

Appendix 8

SMART Analysis and Objectives Achieved

Mode	Guiding Principles	Objectives	Specific	Measurable	Achievable	Relevant	Time Related
Walking	It is desired that people choose to walk, especially for short distance travel, as it is a sustainable and healthy mode of transport.	Provide well-connected walking routes to major town attractions, schools, public transport etc to increase town permeability	The town centre is within a 15min walking catchment of the majority town area with relatively flat topography. However, some existing pedestrian routes are discontinuous which makes it difficult for people to walk safely and conveniently in those stretches. At a number of locations footpaths terminate abruptly and/or are blocked by property boundaries or parking spaces. This objective is to overcome these obstacles in making the town more walkable. Walkability of routes between Park&Stride and schools should be improved.	Connectivity of a town via footpaths can be measured by measuring the walking distance along footpaths from before and after to major attractions within their catchment areas.	Assessment of existing road network, parking constraints and transport demand analysis will determine if the objective is achievable or not.	The concern is that if the walking route are not well connected then people will choose some other mode of transport even for small distances, or they may walk on the carriageway which could be a safety hazard.	Medium/Long Term
		Provide safe walking routes and crossings at major locations such as schools, hospitals etc., and junctions	Several major roundabout junctions are lacking adequate pedestrian facilities (N5 & Moneen, N5 & Spencer Street, N5 & Lannagh, Stephen Garvey Way & Hopkins Road & Tesco, Hopkins Road & Lannagh Road) and within the town centre, there are a number of locations where there is no pedestrian crossing along pedestrian crossing desire lines and at junctions which leads to a car dominated environment. The objective is to provide crossings at all these locations, and prioritise pedestrians.	Provision of safe crossing can be measured by computing the directness of routes for all users before and after. Safety of walking routes can be measured by their width and level of segregation from other modes of transport.	Assessment of traffic flow at the mentioned locations, and junction/network modelling with new provisions will determine if the objective is achievable or not.	Safety is a concern here. If crossings with proper refuge are not provided then people will cross the roads at locations with moving traffic. It would also hamper the attractiveness of walking as a mode, and would be a limitation to promoting walking to schools.	Medium Term
		Provide well-maintained footpaths in the town which are up to DMURS	The footpath condition at number of locations was noted as being in a poor condition, presenting a possible slip or trip hazard to pedestrians. There is no vertical separation between the carriageway and some of the footpaths and an absence of tactile paving at crossings making the area hard to navigate for those with mobility impairments. The objective is to improve the standard of the footpath at such locations.	Standard of footpath can be measured by comparing the width and quality of existing footpath with the standards.	Assessment of funding required to provide such provisions will determine if the objective is achievable or not.	The concern is that if footpaths are not well maintained then it would make them unsafe and it would also make them a less attractive option.	Short Term
Cycling	It is desired that people cycle more in the town to access facilities such as schools, businesses, offices, shops, and also for leisure activities, as cycling is a healthy and sustainable mode of transport.	Provide well-connected cycling routes to major town attractions, schools, public transport etc to increase town permeability.	Within the town, the existing cycle facilities are discontinuous and are located primarily in the periphery of the town, don't extend through the Town Centre and don't link all of the main amenities (i.e. schools, shops, recreational areas) to the residential areas. The town centre is within a 10min cycling catchment of the town area with a relatively flat topography. The objective is to provide new cycle routes, active travel bridges which links with the existing facilities, and provides connectivity to major attractions.	Cycle connectivity of a town can be measured by computing catchment area of cycle routes, cycle network length and length of segregated facilities.	Assessment of existing road network, traffic flow, transport demand analysis, parking space constraints and funding requirements will determine if the objective is achievable or not.	The concern is that if the cycling routes are not well connected then they will make the major attractions less accessible by cycling, and people will choose some other mode of transport, or they may cycle on the carriageway which could be a safety hazard.	Medium/Long Term
		Provide safe cycle routes and cycle crossings at major locations such as schools, hospitals etc., and junctions	Several major roundabout junctions are lacking adequate cycle facilities (N5 & Moneen, N5 & Spencer Street, N5 & Lannagh, Stephen Garvey Way & Hopkins Road & Tesco, Hopkins Road & Lannagh Road) which leads to a hostile environment for cyclists. There is limited segregated cycle facilities to high standard. The objective is to provide safe crossings at major locations to prioritise cyclists and pedestrians, to improve segregation by lane markings, signage and kerbs (wherever required)	Safety of cycle routes can be measured by LoS of the routes, segregation level with pedestrians and carriageway traffic, width of the cycle lanes, design speed of adjacent/shared carriageway.	Assessment of traffic flow at the mentioned locations, and junction/network modelling with new provisions will determine if the objective is achievable or not.	The concern here is that cycle routes without these provisions will be unsafe for cyclists.	Medium Term
		Provide well-maintained cycle network and cycle parking in the town which are up to National Standards.	At number of locations along the existing cycle lanes and shared pedestrian/cyclist facilities the pavement condition was noted as being poor. Proper signs are missing which indicate the presence of cycle facilities. Cycle Parking are missing. The objective is to add all these provisions and make the routes up to standards, which will increase the attractiveness and safety of cycling.	Cycling standards can be measured by comparing the approximate width and marking of cycle lanes, presence of signs with the standards.	Assessment of funding required to provide such provisions will determine if the objective is achievable or not.	The concern here is that cycle routes that are not properly maintained will be a safety hazard, and will decrease the attractiveness of cycling in that area.	Short Term
Public Transport	It is desired that people have increased travel choices such as an option of public transport and use it in the town to access facilities such as schools, businesses, offices, shops, and also for leisure activities, as public transport is a healthy and sustainable mode of transport. It also promotes social equity.	Provide a well-connected bus route through the town to major town attractions, schools, public transport etc to increase town permeability.	The train station is poorly connected to the town centre and the existing local link services are infrequent. The existing bus services provide poor connectivity within the town centre and town area - Stephen Garvey Way is the main hub with no other stops within the town. The objective is to provide a well connected bus route which links major residential areas to major town attractions.	Connectivity of a bus route can be measured by computing its catchment area, accessibility via other modes of transport, and coverage area of the service.	Assessment of funding, and road capacity required to provide such provisions will determine if the objective is achievable or not.	The concern is that bus service may reduce road capacity during peak hours which may cause congestion.	Long Term
		Provide bus facility which is accessible to all.	Information on the existing services is poor quality and not easily accessible. There are also few incentives to use public transport. The objective is to provide bus services which is accessible to all, by promoting the service adequately, making it affordable and providing the information digitally as well as on the stops. The objective here is to also provide infrastructure which makes the service accessible for all class of people.	Accessibility of bus services can be measured by estimating population and employment within 400m to access the service..	Amount of funding required to provide such provisions, and the policy guidelines followed for operating services will determine if the objective is achievable or not.	The concern is that bus facility may not be socially inclusive and accessible to all if the fare is not optimised; the infrastructure is poorly designed to accommodate people with disabilities, or older people; bus service information is not provided efficiently and correctly.	Long Term
		Provide frequent and fast bus services connecting major parts of the town.	The demand of bus service peak hours may exceed capacity, particularly at school drop off and pick up times. The objective is to provide frequent and fast service such that most of the demand is catered, especially during peak hours. Also, optimised frequency and speed of the mode will make it more attractive.	The speed and frequency aptness can be measured by estimating travel time by bus and other existing modes of transport.	Assessment of funding required to provide such provisions will determine if the objective is achievable or not.	The concern is that such service could be more expensive, or may have a fewer stops.	Long Term
General Vehicular	It is desired that traffic congestion reduces, general safety is improved and air and noise pollution is reduced.	Reduce traffic congestion and pollution within the town by promoting other sustainable modes of transport, and providing a bypass.	The objective is to promote other sustainable modes of transport, so that a modal shift to these modes occur, and to provide a bypass so that the traffic going through the town decreases.	The objective can be measured by traffic modelling and emission estimate.	Assessment of funds available, and people and government support will determine if the objective is achievable or not.	The concern is that road capacity may reduce as other modes become popular.	Short/Medium Term
		Improve general safety of vehicle users and pedestrians by providing crossings at junctions and key locations, and by regulating speed limits.	The objective is to make roads safer by providing crossings, adding signs, and regulating speed limit in mix traffic flow so that there are less chances of accidents.	The objective can be measured by analysing road statistics, and feedback from stakeholders.	Assessment of road and junction capacity, traffic models will determine if the objective is achievable or not.	The concern is that adding crossings and regulating speed may cause traffic congestion.	Short/Medium Term
Complimentary Measures	It is desired that people have increased sustainable and attractive travel choices so that air and noise pollution can be reduced	Provide car and cycle parking facilities near bus stops for park and ride facility, and near schools for park and stride facility.	The objective is to encourage people to walk/cycle to schools, and use bus services to access the town.	The objective can be measured by improved access to schools/bus stops	Assessment of funding required, and area required to provide such provisions will determine if the objective is achievable or not.	The concern is that people may not use such facilities, or there is a congestion near the parking areas.	Short Term
		Provide mobility hubs near town centres where people can charge and park their vehicles and walk to the centre.	The objective is to make town centres more walkable by providing a provision for people to park their Bicycles, scooters etc	The objective can be measured by checking the distance between hubs and town centres.	Assessment of funding, and area required to provide such provisions will determine if the objective is achievable or not.	The concern is that people may not use such facilities, or there is a congestion near the parking areas.	Medium Term
		Promote sustainable modes of transport and active travel, and increase awareness of people.	The objective is to encourage mode shift to reduce traffic congestion, reduce greenhouse gas emissions and improve the general health of the community.	The objective can be measured by stakeholder consultation.	Assessment of travel behavior change, feedback from people, and transport modelling can determine if the objective is achievable or not.	The concern is that people may oppose some of these provisions as it can affect parking spaces, road capacity and traffic signals.	Short Term

8.1

Objectives Achieved: Proposal 1

Table 8.1: Objectives Achieved: Proposal 1

Pedestrian Network	Cycle Network	Public Transport Network	General Vehicular Network
P1: Provide an integrated network for Castlebar Town through the development of a connected and continuous pedestrian network to connect the main origin and destinations via a functional pedestrian network with adequate crossing facilities to make walking the most attractive mode choice.	C1: Provide an integrated network for Castlebar Town through the development of a connected and continuous cycle network comprising greenway, primary, secondary and feeder routes to connect the residential, education, employment, retail, commercial, healthcare and community centres.	PT5: Ensure convenient access from residential, employment, education, healthcare, and retail facilities to public transport stops.	R1: Reduce unnecessary vehicular trips (through-traffic trips) passing through Castlebar Town Centre through traffic management measures, transport demand management measures and parking strategies.
P2: 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. Where possible, upgrade the footpaths up to DMURS standards, and provide dedicated pedestrian facilities.	C2: 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. The infrastructure required will be determined for a route-by-route basis and depend on existing conditions/constraints and will be delivered to NCM standard for cycle facilities.	PT8: Enhance connectivity of Castlebar Train Station with the provision of improved active travel connections and ‘Park and Ride’ infrastructure.	R2: Revise vehicular emissions in town centre by promoting mode transfer to sustainable travel modes
P3: Enhance the existing infrastructure through the provision of new pedestrian links to overcome severance caused by the N5 and Castlebar River.	C3: Enhance the existing infrastructure through the provision of new cycle links to overcome severance caused by the N5 and Castlebar River.		R5: Maintain adequate vehicular capacity and access.
P5: Formalise existing permeability links.	C5: Formalise existing permeability links.		
P6: Improve safety for pedestrians, particularly for vulnerable road users, by improving crossing points particularly along the N5, N84, Stephen Garvey Way/Hopkins Road, Lannagh Road and Westport Road.	C6: Provision of dedicated cycle facilities at junctions (N5 & Moneen, N5 & Spencer Street, N5 & Lannagh, Stephen Garvey Way & Hopkins Road & Tesco, Hopkins Road & Lannagh Road)		
P7: Improved accessibility for all within the town centre to include priority parking,	C7: Create a network that can cater for demand from commuter, delivery, leisure,		

Pedestrian Network	Cycle Network	Public Transport Network	General Vehicular Network
handrails at gradients, public seating, footpath widening, public toilets and public bins.	and tourist cyclists that is accessible to all population cohorts.		
P8: New or improved public lighting, security, and signage for walking routes to enhance visibility of existing links to create a more connected and safer pedestrian network.	C10: Prioritise investment in schemes that will deliver the greatest modal shift potential		
P9: Engage with schools with the aim of increasing walking mode share and support Safe Routes to Schools (SRTS)	C11: New or improved public lighting, security, and signage for cycling routes.		
	C12: Engage with schools with the aim of increasing cycling mode share.		

Table 8-2: Indicators and Targets: Proposal 1

SN	Indicators	Targets	Timeline
1.	Upgraded Footpaths: <i>Footpaths up to DMURS standards</i>	19.4 km length of upgraded footpaths	Short Term
2.	New and continuous Footpaths <i>up to DMURS standards</i>	620 m length of new footpath	
3.	Upgraded Cycle Facilities <i>up to DMURS standards</i>	19.4 km length of upgraded cycle tracks	
4.	Proposed Park and Stride facilities <i>to promote active travel to schools and reduce congestion</i>	2 locations proposed to include park and stride facilities	
5.	Junction Upgrades: <i>Revised Layout</i>	Layout of 3 junctions is proposed to be revised	
6.	Safe pedestrian and cyclist facilities at junctions	Proposed 5 junction upgrades to include dedicated pedestrian and cyclist crossings	
7.	Controlled Crossings: <i>Safe crossings near key destinations, junctions and where footpaths disappear on one side.</i>	Proposed Controlled Crossings: 19 (including junction upgrades)	
8.	Public Lighting: <i>Presence of standard lighting and signages</i>	Upgrade of public lighting and signages along the routes	

8.2

Objectives Achieved: Proposal 2

Table 8-3: Objectives Achieved: Proposal 2

Pedestrian Network	Cycle Network	Public Transport Network	General Vehicular Network
<p>P1: Provide an integrated network for Castlebar Town through the development of a connected and continuous pedestrian network to connect the main origin and destinations via a functional pedestrian network with adequate crossing facilities to make walking the most attractive mode choice.</p>	<p>C1: Provide an integrated network for Castlebar Town through the development of a connected and continuous cycle network comprising greenway, primary, secondary and feeder routes to connect the residential, education, employment, retail, commercial, healthcare and community centres.</p>	<p>PT5: Ensure convenient access from residential, employment, education, healthcare, and retail facilities to public transport stops.</p>	<p>R1: Reduce unnecessary vehicular trips (through-traffic trips) passing through Castlebar Town Centre through traffic management measures, transport demand management measures and parking strategies.</p>
<p>P2: 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. Where possible, upgrade the footpaths up to DMURS standards, and provide dedicated pedestrian facilities.</p>	<p>C2: 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. The infrastructure required will be determined for a route-by-route basis and depend on existing conditions/constraints and will be delivered to NCM standard for cycle facilities.</p>	<p>PT6: Improve integration between the train station, town centre and local bus routes</p>	<p>R2: Revise vehicular emissions in town centre by promoting mode transfer to sustainable travel modes</p>
<p>P3: Enhance the existing infrastructure through the provision of new pedestrian links to overcome severance caused by the N5 and Castlebar River.</p>	<p>C3: Enhance the existing infrastructure through the provision of new cycle links to overcome severance caused by the N5 and Castlebar River.</p>	<p>PT8: Enhance connectivity of Castlebar Train Station with the provision of improved active travel connections and ‘Park and Ride’ infrastructure.</p>	<p>R5: Maintain adequate vehicular capacity and access.</p>
<p>P5: Formalise existing permeability links.</p>	<p>C5: Formalise existing permeability links.</p>		
<p>P6: Improve safety for pedestrians, particularly for vulnerable road users, by improving crossing points particularly along the N5, N84, Stephen Garvey Way/Hopkins Road, Lannagh Road and Westport Road.</p>	<p>C6: Provision of dedicated cycle facilities at junctions (N5 & Moneen, N5 & Spencer Street, N5 & Lannagh, Stephen Garvey Way & Hopkins Road & Tesco, Hopkins Road & Lannagh Road)</p>		
<p>P7: Improved accessibility for all within the town centre to include priority parking, handrails at</p>	<p>C7: Create a network that can cater for demand from commuter, delivery, leisure, and tourist cyclists that is</p>		

Pedestrian Network	Cycle Network	Public Transport Network	General Vehicular Network
gradients, public seating, footpath widening, public toilets and public bins.	accessible to all population cohorts.		
P8: New or improved public lighting, security, and signage for walking routes to enhance visibility of existing links to create a more connected and safer pedestrian network.	C10: Prioritise investment in schemes that will deliver the greatest modal shift potential		
P9: Engage with schools with the aim of increasing walking mode share and support Safe Routes to Schools (SRTS)	C11: New or improved public lighting, security, and signage for cycling routes.		
	C12: Engage with schools with the aim of increasing cycling mode share.		

Table 8-4: Indicators and Targets: Proposal 2

SN	Indicators	Targets	Timeline
1.	Upgraded Footpaths: <i>Footpaths up to DMURS standards</i>	8.2 km length of upgraded footpaths	Short Term
2.	New and continuous Footpaths <i>up to DMURS standards</i>	820 m length of new footpath	
3.	Upgraded Cycle Facilities <i>up to DMURS standards</i>	8.2 km length of upgraded cycle tracks	
4.	Proposed Mobility Hub <i>to promote active travel to and from key destinations</i>	1 location (indicative) proposed for Mobility Hub	
5.	Proposed Park and Stride <i>facilities to promote active travel to schools and reduce congestion</i>	3 locations proposed to include park and stride facilities	
6.	Junction Upgrades: <i>Revised Layout</i>	Layout of 1 junction is proposed to be revised	
7.	Safe pedestrian and cyclist facilities at junctions	Proposed 3 junction upgrades to include dedicated pedestrian and cyclist crossings	
8.	New Permeability Links: <i>Standardised permeability link that reduces travel distance to key destinations using active modes</i>	2 New Permeability Links connecting existing greenway and pedestrian facilities on roads	
9.	Controlled Crossings: <i>Safe crossings near key destinations, junctions and where footpaths disappear on one side.</i>	Proposed Controlled Crossings: 14 (including junction upgrades)	
10.	Public Lighting: <i>Presence of standard lighting and signages</i>	Upgrade of public lighting and signages along the routes	

8.3

Objectives Achieved: Proposal 3

Table 8-6: Objectives Achieved: Proposal 3

Pedestrian Network	Cycle Network	Public Transport Network	General Vehicular Network
<p>P1: Provide an integrated network for Castlebar Town through the development of a connected and continuous pedestrian network to connect the main origin and destinations via a functional pedestrian network with adequate crossing facilities to make walking the most attractive mode choice.</p>	<p>C1: Provide an integrated network for Castlebar Town through the development of a connected and continuous cycle network comprising greenway, primary, secondary and feeder routes to connect the residential, education, employment, retail, commercial, healthcare and community centres.</p>	<p>PT5: Ensure convenient access from residential, employment, education, healthcare, and retail facilities to public transport stops.</p>	<p>R1: Reduce unnecessary vehicular trips (through-traffic trips) passing through Castlebar Town Centre through traffic management measures, transport demand management measures and parking strategies.</p>
<p>P2: 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. Where possible, upgrade the footpaths up to DMURS standards, and provide dedicated pedestrian facilities.</p>	<p>C2: 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. The infrastructure required will be determined for a route-by-route basis and depend on existing conditions/constraints and will be delivered to NCM standard for cycle facilities.</p>	<p>PT6: Improve integration between the train station, town centre and local bus routes</p>	<p>R2: Revise vehicular emissions in town centre by promoting mode transfer to sustainable travel modes</p>
<p>P3: Enhance the existing infrastructure through the provision of new pedestrian links to overcome severance caused by the N5 and Castlebar River.</p>	<p>C3: Enhance the existing infrastructure through the provision of new cycle links to overcome severance caused by the N5 and Castlebar River.</p>	<p>PT8: Enhance connectivity of Castlebar Train Station with the provision of improved active travel connections and ‘Park and Ride’ infrastructure.</p>	<p>R5: Maintain adequate vehicular capacity and access.</p>
<p>P5: Formalise existing permeability links.</p>	<p>C5: Formalise existing permeability links.</p>		
<p>P6: Improve safety for pedestrians, particularly for vulnerable road users, by improving crossing points particularly along the N5, N84, Stephen Garvey Way/Hopkins Road, Lannagh Road and Westport Road.</p>	<p>C6: Provision of dedicated cycle facilities at junctions (N5 & Moneen, N5 & Spencer Street, N5 & Lannagh, Stephen Garvey Way & Hopkins Road & Tesco, Hopkins Road & Lannagh Road)</p>		
<p>P7: Improved accessibility for vulnerable population cohorts within the town</p>	<p>C7: Create a network that can cater for demand from commuter, delivery, leisure,</p>		

Pedestrian Network	Cycle Network	Public Transport Network	General Vehicular Network
centre to include priority parking, handrails at gradients, public seating, footpath widening, public toilets and public bins.	and tourist cyclists that is accessible to all population cohorts.		
P8: New or improved public lighting, security, and signage for walking routes to enhance visibility of existing links to create a more connected and safer pedestrian network.	C10: Prioritise investment in schemes that will deliver the greatest modal shift potential		
P9: Engage with schools with the aim of increasing walking mode share and support Safe Routes to Schools (SRTS)	C11: New or improved public lighting, security, and signage for cycling routes.		
	C12: Engage with schools with the aim of increasing cycling mode share.		

Table 8-7: Indicator and Targets: Proposal 3

SN	Indicators	Targets	Timeline
1.	Upgraded Footpaths: <i>Footpaths up to DMURS standards</i>	7.2 km length of upgraded footpaths	Short Term
2.	Upgraded Cycle Facilities <i>up to DMURS standards</i>	7.2 km length of upgraded cycle tracks	
3.	Proposed Mobility Hub <i>to promote active travel to and from key destinations</i>	1 location (indicative) proposed for Mobility Hub	
4.	Junction Upgrades: <i>Revised Layout</i>	Layout of 2 junctions is proposed to be revised	
5.	Safe pedestrian and cyclist facilities at junctions	Proposed 3 junction upgrades to include dedicated pedestrian and cyclist crossings	
6.	Controlled Crossings: <i>Safe crossings near key destinations, junctions and where footpaths disappear on one side.</i>	Proposed Controlled Crossings: 14 (including junction upgrades)	
7.	Public Lighting: <i>Presence of standard lighting and signages</i>	Upgrade of public lighting and signages along the routes	

8.4

Objectives Achieved: Proposal 4

Table 8-8: Objectives Achieved: Proposal 4

Pedestrian Network	Cycle Network	Public Transport Network	General Vehicular Network
<p>P1: Provide an integrated network for Castlebar Town through the development of a connected and continuous pedestrian network to connect the main origin and destinations via a functional pedestrian network with adequate crossing facilities to make walking the most attractive mode choice.</p>	<p>C1: Provide an integrated network for Castlebar Town through the development of a connected and continuous cycle network comprising greenway, primary, secondary and feeder routes to connect the residential, education, employment, retail, commercial, healthcare and community centres.</p>	<p>PT5: Ensure convenient access from residential, employment, education, healthcare, and retail facilities to public transport stops.</p>	<p>R1: Reduce unnecessary vehicular trips (through-traffic trips) passing through Castlebar Town Centre through traffic management measures, transport demand management measures and parking strategies.</p>
<p>P2: 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. Where possible, upgrade the footpaths up to DMURS standards, and provide dedicated pedestrian facilities.</p>	<p>C2: 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. The infrastructure required will be determined for a route-by-route basis and depend on existing conditions/constraints and will be delivered to NCM standard for cycle facilities.</p>		<p>R2: Revise vehicular emissions in town centre by promoting mode transfer to sustainable travel modes</p>
<p>P3: Enhance the existing infrastructure through the provision of new pedestrian links to overcome severance caused by the N5 and Castlebar River.</p>	<p>C3: Enhance the existing infrastructure through the provision of new cycle links to overcome severance caused by the N5 and Castlebar River.</p>		<p>R5: Maintain adequate vehicular capacity and access.</p>
<p>P5: Formalise existing permeability links.</p>	<p>C5: Formalise existing permeability links.</p>		
<p>P7: 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.</p>	<p>C7: Create a network that can cater for demand from commuter, delivery, leisure, and tourist cyclists that is accessible to all population cohorts.</p>		
<p>P8: New or improved public lighting, security, and signage for walking routes to enhance visibility of</p>	<p>C10: Prioritise investment in schemes that will deliver the greatest modal shift potential</p>		

Pedestrian Network	Cycle Network	Public Transport Network	General Vehicular Network
existing links to create a more connected and safer pedestrian network.			
P9: Engage with schools with the aim of increasing walking mode share and support Safe Routes to Schools (SRTS)	C11: New or improved public lighting, security, and signage for cycling routes.		
	C12: Engage with schools with the aim of increasing cycling mode share.		

Table 8-9: Indicators and Targets: Proposal 4

SN	Indicators	Targets	Timeline
1.	Upgraded Footpaths: <i>Footpaths up to DMURS standards</i>	6.6 km length of upgraded footpaths	Medium Term
2.	Upgraded Cycle Facilities <i>up to DMURS standards</i>	6.6 km length of upgraded cycle tracks	
3.	New Road Link <i>with segregated cycle tracks and standard footpaths on both sides</i>	780 m length of new road link	
4.	New Permeability Link: <i>Standardised permeability link that reduces travel distance to key destinations using active modes</i>	1 new permeability link to connect the new road link with the existing greenway	
5.	Safe pedestrian and cyclist facilities at junctions	Proposed 4 junction upgrades to include dedicated pedestrian and cyclist crossings	
6.	Controlled Crossings: <i>Safe crossings near key destinations, junctions and where footpaths disappear on one side.</i>	Proposed Controlled Crossings: 10 (including junction upgrades)	
7.	Public Lighting: <i>Presence of standard lighting and signages</i>	Upgrade of public lighting and signages along the routes	

8.5

Objectives Achieved: Proposal 5

Table 8-10: Objectives Achieved: Proposal 5

Pedestrian Network	Cycle Network	Public Transport Network	General Vehicular Network
<p>P1: Provide an integrated network for Castlebar Town through the development of a connected and continuous pedestrian network to connect the main origin and destinations via a functional pedestrian network with adequate crossing facilities to make walking the most attractive mode choice.</p>	<p>C1: Provide an integrated network for Castlebar Town through the development of a connected and continuous cycle network comprising greenway, primary, secondary and feeder routes to connect the residential, education, employment, retail, commercial, healthcare and community centres.</p>	<p>PT5: Ensure convenient access from residential, employment, education, healthcare, and retail facilities to public transport stops.</p>	<p>R1: Reduce unnecessary vehicular trips (through-traffic trips) passing through Castlebar Town Centre through traffic management measures, transport demand management measures and parking strategies.</p>
<p>P2: 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. Where possible, upgrade the footpaths up to DMURS standards, and provide dedicated pedestrian facilities.</p>	<p>C2: 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. The infrastructure required will be determined for a route-by-route basis and depend on existing conditions/constraints and will be delivered to NCM standard for cycle facilities.</p>	<p>PT6: Improve integration between the train station, town centre and local bus routes</p>	<p>R2: Revise vehicular emissions in town centre by promoting mode transfer to sustainable travel modes</p>
<p>P3: Enhance the existing infrastructure through the provision of new pedestrian links to overcome severance caused by the N5 and Castlebar River.</p>	<p>C3: Enhance the existing infrastructure through the provision of new cycle links to overcome severance caused by the N5 and Castlebar River.</p>	<p>PT8: Enhance connectivity of Castlebar Train Station with the provision of improved active travel connections and ‘Park and Ride’ infrastructure.</p>	<p>R5: Maintain adequate vehicular capacity and access.</p>
<p>P4: Improved filtered permeability using laneways and the opening up of cul-de-sacs for pedestrians to increase directness and connectivity to enhance access to homes, jobs, schools, shops, public transport and services.</p>	<p>C5: Formalise existing permeability links.</p>		
<p>P5: Formalise existing permeability links.</p>	<p>C6: Provision of dedicated cycle facilities at junctions (N5 & Moneen, N5 & Spencer Street, N5 & Lannagh, Stephen Garvey Way & Hopkins Road & Tesco, Hopkins Road & Lannagh Road)</p>		

Pedestrian Network	Cycle Network	Public Transport Network	General Vehicular Network
<p>P7: 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.</p>	<p>C7: Create a network that can cater for demand from commuter, delivery, leisure, and tourist cyclists that is accessible to all population cohorts.</p>		
<p>P8: New or improved public lighting, security, and signage for walking routes to enhance visibility of existing links to create a more connected and safer pedestrian network.</p>	<p>C10: Prioritise investment in schemes that will deliver the greatest modal shift potential</p>		
<p>P9: Engage with schools with the aim of increasing walking mode share and support Safe Routes to Schools (SRTS)</p>	<p>C11: New or improved public lighting, security, and signage for cycling routes.</p>		
	<p>C12: Engage with schools with the aim of increasing cycling mode share.</p>		

Table 8-11: Indicators and Targets: Proposal 6

SN	Indicators	Targets	Timeline
1.	New Active Travel Bridge <i>to improve accessibility by active travel</i>	1 new active travel bridge with links to existing road network and controlled crossings at access points	Long Term
2.	New Permeability Link: <i>Standardised permeability link that reduces travel distance to key destinations using active modes</i>	9 new permeability links to improve accessibility via active travel	
3.	Upgraded Permeability Link: <i>Standardised permeability link that improves accessibility and safety via active travel</i>	7 upgrades in existing permeability links to improve accessibility via active travel	
4.	Public Lighting: <i>Presence of standard lighting and signages</i>	Upgrade of public lighting and signages along the routes	

8.6

Objectives Achieved: Proposal 6

Table 8-12: Objectives Achieved: Proposal 6

Pedestrian Network	Cycle Network	Public Transport Network	General Vehicular Network
<p>P1: Provide an integrated network for Castlebar Town through the development of a connected and continuous pedestrian network to connect the main origin and destinations via a functional pedestrian network with adequate crossing facilities to make walking the most attractive mode choice.</p>	<p>C1: Provide an integrated network for Castlebar Town through the development of a connected and continuous cycle network comprising greenway, primary, secondary and feeder routes to connect the residential, education, employment, retail, commercial, healthcare and community centres.</p>	<p>PT5: Ensure convenient access from residential, employment, education, healthcare, and retail facilities to public transport stops.</p>	<p>R1: Reduce unnecessary vehicular trips (through-traffic trips) passing through Castlebar Town Centre through traffic management measures, transport demand management measures and parking strategies.</p>
<p>P2: 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. Where possible, upgrade the footpaths up to DMURS standards, and provide dedicated pedestrian facilities.</p>	<p>C2: 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. The infrastructure required will be determined for a route-by-route basis and depend on existing conditions/constraints and will be delivered to NCM standard for cycle facilities.</p>	<p>PT8: Enhance connectivity of Castlebar Train Station with the provision of improved active travel connections and ‘Park and Ride’ infrastructure.</p>	<p>R2: Revise vehicular emissions in town centre by promoting mode transfer to sustainable travel modes</p>
<p>P5: Formalise existing permeability links.</p>	<p>C5: Formalise existing permeability links.</p>		<p>R5: Maintain adequate vehicular capacity and access.</p>
<p>P6: Improve safety for pedestrians, particularly for vulnerable road users, by improving crossing points particularly along the N5, N84, Stephen Garvey Way/Hopkins Road, Lannagh Road and Westport Road.</p>	<p>C6: Provision of dedicated cycle facilities at junctions (N5 & Moneen, N5 & Spencer Street, N5 & Lannagh, Stephen Garvey Way & Hopkins Road & Tesco, Hopkins Road & Lannagh Road)</p>		
<p>P7: 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.</p>	<p>C7: Create a network that can cater for demand from commuter, delivery, leisure, and tourist cyclists that is accessible to all population cohorts.</p>		

Pedestrian Network	Cycle Network	Public Transport Network	General Vehicular Network
<p>P8: New or improved public lighting, security, and signage for walking routes to enhance visibility of existing links to create a more connected and safer pedestrian network.</p>	<p>C10: Prioritise investment in schemes that will deliver the greatest modal shift potential</p>		
<p>P9: Engage with schools with the aim of increasing walking mode share and support Safe Routes to Schools (SRTS)</p>	<p>C11: New or improved public lighting, security, and signage for cycling routes.</p>		
	<p>C12: Engage with schools with the aim of increasing cycling mode share.</p>		

Table 8-13: Indicators and Targets: Additional Proposals

SN	Indicators	Targets	Timeline
1.	Upgraded Footpaths: <i>Footpaths up to DMURS standards</i>	9.8 km length of upgraded footpaths (including 5.5 km of upgrades in shared streets)	Long Term
2.	Upgraded Cycle Facilities <i>up to DMURS standards</i>	4.3 km length of upgraded cycle tracks and 5.5 km of shared streets	
3.	Safe pedestrian and cyclist facilities at junctions	Proposed 1 junction upgrade to include dedicated pedestrian and cyclist crossings	
4.	Public Lighting: <i>Presence of standard lighting and signages</i>	Upgrade of public lighting and signages along the routes	