

Proposed Quinn's Cross to Raheen Roundabout Cycle Scheme, Raheen, Co. Limerick



Biodiversity Management Plan

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1. INTRODUCTION

The current report provides recommendations to enhance biodiversity along the Raheen Cycle Scheme, Limerick, Co. Limerick. The proposed development is located on the R510 between Quinn's Cross and Raheen Roundabout. The proposal comprises reducing the current width of the existing road carriageway and the construction of off-road cycle tracks along the route, with raised toucan crossings and entrances along the road where required.

The site was first visited in early 2021. This site visit was to inform a Screening for Appropriate Assessment report (Ecofact, 2022a) and a Screening for Environmental Impact Assessment (EIAR) (Ecofact, 2022b). The Screening for Appropriate Assessment concluded that a Natura Impact Statement was not required. The Screening for EIAR concluded a full EIAR was not required. During these surveys some features of ecological importance were identified. These will be discussed below in this report and measures will be provided to protect and enhance them. This is an urban area with overall low ecological sensitivity. Nonetheless, steps can be taken to protect what is there and enhance biodiversity.





 Raheen Cycle Tracks Site Boundary	Date: 2.2.2021	Drawn by: Amy Butler Checked by: William O'Connor
	Location of Proposed Raheen Cycle Tracks Project in Limerick, Co. Limerick	

Figure 1 Location of Proposed Raheen Cycle Tracks Project in Limerick, Co. Limerick



2. PROJECT DESCRIPTION

2.1 Project Characteristics

The proposed cycle scheme is located Gouldavoher in the Raheen/Dooradoyle area. The Raheen/Dooradoyle area is a large residential area in the southwest suburbs of Limerick City. There are also a number of commercial facilities in the area including Raheen Business Park and Courtfield and Racefield Shopping Centres. There are educational facilities at St. Nessian's National School on the R510 and St. Paul's National School on St. Nessian's Road.

The proposed development site comprises the road corridor along the existing R510 regional road between Quinn's Cross and Raheen Roundabout, approximately 1.1km in length. The proposed section of the R510 is currently considered to be unsafe for cyclists and has a lack of cycle facilities. Traffic volumes at this site are high and there are multiple vehicular accesses which are designed to prioritise motorised vehicles along the proposed stretch of the road. Wide carriageway approach widths, large junction radii and wide circulating carriageway are resulting in high vehicular speeds and vulnerable road user movements.

Raheen roundabout is a busy junction with 4 arms, each with a single lane exit and 2 lanes (flared or full) approaching the roundabout. There are uncontrolled, sub-standard pedestrian crossings on each arm. The proposed development involves improved pedestrian crossings at the roundabout arms. A 4m wide zebra crossing will be located between the roundabout and Courtfield Shopping Center on the R510. The proposed off-road cycle tracks on the R510 will be tied into the roundabout pedestrian crossings. The mainline of the R510 between Quinn's Cross and the Raheen Road Roundabout has an average carriage width of 9m, with 2x2m wide footpaths at either side. The proposal for the mainline is to reduce the carriage width to a 6.2m with 2m wide footpaths on either side and construct off-road cycle tracks on either side of a minimum of 2m wide between the footpath and the carriageway. Sections of on-road cycle tracks will be included at junctions / entrances along the route along with raised toucan crossings and raised entry treatment. There will also be pedestrian and cyclist links from adjacent residential areas such as Blackthorn Housing Estate and Church road to the proposed scheme. Some vegetation removal along the route is proposed to facilitate the proposed development, including trees at the north side of the road at Blackthorns Estate and at Oakfield Estate (new trees will be planted in these areas), and two mature trees on the south side between St. Nessian's National School and Mungret Gate Housing Development. There are existing cycle tracks on the roundabout at Quinn's Cross. The proposed cycle tracks on the R510 will tie into the existing roundabout tracks with a 2-way cyclist link to the Fr. Russell Road and it is not proposed to change the existing layout of Quinn's Cross Roundabout.

A landscaping plan has been designed for the proposed development by Limerick City and County Council (2022). The plan is detailed by the following drawings: LP 02, LP 03 and LP 04. The lawns on the site will consist of dwarf rye grass (50%), stone creeping red fescue (45%) and chewings fescue (5%). Native hedgerow planting is also going to take place. These will be planted on a low mound in a double staggered row. There will be a post and wire fence at the centre. Specimen tree planting will also occur along the route consisting of several native features. There will be 7 specimen trees. There are 7 areas of wildflower meadow to be planted. Blub planting will also take place along with native woodland planting. All species used will be native and promote biodiversity.



2.2 Ecological Receptors

The proposed development is located along an existing busy road (R510) in a built-up, residential area. The development will be used for transport purposes and is currently not of particular value for any other specific purposes. There are several trees located along the road, 24 of which will be removed. There will also likely be some scrub clearance and soil disturbance as part of the proposed works. The land cover of the proposed cycle tracks will be minor and, as mentioned, will be alongside existing urban and transport infrastructure. The site is not of particular ecological importance.

The trees at the site are mostly immature trees, planted along the roadside which are of little ecological significance given the urban setting and disturbance levels. A dedicated tree survey of the trees to be removed was carried out in February 2022 (Ecofact, 2022c). This survey was carried out to identify the potential for roosting bats on the site. It was found that the vast majority of trees showed no potential except for one large Horse-chestnut tree. This tree was not in good condition with flaking bark and several cracks which provide potential resting places and roosting opportunities for bats. This tree did have potential for roosting bats. It is noted that due to current disturbance levels in the immediate vicinity and surrounding area of this tree, the potential for it to be used by bats is somewhat decreased.

Despite the trees having low potential for bats, there is some potential for nesting birds. There is also the potential for birds to nest in the scrub onsite.

3. RECOMENDATIONS

The proposed development area is of low ecological value. Nonetheless, measures can be taken to preserve the current ecological receptors at the site and to increase biodiversity in the operational phase. The Landscape Plan has been incorporated into these recommendations. The following recommendations are proposed to achieve this.

- **Bats:** An emergence/activity survey for bats will be carried out at the site during the 2022 activity season. This is a precautionary survey as it is considered the site has low suitability for bats. This will confirm whether bats are using large Horse-chestnut tree onsite. This tree has the potential for roosting bats. Tree-felling works for this tree will be undertaken in the period late August to late October / early November when bats (young and old) are capable of flight but not yet in hibernation. Any tree felling should follow the National Roads Authority's '*Guidelines for the Treatment of Bats during the Construction of National Road Schemes*' (NRA, 2006). Where lighting is necessary, following Bat Conservation Ireland's *Bats & Lighting: Guidance Notes for Planners, Engineers, Architects and Developers* (2010). Light spill should be minimised by using shields, masking or louvres. Light columns being kept as low as possible. Mercury or metal halide lamps being avoided as these have a greater impact on bats, as they attract high levels of insects. Low pressure sodium lights have a minimal effect on bats and therefore would be preferred. Works will be undertaken during daylight hours to avoid disturbance to any bats in the local area. There are 10 bat boxes proposed in the Landscape Plan for the site. The proposed locations of these will need to be assessed by a suitably qualified ecologist prior to placement.
- **Birds:** A bird survey should be carried out during the bird nesting season to identify any areas of high importance. Birds may nest in the trees and shrub onsite however this is unlikely to be an important site for nesting birds. Any site clearance works will be undertaken outside of the



bird nesting season (1st of March to the 31st of August) as there is the potential for bird species to use the site for nesting. There are 13 bird boxes proposed as part of the Landscape Plan. The proposed locations of these will need to be assessed by a suitably qualified ecologist prior to placement.

- ***Landscaping:*** Landscaping on the site should follow the All-Ireland Pollinator Plan 2021-2025. In line with this, artificial fertilizer use should be minimised and pesticide inputs reduced. Where possible native hedgerows should be maintained. Wildflowers should be allowed to grow, and only native species used in any additional planting. Unwanted non-native species on the site should only be removed using organic or manual means. A Landscaping plan has been completed for the proposed development and should be followed. It is considered that once completed the biodiversity on the site will be increased. The site will also likely be of more use to pollinators, small mammals and birds.



REFERENCES

All-Ireland Pollinator Plan 2021-2025. National Biodiversity Data Centre Series No. 25, Waterford. March 2021.

Bat Conservation Ireland (2010). Bats & Lighting: Guidance Notes for Planners, Engineers, Architects and Developers.

https://www.batconservationireland.org/wp-content/uploads/2013/09/BCIrelandGuidelines_Lighting.pdf

NRA (2006). Guidelines for the Treatment of Bats during the Construction of National Road Schemes. National Roads Authority.

<https://www.tii.ie/tii-library/environment/construction-guidelines/Guidelines-for-the-Treatment-of-Bats-during-the-Construction-of-National-Road-Schemes.pdf>

Ecofact (2021a) Screening for Appropriate Assessment: Quinn's Cross to Raheen Roundabout Cycle Scheme, Raheen, Co. Limerick

Ecofact (2021b) Screening for Environmental Impact Assessment: Quinn's Cross to Raheen Roundabout Cycle Scheme, Raheen, Co. Limerick

Ecofact (2021c) Tree Roost Survey Report: Quinn's Cross to Raheen Roundabout Cycle Scheme, Raheen, Co. Limerick

Limerick City and County Council (2022). Landscape Plan Drawings LP 02, LP 03 and LP 04.



PLATES



Plate 1 A line of immature trees, opposite the South Court Hotel at Raheen Roundabout to be removed, to facilitate corridor widening. These will be replaced with bulb planting.



Plate 2 Mature Horse-chestnut tree just south of Mungret Gate entrance to be removed.



Plate 3 Area near Quinn's roundabout where native wildflower meadow will be planted as well as a specimen tree.