces					889	104
Total cycle parking spaces					**993**	

Table 14.16: Cycle Parking Spaces Proposed

The subject development included a total of 993 no. cycle parking spaces for apartments. Of these, 889 no. are for residents and 104 no. for visitors. The house units, those are provided with access to their rear garden with the possibility of storage the cycle and it is not considered necessary to provide any external bicycle store.

14.5 Potential Impact of the Proposed Development

14.5.1 Proposed Development - Plot 1 (Luttrellstown Gate Phase 2)

14.5.1.1 Construction Stage

There is a potential for construction traffic to impact from a noise and dust perspective in relation to the surrounding road network. Construction deliveries to/from the site by heavy good vehicles will impact on noise levels, whilst dust may result from vehicles travelling along site roads and from general earthwork activities. There is also potential for traffic congestion, particularly during the construction of the upgraded signalised junction (Junction 4 in **Figure 14.4** or **14.22** above. Proposed Junction is presented in **Figure 14.15** or **14.35** above) and due to increased construction traffic on the road network which may also perform turning movements in areas that impact traffic. There is potential for inappropriate parking, particularly along Kellystown Link Road and Diswellstown Road whilst vehicles are waiting to access the site. There is also potential for workers to park on those roads.

A number of the construction traffic movements will be undertaken by heavy goods vehicles, though there will also be vehicle movements associated with the appointed contractors and their staff.

Whilst it is not possible at this stage to accurately identify the day-to-day traffic movements associated with the construction activities, based on the experience of similar sites it is considered that the number of construction-related heavy goods vehicle movements to and from the application site will be approximately 30 arrivals and departures per day.

Similarly, the general workforce is unlikely to exceed approximately 120 in number, which with an allowance for shared journeys and active travel public transport modes could equate to a maximum of around 80 arrivals and departures per day

There is a potential for conflict between construction traffic and pedestrians/cyclists using the existing facilities on Kellystown Link Road and Diswellstown Road. There is potential for construction traffic to have a moderate effect on the surrounding environment. However, the duration of this impact will be short to medium-term (i.e. one to seven years).

14.5.1.2 Operational Stage

The proposed development will consist of the construction of 99 no. residential units comprising 87 no. houses and 12 no. duplex units. The breakdown of the units is shown in table below.

Description	1-bed	2-bed	3-bed	4-bed	Total
House			66	21	87
Apartment / Duplex	4	8			12
Total	**4**	**8**	**66**	**21**	**99 units**

Table 14.17: Schedule of Accommodation

It is anticipated that construction of the proposed development will commence in Q1 2026 and be completed by the end of 2027. As a result, the opening year is expected to be 2028.

(Note: The assessment years may lag pending approval of the planning application and may differ from the programme).

the development Plot 1 -Luttrellstown Gate Phase 2- consists of a 99-unit development which is below of the thresholds set by *Transport for Ireland (TII) / National Roads Authority (NRA)* in the *Traffic and Transport Assessment Guidelines* published in May 2014.

Section 2.1 of the Traffic and Transport Assessment Guidelines (May 2014) requires submission of a Transport Assessment where a proposed development meets one or more of the following criteria:

1. Traffic to and from the development exceeds 10% of the traffic flow on the adjoining road.
2. Traffic to and from the development exceeds 5% of the traffic flow on the adjoining road where congestion exists, or the location is sensitive.

3. Residential development in excess of 200 dwellings.
4. Retail and leisure development in excess of 1,000sqm.
5. Office, education, and hospital development in excess of 2,500sqm.
6. Industrial development in excess of 5,000sqm.
7. Distribution and warehousing in excess of 10,000sqm.

In the case of the subject site (Plot 1 -Luttrellstown Gate Phase 2-), it has not met any of the above thresholds. It has therefore not carried out a full assessment of the junctions.

Nevertheless, the development has been included in the traffic and transport assessment for Plot 2 - St. Mochta's LRD - as part of the overall Eastern Development Area (DA1) and its impact on the road network has been included in the junction assessment. Further information can be found in **Section 14.5.2.2** below.

14.5.1.3 Do-Nothing Impact

Should the proposed development not take place, the access roads and infrastructure will remain in their current state and there will be no change. Background traffic would be expected to grow over time. Given the location and zoning of the subject site, and the objective of the Kellystown Development Plan, it is reasonable to assume that a similar development, with a potentially more intensive requirement for vehicular trips, would be established on this site at some stage in the future.

14.5.2 Proposed Development- Plot 2 (St. Mochta's LRD).

14.5.2.1 Construction Stage

Refer to **Section 14.5.1.1** above.

14.5.2.2 Operational Stage

Introduction

The proposed development will consist of the construction of 302 no. residential units comprising 97 no. houses and 205 no. apartment / duplex units. The breakdown of the units is shown in Table below:

Description	1-bed	2-bed	3-bed	4-bed	Total
House			62	35	97
Apartment / Duplex	98	88	19		205
Total	98	88	81	35	302 units

Table 14.18: Schedule of Accommodation

It is anticipated that construction of the proposed development will commence in Q3 2026 and be completed in Q2 2029. For the purposes of this report, the opening year is assumed to be 2030.

(Note: The assessment years may lag pending approval of the planning application and may differ from the programme).

Assessment Year

The years that have been assessed as part of this Traffic and Transport Assessment are the following:

Base Year	:	2025
Opening Year (With / Without Development)	:	2030
Opening Year + 5 Years Forecast (With / Without Development)	:	2035

Opening Year + 15 Years Forecast (With / Without Development) : 2045

These assessment years are in line with the 'Transport Assessment Guidelines (May 2014)'. Details of each assessment year is presented later in this report.

Trip Distribution

Trip Rates

To assess the potential impact of traffic generated by the Subject Development, trip rates from approved Traffic and Transport Assessment prepared by Waterman Moylan for the under construction Kellystown Development -Phase 1- (Reg. Ref. No. ABP-312318-21, as amended by Reg. Ref. No. LRD0034-S3) have been used.

The decision to use the trip rates previously approved development was to be consistent in terms of the expected level of traffic to be generated by the developments located within the Kellystown land and its surrounding area.

The trip rates used for the subject site is indicated in **Table 14.19** below.

Land Use Category	AM Peak Hour (08:00 – 09:00)		PM Peak Hour (17:00 – 18:00)	
	Arrivals	Departures	Arrivals	Departures
Mixed Private Residential Development	0.140 per unit	0.348 per unit	0.329 per unit	0.208 per unit

Table 14.19: AM & PM Peak Hours - Trip Rates (Source: Kellystown Development -Phase 1-, Reg. Ref. No. ABP-312318-21, as amended by Reg. Ref. No. LRD0034-S3)

Trip Distribution: Kellystown Local Area Plan (January 2021)

To ascertain the level of expected car trips to/from the subject site, as well as through each assessed junction in the local road network, the car trips are distributed based on the trip distribution set out in the Traffic and Transport Assessment carried out by Waterman Moylan Consulting Engineer for the approved Kellystown Development -Phase 1- (Reg. Ref. No. ABP-312318-21, as amended by Reg. Ref. No. LRD0034-S3). Furthermore, the mentioned trip distribution has been based on the transport modelling results from the Kellystown Local Area Plan (January 2021).

Figure 14.46 below illustrates the distribution of the overall trips leaving Kellystown Development in the AM peak. This data was obtained by using the NTA Eastern Regional Model (ERM) and represent the AM key pattern of travel for residents leaving Kellystown.

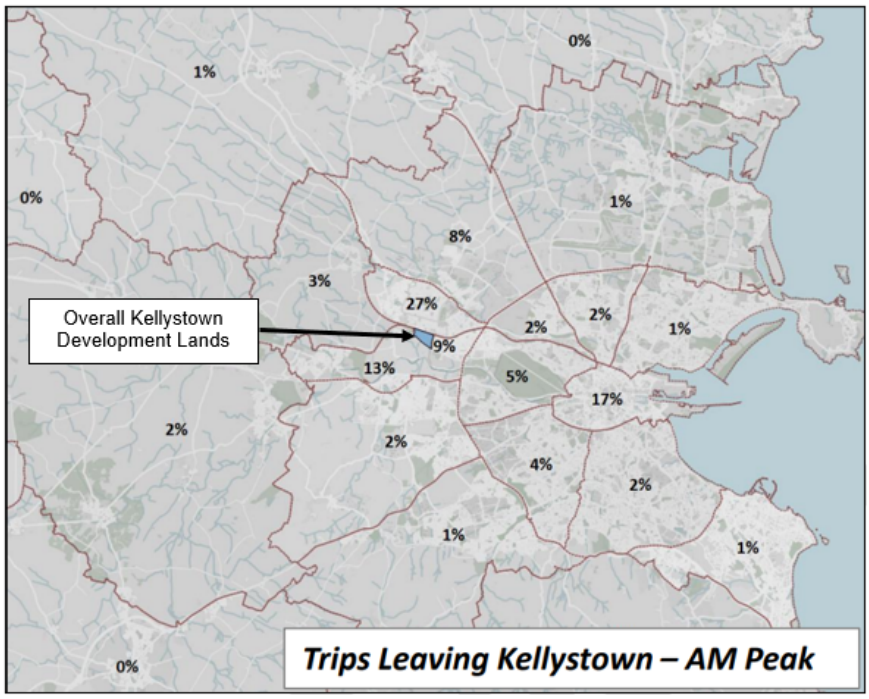

Figure 14.46: All-mode Trips Leaving Kellystown – AM Peak – (Source: Appendix 5 - Kellystown Local Area Plan, January 2021)

The key conclusion obtained from the transport modelling results are:

- 52% travel within the N3/N4/M50 boundary, of which:
  - 9% remain within the Kellystown development and represents local school trips.
  - 27% travel north towards local employments in Ongar, Coolmine and Blanchardstown.
  - 13% travel south towards Lucan and Leixlip and
  - The remaining 3% travel west towards West Ongar.
- 33% travel within the M50 boundary, of which:
  - 17% travel east towards Dublin city centre.
  - The remaining 16% travel within the areas surrounding the city centre. (6% towards South/Southwest, 5% towards West and 5% towards North/Northeast/Northwest).
- 15% travel towards other sectors outside the M50 boundary.

Figure 14.47 below has been taken from Appendix 5 of the Kellystown Local Area Plan (January 2021), which sets out the mode share of trips leaving Kellystown during the AM peak hour for each destination sector.

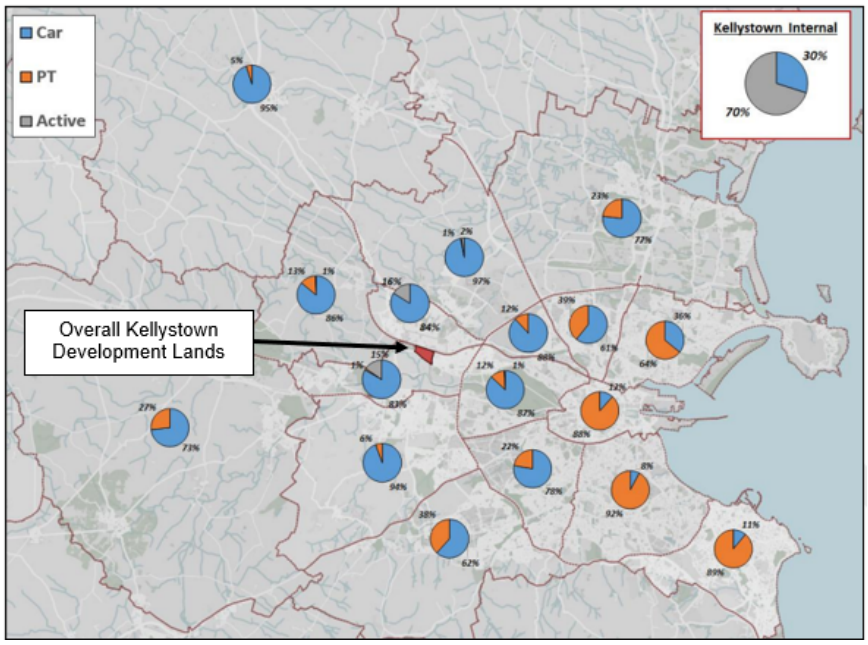

Figure 14.47: Trips Leaving Kellystown Mode Share – AM Peak – Extracted from Kellystown Area (Source: Appendix 5 - Kellystown Local Area Plan, January 2021).

As can be seen in figure above, the majority of trips traveling towards southeast/northeast of Dublin city centre and Dublin city centre itself, are undertaken by public transport whilst the trips to Coolmine, Clonsilla, Blanchardstown, Ongar, Lucan, Leixlip, south Lucan and west of Dublin city centre are mostly undertaken by private car.

Trip Distribution: 2030 -opening year- scenario

Trip distribution for the 2030 -opening year- scenario has been done considering the following:

- Trip distribution shown in the Kellystown Local Area Plan (January 2021).
- Kellystown Development -Phase 1- has been completed and Porterstown Road has been changed its hierarchy to pedestrian and cyclist only.
- The new St Mochta's sportsground has been completed and the link road between Kellystown Link Road and Luttrellstown Road has been upgraded.
- Kellystown Link Road from Diswellstown Road to Clonsilla Road (R121) has not been completed.

In this scenario, 9% of trips are internal local trips, 86% of trips to/from the site have been considered to travel eastwards to Diswellstown Road (Junction 4) and 5% of trips will travel southward direction and then turning westbound on Luttrellstown Road towards Lucan, Leixlip and west Ongar.

Of the 86% of trips arriving at Junction 4, it is estimated that 49% will turn north onto Diswellstown Road towards Junction 2, 21% will continue on Diswellstown Road towards the M50, Dublin Centre and the surrounding areas, and 16% will turn south onto Porterstown Link Road towards Junction 6.

Of the trips arriving at Junction 2, it is assumed that 3% will proceed westbound on Clonsilla Road (R121) towards Ongar, 31% will continue northbound towards Coolmine and Blanchardstown, and 15% will turn east onto Clonsilla Road towards the M50.

Of the trips arriving at Junction 2, it is estimated that 3% will proceed westbound on Clonsilla Road (R121) towards Ongar, 31% will continue northbound towards Coolmine and Blanchardstown, and 15% will turn east onto Clonsilla Road towards the M50.

It is estimated that 8% of trips arriving at Junction 6 will turn west onto Luttrellstown Road towards Lucan, Leixlip, and west Ongar, while another 8% will head east on Porterstown Road towards the areas surrounding the city centre.

Given the assumption made above, **Figure 14.48** below shows the trip distribution for the developments situated in the Eastern Development Area (DA1).

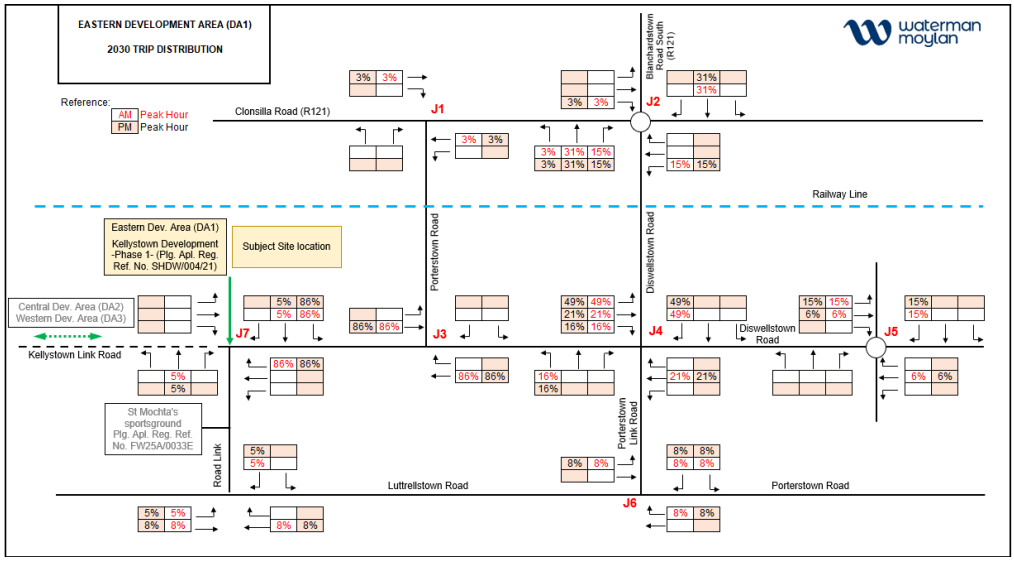

Figure 14.48: Trip Distribution – Eastern Development Area (DA1) – 2030 -opening year- scenario

In addition, **Figure 14.49** below shows the trip distribution for the proposed new St Mochta's sportsground

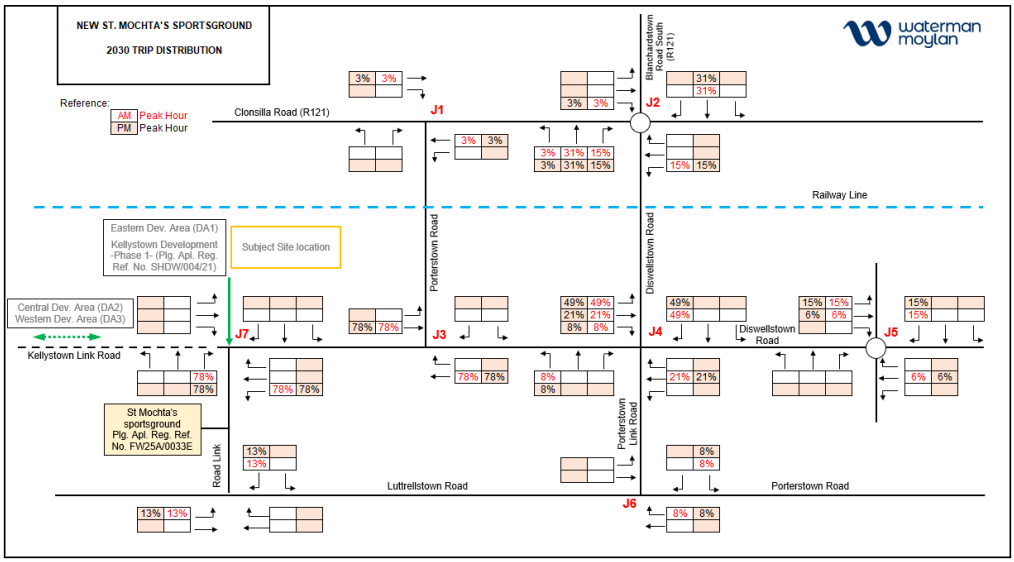

Figure 14.49: Trip Distribution – New St Mochta's sportsground - 2030 -opening year- scenario

Trip Distribution: 2035 and 2045 scenarios

Trip distribution for both scenarios, the 2035 -opening year + 5 years- and and 2045 -opening year + 15 years-, has been done considering the following:

- Trip distribution shown in the Kellystown Local Area Plan (January 2021).
- Kellystown Development -Phase 1- has been completed and Porterstown Road has been changed its hierarchy to pedestrian and cyclist only.

- The new St Mochta's sportsground has been completed and the link road between Kellystown Link Road and Luttrellstown Road has been upgraded.
- Kellystown development areas have been completed and fully occupancy, and the Kellystown Link Road from Diswellstown Road to Clonsilla Road (R121) has been completed.

In this situation, the traffic distribution is expected to be similar to the 2030 -opening year- scenario. However, it is assumed that westbound trips towards Lucan, Leixlip and West Ongar will turn directly west onto the Kellystown Link towards Road Clonsilla Road (R121).

Given the assumption made above, **Figure 14.50** below shows the trip distribution for the developments situated in the Eastern Developmetn Area (DA1).

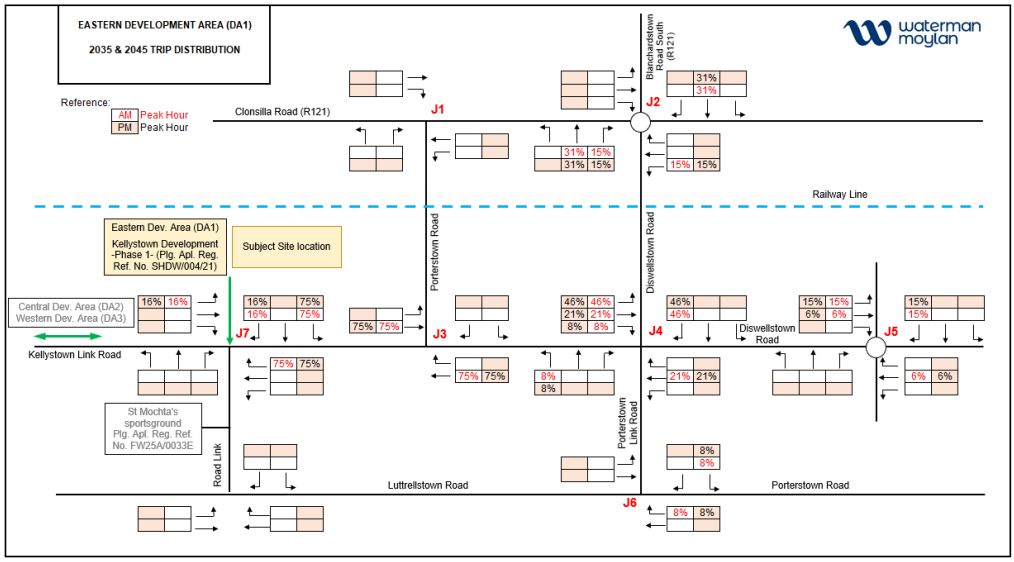

Figure 14.50: Trip Distribution – Eastern Development Area (DA1) – 2035 -opening year + 5 years- & 2045-opening year + 15 years- scenarios

In addition, **Figure 14.51** below shows trip distribution for the developments situated in Central Development Area (DA2) & Western Development Area (DA3).

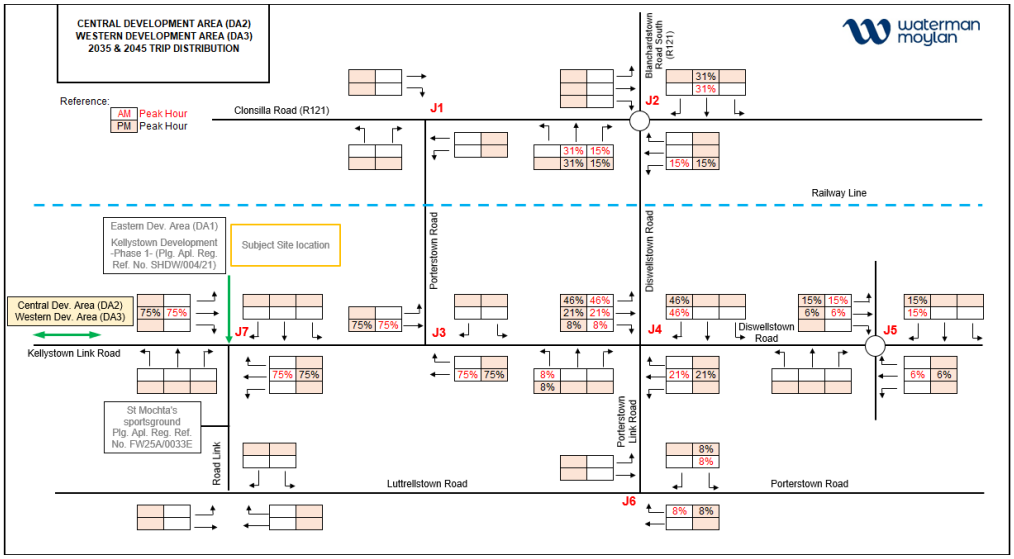

Figure 14.51: Trip Distribution – Central Development Area (DA2) & Western Development Area (DA3) – 2035 -opening year + 5 years- & 2045-opening year + 15 years- scenarios

Finally, **Figure 14.52** below shows the trip distribution for the proposed new St Mochta's sportsground.

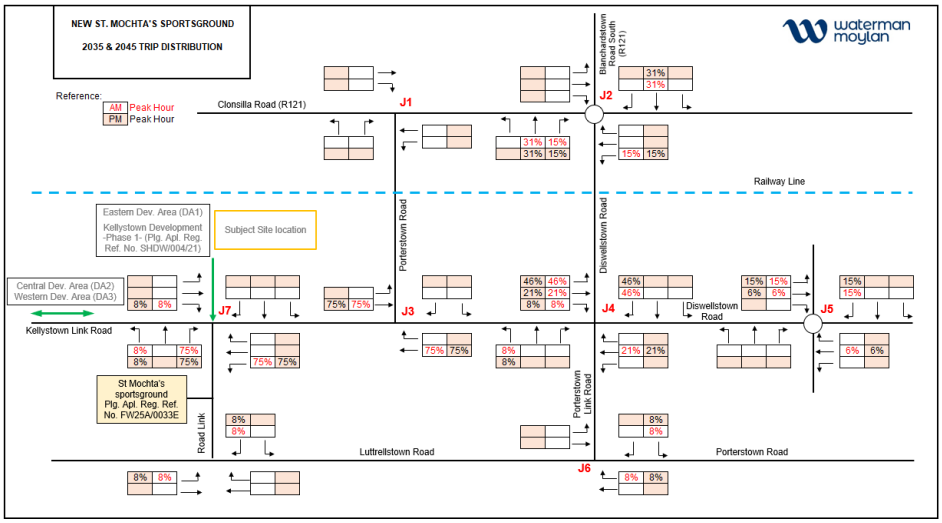

Figure 14.52: Trip Distribution – New St Mochta's sportsground - 2035 -opening year + 5 years- & 2045-opening year + 15 years- scenarios

Trip Generation

Subject Development

The Subject Development consists of 302 no. residential units comprising 97 no. houses and 205 no. apartment / duplex units. The AM and PM peak hour trip generation to/from the proposed development is shown in Table below.

Land Use Category	AM Peak Hour		PM Peak Hour	
	Arrivals	Departures	Arrivals	Departures
97 no. houses	14	34	32	21
205 no. apartment / duplex units	29	72	68	43
Total (302 no. mix units)	**43**	**106**	**100**	**64**

Table 14.20: Trip Generation – Subject Development

It has been estimated that the proposed development will generate a total of 149 vehicular movements in the AM peak hour (43 inbound and 106 outbound) and a total of 164 vehicular movements in the PM peak hour (100 inbound and 64 outbound).

Considering the trip distribution shown in **Figure 14.48** above shows the trip distribution for the 2030 -opening year-. Traffic flows are presented in **Figure 14.53** below.

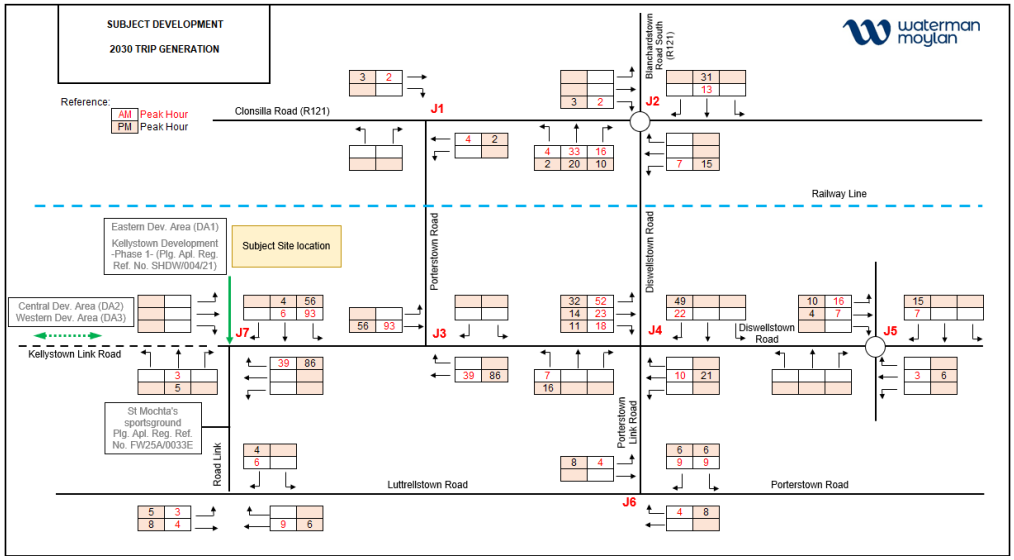

Figure 14.53: Trip Generation – Subject Site – 2030 -opening year- scenarios

Considering the trip distribution shown in **Figure 14.50** above, traffic flows for the 2035 -opening year + 5 years- and the 2045 -opening year + 15 years- scenarios are presented in **Figure 14.54** below.

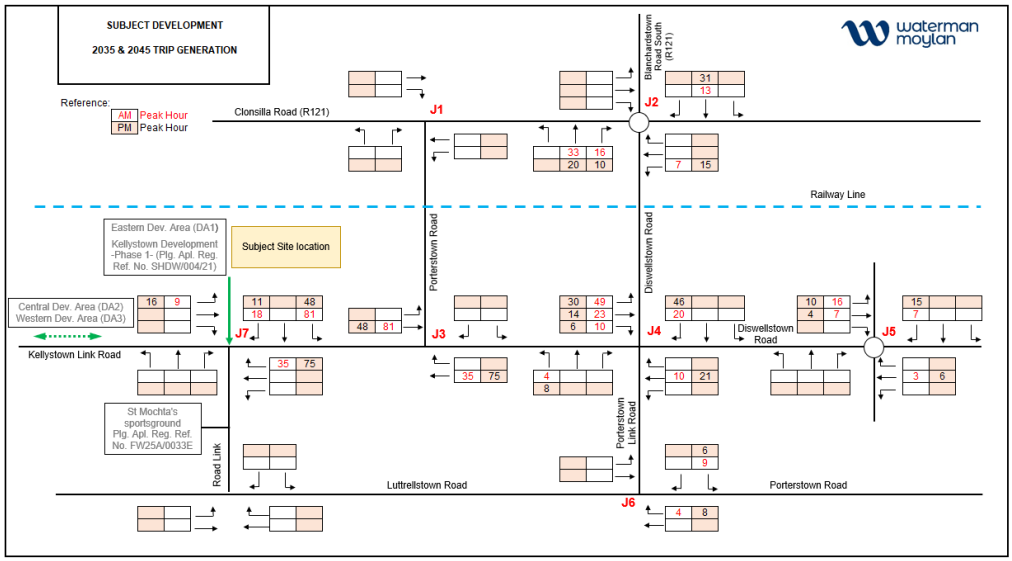

Figure 14.54: Trip Generation – Subject Site – 2035 -opening year + 5 years- & 2045-opening year + 15 years- scenarios

Kellystown Development -Phase 1- Under construction (Reg. Ref. No. ABP-312318-21, as amended by Reg. Ref. No. LRD0034-S3)

The Kellystown Development -Phase 1- was received Grant Permission by An Bord Pleanála in March 2023 (ABP Reg. Ref. ABP-312318-21). In addition, a Large-Scale Residential Development Amendment (Plg. Apl. Reg. Ref. No. LRD0034/S3) to a consented Strategic Housing Development (ABP-312318-21) was request in May 2024, which was received Gran Permission by Fingal County Council in August 2024. As results of this, the under construction Kellystown Development -Phase 1- consists of a mix of 374 no. residential units.

The calculated trips for the development are reproduced in Table below.

Land Use Category	AM Peak Hour		PM Peak Hour	
	Arrivals	Departures	Arrivals	Departures
374 no. residential units	53	130	124	78

Table 14.21: Trip Generation – Subject Development

It was estimated that Kellystown Development -Phase 1- will generate a total of 183 car trips in the AM peak hour (53 inbound and 130 outbound) and a total of 202 car trips in the PM peak hour (124 inbound and 78 outbound).

Eastern Development Area (DA1) – Residential units

For the purpose of this section, and in order to undertake a robust and conservative assessment of the surrounding transport network, it was assumed that 857 No. residential units will be delivered at the Eastern Development Area (DA1).

As indicated above in **Table 14.7**, the under construction Kellystown Development -Phase 1-, the Plot 1 -Luttrellstown Gate Phase 2- and the Plot 2 -St. Mochta's LRD- fall within the Eastern Development Area (DA1). For the purposes of assessing the traffic flows of the Plot 2 - St. Mochta's LRD, the Plot 1 - Luttrellstown Gate Phase 2 has not been considered and has been included as part of the remaining number of units within the Eastern Development Area (DA1), which is 181 No. units (see **Table 14.22** below).

Therefore, the assessment in this section provides an overestimation of units and trips to/from the overall Eastern Development Area (DA1). As outlined in **Section 14.3.3** above, the overall Eastern Development Area (DA1), including the Kellystown Development -Phase 1-, Plot 1 (Luttrellstown Gate Phase 2) and Plot 2 (St. Mochta's LRD), totalized 775 No. units, while the proposed assessment gives a total of 857 No. units.

Table 14.22 below shows the number of units considered as part of the Eastern Development Area (DA1).

Eastern Development Area (DA1)	**No. Residential Units/Spaces**
DA1 - Phase 1 - Under construction	374 units
DA1 - Plot 2 (St. Mochta's LRD)	302 units
DA1 - Remaining No. units	181 units

Table 14.22: Trip Generation – Subject Development

It is important to note that the "DA1 - Remaining No. units" refers to the proposed Luttrellstown Gate Phase 2, and the 181 no. units indicated in **Table 14.22** above exceeds the 99 no. residential units proposed. Therefore, for the purposes of this Traffic and Transport Assessment, it is assumed that the remaining area of DA1 will accommodate the total number of units as outlined in **Table 14.22** above. This assumption is intended to provide a more robust basis for analysis.

Considering the trips rates set out in **Table 14.19** above, trips to/from the potential future residential development within Eastern Development Area (DA1) of Kellystown are presented in **Table 14.23** below. These have been based on:

- The remaining number of units within the Eastern Development Area, as indicated in **Table 14.22** above.
- The TRICS car trip rates (**Table 14.19** above).

Land Use Category	AM Peak Hour		PM Peak Hour	
	Arrivals	Departures	Arrivals	Departures
181 no. residential units	26	62	60	38

Table 14.23: Trip Generation – Remaining units within DA1

It has been estimated that the remaining number of units within the Eastern Development Area that will generate a total of 88 car trips in the AM peak hour (26 inbound and 62 outbound) and a total of 98 car trips in the PM peak hour (60 inbound and 38 outbound).

As indicate in **Section 14.3.3** above, it has been assumed that the remaining residential units within the Eastern Development Area will be fully occupied before 2030 -opening year- scenario.

Central Development Area (DA2) – Residential units

Trips to/from the potential future residential development within Central Development Area (DA2) of Kellystown are presented in Table below. These have been based on:

- A potential future residential development comprising of 179 residential units (refer to Table **14.8** above).
- The TRICS car trip rates indicated above (refer to **Table 14.19** above).

Land Use Category	AM Peak Hour		PM Peak Hour	
	Arrivals	Departures	Arrivals	Departures
179 no. residential units	26	62	59	38

Table 14.24: Trip Generation – DA2 – Residential units

It has been estimated that the residential units within the Central Development Area (DA2) will generate a total of 88 car trips in the AM peak hour (26 inbound and 62 outbound) and a total of 97 car trips in the PM peak hour (59 inbound and 38 outbound).

As indicate in **Section 14.3.3** above, it has been assumed that the residential units within the Central Development Area will be fully occupied before 2035 -opening year + 5 year- scenario.

Central Development Area (DA2) – Retail Area

According to the Kellystown Local Area Plan, the future Local Centre to be located in the heart of the Central Development Area (DA2) of Kellystown is "supported on the lands to provide everyday shopping facilities and other local facilities and services (e.g. newsagent, doctor, pharmacy, hairdresser, etc.)".

The LAP also anticipates that "weekly shopping activities will be undertaken outside the LAP lands at the nearby Blanchardstown Shopping Centre or within the nearby centre of Clonsilla which provides for Level 4 retail provision".

As such, based on the above LAP statement, it was considered reasonable to assume that the future Local Centre will be constructed to primarily serve the future Kellystown residents and will primarily attract internal trips (within the LAP boundary). Therefore, it has been assumed in this TTA that the future Local Centre will attract only a few external trips – from outside the LAP area, and these will be non-primary pass-by trips – a linked trip that arises from visiting the new facility without having to deviate significantly from the existing route being taken; a form of trip that does not result in any additional load to the studied area, since it already exists on the network.

Therefore, no additional trips have been assumed for the future Local Centre once all trips to this facility will be generated internally within the LAP or externally as non-primary pass-by.

Central Development Area (DA2) – Primary and Secondary Schools

As set out in the Kellystown LAP, a Primary School and a Secondary School are included as part of the key objectives for the LAP area, and based on the potential capacity of such schools, the inclusion of these facilities in the subject assessment was considered appropriate.

According to the approved Traffic and Transport Assessment prepared for the Kellystown Development -Phase 1-, a standard primary school in such areas is typically designed with 16 or 24 classrooms to cater for 400 / 600 pupils and a standard secondary school is typically designed to cater

for 650 to 1,000 pupils. Based on the assessment made in that TTA, the following car trips are proposed.

Land Use Category	AM Peak Hour	
	Arrivals	Departures
Primary and Secondary School	216	216

Table 14.25: Trip Generation –DA2 – Primary and Secondary Schools

It was estimated that the residential units within the Central Development Area (DA2) will generate a total of 432 car trips in the AM peak hour (216 inbound and 216 outbound).

As indicate in **Section 14.3.3** above, it has assumed that the Primary and Secondary School within the Central Development Area will be fully occupied before 2035 -opening year + 5 year- scenario.

Western Development Area (DA3) – Residential units

Trips to/from the potential future residential development within Western Development Area (DA3) of Kellystown are presented in Table below. These have been based on:

- A potential future residential development comprising of 547 residential units (refer to Table **14.9** above).
- The TRICS car trip rates indicated above (refer to **Table 14.19** above).

Land Use Category	AM Peak Hour		PM Peak Hour	
	Arrivals	Departures	Arrivals	Departures
547 no. residential units	77	190	180	114

Table 14.26: Trip Generation – DA3 – Residential units

It has been estimated that the residential units within the Western Development Area (DA3) will generate a total of 267 car trips in the AM peak hour (77 inbound and 190 outbound) and a total of 294 car trips in the PM peak hour (180 inbound and 114 outbound).

As indicate in **Section 14.3.3** above, it is assumed that the Western Development Area will be fully occupied before 2035 -opening year + 5 year- scenario.

St Mochta's sportsground (Plg. Apl. Reg. Ref. No. FW25A/0033E)

Trip generation to/from the Potential Future St. Mochta's Sportsground have been calculated in the Traffic and Transport Assessment (TTA) prepared by Waterman Moylan Consulting Engineers as part of the Planning Application Reg. Ref. No. FW25A/0033E. Trips to/from the new St. Mochta's Sportsground are presented Table below

Land Use Category	PM Peak Hour	
	Arrivals	Departures
Sportsground (7-no. 5-a-side football pitch)	46	46

Table 14.27: St Mochta's sportsground – Trip Generation (Source: New sportsground and clubhouse for a relocated St Mochta's Football Club, Plg. Apl. Reg. Ref. No. FW25A/0033E)

It was estimated that the area with the subject development will generate a total of 92 vehicle movements during the PM peak hour (46 arrivals and 46 departures).

As indicate in **Section 14.3.3** above, it is assumed that the St Mochta's sportsground will be complete before 2030 -opening year- scenario.

Summary of Peak Hour Trips

Table below shows a summary of the overall Kellystown trips expected to be generated during the AM and PM peak hours.

Land Use Category	AM Peak Hour		PM Peak Hour	
	Arrivals	Departures	Arrivals	Departures
Subject Development - Total (302 no. mix units)	*43*	*106*	*100*	*64*
Kellystown Development -Phase 1- Under construction	53	130	124	78
Eastern Development Area (DA1) Remaining No. units	26	62	60	38
Central Development Area (DA2)	26	62	59	38
Central Development Area (DA2) – Primary and Secondary Schools	216	216	-	-
Western Development Area (DA3) – 547 no. residential units	77	190	180	114
St Mochta's sportsground	-	-	46	46
TOTAL	**441**	**766**	**569**	**378**

Table 14.28: Summary of Peak Hour Trips

It has been estimated that the area will generate a total of 1,207 vehicle movements during the AM peak hour (441 arrivals and 766 departures) and 947 vehicles movements during the PM peak hour (569 arrivals and 378 departures).

Section 7.3 of the Kellystown Local Area Plan (January 2021) sets out the predicted volume of car trips leaving the Kellystown development during the AM peak hour as being c. 625, 141 car trips less then what has been estimated in **Table 14.28** above. It is understanding that this difference is a result of the total number of residential units for the overall Kellystown development assumed in both reports: the Local Area Plan estimated trips for a full Kellystown development based on approx. 1,200 residential units, whilst the trip generation calculation presented in this report has been undertaken for a full Kellystown development comprising of 1,900 residential units. Therefore, as the subject report is based on a higher number of units for the overall Kellystown, the trip generation calculation presented above is considered conservative.

The figures below show trip generation for the overall Kellystown development, considering the committed ad potential future development in the area, but not including the subject development.

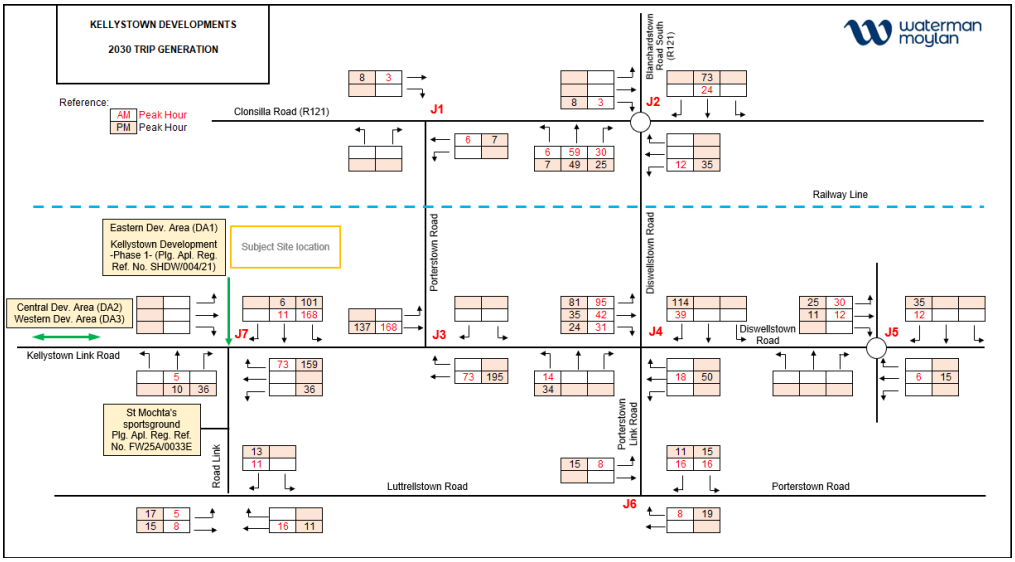

Figure 14.55: Trip Generation – Overall Kellystown Development – 2030 -opening year- scenario

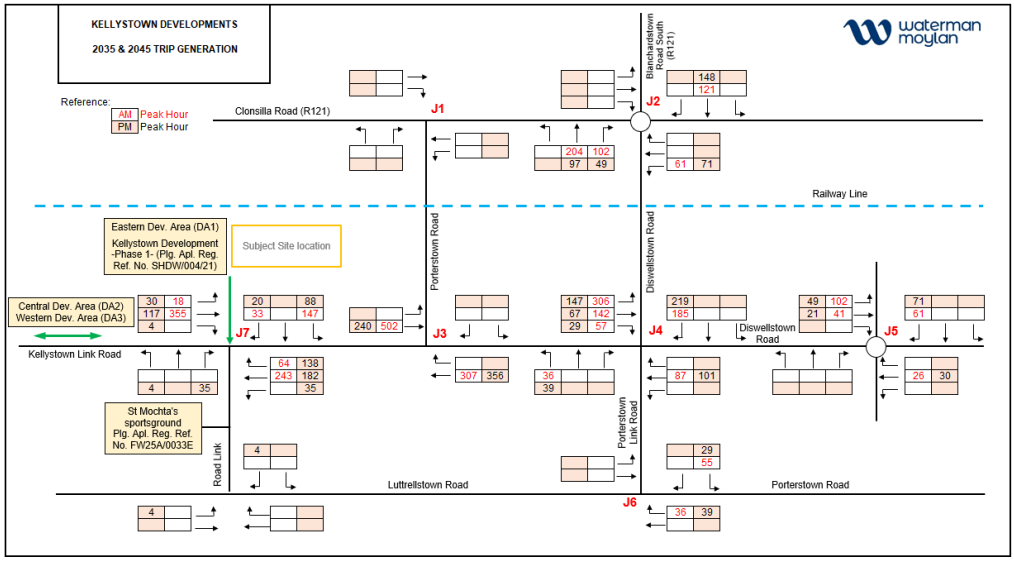

Figure 14.56: Trip Generation – Overall Kellystown Development – 2035 & 2045 scenarios

Baseline Traffic Flow

The existing traffic conditions have been presented in **Section 14.3.2** above, in particular in **Figure 14.23** above.

Baseline traffic redistributed on the road network

As indicated above, the construction of the Kellystown Development - Phase 1- (Reg. Ref. No. ABP-312318-21, as amended by Reg. Ref. No. LRD0034-S3) has considered the closure of the Old Porterstown Road level crossing and the provision of a pedestrian and cycle bridge over the railway. In addition, according to the approved Traffic and Transport Assessment prepared for Kellystown Development - Phase 1, the full development and occupation of the project is scheduled for 2027. Therefore, it is anticipated that drivers will not be available to use the Old Porterstown Road level crossing for the opening year of Plot 2 (St. Mochta's LRD) and therefore a redistribution of the surveyed traffic flows is required.

Considering the 2025 surveyed traffic flows presented in **Figure 14.23** above and the changes to Porterstown Road, **Figure 14.57** below shows the baseline traffic that is redistributed on the road network. The redistribution of traffic flows was undertaken on the assumption that Junction 3 would be unavailable for journeys to/ from Porterstown Road and the journeys via this junction have been redistributed across the remainder of the road network.

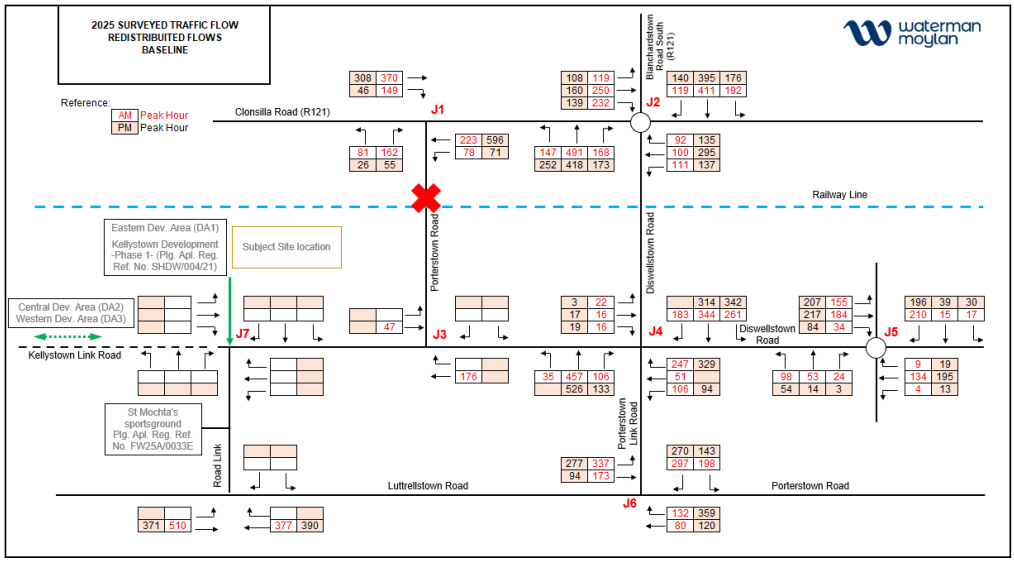

Figure 14.57: 2025 Surveyed Traffic Flows Redistributed

It is important to note that close to Junction 1 is St. Mochta's National School as can be seen in **Figure 14.58** below and near to Junction 3 are the Scoil Choilm Community National and Luttrellstown College School as can be seen in **Figure 14.59** below. The mentioned schools are important trip attractors, and they have been considered for the redistribution of traffic flows.

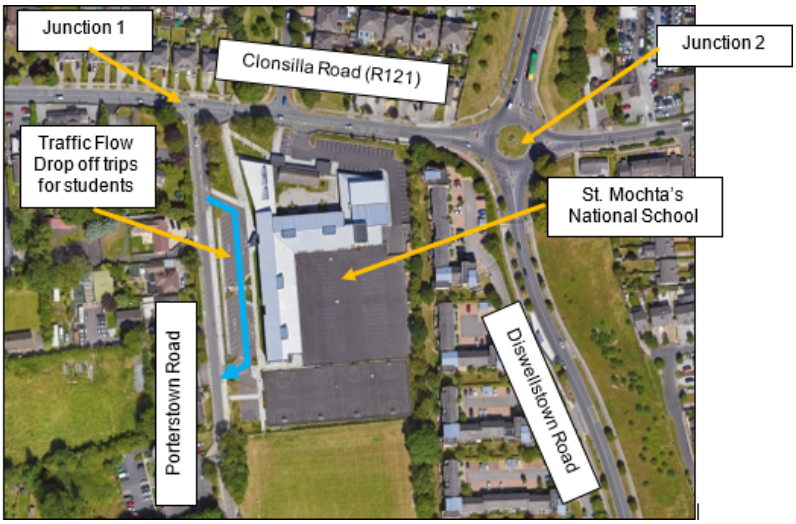

Figure 14.58: St. Mochta's National School

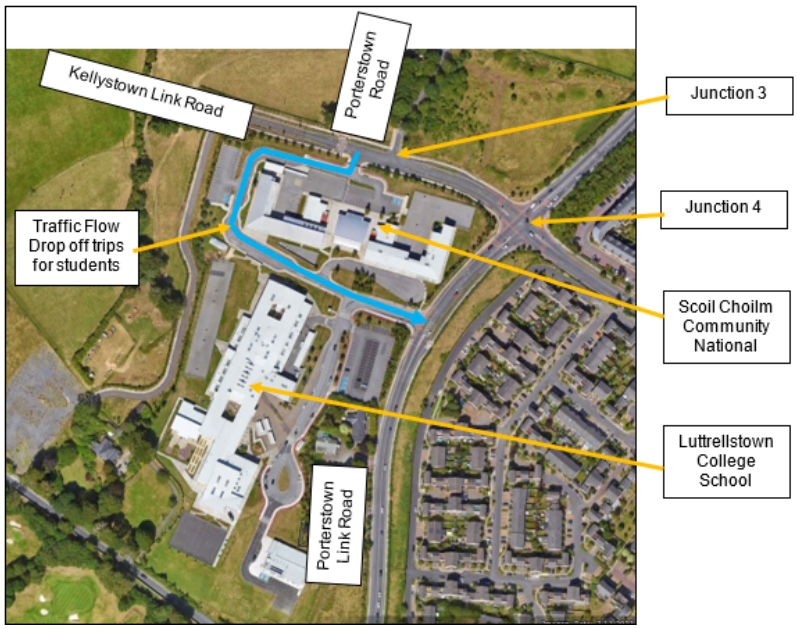

Figure 14.59: Scoil Choilm Community National & Luttrellstown College School

The following considerations have been made with regard to the redistribution of the traffic flows observed during the AM peak hour at Junction 3:

- It has been considered that the 77 trips turning right from Porterstown Road onto westbound Kellystown Link Road (Refer to 2025 Surveyed Traffic Flows) are destined for the Scoil Choilm Community National and Luttrellstown College School. Traffic redistribution has been done with the assumption that 50% of these trips involve drivers traveling from the east on Clonsilla Road (R121) and turning right at Junction 1, while the remaining 50% involve drivers traveling from the west on Clonsilla Road (R121) and turning left at Junction 1. It is assumed that drivers traveling from the east on Clonsilla Road (R121) will continue straight ahead, turn right at Junction 2, and then turn right at Junction 4. It is assumed that the latter group is made up of drivers travelling southbound on Blanchardstown Road South (R121), therefore, will continue straight ahead at Junction 2 and will turn right at Junction 4.
- Regarding the 115 trips turning left onto Kellystown Link Road from Porterstown Road (Refer to 2025 Surveyed Traffic Flows), it has been assumed that 80% of these are parents who have dropped off their children at St Mochta's National School, 10% are from the residential units along Porterstown Road and 10% are from drivers traveling from the east on Clonsilla Road (R121) and turning right at Junction 1 then left towards junction 4. 80% of vehicles dropping off children at St Mochta's National School are assumed to return to Junction 1 then head towards Junction 2. Part of them will turn right at Junction 2 and part of them continue straight ahead. For the 10% of trips from the residential units and the 10% traveling eastbound on Clonsilla Road (R121), it is assumed that will turn right at Junction 2. Of the overall trips arriving at Junction 4, it is assumed trip distribution is consistent with surveyed traffic flows.
- The 4 trips turning left onto Porterstown Road from the west direction on Kellystown Link Road (Refer to 2025 Surveyed Traffic Flows) will continue ahead towards Junction 5.
- It has been considered that the 6 trips turning right onto Porterstown Road from the east direction on Kellystown Link Road (Refer to 2025 Surveyed Traffic Flows) are residents of the developments along Porterstown Road. In addition, it has been assumed that the 6 trips are drivers using northbound of Porterstown Link Road, who will continue straight ahead at Junction 4 and subsequently turn left at Junction 2 and Junction 1.

The following considerations have been made regarding the redistribution of the traffic flows observed during the PM peak hour at Junction 3:

- Regarding the 35 trips turning left onto east direction on Kellystown Link Road (Refer to 2025 Surveyed Traffic Flows), it is assumed that these trips originate from the residential units along Porterstown Road. Therefore, these trips will turn right at Junction 1 and then right at Junction 2. At Junction 4, it is assumed that the trip distribution will be consistent with surveyed traffic flows.
- It has been assumed that the 41 trips turning right onto Porterstown Road (Refer to 2025 Surveyed Traffic Flows) are destined for the residential areas along Porterstown Road and other residential areas passing Junction 1. In addition, considering the traffic flow behaviour, as observed in the 2025 traffic survey, has revealed that these 41 trips are a consequence of vehicles arriving from the east and the south at junction 4. Trips arriving from the westbound Diswellstown Road will turn right at Junction 4 to the north. Trips arriving from the Northbound Porterstown Link Road will continue straight ahead at Junction 4. The total of tris arriving at Junction 2 will turn left onto Clonsilla Road (R121), with 70 % of these subsequently turning left at Junction 1 and the remaining 30% continuing straight ahead.

Traffic Growth rates

It has been assumed within this TTA that the proposed development will be constructed with assumed year of opening is 20308.

As per methodology adopted in the 'Transport Assessment Guidelines (May 2014)', which the subject TTA is based on, the surveyed junctions were also assessed for the future design years of 2035 (Opening year + 5 years) and 2045 (opening year +15 years).

The traffic growth rates used to factor up the 2025 base year traffic movements are in accordance with *Table 6.1: Link-Based Growth Rates: Metropolitan Area Annual Growth Rates'* within the *TII Publications – Project Appraisal Guidelines for National Roads, Unit 5.3 – Travel Demand Projections (October 2021)* and with the *Appendix 4* of the *Implementation Roadmap for the National Planning Framework (July 2018)* which defines the Dublin Metropolitan Area.

According to the approved Traffic and Transport Assessment prepared by Waterman Moylan Consulting Engineers for the Kellystown Development -Phase 1- (Reg. Ref. No. ABP-312318-21, as amended by Reg. Ref. No. LRD0034-S3), the area can be considered to have central growth rates for the first five years. With the DART and Bus Connects programmes in place, public transport services in the Kellystown LAP area will be significantly enhanced, potentially reducing the absolute increase in car trips compared to a scenario without these public transport measures. Therefore, low growth factors were applied to derive the 2035 and beyond baseline traffic flows, reflecting the impact of the Bus Connects and DART programmes and their associated reduction in car-based trips.

The factors considered in the current assessment are shown below:

- Base line: 2025
- Opening year: 2030 = 1.049 (Central growth factor from 2025 to 2030)
- Opening year + 5: 2035 = 1.095 (Low growth factor from 2025 to 2035)
- Opening year + 15: 2045 = 1.139 (Low growth factor from 2025 to 2045)

It is important to note that the potential future car trips to be generated by the overall Kellystown LAP are calculated separately in this report and therefore, factoring up the baseline traffic does not account for the Kellystown LAP car trips.

Junction Assessment

Assessed Junctions

The junctions assessed as part of this TTA are the following:

- Junction 1 (Priority T-junction): R121 Clonsilla Road/Porterstown Road.

- Junction 2 (Four-armed Roundabout): R121 Clonsilla Road/Diswellstown Road.
- Junction 3 (Priority T-junction): Kellystown Link Road/Porterstown Road.
- Junction 4 (Signalised Crossroads): Kellystown Link Road/Diswellstown Road.
- Junction 5 (Four-armed Roundabout): Diswellstown Road/Riverwood Road/Fernleigh Drive.
- Junction 6 (Signalised T-junction): Diswellstown Road/Luttrellstown Road.
- Junction 7 (Signalised Crossroads): Access to the Subject Site / Kellystown Link Road / Access to the Central Dev. Area (DA1) & Under construction Kellystown Development -Phase 1- (Reg. Ref. No. ABP-312318-21, as amended by Reg. Ref. No. LRD0034-S3). Junction layout is shown in **Figure 14.38** above.

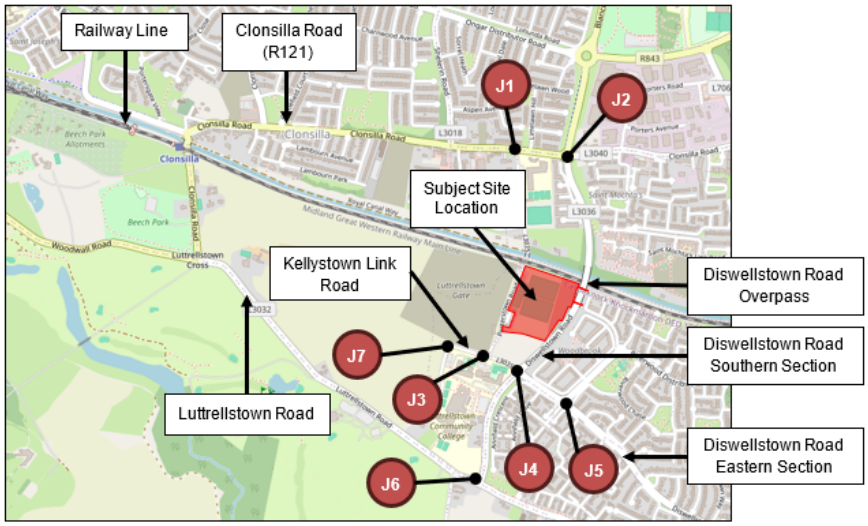

Figure 14.60: Existing Road Network (Source: Open Street Map)

Cumulative Impact

The TII document *Traffic and Transport Assessment Guidelines (2014)* provides thresholds in relation to the impact of a proposed development on the local road network.

According to *Traffic and Transport Assessment Guidelines (2014)*, the impact of new developments is considered to be significant if the level of traffic generated by them exceeds the thresholds of 10% for normal operating networks and 5% for congested networks. When such levels of impact are generated, a more detailed assessment should be carried out to determine the specific impact on the operational performance of the network.

Therefore, an assessment was conducted to determine the potential level of impact on the junctions in the local road network. This assessment was carried considering the traffic flows surveyed in 2025 and the traffic flows generated by the Subject Development. The summary of this calculation is presented in the following table.

Junction	Existing Two-way Flows (2025)		Additional Two-way Flows		% Expected Increase	
	AM P.H.	PM P.H.	AM P.H.	PM P.H.	AM P.H.	PM P.H.
1	992	1,026	6	5	0.60%	0.49%
2	2232	2452	75	81	3.36%	3.30%
3	421	76	132	142	31.35%	186.84%
4	1,791	1,733	132	143	7.37%	8.25%
5	933	1037	33	35	3.54%	3.38%
6	1176	1203	26	28	2.21%	2.33%
7	-	-	141	151	-	-

Table 14.29: Surveyed Two-way Traffic and Expected Traffic Increase

As can be seen in table above, it is anticipated that junction 3 will experience a two-way traffic increase of over than 10% during a peak hour. However, it is important to note that junction Porterstown Road / Kellystown Link Road, currently is a priority-controlled T-junction but will be upgraded to only allow emergency vehicles, pedestrian and cyclist movements.

Junction 4 would experience with traffic increases of more than 5% in both peak hours.

Junction 7 would experience an increase in traffic as it is the main access to the Eastern Development Area, which currently has no traffic flow. However, the junction was assessed in the traffic and transport assessment carried out by Waterman Moylan Consulting Engineers as part of the Kellystown Development -Phase 1- (Reg. Ref. No. ABP-312318-21, as amended by Reg. Ref. No. LRD0034-S3) considering the traffic flow to/from all Eastern Development Area. It is therefore considered to be working well, and no further assessment is required.

Regarding junctions 1, 2, 5 and 6 are below the 5% threshold and therefore no further assessment is required.

Modelling Background

There are various modelling software packages available to assess every type of junction. Waterman Moylan uses ARCADY, TRANSYT and PICADY to analyse roundabouts, signalised and priority junctions, respectively.

ARCADY is a software for modelling roundabouts. This programme utilises roundabouts geometry and traffic flows input by the user to determine Ratio of Flow to Capacity (RFC) and queue length for each link on the roundabout.

TRANSYT (Traffic Network Study Tool) software is a widely accepted software for modelling signalled controlled junctions. This programme utilises the phases input by the user and optimises their timings over a cycle time. The outputs of a TRANSYT assessment include a Degree of Saturation percentage (DOS%) figure and queue length for each link on the road network.

PICADY is a software for modelling priority-controlled junctions. This programme utilises junction's geometry and traffic flows input by the user to determine Ratio of Flow to Capacity (RFC) and queue length for each link on the junction.

The results of the model include the following:

- DOS% / RFC ratio represent the ratio of demand flow to capacity. The practical capacity threshold is typically set at 0.85. A value below 0.85 indicates that the junction is operating in an efficient and stable state. A value between 0.85 and 1 represents variable operation and can be considered to be operating adequately if queuing and delay are deemed to be within an acceptable range. However, a junction is typically considered to be operating satisfactorily when the DOS%/RFC of each link does not exceed 0.9. A value exceeding 1 indicates a congested condition.
- Max Queue Length: This represents the maximum queue length of vehicles waiting to enter the junction on each arm.

- Average Delay: This shows the average amount of traffic delay at the junction per vehicle over the peak hour period.
- PCU: Passenger Car Unit. 1 car / LGV equals 1 PCU, 1 Medium HGV equals 1.5 PCU, 1 Bus equals 2.0 PCU, 1 Large HGV equals 2.3 PCU. 1 PCU equals 5.75m.

Assessment Scenarios

The performance of the junctions has been analysed for the critical AM Peak Hour and PM Peak Hour (08:00 – 09:00 and 17:00 – 18:00) for the following scenarios:

- 2025 BASELINE TRAFFIC FLOW: 2025 Surveyed Traffic Flows Redistributed. Refer to **Figure 14.57** above.
- 2030 DO NOTHING (DN-2030) -Opening Year, without development-: with 2025 base year factored up + traffic to/from the Kellystown Developments. Refer to **Figure 14.61** below.
- 2035 DO NOTHING (DN-2035) -Opening Year + 5 years, without development-: with 2025 base year factored up + traffic to/from the Kellystown Developments. Refer to **Figure 14.62** below.
- 2045 DO NOTHING (DN-2045) -Opening Year + 15 years, without development-: with 2025 base year factored up + traffic to/from the Kellystown Developments. Refer to **Figure 14.63** below.
- 2030 DO SOMETHING (DS-2030) -Opening Year, with development-: DN-2030 + traffic flow to/from the subject site. Refer to **Figure 14.64** below.
- 2035 DO SOMETHING (DS-2035) -Opening Year + 5 years, with development-: DN-2035 + traffic flow to/from the subject site. Refer to **Figure 14.65** below.
- 2045 DO SOMETHING (DS-2045) -Opening Year + 15 years, with development-: DN-2045 + traffic flow to/from the subject site. Refer to **Figure 14.66** below.

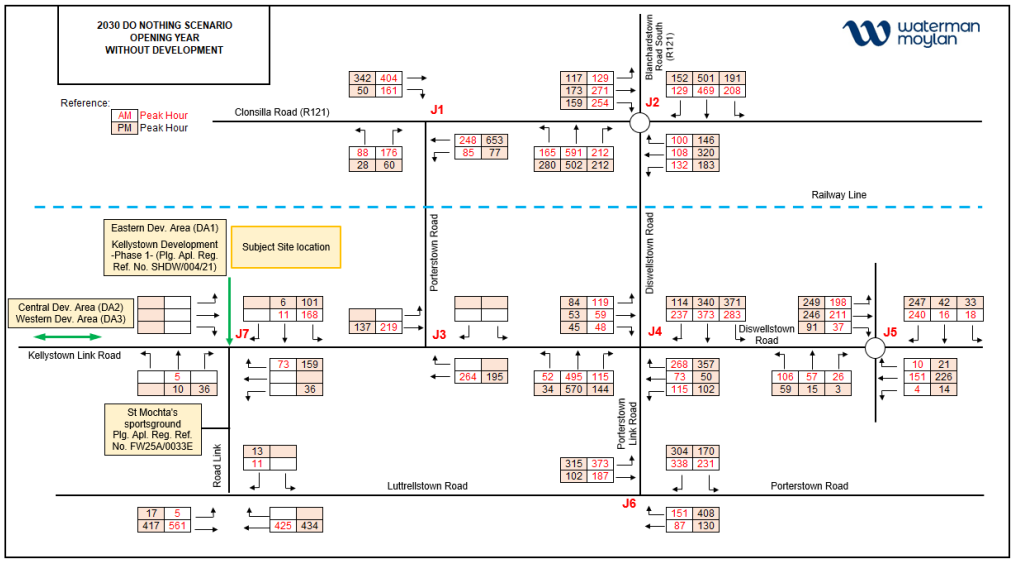

Figure 14.61: Traffic Flows - 2030 DO NOTHING -Opening Year, without development-

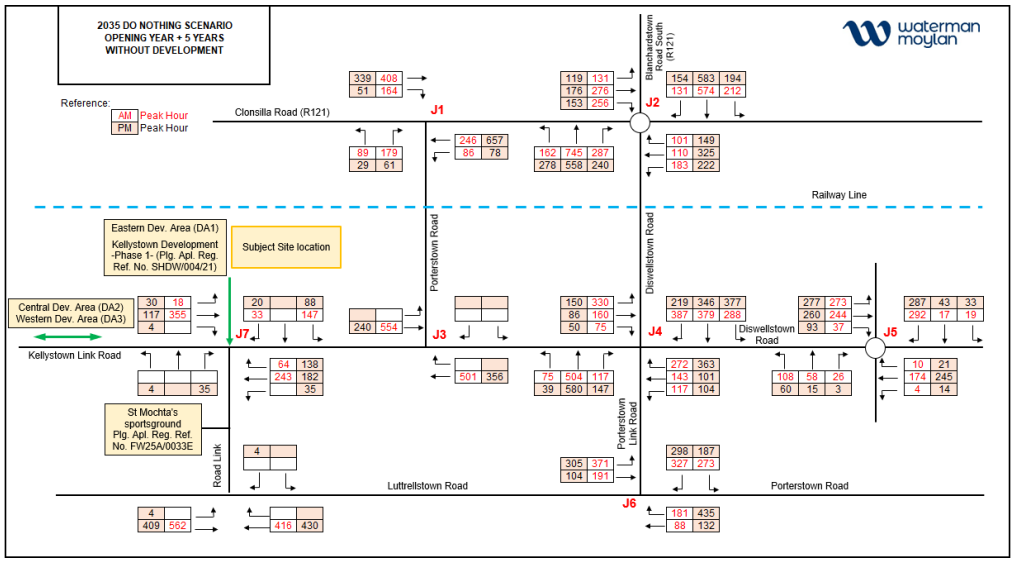

Figure 14.62: Traffic Flows - 2035 DO NOTHING -Opening Year + 5 Years, without development-

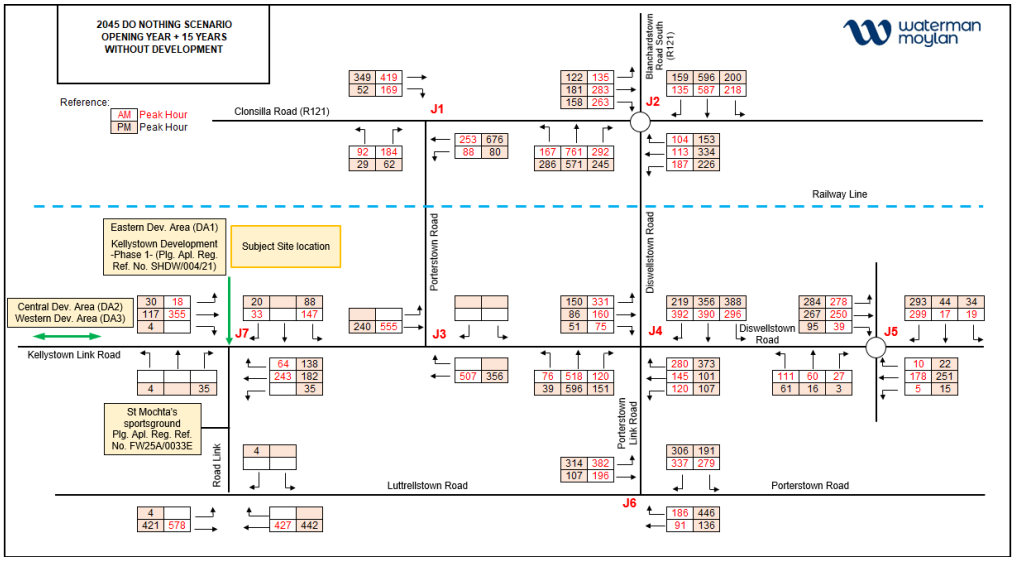

Figure 14.63: Traffic Flows - 2045 DO NOTHING -Opening Year + 15 Years, without development-

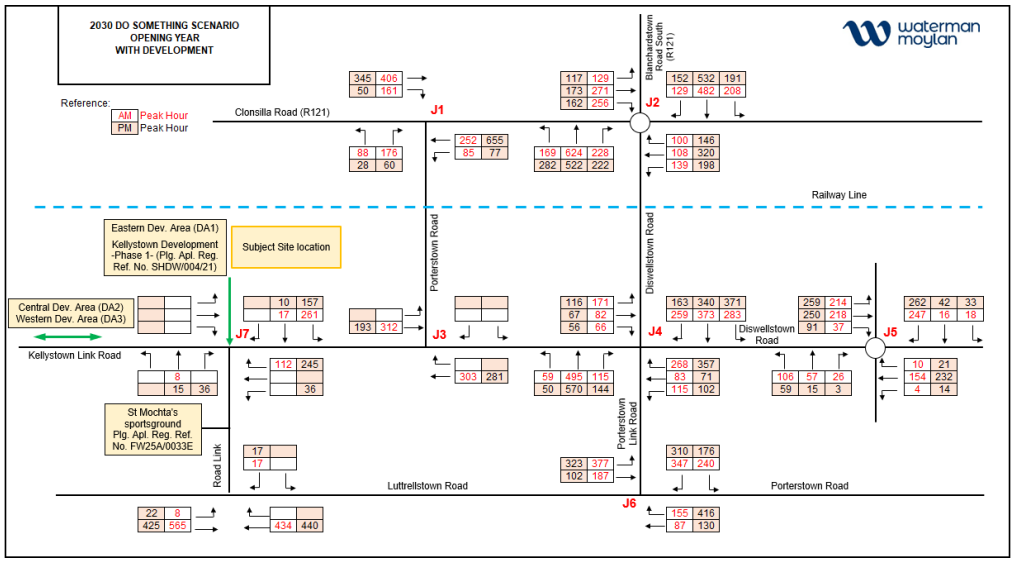

Figure 14.64: Traffic Flows - 2030 DO SOMETHING -Opening Year, with development-

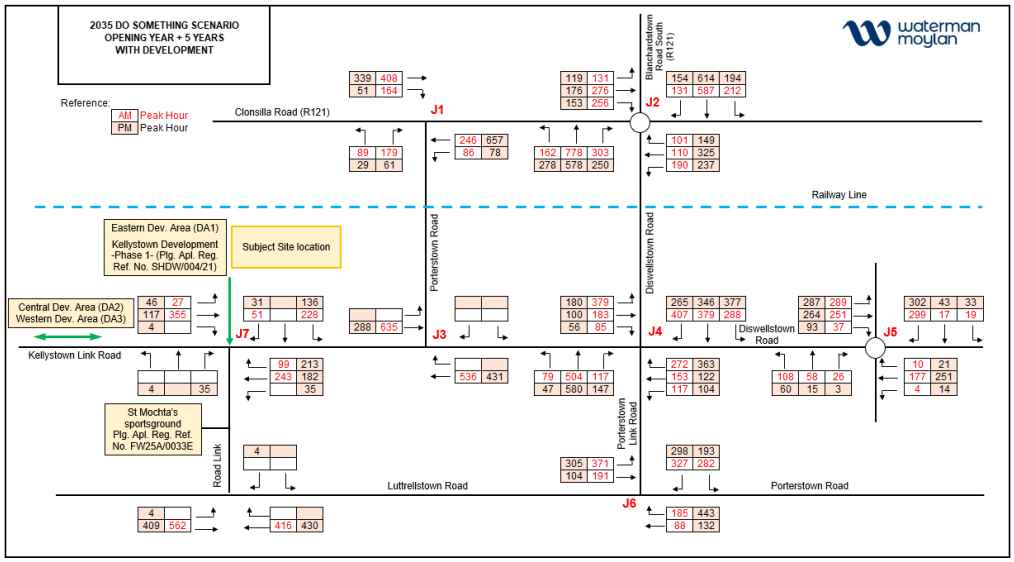

Figure 14.65: Traffic Flows - 2035 DO SOMETHING -Opening Year + 5 Years, with development-

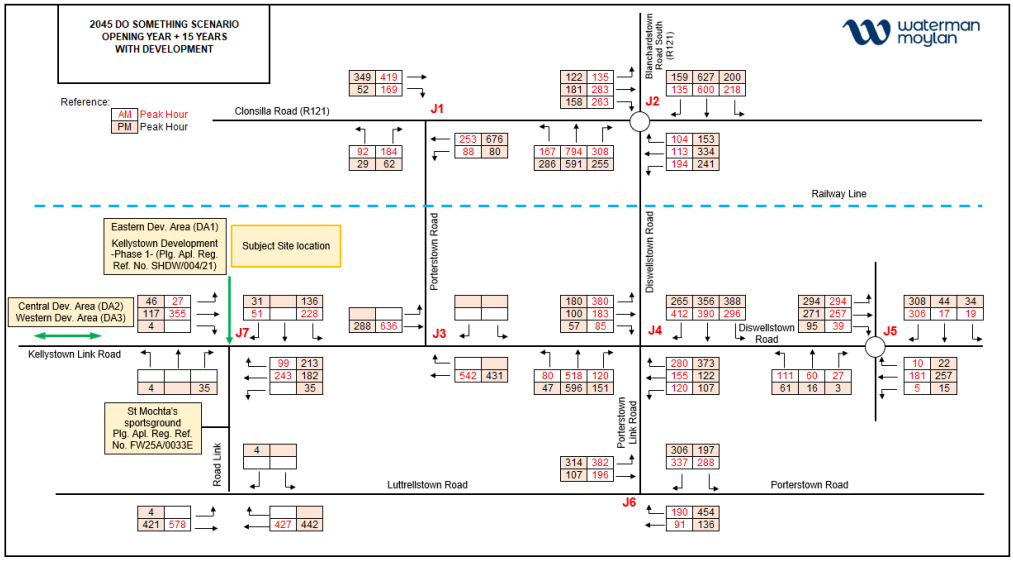

Figure 14.66: Traffic Flows - 2045 DO SOMETHING -Opening Year + 15 Years, with development-

Junction Modelling Results

Junction 4: Kellystown Link Road/Diswellstown Road

Junction 4 is an existing signalised crossroads located at the intersection of Kellystown Link Road and Diswellstown Road. As indicated above, this junction will be upgraded as part of the Kellystown Development -Phase 1- (Reg. Ref. No. ABP-312318-21, as amended by Reg. Ref. No. LRD0034-S3).

Given that the Kellystown Development - Phase 1- will be completed for the opening year of the subject site, the junction modelling has been carried out considering the upgrade layout. Therefore, the junction was modelled on its proposed configuration and is analysed using the TRANSYT model. The results of the analysis are presented below.

The TRANSYT analysis was carried out using a 5-phase signal cycle (4 no. traffic phases and 1 no. pedestrian phase) distributed in 5 stages, as shown in **Figure 14.67** below. A cycle time of 120 seconds was considered.

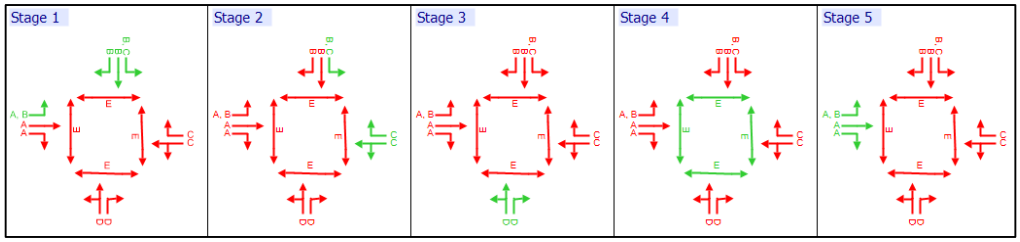

Figure 14.67: Junction 4 – Stage sequence

The arms of the junction were labelled as follows within the TRANSYT model:

- Arm A: Kellystown Link Road (W)
- Arm B: Diswellstown Road (N).
- Arm C: Diswellstown Road (E).
- Arm D: Porterstown Link Road (S).

Stream	AM Peak Hour			PM Peak Hour		
	DOS (%)	Delay (s)	Queue (PCU)	DOS (%)	Delay (s)	Queue (PCU)
2025 BASELINE TRAFFIC FLOWS						
Arm A (S)	8	47.96	0.47	12	54.33	0.54
Arm A (R)	8	47.96	0.47	13	54.65	0.6
Arm A (L)	3	24.48	0.47	0	30.47	0
Arm B (L)	34	24.42	5.89	35	22.05	7.41
Arm B (S)	74	51.5	11.53	61	46.5	9.8
Arm B (R)	39	39.24	5.16	0	0	0
Arm C (S/L)	50	50.38	4.96	19	37.75	2.53
Arm C (R)	78	66.88	9.16	66	48.43	10.49 +
Arm D (S/L)	73	39.29	15.04 +	65	35.67	15.06 +
Arm D (R)	16	25.41	2.34	17	26.13	3.01
2030 DO NOTHING						
Arm A (S)	28	51.77	1.84	36	60.39	1.78
Arm A (R)	23	50.64	1.47	31	59.14	1.5
Arm A (L)	18	26.38	2.7	14	31.84	2.06
Arm B (L)	37	24.92	6.48	38	22.54	8.16
Arm B (S)	80	56.57	13.15 +	66	48.36	10.83
Arm B (R)	51	42.01	6.98	23	38.31	3.11
Arm C (S/L)	60	53.93	6.18	31	39.57	4.25
Arm C (R)	85	76.89	10.79 +	71	51.02	11.77 +
Arm D (S/L)	81	44.64	17.93 +	75	39.53	18.52 +
Arm D (R)	17	25.59	2.57	18	26.33	3.26
2030 DO SOMETHING						
Arm A (S)	39	54.5	2.65	45	63.98	2.33
Arm A (R)	31	52.51	2.09	39	61.63	1.9
Arm A (L)	26	27.55	3.99	19	32.54	2.89
Arm B (L)	37	24.92	6.48	38	22.54	8.16
Arm B (S)	80	56.57	13.15 +	66	48.36	10.83
Arm B (R)	56	43.38	7.76	33	39.9	4.56
Arm C (S/L)	63	55.38	6.63	35	40.31	4.9
Arm C (R)	85	76.89	10.79 +	71	51.02	11.77 +
Arm D (S/L)	82	45.56	18.42 +	77	40.56	19.31 +
Arm D (R)	17	25.59	2.57	18	26.33	3.26
2035 DO NOTHING						
Arm A (S)	76	76.89	6.29	58	71.04	3.17
Arm A (R)	36	53.61	2.39	35	60.22	1.68
Arm A (L)	50	32.19	8.77	24	33.37	3.83
Arm B (L)	38	25.04	6.67	39	22.64	8.4
Arm B (S)	82	57.93	13.49 +	67	48.84	11.15
Arm B (R)	83	59.99	14.08 +	44	42.05	6.37
Arm C (S/L)	83	72.42	10.09	41	41.56	5.9
Arm C (R)	86	79.54	11.14 +	72	51.68	12.02 +
Arm D (S/L)	86	49.61	20.11 +	76	40.5	19.27 +
Arm D (R)	17	25.64	2.62	19	26.38	3.33
2035 DO SOMETHING						
Arm A (S)	87	98.96	8.33	68	79.22	3.93
Arm A (R)	40	54.93	2.76	39	61.63	1.9
Arm A (L)	57	34.14	10.49	29	34.12	4.66
Arm B (L)	38	25.04	6.67	39	22.64	8.4
Arm B (S)	82	57.93	13.49 +	67	48.84	11.15
Arm B (R)	88	66.81	15.62 +	53	44.22	7.95
Arm C (S/L)	86	78.17	10.96 +	45	42.46	6.59
Arm C (R)	86	79.54	11.14 +	72	51.68	12.02 +
Arm D (S/L)	86	50.4	20.36 +	77	41.05	19.76 +
Arm D (R)	17	25.64	2.62	19	26.38	3.33
2045 DO NOTHING						
Arm A (S)	76	76.89	6.29	58	71.04	3.17
Arm A (R)	36	53.61	2.39	36	60.45	1.71

Arm A (L)	50	32.22	8.8	24	33.37	3.83
Arm B (L)	39	25.23	6.86	40	22.84	8.65
Arm B (S)	84	60.84	14.27 +	69	49.71	11.54
Arm B (R)	84	61.44	14.40 +	44	42.05	6.37
Arm C (S/L)	84	75.09	10.54 +	42	41.68	5.99
Arm C (R)	89	85.92	12.02 +	74	52.87	12.56 +
Arm D (S/L)	88	52.85	21.26 +	78	41.65	20.09 +
Arm D (R)	18	25.7	2.69	19	26.45	3.42
2045 DO SOMETHING						
Arm A (S)	87	98.96	8.33	68	79.22	3.93
Arm A (R)	40	54.93	2.76	40	61.9	1.95
Arm A (L)	58	34.19	10.52	29	34.12	4.66
Arm B (L)	39	25.23	6.86	40	22.84	8.65
Arm B (S)	84	60.84	14.27 +	69	49.71	11.54
Arm B (R)	89	69.05	16.16 +	53	44.22	7.95
Arm C (S/L)	87	81.74	11.42 +	46	42.59	6.75
Arm C (R)	89	85.92	12.02 +	74	52.87	12.56 +
Arm D (S/L)	89	53.86	21.72 +	79	42.28	20.60 +
Arm D (R)	18	25.7	2.69	19	26.45	3.42

Table 14.30: Junction 4 – Assessment Result

The analysis summarised above indicates that, in all scenarios, the signalised junction 4 would operate within capacity during both peak hours, with a low level of congestions for the 2045 Do Something scenario.

The highest DOS occur during the AM peak hour for the 2045 DO SOMETHING scenarios. The highest DOS is 89%, with a queue of 21.72 vehicles observed in the straight-ahead / left-turn lane on Porterstown Link Road (S). However, given that the average waiting time at the junction is 53.86 seconds, cars would only wait one cycle time to cross the junction. In addition, it is important to note that this situation will occur during short periods of time.

14.5.2.3 Do-Nothing Impact

Refer to **Section 14.5.1.3** above.

14.5.3 Cumulative

14.5.3.1 Construction Stage

Refer to **Section 14.5.1.1** above.

14.5.3.2 Operational Stage

A cumulative assessment of the road network including the Plot 1 -Luttrellstown Gate Phase 2-, Plot 2 -St. Mochta's LRD- and the potential and future developments within the overall Kellystown area, has been carried out for Site 2 -St. Mochta's LRD-. Further information is provided in **Section 14.5.2.2** above.

14.5.3.3 Do-Nothing Impact

Refer to **Section 14.5.1.3** above.

14.6 Mitigation Measures (Ameliorative, Remedial or Reductive Measures)

14.6.1 Proposed Development - Plot 1 (Luttrellstown Gate Phase 2)

14.6.1.1 Construction Stage

A detailed Construction Traffic Management Plan will be prepared and agreed with Fingal County Council before commencing works on site, which must describe the following (but not limited to):

- Dedicated construction transport routes, which will be identified and agreed upon with Fingal County Council before the commencement of construction activities on site.
- A dedicated "construction site"' access/egress system to be implemented during the construction phases.
- Manage the entry and exit of heavy vehicles to and from the site, with a detailed description of operations during this time, including the assignment of staff to assist pedestrians and traffic flow during heavy vehicle movements on the roads.
- Define schedules for the entry and exit of materials and machinery to limit the generation of noise on the network to specific time slots.
- Conduct regular inspections of public roads affected by development activities to ensure that any disruption to public mobility is minimised and managed effectively.
- Due to the proximity of the proposed site along well-serviced bus routes and being well served by cycle lanes, it is intended to limit construction staff parking and to encourage the use of public transport. A limited number of car parking spaces may be provided for senior construction managers within the development site. Suitable locations in the surrounding area may be identified where staff can park and link to public transportation.
- For those wishing to cycle to and from the site, dedicated cycle parking will be provided for the duration of the works within the site. Shower facilities and lockers will also be provided.
- A shuttle service to/from the parking will be provided if required.

The coordinator responsible for the implementation of a Construction Mobility Management Plan will carry out the following (but not limited to):

- Encourage staff to avoid using of their cars and use alternative modes of transport in order to reduce the number of cars on the road and the need of car parking spaces.
- Provide an extensive information service for public transport options and routes at a public location(s) within the development for construction workers.
- Update the public transport information adjacent to the development on an ongoing basis.
- Advise company staff of tax incentives for public transport and bicycles. For those wishing to cycle to and from the site, dedicated cycle parking will be provided for the duration of the works within the site. Shower facilities and lockers will also be provided.

The following must be noted and implemented during the construction stage:

Measures to Minimise Nuisance

The measures, which are proposed to be operational at this site will include:

- Use of a properly designed access and egress to minimise impact on both external traffic and local amenity.
- Check on each arriving and departing vehicle at the site entrance from the public street.
- Use of banksman, where necessary, to control exit of construction vehicles onto public road.

- Issue of instructions and maps clearly setting out the construction traffic route to the site to each sub-Contractor to ensure that all contractors are clearly briefed on the route to/from the site.
- Ongoing assessment of the route for construction traffic to and from the site and prompt action when issues are identified.
- Working hours of 07h00-18h00 Monday – Friday and 08h00-14h00 Saturday or as otherwise may be agreed with Fingal County Council.

Site Control Measures

The designated and operational on-site control measures, which will be established and maintained at this site, will include:

- Designated hard routes and appropriate signage will be provided throughout the site to ensure the safety of all road users and construction workers.
- Each departing vehicle to be checked by banksman.
- All heavy vehicles spilling solid material on the road must cover the material to prevent dust being thrown onto the road.
- All vehicles should wash their wheels, as necessary, at egress point.
- Hoarding will be set up around the perimeter to prevent pedestrian access.
- A material storage zone will also be provided in the Construction Compound area. This storage zone will include material recycling areas and facilities.
- Facility to clean local roads if mud or spillage occurs.
- The contractor will be obliged to ensure that any sub-contractors engaged on the site are made fully aware of the required mitigation measures and that they are properly implemented as part of any works that they undertake.

Control of Noise

Site deliveries will be confined to working hours and an allocated offloading location will be utilized for all deliveries. Measures for the control and monitoring of noise and vibration during construction, including measures to mitigate noise are indicated below:

- Ensure all vehicle movement (on site) occur within normal working hours. (Other than where extension of work requiring such movements has been granted in cases of required road closures or for health and safety reasons).
- Plan deliveries and vehicle movements so that vehicles are not waiting or queuing on the public highway, if unavoidable engines should be turned off.
- Plan the site layout to ensure that reversing is kept to a minimum.
- Where reversing is required use broadband reverse sirens or where it is safe to do so disengage all sirens and use banksmen.
- Rubber/neoprene or similar non-metal lining material matting to line the inside of material transportation vehicles to avoid first drop high noise levels.
- Wheel washing of vehicles prior to exiting the site shall take place to ensure that adjoining roads are kept clean of dirt and debris. Regular washing of adjoining streets should also take place as required by road sweepers.

14.6.1.2 Operational Stage

A Mobility Management Plan will be implemented and developed on an ongoing basis with the triple objectives of promoting sustainability, enhancing public transport, and reducing dependency on the use of the private car.

This Mobility Management Plan focuses primarily on intangible measures such as promotion, marketing and events. A significant proportion of the measures included in this section are low cost but highly visible and contribute to creating a culture of sustainability within the organisation.

Consequently, the proposed Mobility Management Plan comprises a series of measures designed to encourage more sustainable travel habits among residents and visitors. In addition, the plan is designed to address the typical day-to-day operational requirements at the site. The implementation and management of the plan will be overseen by a Coordinator.

The developer will appoint a Mobility Management Plan coordinator or management company to oversee the development of the plan. The latter will appoint a senior member of staff as Mobility Management Plan Coordinator.

The Mobility Management Plan Coordinator will represent the philosophy of the plan and act as a coordinator for the proper functioning of the plan. The coordinator shall be appointed within two months of the site being occupied. The Mobility Management Plan Coordinator's responsibilities shall include:

- Implementing and maintaining the plan.
- Monitoring the progress of the plan.
- Liaise with internal stakeholders, and external public transport operators, planning and government authorities.
- Producing information reports for the developer, employees, visitors, clients and government authorities.
- Ongoing evaluation of the Plan's objectives.

The Mobility Management Plan Coordinator will be responsible for the creation and maintenance of up-to-date travel information boards for residents/students and/or Mobility Plan’s mobile app and/or a website. The travel information boards will be installed in strategic location, where residents will have access to a variety of resources, including travel information, timetables, internet access, and notice boards.

In addition to the above responsibilities, the Mobility Management Plan Coordinator must also undertake the following activities:

- Local Policies Review with the aim of understanding their impact on the daily resident travel patterns
- Site Audit considering the following guidance:
    - Public Transport service: considering the location of the bus stops and the train stations, the route which is served and the frequency of services passing through the bus stop or train station.
    - Pedestrian and cycle accessibility: this should include an assessment of the local cycling and walking environment from the subject development to the various public transport stops. This assessment must consider the current conditions and the need, where necessary, identify areas for improvement.
    - Road condition: considering the traffic condition and if there is congestion near the site.
    - Car parking spaces near to the site: A survey of the car parking facilities in the vicinity of the site will provide an indication of the potential parking areas, if employees and visitors do not have sufficient space within the site's car park. The survey must consider the volume and usage of the parking spaces, their location, quality and quantity, and

the relationship between these factors and the demand for parking spaces. It must also consider any management issues that may arise.

- Facilities' location: it is important for employees and visitors to be aware of the location of the primary shops, as well as the relative distance to the site. The distance should be provided in metres and in travel time, either walking or cycling.

- Residents Travel Survey: This can be achieved by means of self-completion questionnaires, which will help to identify travel requirements and set targets and needs. The information requested in the questionnaire should include:
  - Basic Personal information (age, household size, car ownership, occupation)
  - Primary mode of transport.
  - Current travel patterns including the time taken to/from the subject site to/from their destination.
  - It is also necessary to find out the views of workers and visitors on alternative modes of transport to the car, in order to identify the factors that would encourage them to switch to other modes. Furthermore, it is important to encourage the use of car-sharing schemes.
- Promoting the Mobility Management Plan the Mobility Management Coordinator to provide all new resident with a Mobility Pack (or Travel Pack). The mobility pack should include:
  - The Mobility Management Plan.
  - Public transport information, including bus and rail routes and frequencies.
  - The benefits of the Mobility Management Plan for residents and visitors.
  - Details of tax incentives available, such as the Bike to Work Scheme, the Tax Saver Scheme for public transport tickets, etc.
  - A travel survey form.
  - Details of pedestrian and cycle facilities.

Action Plan

Walking

It is well documented that there are numerous benefits to walking to and from their destination on a daily basis. The Subject Development is situated within an area characterised by a wider range of land uses that are accessible by walking. The surrounding area is characterised by a variety of land uses, food discount store, a primary school, and a secondary school.

It is proposed that residents be encouraged to reduce the use of the car for short journeys and indeed choose to walk to the nearest bus stops, grocery store, and to commute to their place of work, school, or college. For that, the connection of footpaths within the Subject Development with the existing will allow people to establish connections beyond the development itself.

The Mobility Management Coordinator will provide maps of the local area, which will show walking routes, local facilities, and distances with health information. This information will be displayed on the information board and/or the Mobility Plan mobile app and/or via a specific website; in order to assist residents and visitors understand the importance of choosing this mode of transportation over the automobile.

This communication tool will be developed to encourage residents to meet and walk together, fostering a sense of community between them. Furthermore, children enrolled in local schools will be encouraged to walk to school on a daily basis, thus reducing the number of private vehicles on the road.

Cycling and cycle parking

Cycling is an effective mode of transport, promoting independence and sustainable travel and allowing for shorter distances to various facilities.

The Subject Development is located in close proximity to a variety of amenities and employment areas, grocery stores, health care centres and shopping centres.

In order to facilitate the storage and maintenance of bicycles in the area, the subject development included cycle parking in line with the local guidelines and standards. The house units, those are provided with access to their rear garden with the possibility of storage the cycle and it is not considered necessary to provide any external bicycle store.

The Mobility Management Coordinator will provide maps of the local area, indicating cycle routes, local facilities, and distances with health information. This information will be displayed on the information board and/or the Mobility Plan mobile app and/or via a specific website; in order to assist residents and visitors in order to assist residents and visitors understand the importance of choosing this mode of transportation over the automobile.

Furthermore, the Mobility Management Coordinator will inform residents of future development of cycle infrastructure.

If there is a genuine interest in bicycle maintenance, public courses on the use, maintenance, repair, and improvement of bicycles may be proposed.

Additionally, residents are encouraged to avail themselves of the government's Cycle to Work scheme, which may be available through the local authority. Moreover, a fleet of hire bikes may be provided, which can be used to attend meetings or to test cycling to and from work before making a purchase.

Private and shared cars

Every day, thousands of commuters drive to work on the same routes to the same destinations at the same time as their colleagues. If every driver carried another driver, there would be 50% fewer cars on the road at peak times. There are numerous advantages to utilising sharing services for commuting purposes, including a reduction in carbon emissions, fuel costs and parking fees, as well as a reduction in congestion and journey times due to a reduction in the number of vehicles on the road. Additionally, the experience of the journey is enhanced due to a reduction in congestion and the presence of company.

Car sharing is a particularly attractive travel option for those living in areas with long distances or poor public transport connections. The Mobility Management Coordinator will encourage communication between different drivers by promoting the use of the information board and/or the Mobility Plan mobile app and/or a dedicated website, to facilitate the establishment of these car-sharing schemes. Furthermore, if the number of drivers is important, it may be beneficial to designate specific parking spaces in prime locations for carsharers only.

Car Park Management Plan

- Location and Allocation

All the car parking spaces at the subject development are controlled by the Mobility Management Plan Coordinator. They are all numbered and allocated.

The locations, numbers and allocation of the spaces are shown on the architectural drawings included with the planning application. The subject development included car parking spaces in line with the local guidelines and standards.

- Residents

Cars spaces are leased to residents by the Mobility Management Plan Coordinator. The duration of leases is for a minimum of 1 month and a maximum of 12 months, after which the lease can be renewed at the discretion of the Mobility Management Plan Coordinator, and subject to availability and demand, and strictly in accordance with the rules of the Car Park Management Plan in force at that time.

When a resident is allocated the use of a car space, the car space must be linked to a single vehicle only and the resident must be the owner, lessee or primary beneficial user of that vehicle.

Residents cannot park multiple vehicles in their designated parking space. Residents are not permitted to allow any other vehicles (whether owned by residents or not) to use their parking space.

- Visitors

Access to the space must be granted to the visitor by the resident and the allocated space must be free for the incoming visitor's car.

- Accessible Spaces

Accessible car spaces are leased to residents with disabilities, upon presentation of a valid disabled parking permit, as issued by the Disabled Drivers Association on behalf of Department of Transport.

The spaces reserved for disabled badge holders cannot be used by non-badge holders.

- Electric Charging

The development will provide 20% of the total number of proposed parking spaces for electric vehicles. The remaining spaces have been designed to facilitate the relevant infrastructure to accommodate future electric charging.

- Inappropriate Parking

All vehicles must be properly parked within their designated bay. Consistent failure to do so, may result in the suspension or termination of the parking lease, at the discretion of the Mobility Management Plan Coordinator.

All car park users will be advised by signage that clamping of inappropriately parked cars will be in operation at the development. The fee for release of a clamp will be €40.00 - €80.00. This fee will be subject to annual review by the Mobility Management Plan Coordinator.

Inappropriate parking is defined as parking in restricted areas and locations such as:

  - Access roads, ramps and aisles
  - Disabled bays (if no window badge is displayed).
  - Parking by unregistered drivers at spaces reserved for registered users.
  - The Mobility Management Plan Coordinator will arrange for clamping to be in place to prevent parking in authorised spaces or areas.

- Parking Control Measures

The following measures are in place in the car park at the subject development.

  - Numbering of car parking spaces, so as to permit their allocation to specific uses / users.
  - Frequent 'on-the-beat' parking surveys conducted by site security and/or by parking management contractors, to monitor compliance with all parking restrictions.
  - Enforcement of parking restrictions by means such as clamping and fines.
  - Information on the use of alternative modes of transport, provided to development occupants and visitors by means of travel information via the travel information board and/or the Mobility Plan mobile app and/or a dedicated website.

If deemed necessary by the Mobility Management Plan Coordinator, folding parking barriers or hinged bollards may also be installed within individual parking spaces.

- Car Maintenance

Major repairs or servicing of vehicles is prohibited within the car park spaces or grounds at the subject development. However, where a vehicle is immobile due to breakdown, temporary access will be permitted for recovery vehicles for the purpose of undertaking minor repair and/or recovery.

<u>Strategy for public transport use</u>

- Promote Tax Saver Commuter tickets

The TaxSaver Commuter Ticket Scheme is a cost-reduction initiative for public transport. It offers employers the opportunity to make PRSI savings of up to 10.75%. Residents can also benefit from savings on their travel costs, with savings of between 28.5% and 52% possible due to tax, PRSI and USC savings. The ticket covers bus, rail, and the Luas tram system.

The scheme is open to residents who wish to participate. They can discuss the matter with their employer, who will then apply and purchase the ticket on their behalf.

The TaxSaver scheme is managed in conjunction with the Revenue Commissioners by the following transport providers:

- Dublin Bus
- Bus Éireann
- Luas
- Irish Rail
- Approved transport providers

Residents may obtain tickets as part of their salary package (salary sacrifice) in lieu of an annual cash bonus or as a benefit-in-kind. TaxSaver tickets are not subject to tax, PRSI or USC. It is important to note that residents are only liable to pay tax, PRSI, and USC on the portion of their salary that represents the actual remuneration. In addition, the employer is also responsible for calculating PRSI on the same basis.

The Mobility Management Plan Coordinator will be responsible for disseminating this information to the residents of the subject development, thereby affording them the opportunity to request this benefit at their place of employment.

- Update travel information

The Mobility Management Plan Coordinator will provide maps of the local area, indicating the nearest bus stop and train stations and the distance between the Subject Development and these points. Additionally, the Mobility Management Plan Coordinator will provide updated local train and bus maps and timetables.

This information will be displayed in strategic locations to facilitate understanding of the importance of choosing this mode of transport over the car. Furthermore, the Mobility Management Plan Coordinator will inform residents of future plans for the development of public transport routes in the area.

Residents of the area will be informed about online public transportation information systems, their use and the advantages that this entails.

- Monitoring of the Public Transport service

It is the responsibility of the Mobility Management Plan Coordinator to conduct regular assessments of the public transport service in order to ascertain the quality of the service provided. In order to ensure the provision of high-quality public transport services, the coordinator must consider a number of factors, including fare, travel time, vehicle conditions, and frequency.

The Mobility Management Plan Coordinator may also engage in lobbying activities with the public transport operators in order to ensure the continued provision of a high level of service on the public transport routes serving the development.

14.6.2 Proposed Development- Plot 2 (St. Mochta's LRD)

14.6.2.1 Construction Stage

Refer to **Section 14.6.1.1** above.

14.6.2.2 Operational Stage

Refer to **Section 14.6.1.2** above.

14.6.3 Cumulative

14.6.3.1 Construction Stage

Refer to **Section 14.6.1.1** above.

14.6.3.2 Operational Stage

Refer to **Section 14.6.1.2** above.

14.7 Residual Impact of the Proposed Development

14.7.1 Proposed Development - Plot 1 (Luttrellstown Gate Phase 2)

14.7.1.1 Construction Stage

In line with their experience working on projects of this scale in similar locations and in consideration of the reduced number of car parking spaces that should be available as outlined in the Mitigation Measures, the developer will construct a limited car park at the start of works by laying a temporary surface for vehicles.

Nevertheless, it is probable that there will be an increase in surrounding traffic particularly during the PM peak hour. It is likely that staff will arrive on site before 8am (before the morning peak of 8-9am) and it is likely that they will leave during the evening peak of 5-6pm. However, the mentioned increased traffic will be occurred during a short term.

Care will be taken to ensure existing pedestrian and cycling routes are suitably maintained or appropriately diverted as necessary during the construction period, which will be addressed by the Contractor as part of the Construction Traffic Management Plan, and which will be approved by Fingal County Council. On this basis construction will likely have a negligible impact on pedestrian and cyclists. Due to the proposed mitigation measures outlined above, the impact of the proposed development will be temporary and minimised during the construction phase.

14.7.1.2 Operational Stage

There will be an increase in the use of the road network by private vehicles. However, a Mobility Management Plan will promote more sustainable forms of transport to help reduce the use of private vehicles by the residents of the proposed development.

There is likely to be an increase in the number of pedestrians and cyclists arising from the development. Footpaths and cycling paths, both internally and externally (along the site frontage) are provided as part of the development, thus, the impact should be minimal.

The traffic modelling undertaken includes growth in background traffic flows which accounts for other developments in the area.

The increase in traffic volumes as a result of the proposed development will impact the adjacent existing developments as the traffic flows through access and egress from the site will increase. The transport assessment carried out indicates that all assessed junctions, operating with improved layouts as proposed as part of the subject application, would operate within the capacity and the impact arising from the proposed development would be considered negligible.

14.7.1.3 Worst Case Impact

The application of traffic growth rates assumes a worst case for the future year scenarios. The worst-case scenario for this development is assumed to be 2045 + Proposed Development + junctions not being upgraded.

14.7.2 Proposed Development- Plot 2 (St. Mochta's LRD)

14.7.2.1 Construction Stage

Refer to **Section 14.7.1.1** above

14.7.2.2 Operational Stage

Refer to **Section 14.7.1.2** above

14.7.2.3 Worst Case Impact

Refer to **Section 14.7.1.3** above

14.7.3 Cumulative

14.7.3.1 Construction Stage

Refer to **Section 14.7.1.1** above

14.7.3.2 Operational Stage

Refer to **Section 14.7.1.2** above

14.7.3.3 Worst Case Impact

Refer to **Section 14.7.1.3** above

14.8 Monitoring

14.8.1 Proposed Development - Plot 1 (Luttrellstown Gate Phase 2)

14.8.1.1 Construction Stage

As part of the Construction Management Plan, traffic management and deliveries will be subject to close monitoring during the construction stage. The contractor's mobility management plan will be subject to oversight on the part of the appointed contractor, with a view to ensuring the plan is operating effectively.

The responsibility for monitoring and reviewing the Plan will be borne by the main contractor. The principal indicators that will be subject to monitoring are as follows (but not limited to):

- Status of complaints received about the passage of Heavy Goods Vehicles.
- Level of compliance with management plans by the main contractor and subcontractors working on site.
- Changes in modal split – both 'usual' and 'occasional' modes used.
- Cycle Parking on site: Include the state of the bike racks and that there are no abandoned bikes without owners.
- Number of car parking permits issued.

- Others that may be important.

It is recommended that within three months of the start of construction, and then every six months thereafter, the main contractor meets with Fingal County Council, to assess and review the progress of the management plans and to agree targets for the next six months.

14.8.1.2 Operational Stage

The responsibility for monitoring and reviewing the Plan will be borne by the Mobility Management Plan Coordinator. The principal indicators that will be subject to monitoring are as follows:

- Changes in modal split – both 'usual' and 'occasional' modes used.
- Cycle Parking on site: Include the state of the bike racks and that there are no abandoned bikes without owners.
- Bikes purchase through the Cycle to Work scheme.
- Number of car parking permits issued.
- Number of registered carsharers.
- Others that may be important.

An initial travel survey should be carried out by the Mobility Management Plan Coordinator. Once the travel survey has been completed and analysed, the Mobility Management Plan Coordinator will agree annual targets with the main stakeholders (the developer, the occupier(s), the Local Authority, or its agents, etc.) for increasing the percentage of non-car modes of transport.

It is recommended that the Mobility Management Plan Coordinator meet with the stakeholders, officers of the Local Authorities or its agents within six months of the occupation of the building(s) and thereafter every twelve months to assess and review progress of the Plan and agree objectives for the next twelve months.

As a consequence of the evaluation, the following potential outcomes may emerge:

- The objectives have been achieved, and no further intervention is deemed necessary to ensure alignment with existing local development plans.
- The objectives have not been fully achieved, necessitating the implementation of corrective measures that, due to their scale, can be managed by the Transport Coordinator.
- Large measures: the results are found to be significantly divergent from the stated objectives, which may necessitate the engagement of external consultants to develop the requisite mobility studies and implement the measures deemed necessary to realign the development with the originally stated objectives.

It is recommended that the Mobility Management Plan Coordinator prepare and submit to senior management of the Developer, the residents and the Local Authorities or its agents an annual Monitoring Report.

14.8.2 Proposed Development - Plot 2 (St. Mochta's LRD)

14.8.2.1 Construction Stage

Refer to **Section 14.8.1.1** above

14.8.2.2 Operational Stage

Refer to **Section 14.8.1.2** above

14.8.3 Cumulative

14.8.3.1 Construction Stage

Refer to **Section 14.8.1.1** above

14.8.3.2 Operational Stage

Refer to **Section 14.8.1.2** above

14.9 Reinstatement

14.9.1 Proposed Development - Plot 1 (Luttrellstown Gate Phase 2)

14.9.1.1 Construction Stage

During the construction phase, the designated coordinator responsible for the implementation of the Construction Mobility Management Plan will conduct regular inspections of the public streets impacted by the development activities to ensure that any disruptions to public mobility are minimized and managed effectively.

The coordinator will work closely with the construction team to address any issues that arise, ensuring that the public streets remain as accessible and safe as possible throughout the construction period. The coordinator will propose measure to mitigate any potential negative impacts on the local community and traffic flow.

Upon the completion of the construction phase, the appointed contractor will undertake the reinstatement of the affected public streets. This process will involve restoring the streets to their original condition or better, in compliance with the stringent requirements set forth by Fingal County Council. The contractor will also adhere to any specific conditions outlined in the planning permission granted for the development.

The reinstatement process includes repairing any damage caused by the construction activities, ensuring that the streets are safe and functional for public use. This may involve resurfacing roads, repairing sidewalks, and reinstalling any street furniture or signage that was temporarily removed during the construction phase.

By adhering to these guidelines and maintaining open communication with Fingal County Council, the project team aims to ensure a smooth transition from the construction phase to the operational phase, minimizing any long-term disruptions to the local community and infrastructure.

14.9.1.2 Operational Stage

During the Operational Stage, no reinstatement activities are planned beyond the routine maintenance of infrastructure. This includes the ongoing upkeep of roads, footpaths, buildings, and services to ensure they remain in good condition and fully functional.

14.9.2 Proposed Development - Plot 2 (St. Mochta's LRD)

14.9.2.1 Construction Stage

Refer to **Section 14.9.1.1** above

14.9.2.2 Operational Stage

Refer to **Section 14.9.1.2** above

14.9.3 Cumulative

14.9.3.1 Construction Stage

Refer to **Section 14.9.1.1** above

14.9.3.2 Operational Stage

Refer to **Section 14.9.1.2** above

14.10 Difficulties Encountered

There were no difficulties Encountered.