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Feasibility, Option Selection and Appraisal Report Summary

Meath County Council

April 2024

5219559DG0070

DUNBOYNE AND CLONEE PEDESTRIAN AND CYCLE NETWORK

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This document has 26 pages including the cover.

Document history

Document title: Feasibility, Option Selection and Appraisal Report Summary.

Document reference: 5219559DG0070

Revision	Purpose description	Originated	Checked	Reviewed	Authorised	Date
0	Emerging Preferred Options Public Consultation	TC	TC	CF	CF	23/04/2024

Client signoff

Client	Meath County Council
Project	Dunboyne and Clonee Pedestrian and Cycle Network
Job number	5219559
Client signature/date	



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1. Proposed Network

Meath County Council (MCC) is developing a pedestrian and cycle network in the townlands of Dunboyne and Clonee, with the aim to provide high-quality, safe, continuous and consistent cycle and pedestrian facilities. The proposed network, named the Dunboyne and Clonee Pedestrian and Cycle Network, is divided into four route types, primary, feeder, permeability and greenways, as indicated in Figure 1-1.

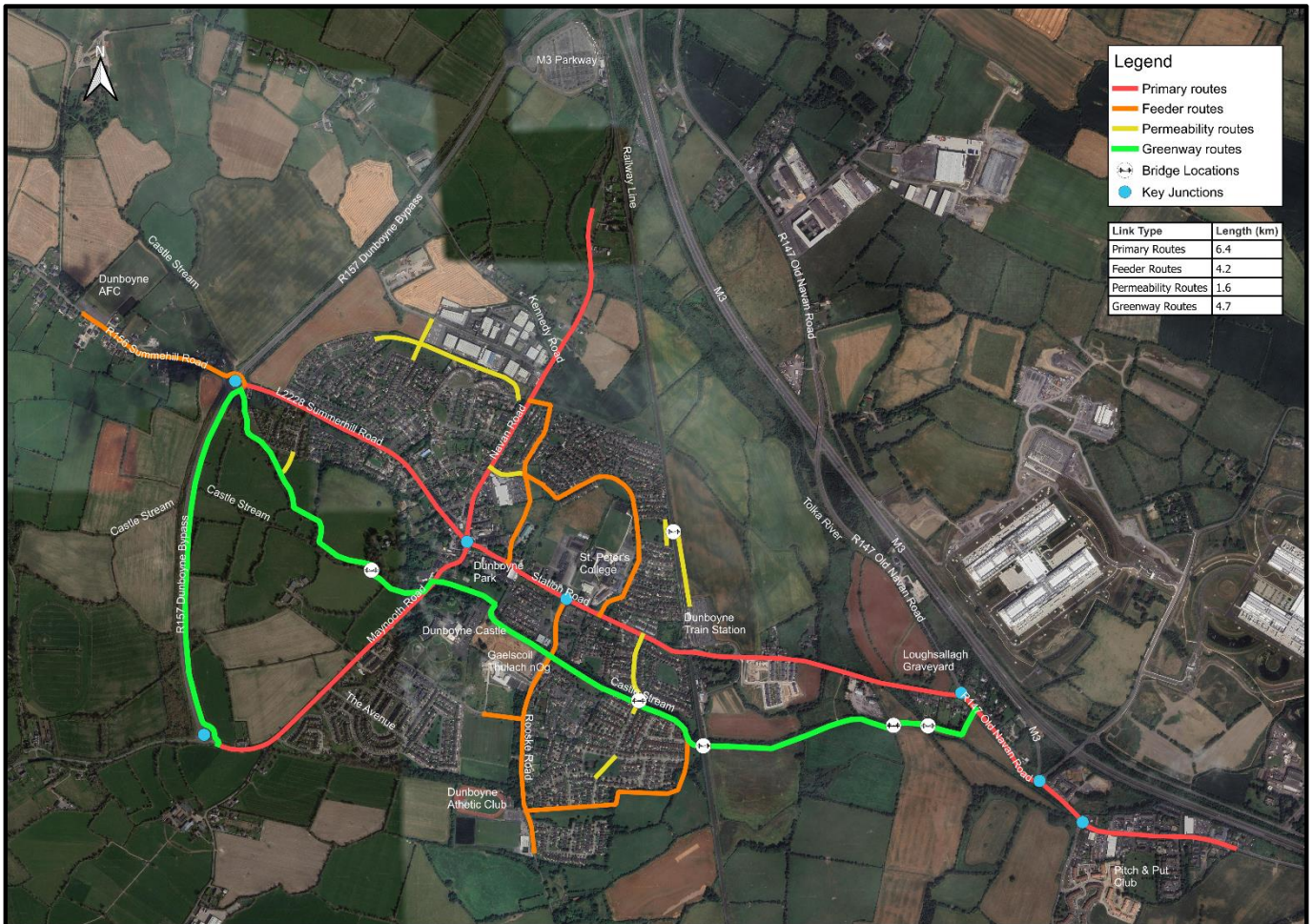


Figure 1-1 – Dunboyne and Clonee Pedestrian and Cycle Network

1.1 Route Types

The corridors for each of the route types were identified based on obvious and defining built environment features and characteristics such as junctions with key roads, town centres, bridges and edge of town boundaries etc. Figure 1-2 to Figure 1-5 shows the corridors for each route type.

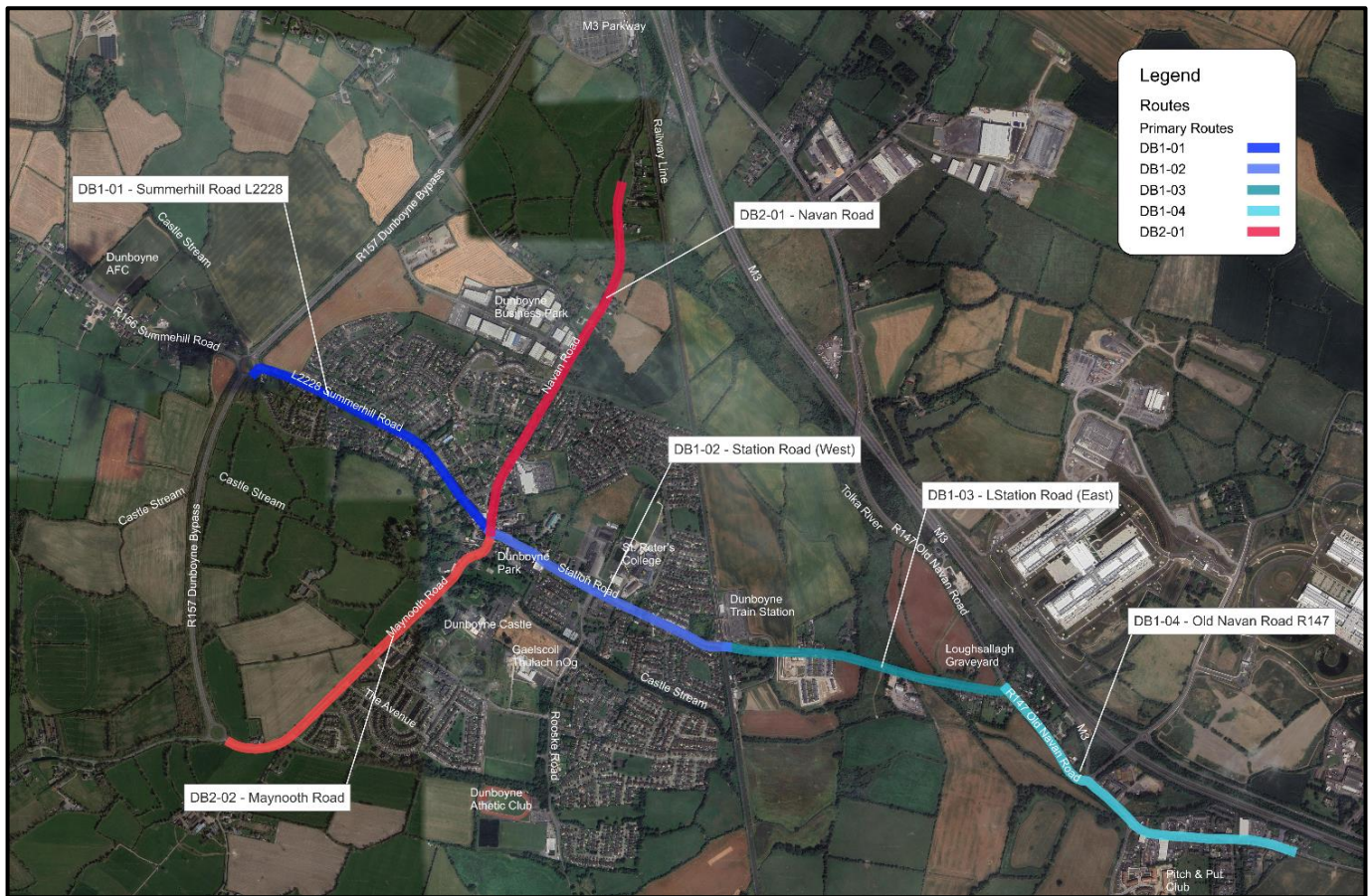


Figure 1-2 – Primary Routes



Figure 1-3 – Feeder Routes

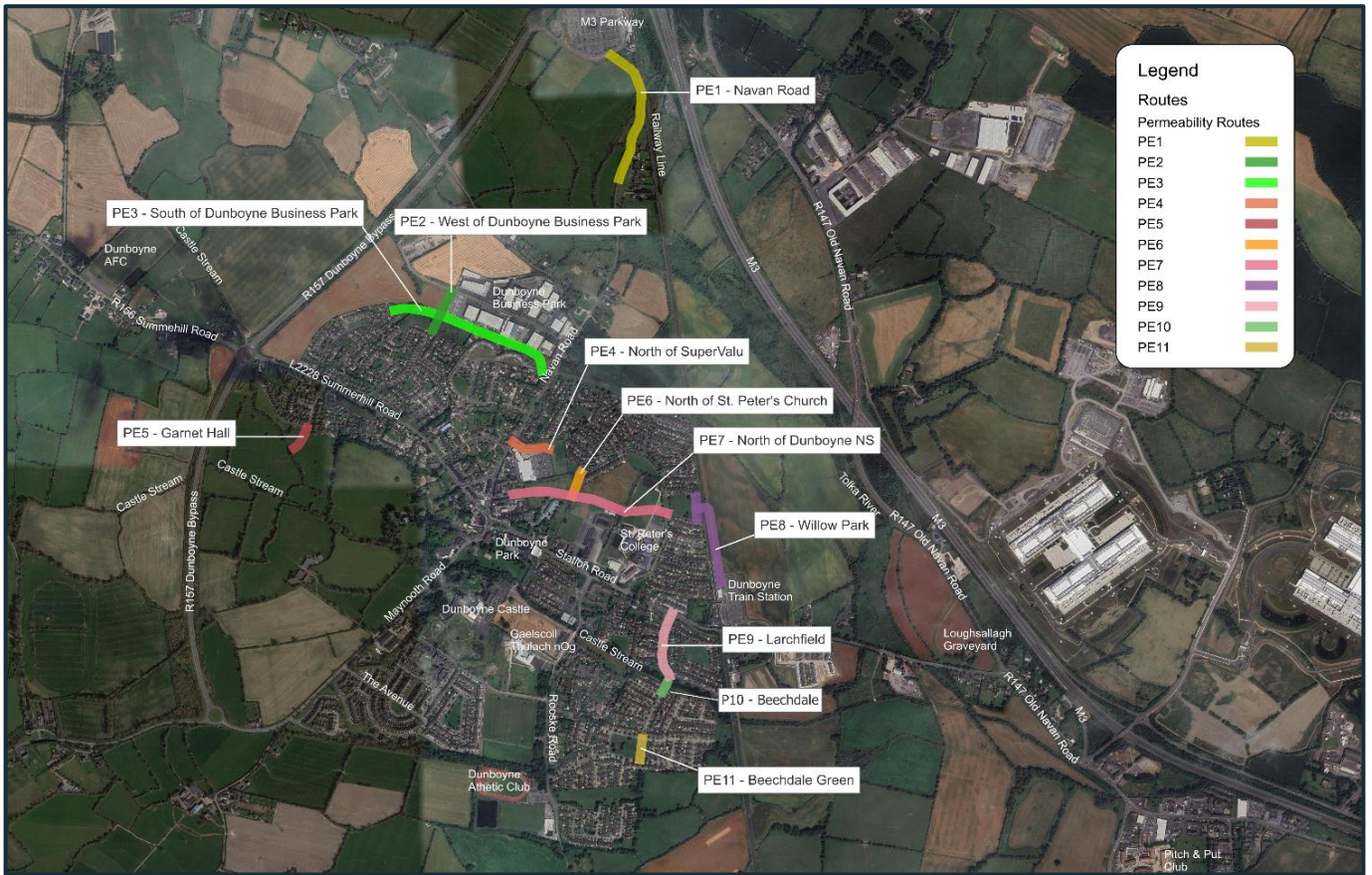


Figure 1-4 – Permeability Routes



Figure 1-5 – Greenway Routes

1.2 Project Benefits

The purpose of the proposed network is to provide the highest level of feasible walking and cycling infrastructure along the designated corridors to encourage more people to choose walking and cycling in support of Meath's active travel mode share goals. The stated objectives of the project are:

- To develop high-quality cycle and pedestrian routes that provide linkages to residential areas, Dunboyne Train Station, M3 Parkway Train Station, Dunboyne Business Park, educational and commercial facilities, sports grounds, etc;
- To develop high-quality walking and cycling facilities to include for segregated cycle tracks where feasible so that people of all ages feel safe cycling in proximity to relatively high volumes of motor vehicle traffic;
- To identify junction upgrade requirements at all key junctions, within the study area, to cater for required pedestrian, cycle and traffic movements whilst being cognisant of the requirements of vulnerable road users and public transport throughput;
- To enhance the public realm within Dunboyne and Clonee, improving the overall aesthetic appearance and experience for all within both towns;
- To meet the accessibility, traffic capacity, geometric layout, structural, safety and environmental requirements for cyclist and pedestrian facilities;
- To provide a design which is both sympathetic and appropriate for the relevant streetscape, landscape and ecological sensitivities;
- To meet the requirements for the proposed network to be fully compliant with all measures of the Environmental Impact, Habitats and Water Frameworks Directives;
- To support National Sustainable Mobility Policy objectives;
- To increase the accessibility to the Town Centres;
- To improve active travel linkage between Clonee and Fingal.



2. Project Background

The routes proposed in the Dunboyne and Clonee Pedestrian and Cycle Network were first developed in the National Transport Authority (NTA) Cycle Network Plan published in 2013. The initial routes presented in the 2013 NTA Network Plan involve the primary routes along Summerhill Road, Station Road, Old Navan Road, Navan Road and Maynooth Road, the greenway along Castle Stream, and the feeder routes along Rooske Road, Beechdale Residential Estate, Millfarm, Old Fair Green and to the west of the St. Peter's Church, as shown in Figure 2-1.

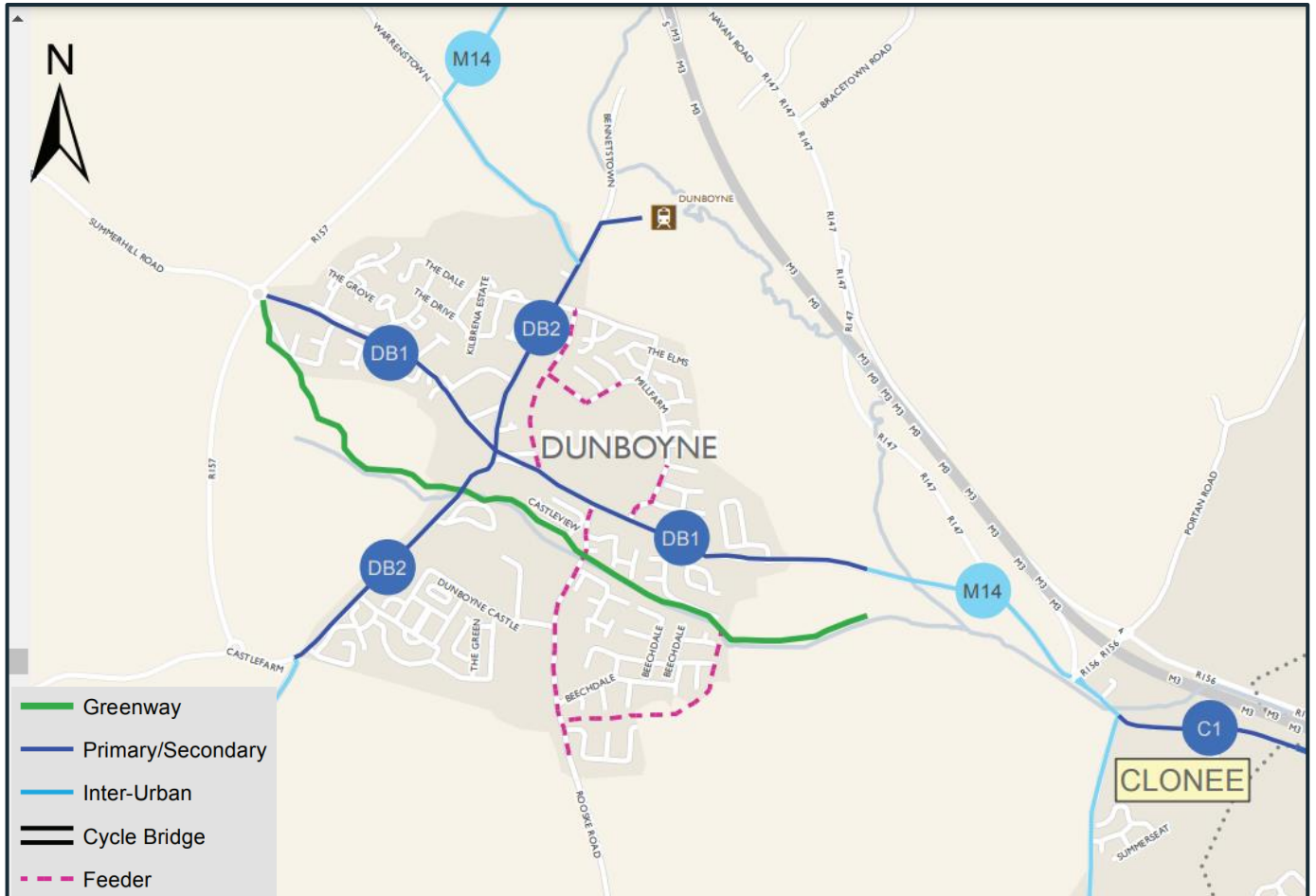


Figure 2-1 – 2013 NTA Cycle Network Plan

In 2023, an update to the NTA Greater Dublin Area (GDA) Cycle Network Plan was published and was compiled to identify and determine in a consistent, clear, and logical manner, the urban cycle network at the primary, secondary and feeder levels in the GDA. The routes initially proposed in the 2013 Cycle Network Plan were further developed in the 2023 GDA plan, as shown in Figure 2-2. It is noted, however, that the full extent of the network in Dunboyne is not shown in the map available on the NTA's website. The visible 2023 Network adds a new greenway, located along Tolka River, and an inter-urban route along the R147.

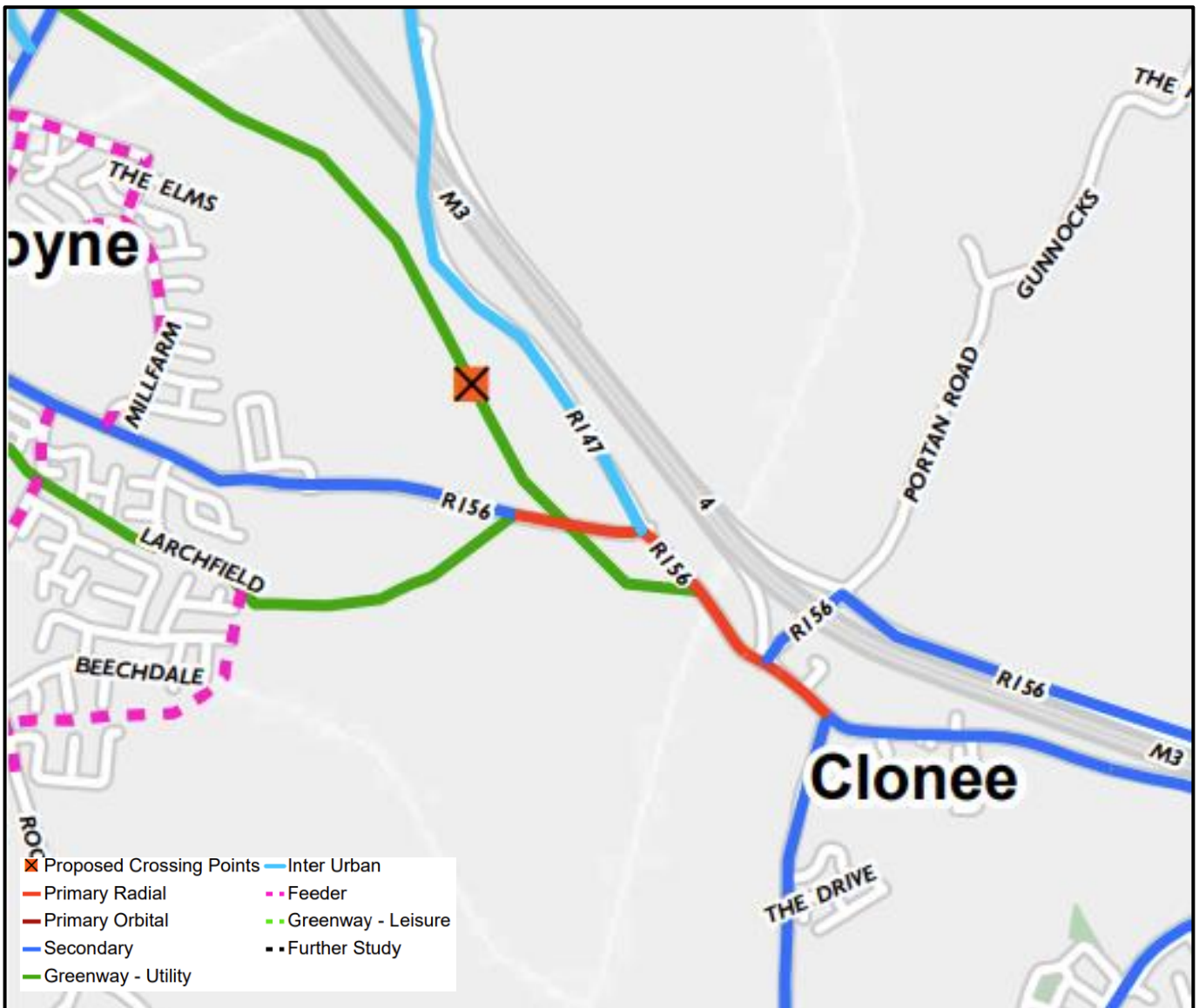


Figure 2-2 – 2013 NTA Cycle Network Plan

A transportation study, Transportation Study at Dunboyne and Environs, was commissioned by Meath County Council and was published in 2018 to address current and possible future transportation issues present in Dunboyne and its environs. The report contains a set of evidence-based recommendations to deliver a multi-modal strategy which will ensure that Dunboyne & Environs develop as a sustainable community with strong transport links to Dunboyne town centre, Dublin City and the surrounding areas. The objectives identified in the study are listed below:

- Improve transport Connectivity and accessibility within Dunboyne;
- Improve accessibility to other urban centres and new growth areas outside Dunboyne;
- Contribute to improved air quality by minimising the growth in traffic levels and congestion;
- Improve journey time reliability;
- Make it easier and more attractive to travel by active and public transport modes.

As part of the response to the constraints faced by all travel modes within the town, a range of interventions for private, non-motorised and public transport to improve travel across Dunboyne has been proposed within the report. These are shown in Figure 2-3.

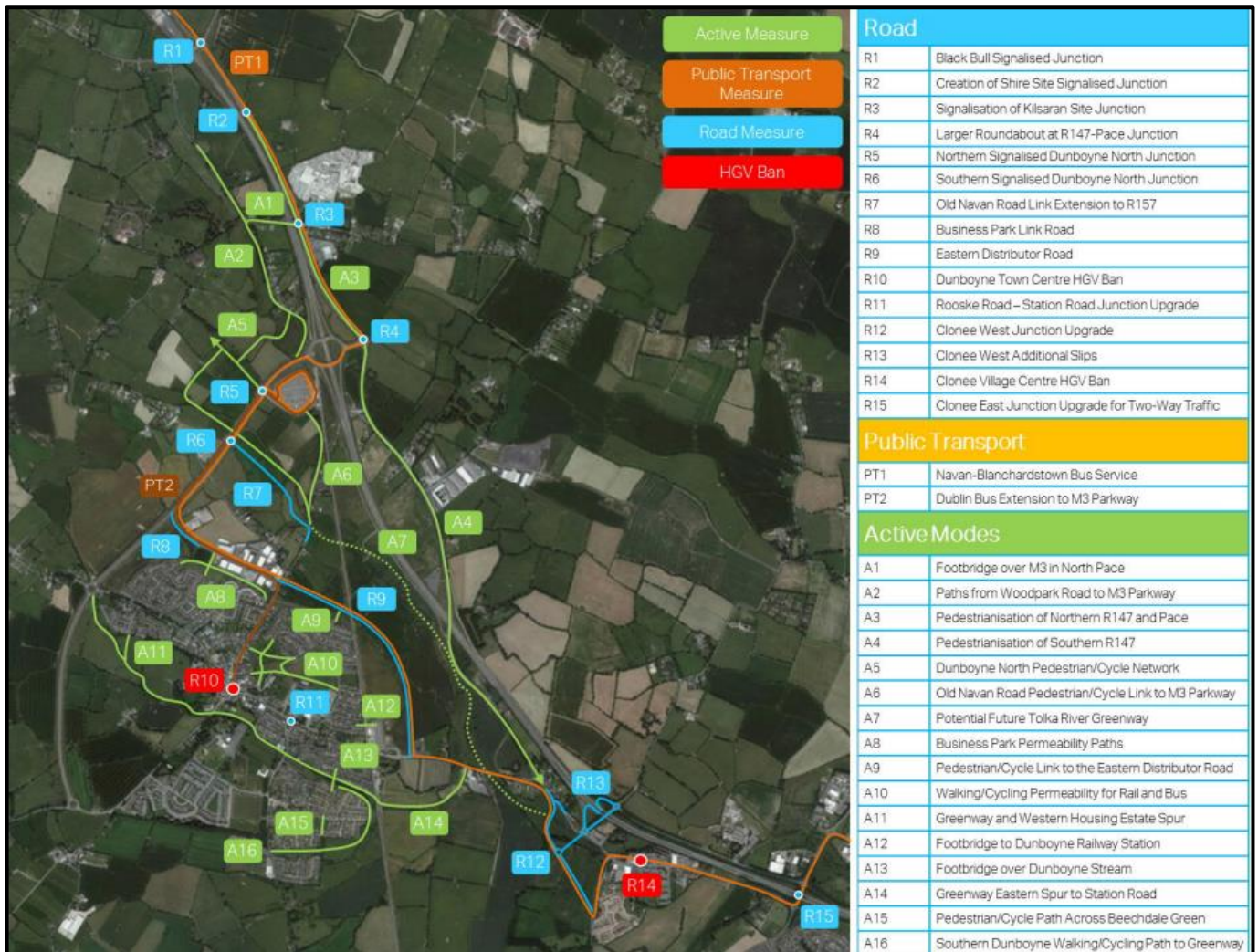


Figure 2-3 – Locations of Road, Walk/Cycle and Public Transport Interventions

The routes identified within the proposed Dunboyme and Clonee Pedestrian and Cycle Network have been developed in response to the GDA Cycle Network Plan and the Transportation Study at Dunboyme and Clonee and it aims to develop a high-quality, safe, continuous and consistent pedestrian and cycle network in both the towns, designed in accordance with best practice and providing the highest feasible level of service.

3. Strategic Alignment with Government Policy

To ensure consistency and continuity of the Network, the design is to be developed to align with the latest national, regional and local policy and design guidance. To ensure this outcome, a review of relevant policies, plans and guidance has been completed. Relevant planning objectives were identified and used to establish the overall need for the network.



Figure 3-1 – Policy Guidance

4. Option Selection Methodology

The methodology used in the option selection process to identify the emerging preferred option for each route corridor is in line with the Public Spending Code (PSC), Transport Appraisal Framework (TAF) and the NTA Project Approval Guidelines (PAG).

The Primary Routes, as they are the main routes in the network, have been assessed in a the typical four-step approach, which identifies the route corridors and route segments to be appraised, the Stage 1 Multi-Criteria Analysis (MCA) and Stage 2 MCA processes to be implemented, resulting in the identification of the Emerging Preferred Option for each route corridor. This methodology is presented in Figure 4-1.

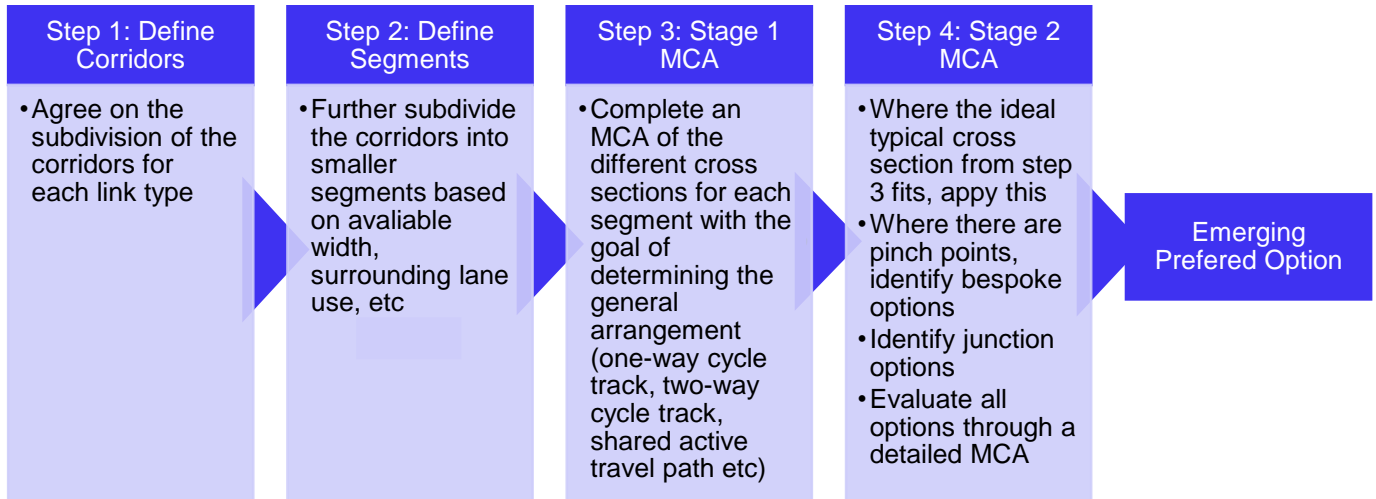


Figure 4-1 - Option Selection Methodology

The Feeder Routes, Permeability Routes and Bridges have been assessed through a simplified version of this methodology, as they are mostly off road routes located along green fields and residential areas, consisting of one Stage of MCA. The Greenway Routes have been assessed through a modified version of this methodology.

5. Primary Routes

Based on the outcomes of the MCA, Emerging Preferred Options for the Primary Routes have been defined. The Primary Routes run along an east-west and a north-south corridor, the details of the Emerging Preferred Options for the corridors are discussed in detail in the following sections.

Please refer to drawings 5219559-ATK-ZZ-ZZ-DR-CE-000001 to 5219559-ATK-ZZ-ZZ-DR-CE-000008 for details on the Emerging Preferred Options for the east west corridor and drawings 5219559-ATK-ZZ-ZZ-DR-CE-000009 to 5219559-ATK-ZZ-ZZ-DR-CE-000014 for details on the north south corridor.

Along both corridors, the junctions will be upgraded to provide improved safety for all road users, which will be designed in accordance with the Cycle Design Manual.

In relation to public transport, all bus stops are intended to be retained and upgraded in accordance with the Cycle Design Manual.

Several locations will require land acquisition in order to provide the required level of pedestrian and cycle facilities along the Primary Routes corridors as the main streets and roads are constrained in width.

Some sections where there are on-street parking and loading bays may be affected by the proposed network. Details on the affected bays will be further developed in the Preliminary Design Stage. Similar applies to the possible green areas and verges to be removed to allow for road space re-allocation for the proposed pedestrian and cycle improvements.

5.1.1 East West Corridor

The first four route corridors run from the roundabout between Summerhill Road and the R157 in Dunboyne to the boundary with Co. Fingal east of Clonee, approximately 4km.

The predominant Emerging Preferred Option for the east west corridor, is a two-way cycle track. The width of the proposed cycle facilities do change from one segment to another due to available width, existing facilities currently in place, environmental aspects, etc.

From the roundabout between Summerhill Road and the R157 to the junction between Castlefarm estate and the Dunboyne Train Station, the two-way cycle track is proposed on the north side of the road, which will be accompanied by footpaths on both sides of the road.

The exception to this is a section fronting the Plunkett Hall and Luttrell Hall housing estates, where a shared active travel path is proposed off road within the green area of both estates as the road space along the Summerhill Road is too narrow to provide a dedicated cycle infrastructure and widening would remove a significant mature treeline. Figure 5-1 shows an example of the proposed EPO along Summerhill Road and Figure 5-2 provides a typical photomontage of how the proposed facilities aim to be implemented.



Figure 5-1 – Primary Route Along Summerhill Road



Figure 5-2 – Photomontage along Summerhill Road (Opposite St Peters Park)

At the junction between Castlefarm estate and the Train station, the two-way cycle track will be moved to the south side of the road and will continue along Station Road and Old Navan Road until the limit with Co. Fingal. The placement of the two-way cycle track on the south side along these sections of the road allows for better connection with Co. Fingal, improved connections to residential units and allows parking spaces to be retained in Clonee town centre.



Figure 5-3 – Photomontage along Station Road (Immediate west of Loughsallagh Roundabout)

5.1.2 North South Corridor

The north south corridor extends from approximately 200m north of the Tolka River bridge on Navan Road to the roundabout between Maynooth Road and the R157 Dunboyne Bypass.

The proposal for this corridor is to implement a two-way cycle track to keep consistency of cycle provision. On Navan Road and Maynooth Road until the southern access to Dunboyne Castle estate, the two-way cycle track is proposed on the east side of the road. From the access to the estate until the roundabout with the R157, the cycle track will be moved to the west side of the road to provide connection with the greenway proposed on the R157.

Two sections of the north south corridor will have short sections of shared active travel paths due to narrow available width. The first at the bridge over Tolka River on Navan Road, where a one-way yield system will be provided, with a footpath on the west side and a shared path on the east side. The second instance of shared active travel path will be on the Maynooth Road, just south of the Town Centre Square.

Footpaths are proposed on both sides of the road for most of the corridor, apart from the section extending from the Castle Stream bridge on Maynooth Road to the southern access point to Dunboyne Castle estate, where footpaths are proposed only on the east side of the road as only agricultural lands lie along the western side.

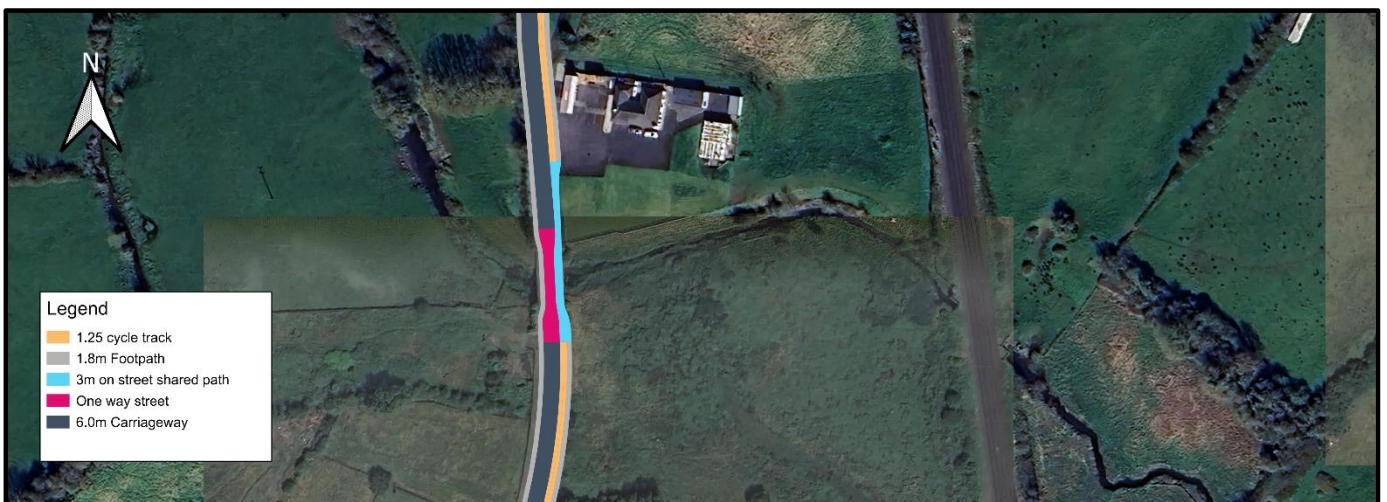


Figure 5-4 – Section with Shared Active Travel Path in Navan Road



Figure 5-5 – Photomontage along Navan Road

6. Feeder Routes

The Feeder Routes have been assessed utilising a one stage MCA. The Feeder Route along Rooske Road has however been assessed similar to a Primary Route, as it is considered to be a key road in the town of Dunboyne and as it connects to a school and numerous sports facilities which are considered to be significant active travel trip attractors and destinations. Table 6-1 details the Emerging Preferred Options (EPOs) for the Feeder Routes.

Table 6-1 - Feeder Routes EPOs

Route	EPOs	Drawing Reference
FD1 Summerhill Road	3m shared path on the north side and 1.8m footpath on the south side.	5219559-ATK-ZZ-ZZ-DR-CE-000018
FD2 Old Fair Green	3m shared path along the main road and mixed street and 1.8m footpaths at the cul-de-sac.	5219559-ATK-ZZ-ZZ-DR-CE-000018
FD3 West of St. Peter's Church	3m shared active travel facility.	5219559-ATK-ZZ-ZZ-DR-CE-000018
FD4 East of SuperValu	3m shared active travel facility.	5219559-ATK-ZZ-ZZ-DR-CE-000018
FD5 Millfarm	Mixed street and 1.8m footpaths at the cul-de-sac and 3m shared path on the west side on the remaining of the route.	5219559-ATK-ZZ-ZZ-DR-CE-000019
FD6 Rooske Road	Two-way cycle track on the west side and footpaths on both sides of the road.	5219559-ATK-ZZ-ZZ-DR-CE-000015 to 5219559-ATK-ZZ-ZZ-DR-CE-000017
FD7 Dunboyne Castle Heights	2.0m protected cycle lane (PCL) on the south side.	5219559-ATK-ZZ-ZZ-DR-CE-000019
FD8 Beechdale	3m shared active travel facility.	5219559-ATK-ZZ-ZZ-DR-CE-000019

The proposals at the Feeder Route FD1 along Summerhill Road aims to connect Dunboyne Town with Dunboyne AFC on the north side of the road and the residential units on both sides, as there are currently no facilities for pedestrians and cyclists to travel along the corridor.

The routes along residential areas FD2 Old Fair Green and FD5 Millfarm, propose to provide a mixed traffic street at areas with low traffic volumes and a shared active travel path on one side of the road and footpath on the other side in areas with increased traffic flows.

The sections along green fields, FD3 and FD4 that run along the west of St. Peter's Church and to the east of SuperValu, aim to provide improved permeability for residents of Old Fair Green and Millfarm estates to access the Town Centre and the Dunboyne Train Station. Similarly, the route FD8 runs along the Beechdale housing estate, also at a green area, and this aims to provide a walking and cycling route that can be used both as a leisure path or to improve connectivity with Rooske Road and the several key attractors and amenities along the road.

Finally, the route FD6 Rooske Road, as it is a key road within the town, is proposed to offer a two-way cycle track on the west side, where the key attractors and amenities are located, and footpaths on both sides of the road and route FD7 Dunboyne Castle Heights will improve the existing cycle lane on the south side with fresh road markings and separation from the carriageway to improve safety for cyclists.

7. Permeability Routes

Similar to the Feeder Routes, the Permeability Routes have been assessed utilising a one stage MCA. Table 7-1 shows the EPOs for the Permeability Routes and the reference to the drawings.

Table 7-1 - Permeability Routes EPOs

Route	EPOs	Drawing Reference
PE2 and PE3 West and South of Dunboyne Business Park	3m shared active travel path.	5219559-ATK-ZZ-ZZ-DR-CE-000022
PE4 North of SuperValu	Continue existing footpath along the corridor and shared street for cyclists.	5219559-ATK-ZZ-ZZ-DR-CE-000022
PE5 Garnett Hall	3m shared active travel facility.	5219559-ATK-ZZ-ZZ-DR-CE-000022
PE8 Willow Park	3m shared active travel facility.	5219559-ATK-ZZ-ZZ-DR-CE-000022
PE9 Larchfield	Mixed street and widening of existing footpaths to 1.8m.	5219559-ATK-ZZ-ZZ-DR-CE-000023
PE10 Beechdale	3m shared active travel facility.	5219559-ATK-ZZ-ZZ-DR-CE-000015 to 5219559-ATK-ZZ-ZZ-DR-CE-000023
PE11 Beechdale Green	1.8m footpath diagonally connecting both roads.	5219559-ATK-ZZ-ZZ-DR-CE-000023

The routes adjacent Dunboyne Business Park, PE2 and PE3, the route to the south of Garnett Hall, PE5, the proposed connection to the Dunboyne Train Station from Willow Park, PE8 and the route connecting Castle Stream with Beechdale, PE10, are proposed to be 3.0m wide shared active travel paths as they are located along green areas and will help create connectivity from residential areas to the wider network. The route PE11, along the Green at Beechdale, aims to provide a pedestrian connection that will be placed diagonally linking both roads.

The route along the SuperValu access, PE4, proposes to continue the footpath in the north side past the junction and provide a mixed street for vehicles and cyclists. Similar is proposed within Larchfield housing estate, PE9, where it is proposed to widen the existing footpaths to a minimum of 1.8m and provide a mixed street with traffic calming measures to ensure low speeds.

8. Greenway Routes

Two greenway routes are proposed: one that extends along Castle Stream and Tolka River and one along the R157 Dunboyne Bypass.

The proposed greenway along Castle Stream and Tolka River proposed a connection from the roundabout between Summerhill Road and the R157 to the R147 Old Navan Road. The proposal is to construct a 3.0m wide shared active travel path that can accommodate both pedestrians and cyclists and can act as a leisure route but also as a permeability improvement for both towns.

The greenway along the R157 Dunboyne Bypass is proposed to be located on the eastern side of the road and to provide an appropriate walking and cycling route along the road that is currently used as a walking path for several residents of Dunboyne. This greenway is also proposed to be constructed as a 3.0m wide shared active travel path that can accommodate both cyclists and pedestrians in a safely manner.

The proposed greenway routes are displayed in drawing 5219559-ATK-ZZ-ZZ-DR-CE-000020.

9. Bridges

A total of six bridges are proposed for the Dunbooyne and Clonee Pedestrian and Cycle Network as the routes cross waterbodies and the railway line, as shown in Figure 9-1.

Of the six bridges, four are proposed along the greenway along the Castle Stream and Tolka River. Three bridges are proposed over the waterbodies and one bridge is proposed over the railway line. The other two bridges are proposed to facilitate permeability routes, one bridge is proposed over the railway line at Willow Park to connect the Millfarm housing estate to the Dunbooyne Train Station and the final bridge is proposed to cross Castle Stream to connect Larchfield estate to the greenway to the south.

The proposed bridges are intended to be accessible to both pedestrians (with the exception of the bridge at Willow Park which be a pedestrian only bridge) and cyclists in order to provide ease access to all users of the greenway and the permeability routes.

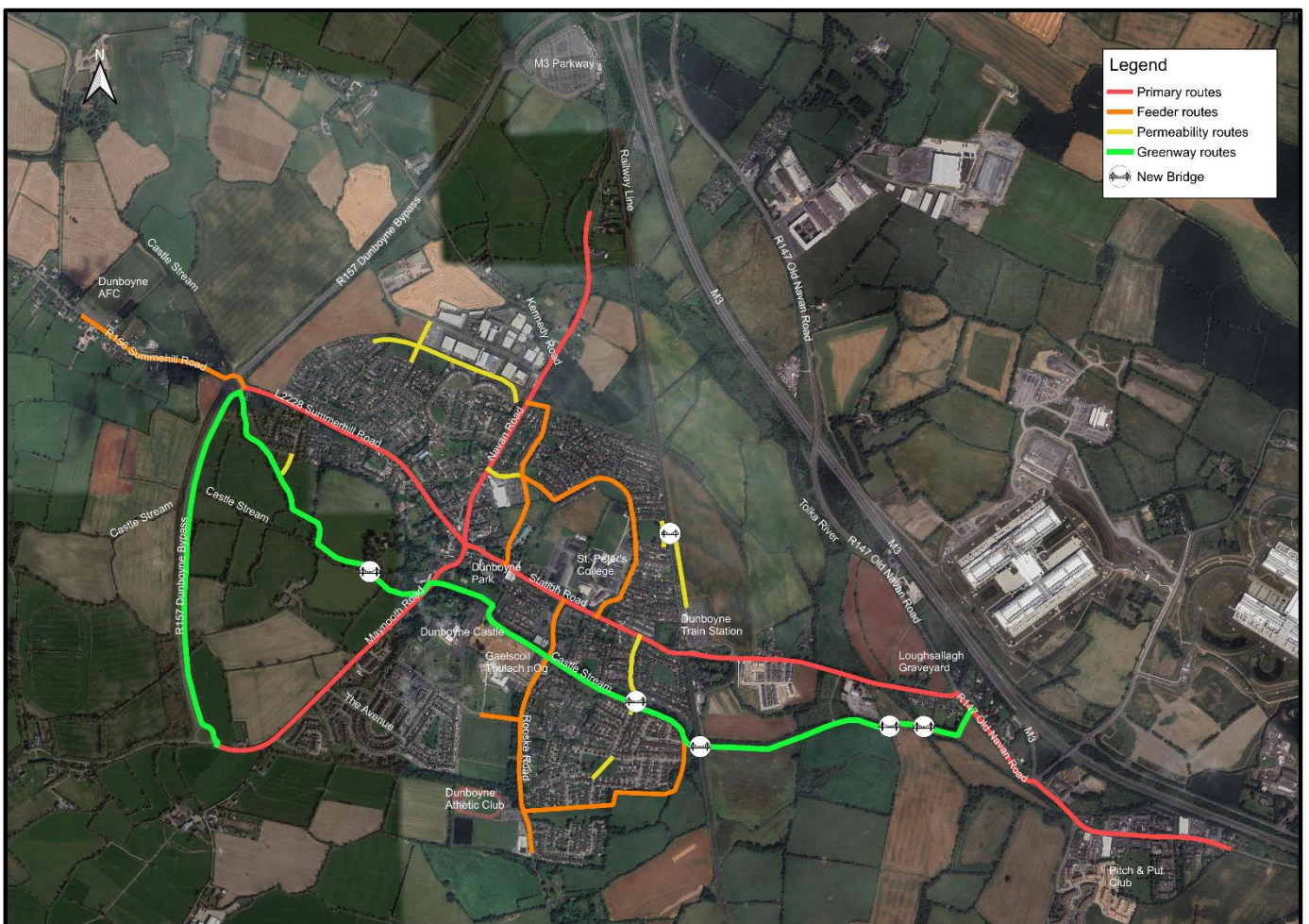


Figure 9-1 – Proposed Bridge Locations

10. Public Realm

Public Realm Plans are proposed as part of the Dunbooyne and Clonee Pedestrian and Cycle network. The plans involve both town centre areas and aim to provide a livelier public open space with enhanced pedestrian movements to create opportunities to create and enhance public space use.

In Dunbooyne the public realm plan is around the town centre area and approach roads where the proposal is to increase footpath widths where possible, improve pedestrian crossings, incorporate seating areas, enhance streetscape with tree planting and re-design The Square is proposed to act as a multi-functional space able to accommodate a wide range of uses and enhance public space use. The proposal aims to enhance the historic streetscape that highlight the heritage features. The proposal will retain all trees along The Square and The Green and implement more where possible. Figure 10-1 shows the overall proposals for Dunbooyne whilst Figure 10-2 provides an illustrative view of the Square from an eastbound view point.



Figure 10-1 – Proposed Public Realm Plan in Dunbooyne Town Centre



Figure 10-2 – Illustrative View Dunbooyne Town Centre Square

In Clonee town centre, the available space for a public realm is significantly less than in Dunboyne, however, as shown in Figure 10-3, there is some limited potential to incorporate pockets of seating areas, create opportunities to enhance the public space use and provide green areas with tree planting where space is available.

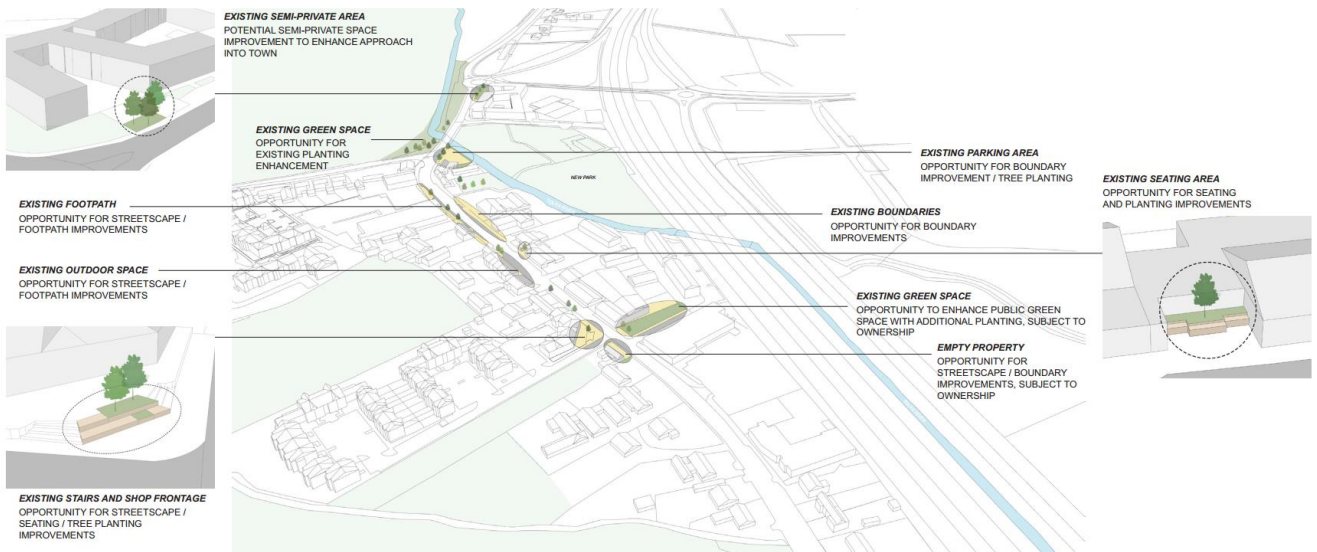


Figure 10-3 – Proposed Public Realm Plan in Clonee Town Centre

11. Next Steps

The next steps to be undertaken will be to review and respond to submissions made as part of this Public Consultation process and update the Emerging Preferred Options accordingly.

The documents required to satisfy the NTA Project Appraisal Guidelines will then be prepared and finalised to gain approval of the Preferred Options through the Phase 2 Stage Gate.

Phase 3 Preliminary Design will then be commenced. Once an Emerging Preferred Scheme Design has been completed, once again a non-statutory Public Consultation process will be undertaken. A review and response to submissions made as part of that Public Consultation process will be undertaken and Emerging Preferred Scheme Design will be updated accordingly.

The documents required to satisfy the NTA Project Appraisal Guidelines will then be prepared and finalised to gain approval of the Preferred Scheme Design through the Phase 3 Stage Gate.

Phase 4 Statutory Process will then be commenced. The required plans and documents to support a Part 8 Approval Process will be prepared. These will be approved by MCC and NTA and an application submitted on a statutory Public Consultation process commenced. A review and response to submissions made as part of that Public Consultation process will be undertaken and any necessary amendments to the Proposed Scheme will be updated accordingly. The Proposed Scheme will then be voted on by the Elected Members of the Ratoath Municipal District.

The documents required to satisfy the NTA Project Appraisal Guidelines will then be prepared and finalised to gain approval of the Preferred Scheme Design through the Phase 3 Stage Gate.

A diagram of the above next steps is presented below.

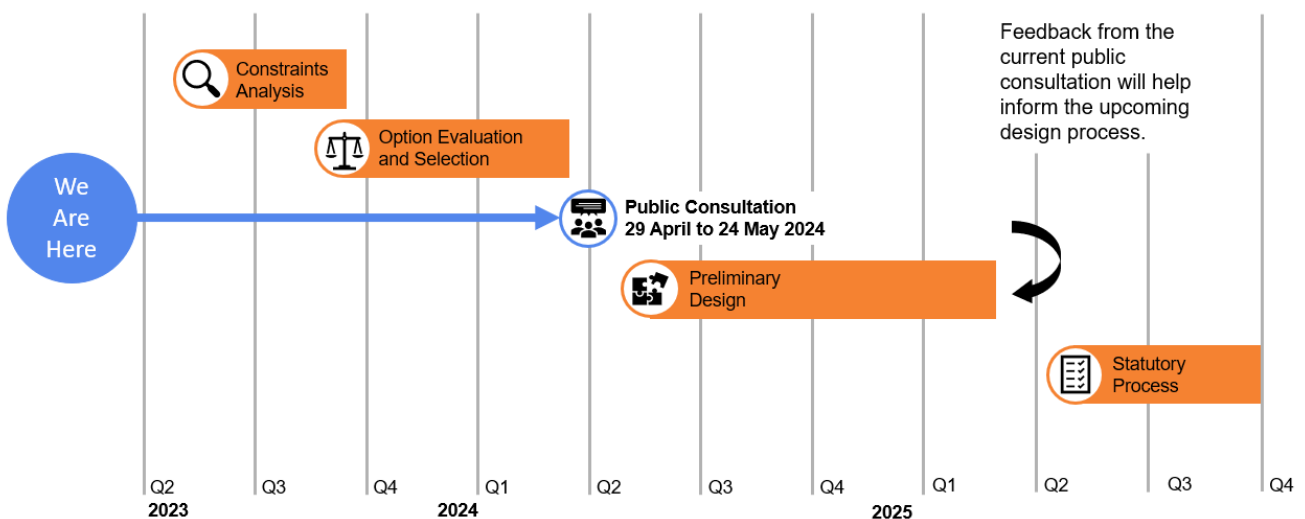


Figure 11-1 – Next Steps



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