

Appendix 4

Options Development

4. Options Development

Initial Option Generation by Mode

Walking

- Upgrades and repairs to “day to day” key routes between residential areas and local education, employment and community facilities to include resurfacing, kerb repairs, widening, drainage and landscaping.
- Installation of new crossing facilities along main roads and at major junctions, particularly along the N5, N60, Lannagh Road, Hopkins Road/Stephen Garvey Way and Westport Road.
- Provision of infrastructure which can directly serve “partial” journeys on foot, such as Park and Stride using Castle Street Car Park for Davitt College, Gaelscoil Raifteirí, St Josephs Secondary School and St Angelas National School.
- Improved filtered permeability through the use of laneways and the opening up of cul-de-sacs for pedestrians to increase directness and connectivity.
- Improved accessibility for vulnerable population cohorts within the town centre to include priority parking, handrails at gradients, public seating, footpath widening, public toilets and public bins.
- New or improved public lighting, security and signage for walking routes.

Cycling

- Maintenance of the existing infrastructure to include resurfacing, kerb repairs, widening and drainage.
- Development of a connected and continuous cycle network comprised of greenway, primary, secondary and feeder routes to connect the residential, education, employment, retail, commercial, healthcare and community centres. The infrastructure required will be determined for a route-by-route basis and depend on existing conditions/constraints and will be delivered to NTA standard for cycle facilities.
- Provision of dedicated cycle facilities at junctions.
- Create a network that can cater for demand from commuter, delivery and leisure cyclists that is accessible to all population cohorts.
- Provision of safe and secure covered cycle parking within the town centre and at major trip attractors.
- Provision of charging infrastructure for electric bikes within the town centre.
- Improved filtered permeability through the use of laneways and the opening up of cul-de-sacs for cyclists to increase directness and connectivity.
- New or improved public lighting, security and signage for cycling routes.

Public Transport

- Enhance connectivity of Castlebar Train Station with the provision of improved active travel connections and ‘Park and Ride’ infrastructure.

- Develop a local bus network comprised of 2 routes to serve the town area. The routes, either linear or circular, shall provide the maximum coverage to the town area and run with a frequency of 30mins.
- Enhance the existing bus services through co-ordinated timetabling to facilitate quick interchange between local and regional services.
- Development of a bus interchange at Stephen Garvey Way with covered and secure waiting area and welfare facilities.

Road Network

- Provision of Electric Vehicle charging infrastructure within the town centre.
- Promote car sharing.
- Transport demand management measures/parking strategies.
- Traffic management measures such as traffic calming and junction redesign.
- Provide partial trip infrastructure.

Complementary Measures

- Partial trip incentives such as 'Park and Ride' and 'Park and Stride'.
- Provide a mobility hub with charging facilities for electric bikes and scooters, covered waiting area, secure bicycle parking and welfare facilities.
- Mobility Management Plans for planned developments.
- Monitoring of existing travel patterns and introducing behavioural change programmes.
- Liaising with local businesses to promote the 'Bike to Work' scheme.
- Promotion of active travel in schools and community groups.

Existing Conditions by Area

The study area in Castlebar is divided into six key areas for the ease of screening and assessment of network options, as shown in Figure 3-0.

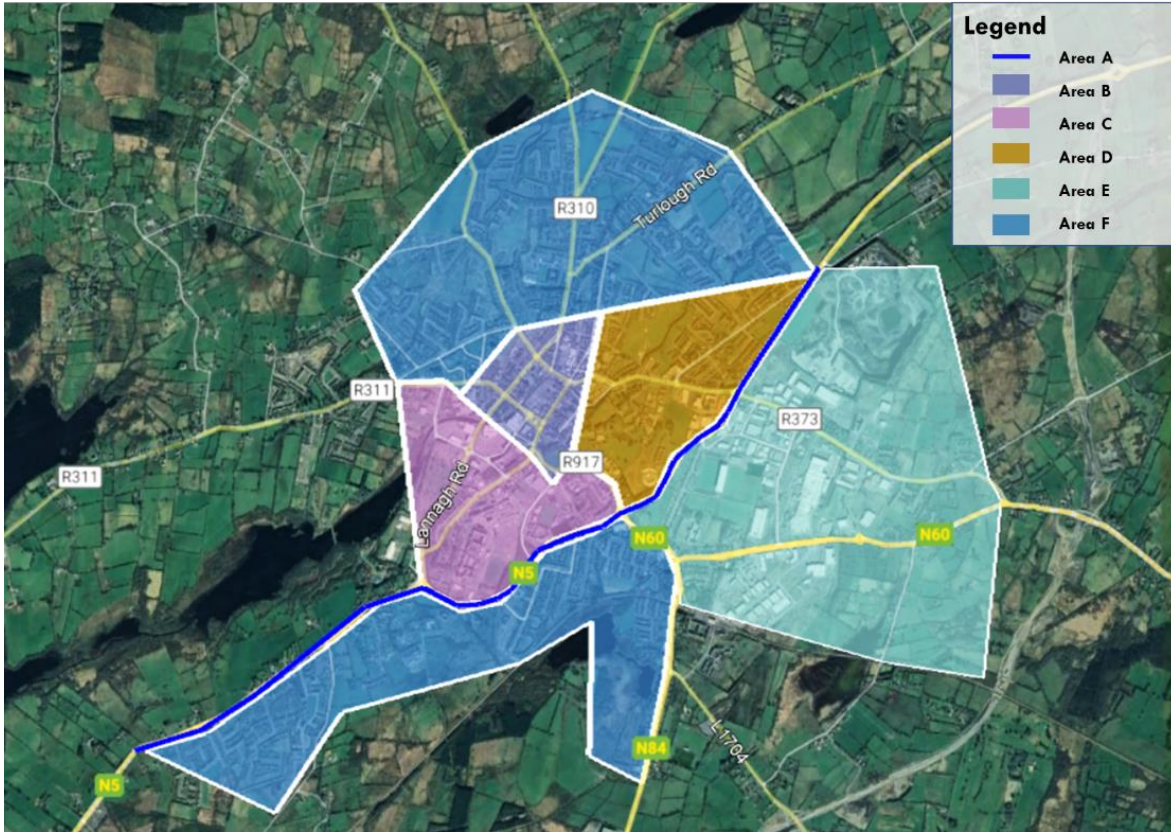


Figure 3-0 Area Map for Screening

Area	Location	Existing Conditions
Area A	N5	<ul style="list-style-type: none"> National road (Single carriageway) Cycle facilities provided Cycle lane markings worn and surface is chipping
Area B	Town Centre (Main Street/Upper Chapel Street)	<ul style="list-style-type: none"> One way street for motor vehicles Carriageway is approximately 5.5 m, parking is present in certain stretches and is 2.5 m wide and footpaths are 2.5-5 m wide.
	Town Centre (Hopkins Road)	<ul style="list-style-type: none"> Two -way carriageway Varying footpath from 2.5 to 5 m On-street car parking at few locations Total cross-section width available 13.5 m
	Town Centre (Tucker Street/New Antrim Street)	<ul style="list-style-type: none"> One way street for motor vehicles Continuous on-street car parking Total cross-section width is approximately 10.8 m

Area	Location	Existing Conditions
Area C	Hospital and Nearby Areas (Westport Road)	<ul style="list-style-type: none"> • Two -way carriageway • Existing cycle lanes are discontinuous • Wide verges • Continuous on-street car parking • Total cross section width is approximately 15 m
	Hospital and Nearby Areas (Stephen Garvey Road)	<ul style="list-style-type: none"> • Wide two-way carriageway and footpath • No cycle facilities • Bus Stop • Carriageway width (without bus stop) is 10.5 m • Total cross-section width of approximately 20 m
Area D	Schools and Nearby Areas (Moneen Road/Charles Street)	<ul style="list-style-type: none"> • Wide two-way carriageway and wide footpath • No cycle lanes • Total cross-section width of approximately 12.6 m
	Schools and Nearby Areas (Dublin Road)	<ul style="list-style-type: none"> • National Road with speed up to 100 kmph • No cycle facilities • Land on the roadside
Area E	Industrial Area (N60 Breaffy Road)	<ul style="list-style-type: none"> • Wide two-way carriageway • No cycle facilities • Land on the side of a footpath
	Industrial Area (McHale Road)	<ul style="list-style-type: none"> • Wide two-way Carriageway • No cycle facilities • On-street parking observed
Area F	Residential Areas (Rathbawn Road L1724)	<ul style="list-style-type: none"> • Two-way carriageway • No cycle facilities • Intermittent verges • Total cross-section width ranges from 12.8-13.5 m
	Residential Areas (Rathbawn Road)	<ul style="list-style-type: none"> • Two-way carriageway • Total cross-section width is approx. 11.5 m

Key junctions in the town lack pedestrian and cycle facilities. Table 1-1 shows the Options Development to provide active travel facilities for several key junctions.

Table 1-1: Options Development - Key Junctions

Option 1	Do Nothing	Retain the existing
Option 2	Do Minimum	<ul style="list-style-type: none"> Upgrade the existing facilities (cycle lanes) though resurfacing, kerb adjustments, line markings, drainage and signage as necessary.
Option 3	Do something	<ul style="list-style-type: none"> Retain existing roundabout junctions
		<ul style="list-style-type: none"> Provide dedicated pedestrians facilities Provide dedicated cycle facilities
Option 4	Do something	<ul style="list-style-type: none"> Retain existing priority/signalised
		<ul style="list-style-type: none"> Provide dedicated pedestrians facilities Provide dedicated cycle facilities
Option 5	Do something	<ul style="list-style-type: none"> Signalise existing roundabout junction
		<ul style="list-style-type: none"> Provide dedicated pedestrians facilities Provide dedicated cycle facilities

Error! Reference source not found. shows area specific Options Development for the junctions shown in Figure 3-2.

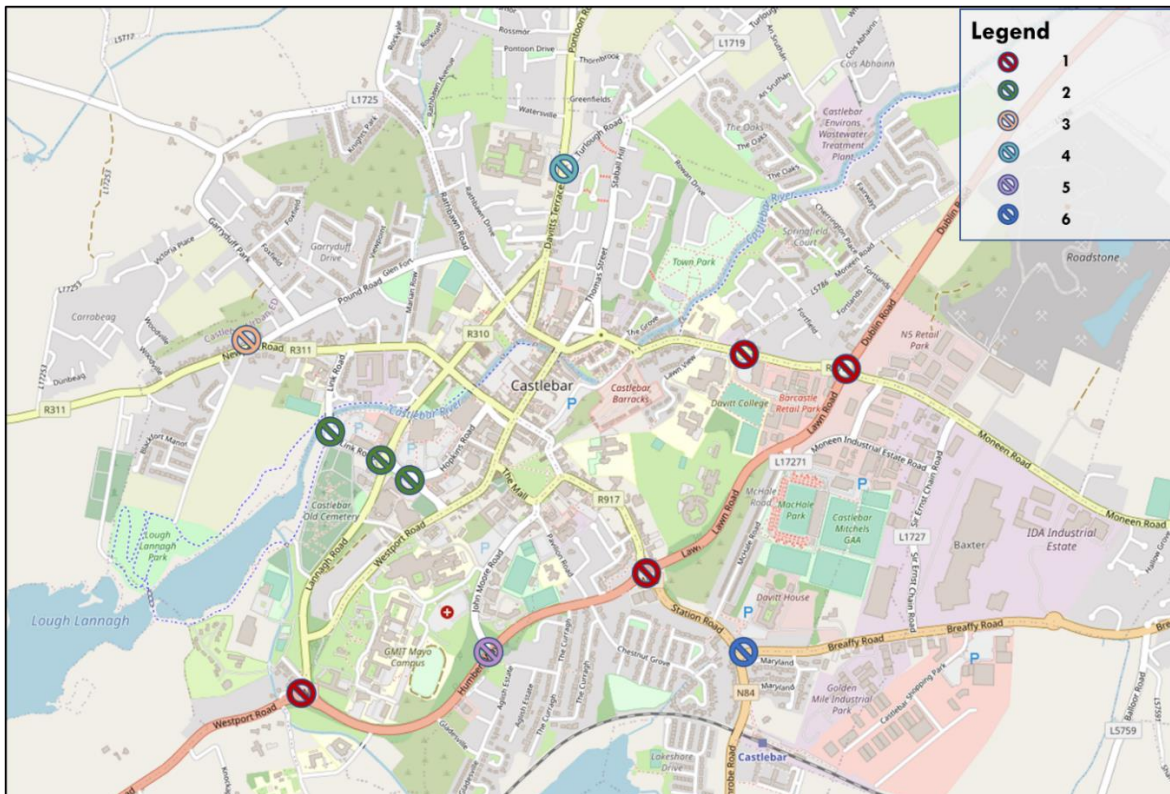


Figure 3-2 Area Specific Options Development – Key Junctions

Options Development By Mode

Walking

Table 1-2 shows the Options Development for the pedestrian network.

Table 1-2 Options Development - Pedestrian Network

Option 1	Do Nothing	Retain the existing.
Option 2	Do Minimum	Upgrade the existing facilities though resurfacing, kerb adjustments, line markings, drainage and landscaping as necessary.
Option 3	Do Something	Provide a continuous pedestrian footpaths and dedicated crossing facilities along the route, where there is available space without the need for landtake from the carriageway/private owners.
Option 4	Do Something	Provide continuous 2m wide pedestrian footpaths and dedicated crossing facilities along the route, with landtake from the carriageway/private owners where required.

Cycle

Table 1-3 shows the Options Development for the cycle network.

Table 1-3: Options Development – Cycle Network

Option 1	Do Nothing	Retain the existing.
Option 2	Do Minimum	Upgrade the existing facilities though resurfacing, kerb adjustments, line markings, drainage and signage as necessary.
Option 3	Do Something	<ul style="list-style-type: none"> Provide a cycle track/lane in each direction
Option 4	Do Something	Provide a two-way cycle track/lane
Option 5	Do Something	<ul style="list-style-type: none"> Provide a contra-flow cycle track/lane on one-way streets. Provide a shared carriageway for cyclists travelling in the direction of traffic.
Option 6	Do Something	<ul style="list-style-type: none"> No facilities for contra-flow cyclists Provide a shared carriageway between on a one-way street to facilitate cyclists travelling in the direction of traffic. 30km/hr speed limit for vehicular traffic. Resurface the carriageway to facilitate safe shared usage between cyclists and cars. Provide traffic calming and road signage.
Option 7	Do Something	<ul style="list-style-type: none"> Provide a shared carriageway between cyclists and vehicular traffic on a two-way streets. 30km/hr speed limit for vehicular traffic. Resurface the carriageway to facilitate safe shared usage between cyclists and cars. Provide traffic calming and road signage.
Option 8	Do Something	<ul style="list-style-type: none"> Provide a shared surface

Public Transport

Table 1-4 shows the Options Development for the public transport network.

Table 1-4 Options Development - Public Transport Network

Option 1	Do Nothing	Retain the existing.
Option 2	Do Minimum	<ul style="list-style-type: none"> Enhance the existing services Improve the connectivity of Castlebar Train Station for Active Travel Modes
Option 3	Do Something	<ul style="list-style-type: none"> Enhance the existing services Improve the connectivity of Castlebar Train Station for Active Travel Modes Provide a local bus network with 2 linear routes (Figure 3-3)
Option 4	Do Something	<ul style="list-style-type: none"> Enhance the existing services Improve the connectivity of Castlebar Train Station for Active Travel Modes Provide a local bus network with 2 circular routes (Figure 3-4)

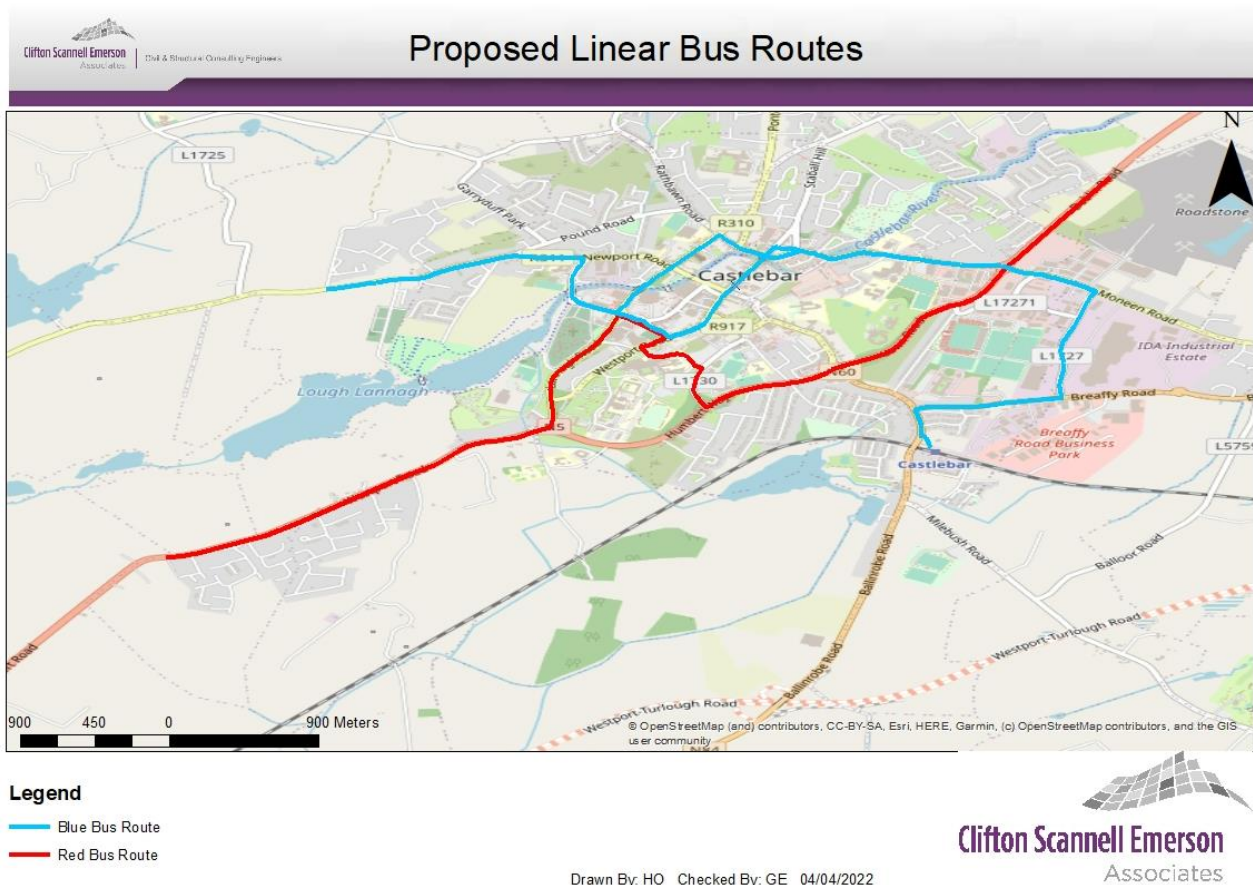
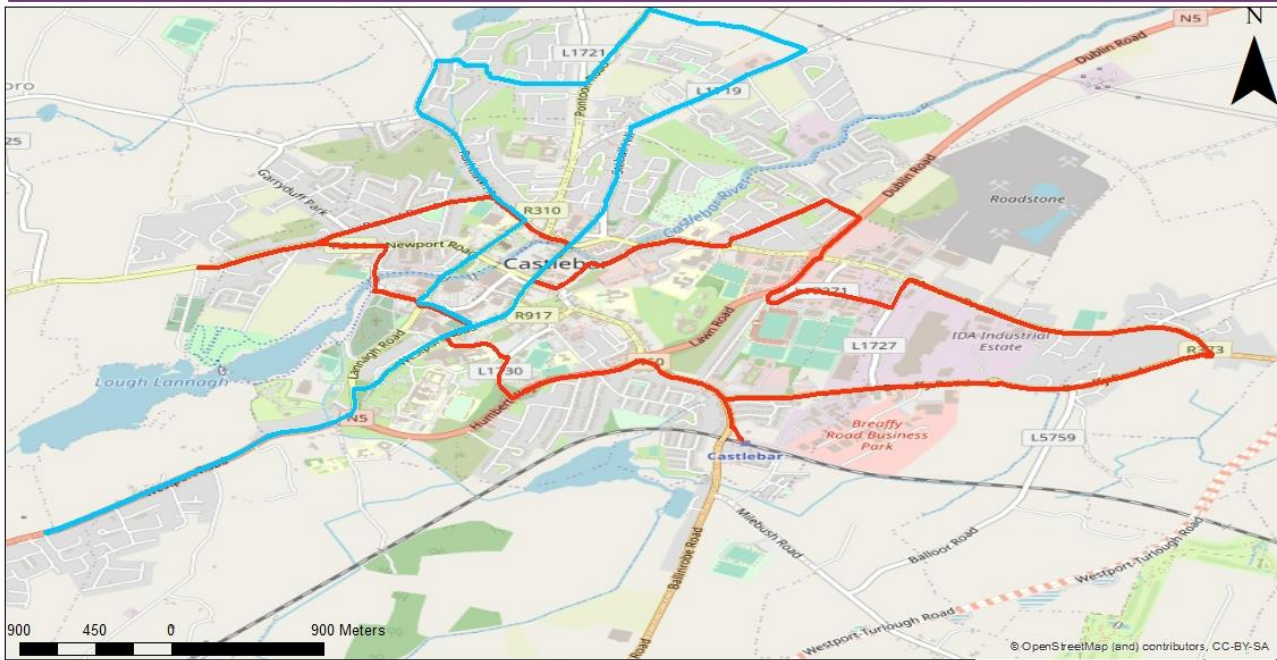


Figure 3-3 Option 3 – Proposed Linear Bus Routes

Proposed Circular Bus Routes



Legend

- Blue Bus Route
- Red Bus Route

Drawn By: HO Checked By: GE 04/04/2022

Figure 3-4 Option 4 - Proposed Circular Bus Routes

Road Network

Table 1-5 shows the Options Development for the general vehicular network.

Table 1-5 Options Development – General Vehicular Network

Option 1	Do Nothing	Retain the existing
Option 2	Do Minimum	Resurface the existing carriageway
Option 3	Do Something	<ul style="list-style-type: none"> • Implement 'Park and Stride' to reduce 'school-run' traffic congestion in the town centre. Feasible car parks and schools are: <ul style="list-style-type: none"> – St Patricks Boys National School – Market Square Car Park; – Davitt College - Castle Street Car Park – Gaelscoil Raifteirí - Castle Street Car Park – St Josephs Secondary School - Castle Street Car Park – St Angelas National School - Castle Street Car Park
Option 4	Do Something	<ul style="list-style-type: none"> • Provide Electric Vehicle charging points in the town centre. • Provide car sharing services (ie; GoCar)
Option 5	Do Something	<ul style="list-style-type: none"> • Transport demand management measures/parking strategies.
Option 6	Do Something	<ul style="list-style-type: none"> • Provide partial trip infrastructure.

4.1

Options Development: Proposal 1

Location	Feasible Options		
	Pedestrian Network	Cycle Network	Road Network
N5 - Old Dublin Road	Option 1 Option 2 Option 3 Option 4	Option 1 Option 2 Option 3	Option 1 Option 2 Option 5
N5 - Lawn Road	Option 1 Option 2 Option 3 Option 4	Option 1 Option 2 Option 3	Option 1 Option 2 Option 5
N5 - Humbert Way	Option 1 Option 2 Option 3 Option 4	Option 1 Option 2 Option 3	Option 1 Option 2 Option 5
N5 - Westport Road	Option 1 Option 2 Option 3 Option 4	Option 1 Option 2 Option 3	Option 1 Option 2 Option 5
N84 - Station Road	Option 1 Option 2 Option 3 Option 4	Option 1 Option 4 Option 5 Option 8	Option 1 Option 2 Option 5
John Moore Road	Option 1 Option 2 Option 3 Option 4	Option 1 Option 2 Option 3	Option 1 Option 2 Option 3 Option 4 Option 5
Pavilion Road	Option 1 Option 2 Option 3 Option 4	Option 1 Option 2 Option 3	Option 1 Option 2 Option 3 Option 4 Option 5
L1704	Option 1 Option 2 Option 3 Option 4	Option 1 Option 2 Option 3	Option 1 Option 2 Option 5

4.2

Options Development: Proposal 2

Location	Feasible Options		
	Pedestrian Network	Cycle Network	Road Network
N60 - Breaffy Road	Option 1	Option 1	Option 1
	Option 2	Option 4	Option 2
	Option 3	Option 5	Option 5
	Option 4	Option 8	
Moneen Road East	Option 1	Option 1	Option 1
	Option 2	Option 4	Option 2
	Option 3	Option 5	Option 5
	Option 4	Option 8	
Moneen Road West	Option 1	Option 1	Option 1
	Option 2	Option 4	Option 2
	Option 3	Option 5	Option 5
	Option 4	Option 8	

4.3

**Options Development:
Proposal 3**

Location	Feasible Options		
	Pedestrian Network	Cycle Network	Pedestrian Network
Newport Road	Option 1 Option 2 Option 3 Option 4	Option 1 Option 2 Option 3	Option 1 Option 2 Option 5
Lannagh Road	Option 1 Option 2 Option 3 Option 4	Option 1 Option 2 Option 3	Option 1 Option 2 Option 5
Hopkins Road	Option 1 Option 2 Option 3 Option 4	Option 1 Option 2 Option 3	Option 1 Option 2 Option 3 Option 4 Option 5
Stephen Garvey Way	Option 1 Option 2 Option 3 Option 4	Option 1 Option 2 Option 3	Option 1 Option 2 Option 3 Option 4 Option 5
Old Westport Road	Option 1 Option 2 Option 3 Option 4	Option 1 Option 2 Option 3	Option 1 Option 2 Option 5

4.4

Options Development: Proposal 4

Location	Feasible Options		
	Pedestrian Network	Cycle Network	Road Network
Turlough Road	Option 1 Option 2 Option 3 Option 4	Option 1 Option 2 Option 3	Option 1 Option 2 Option 5
Upper Thomas Street	Option 1 Option 2 Option 3 Option 4	Option 1 Option 5 Option 6	Option 1 Option 2 Option 5
Thomas Street/Richard Street/Rush Street/Lucan Street	Option 1 Option 2 Option 3 Option 4	Option 1 Option 5 Option 6	Option 1 Option 2 Option 5

4.5

**Options Development:
Proposal 5**

Proposed	Feasible Options - Active Travel Links
Existing Permeability Links to be Upgraded	4x Mill Street Car Park 2x Dunnes Car Park 1x Castle Street Car Park 1x Supervalu Car Park
Proposed New Permeability Link	Greenway to Blackfort Manor Greenway to Lannagh Road Churchview Villas to Rathbawn Road Castlebar Primary School to St Joseph's Secondary School School to Lawn Park Proposed Active Travel Bridge to Rowan Drive Proposed Active Travel Bridge to Springfield Court Lidl to Davitt College Train Station to Industrial Estate Train Station to Lios na Circe Humbert Way to St Anthony's Special School

4.6

Options Development: Proposal 6

Location	Feasible Options		
	Pedestrian Network	Cycle Network	Road Network
Rathbawn Road	Option 1 Option 2 Option 3 Option 4	Option 1 Option 5 Option 6	Option 1 Option 2 Option 5
Pontoon Road	Option 1 Option 2 Option 3 Option 4	Option 1 Option 2 Option 3	Option 1 Option 2 Option 5
L5786/Fortville Estate	Option 1 Option 2 Option 3 Option 4	Option 1 Option 5 Option 6	Option 1 Option 2 Option 5
Sir Ernst Chain Road	Option 1 Option 2 Option 3 Option 4	Option 1 Option 2 Option 3	Option 1 Option 2 Option 5
Pound Road	Option 1 Option 2 Option 3 Option 4	Option 1 Option 2 Option 8	Option 1 Option 2 Option 5
Upper Chapel Street	Option 1 Option 2 Option 3 Option 4	Option 1 Option 2 Option 8	Option 1 Option 2 Option 5
Main Street	Option 1 Option 2 Option 3 Option 4	Option 1 Option 2 Option 8	Option 1 Option 2 Option 5
New Antrim Street	Option 1 Option 2 Option 3 Option 4	Option 1 Option 2 Option 8	Option 1 Option 2 Option 5
Tucker Street	Option 1 Option 2 Option 3 Option 4	Option 1 Option 2 Option 8	Option 1 Option 2 Option 5
Spencer Street	Option 1 Option 2 Option 3 Option 4	Option 1 Option 2 Option 8	Option 1 Option 2 Option 5
Moneen Road Industrial Estate (Internal Roads)	Option 1 Option 2 Option 3 Option 4	Option 1 Option 2 Option 8	Option 1 Option 2 Option 5