Contents

2. THE NEED FOR THE PROJECT AND ASSESSMENT OF ALTERNATIVES

2.1 INTRODUCTION

The proposed route of the Limerick City Greenway (UL to NTP) is located along the banks of the River Shannon from the bridge on the River Groody, running along the southern bank of the River Shannon, passing through University of Limerick, and along University Road and McLaughlan Road to Plassey Park Road. It is centred around the University of Limerick (UL) campus grounds and the National Technology Park (NTP) in Limerick.

The proposed Greenway is indicated in Figure 2.1. The proposed Limerick City Greenway (University of Limerick (UL) to National Technology Park (NTP)) will be 4.25km long and will consist of a 3.3km long and 3.0-4.0m wide shared path on existing paths or in green fields, and 0.9km of separated 1.8m wide footpaths and 1.8-2.0m wide cycle lanes alongside the eastern and western sides of University Road and McLaughlan Road. The proposed Greenway will extend between the River Goody bridge and Plassey Park Road. The area lies within the River Shannon Catchment.

The proposed Greenway will form an extension to the already constructed Limerick Smarter Travel (LST), Route 2, which involved an upgrade of an existing pathway, 1.5km in length between University of Limerick and the Guinness Bridge. This proposed Greenway will extend that route eastwards to improve the accessibility to the riverside and to increase the number of people using sustainable transport to commute between Limerick City, UL, and the NTP.

This chapter addresses alternatives while taking into consideration the legislative and guidance requirements, under the following headings:

- "Do Nothing" Alternative;
- Preferred route; and
- Alternative route options.

Each of these are addressed in the Section 2.4 in this chapter.

2.1.1 Physical Characteristics of Site and Surrounding Lands

The area for the proposed works is located in County Limerick, encompassing the northern banks of the Lower River Shannon, the UL campus, and the NTP.

The major settlement within the area is Castletroy. Castletroy is located within the eastern environs of Limerick City, approximately 3km from Limerick City Centre. The University and the National Technology Park (NTP) are also located in the Castletroy area.

The proposed works lie within an area of existing pathway for part of the route while the reminder lies within amenity and agricultural areas adjacent to the River Shannon, and along the existing University Road and McLaughlan Road. The surrounding area is a mixture of built land in the form of private dwellings, educational buildings, recreational, industrial areas and agricultural fields.

The proposed Greenway is directly adjacent to and within the Lower River Shannon SAC (002165). Approximately 4km downstream from where the proposed works will take place lies the River Shannon and River Fergus Estuaries SPA (004077). Further details regarding the designated areas are provided in Chapter 6 Biodiversity of this EIAR.

The Zone of Influence of the proposed works for the Greenway is specific to the type of environmental assessment being undertaken. The study area is centred around Castletroy, specifically the UL Campus and the NTP. Following a detailed and comprehensive consideration of options for alternative routes, the preferred route was selected based on potential impacts, mainly on biodiversity and water resulting from the proposed development, whereas other assessments included the visual envelope of the project and the impact on cultural heritage, landscape and visual environment, as well as on the population as beneficiary of the proposed Greenway.

Refer to Figure 2.1 for the Site Boundary.

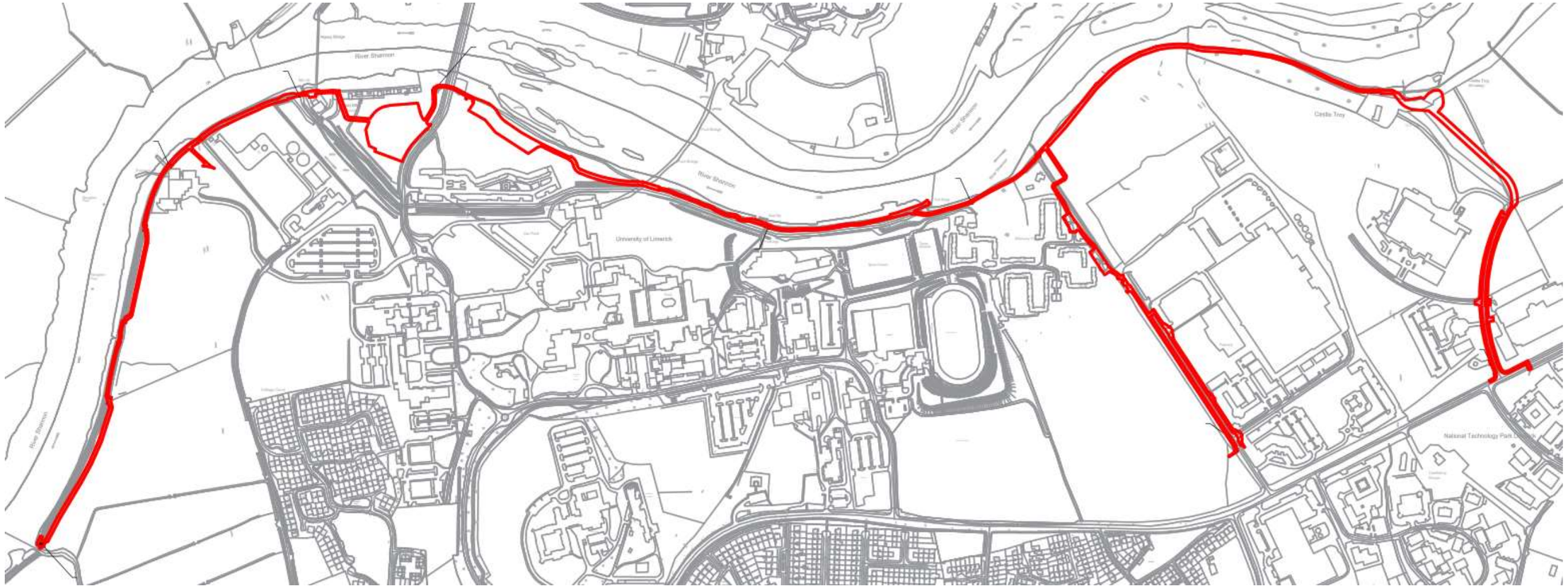

Figure 2.1: Site boundary

2.1.2 Limerick Smarter Travel Project

Limerick City was awarded the title of Ireland's first Smarter Travel Demonstration City in a national competition funded by the Department of Transport, Tourism and Sport (DTT&S) and co-funded by the European Regional Development Fund (ERDF) under the Southern & Eastern Regional Assembly (SERA) Operational Programme 2007-2013. The initiative was run between 2012 and 2016 in partnership with University of Limerick. €9 million was awarded for the project which saw a host of infrastructural and behavioural change measures being rolled out in the four project area hubs. The four hubs were:

- The City centre;
- Castletroy (including the University and the National Technology Park);
- Regeneration area of Southill (including a large inner-city community and an extensive employment centre, including light industry); and,
- Corbally (made up of a largely suburban community, separated from the city by two river crossings and restricted road capacity).

The main objective of the Limerick Smarter Travel (LST) Project was to connect four hubs in Limerick City and its suburbs by the development and promotion of sustainable modes of transport for those living, working, and studying in these areas, to provide direct, safe, and enjoyable walking and cycling routes. The Limerick City Greenway (UL to NTP) is part of the Castletroy hub in the LST initiative and will form an extension to the already constructed LST, Route 2.

2.2 Need for the Proposed Development

The proposed Greenway aligns with the objectives of European, national, regional, and local mobility strategies by becoming a corridor for non-motorised travels, integrating both environment and quality of life of the surrounding area by providing zero-emissions mobility paths as well as safe and efficient connectivity for Limerick City Metropolitan Area, its towns and villages.

The Greenway will be a part of LCCC's growing urban and suburban cycle networks and the proposed Castletroy Cycle Network as outlined in the Limerick Metropolitan Cycle Network Study (LMCNS), facilitating and maximising commuting, tourist, recreational and leisure trips. It will offer a choice for a more sustainable transport alternative while aiding social integration, economic growth, and environmental sustainability.

As part of a sustainable mobility scheme, the proposed Greenway can bring benefits to the community, health, and environment through:

- **Connectivity**, connecting main towns and villages via coherent and joined-up networks.
- **Health**, reducing air pollution and increase activity levels by encouraging modal shift away from traditional and less sustainable transportation.
- **Safety**, improving actual and perceived safety for those walking, wheeling, and cycling and create safe routes for travelling.
- **Reduced air pollution**, shifting to less car driven journeys and more walking, wheeling, cycling and public transport that are important in tackling air pollution and its negative health impacts.
- **Reducing carbon emissions**, helping reach net-zero carbon goals since changing to active travel can have significant lifecycle carbon emission benefits.

The proposed work aligns with strategic planning and development policies and encourages the development of safe and efficient movement and accessibility network that will cater for the needs of all users and to encourage priority for walking and cycling, delivering significant modal shift to more sustainable transport modes.

2.3 Project Design Process

The design process comprises a number of steps involving co-ordination of project engineering and environmental teams. The following steps have been completed in the design and assessment process:

- Preliminary Site Investigation;
- Preliminary Design;
- Constraints Study;
- Selection of Preferred Option;
- Appropriate Assessment Screening; and
- Environmental Impact Assessment.

The outcomes of the above assessments are discussed below and within the various relevant EIAR chapters in this document.

2.4 Consideration of Reasonable Alternatives

2.4.1 Overview

This section provides a comprehensive analysis of alternatives which have been considered for meeting the objective of becoming a connecting Greenway, that is technologically, socially, environmentally, and economically acceptable while becoming part of Ireland's growing national and regional cycle/greenway routes. This was undertaken in accordance with Annex IV of the EIA Directive as amended 2014/52/EU.

Annex IV (2) of the EIA Directive as amended by Directive 2014/52/EU states that the information provided in an Environmental Impact Assessment Report (EIAR) should include *"a description of the reasonable alternatives (for example in terms of project design, technology, location, size and scale) studied by the developer, which are relevant to the proposed project and its specific characteristics, and an indication of the main reasons for selecting the chosen option, including a comparison of the environmental effects"*.

The primary obligation under Article 5(1)(d) of the EIA Directive is upon the developer to provide a description of the 'reasonable alternatives' considered in the course of the application process. In this regard, the Directive states as follows: *"(d) a description of the reasonable alternatives studied by the developer, which are relevant to the project and its specific characteristics, and an indication of the main reasons for the option chosen, taking into account the effects of the project on the environment;*

This section of the EIAR contains a description of the reasonable alternatives that were considered for the proposed Greenway in terms of route options as well as site layout. This section also outlines the design considerations in relation to the Greenway, including all associated works such as the Greenway composition, along with the necessary drainage, bridges, platforms to facilitate the Greenway. It indicates the main reasons for selecting the chosen option with regards to its environmental impacts.

The presentation and consideration of various alternatives investigated by the project design team is an important requirement of the EIA process. The consideration of alternatives is an effective means of avoiding

environmental impacts. As set out in the '*Guidelines on The Information to be Contained in Environmental Impact Assessment Reports*' (Environmental Protection Agency, 2022): *"The objective is for the developer to present a representative range of the practicable alternatives considered. The alternatives should be described with 'an indication of the main reasons for selecting the chosen option'. It is generally sufficient to provide a broad description of each main alternative and the key issues associated with each, showing how environmental considerations were taken into account is deciding on the selected option. A detailed assessment (or 'mini-EIA') of each alternative is not required."*

It is important to acknowledge that although the consideration of alternatives is an effective means of avoiding environmental impacts, there are the existence of other non-environmental factors to consider when considering alternatives. These include non-environmental factors and site-specific issues as outlined below.

Non-environmental Factors

EIA is confined to the potential significant environmental effects that influence consideration of alternatives. However, other non-environmental factors may have equal or overriding importance to the developer of a project, for example project economics, land availability, engineering feasibility, social considerations or planning considerations.

Site-specific Issues

The EPA guidelines state that the consideration of alternatives also needs to be set within the parameters of the availability of the land, i.e. the site may be the only suitable land available to the developer, or the need for the project to accommodate demands or opportunities that are site-specific. Such considerations should be on the basis of alternatives within a site, for example design and layout.

2.4.2 Guidance on Methodology

The EU Guidance Document (EU, 2017) on the preparation of EIAR outlines the requirements of the EIA Directive and states that, in order to address the assessment of reasonable alternatives, the Developer needs to provide the following:

- A description of the reasonable alternatives studied; and
- An indication of the main reasons for selecting the chosen option with regards to their environmental impacts.

There is limited European and National guidance on what constitutes a '*reasonable alternative*' however the EU Guidance Document (EU, 2017) states that reasonable alternatives "*must be relevant to the proposed project and its specific characteristics*".

The guidance also acknowledges that "the selection of alternatives is limited in terms of feasibility. On the one hand, an alternative should not be ruled out simply because it would cause inconvenience or cost to the Developer. At the same time, if an alternative is very expensive or technically or legally difficult, it would be unreasonable to consider it to be a feasible alternative".

The current EPA Guidelines (EPA, 2022) state that "It is generally sufficient to provide a broad description of each main alternative and the key issues associated with each, showing how environmental considerations were taken into account in deciding on the selected option. A detailed assessment (or 'mini-EIA') of each alternative is not required."

Consequently, taking into account the guidance and complying with the EIA Directive requirements, this chapter addresses alternatives from an Environmental perspective in the following sections.

2.4.3 Route Identification

Various route options were considered for the proposed Greenway taking into account a number of engineering and environmental measures:

- Existing infrastructure;
- Water courses and flooding;
- Ecology;
- Heritage;
- Flood Risk;
- Design Elements;
- Construction Constraints;
- Safety; and
- Cost estimates.

The existing paths in the study area are illustrated in Figure 2.2.

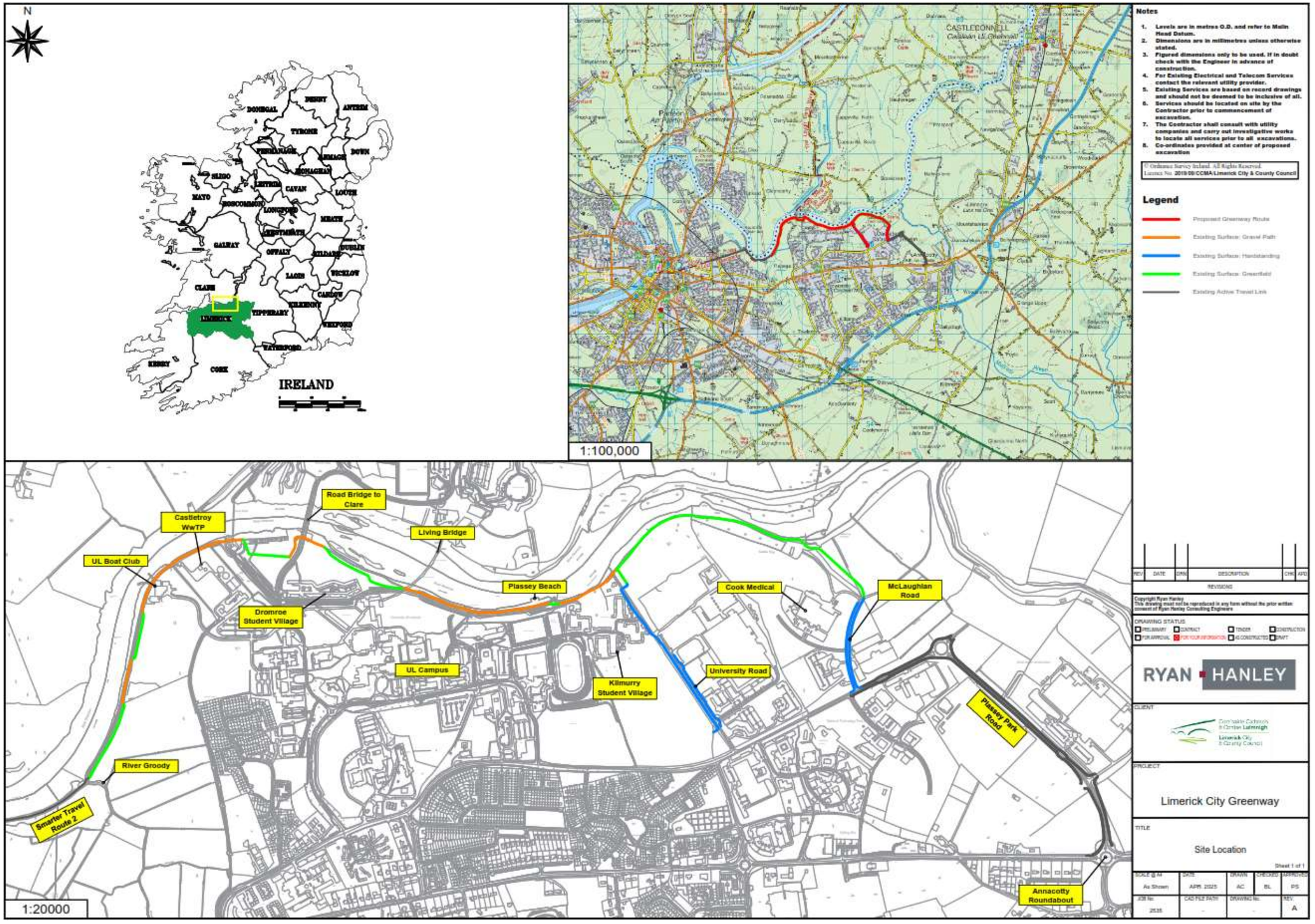

Figure 2.2: Existing paths and roads in UL and the NTP, and green fields

2.4.4 Alternatives

Three possible scenarios were considered when determining the design of Greenway; namely "Do Nothing" scenario, a preferred route, and alternative route options.

2.4.4.1 Do Nothing

The option assessment considered this solution unfavourable since even though if the works are not carried out there would be no negative impacts on the natural surroundings (biodiversity, soils, water, etc.), this would lead to a lack of fulfilment of the proposed objectives in the Limerick Smart Travel Project, slowing down the shift towards more sustainable travel modes.

If the proposed works are not implemented, the environmental, social and economic benefits resulting from the Greenway won't reach the beneficiary community that would make use of it, increasing impacts such as traffic congestion, air pollution, increased greenhouse gases emissions and reduced connectivity between the key hubs of Limerick City.

The "do-nothing" scenario was considered to represent an inappropriate and inefficient use of the path; particularly having regard to the opportunity to provide the much-needed connectivity for Limerick City Metropolitan Area.

2.4.4.2 Preferred Route

One of the primary objectives of this project is to improve comfort, safety and security for walkers and cyclists who travel between Limerick city, the University of Limerick, and the National Technology Park, and to encourage an increase in sustainable travel. This was the basis for the selection of the proposed route. Chainage references relate to the Preliminary Design Drawings.

The preferred proposed is described and illustrated in greater detail in Chapter 4 of this EIAr and a summary is provided in this section.

The proposed route commences west from the existing River Groody bridge at the confluence of the River Groody with the River Shannon (CH 0). The proposed Greenway route will run adjacent to an existing narrow walking track along the southern bank of the River Shannon. The proposed Greenway will rejoin this existing Active Travel path where it is 3.5m wide and will cross an existing bridge (CH 400). A new steel parapet will be installed above the low stone parapet on this existing bridge to replace the existing parapet which currently narrows the bridge.

The route will pass by the UL Boat Club and extend eastwards to an existing concrete bridge which will be replaced by a 4.8m long steel bridge (Bridge No. 1 @ CH 795). A new 9.6m long steel and concrete bridge will be constructed alongside an existing stone bridge (Bridge No. 2 @ CH 970). The existing bridge across the Plassey Mill race will be replaced with a new 5.4m long steel bridge (Bridge No. 3 @ CH 1000) and an amenity space is proposed adjacent to the Plassey Mill (CH 1010). Access for a future connection to the Blackbridge across the River Shannon to Co. Clare will be provided. The existing bridge across the overspill for the Plassey Mill race will be replaced with a new 5.1m long steel bridge (Bridge 4 @ CH 1050).

The route turns southeast and will continue behind a collection of fishing huts and crosses a section of mixed broadleaved woodland and amenity grassland (approx. CH 1050 – CH 1250). The proposed route will replace an existing gravel path going north towards Drumroe Village University Bridge and turn east to continue along the River Shannon past the Drumroe Student Village. The proposed Greenway route will

replace the existing gravel path, pass under the Living bridge (CH 1650), and meander between the River Shannon and the Plassey Mill race to avoid mature trees (wherever possible) until it reaches Plassey Beach.

A 12.8m long steel bridge is proposed to replace the existing concrete bridge at the mouth of the Plassey Mill race (CH-2200 – CH-2245). This new bridge will facilitate wheelchair users and cyclists to cross the Plassey Mill race whereas the existing bridge is narrow and has steps. There will be a new ramp for people to walk down, wheelchair users and buggies/children's scooters from the proposed Greenway to Plassey Beach providing an amenity that provides access to all. There will be new seating and planting areas provided at the beach.

The proposed Greenway route then passes north of Kilmurray Student Village and reaches a junction (CH 2250). The route south provides access to University Road and to Plassey Park road. The proposed Greenway runs south past the eastern boundary of the Kilmurray Student Village and crosses the entrances to Kilmurry Village and the UL Gaelic grounds. At this point the shared 3.5m wide greenway changes to separate cycle lanes and footpaths along the eastern and western sides of University Road and will connect to existing cycle lanes and footpaths on Plassey Park Road.

The proposed Greenway continues route east at (CH 2250) and traverses amenity grassland and scrub areas where there is an unpaved desire line before turning south (CH 3100) to traverse more grassland and scrub areas, then turns south to join connect to McLaughlan Road in the NTP at CH 3500. This section of the route is subject to extensive flooding because it lies within Flood Zone A, so drainage along and under the Greenway has been designed to ensure the path can be utilised as soon as possible after flooding events.

The proposed 3.5m wide shared greenway changes to separate cycle lanes and footpaths along the eastern and western sides of McLaughlan Road and will connect to existing cycle lanes and footpaths on Plassey Park Road. An existing raised table on Plassey Park Road close to the junction with McLaughlan Road will be converted to a 6m long Toucan crossing to prioritise crossings for pedestrians and cyclists.

The route includes new amenity spaces at the following locations:

- At the Plassey Mill (approx. CH 1010)
- Near Plassey Beach (approx. CH 2200)

CFRAM flood mapping and anecdotal evidence confirms part of the proposed route between CH 2500 – CH 3500 will be subject to low probability (1 in 1000 year), medium probability (1 in 100 year) and high probability (1 in 10 year) flooding events. This is also the only section of the route which lies within Flood Zone A.

There will be tree planning at the following locations:

- CH 770 east of UL Boat Club,
- CH 1200 behind the Fisherman cottages,
- CH 1400-1520 north of the UL campus,
- CH 2105-2175 at Plassey Beach, and,
- CH 3190-3450 east of Cook Medical campus,

2.4.4.3 Alternative Route Options

Alternative route options include the use of different links as substitutes to sections of the proposed route as described above. The number of alternative routes is severely limited because the River Shannon is to the north of the proposed Greenway, and the UL campus is to the south. There are existing roads and paths in the campus but not one that runs east to west to match the length of the existing riverside path between the River Groody Bridge and east of Kilmurry Student Village.

The following have been under consideration for inclusion as part of the Greenway.

Link A

At the Mill Race east of Plassey Mills the route would turn south-east towards the UL campus, running along the route of the Mill Race. As the route crosses the UL campus, it briefly crosses onto an existing tarred route before continuing through a greenfield site and passing beneath the Living Bridge. The route passes Plassey House and the UL hockey pitches before rejoining the riverbank track.

Link G

Link G would divert from the proposed route east of Troy Castle (approx. CH 3190) and continue along the banks of the River Shannon until it reached the confluence with the River Mulkear. It would turn towards the River Mulkear and continues along its western bank until it reached the UL Bohemians Rugby Football Club. It would continue round northern and western boundary of the rugby club sports fields and extend down Mulcair Drive.

Link C

Link C would divert from Link G alongside the River Mulkear and provide a direct access to Plassey Park Road. Link C would traverse a greenfield site before joining an unfinished section of road where the route would run along an existing footpath and grass verge.

Link E

Link E is an alternative to Link C. Link E would divert from Link G along the River Mulkear and provides a connection to Plassey Park Road. Link E would cross a greenfield site and connect to Plassey Park Road but it would run through a large multinational commercial campus (i.e., Johnson & Johnsons Vision Care).

Link F

Link F would start from Link G and run southwest to the Johnson & Johnsons Vision Care campus at the south-western boundary of the UL Bohemians Rugby Football Club. Link F would connect to Plassey Park Road.

The proposed greenway route and the alternate links are illustrated in Figure 2.3.

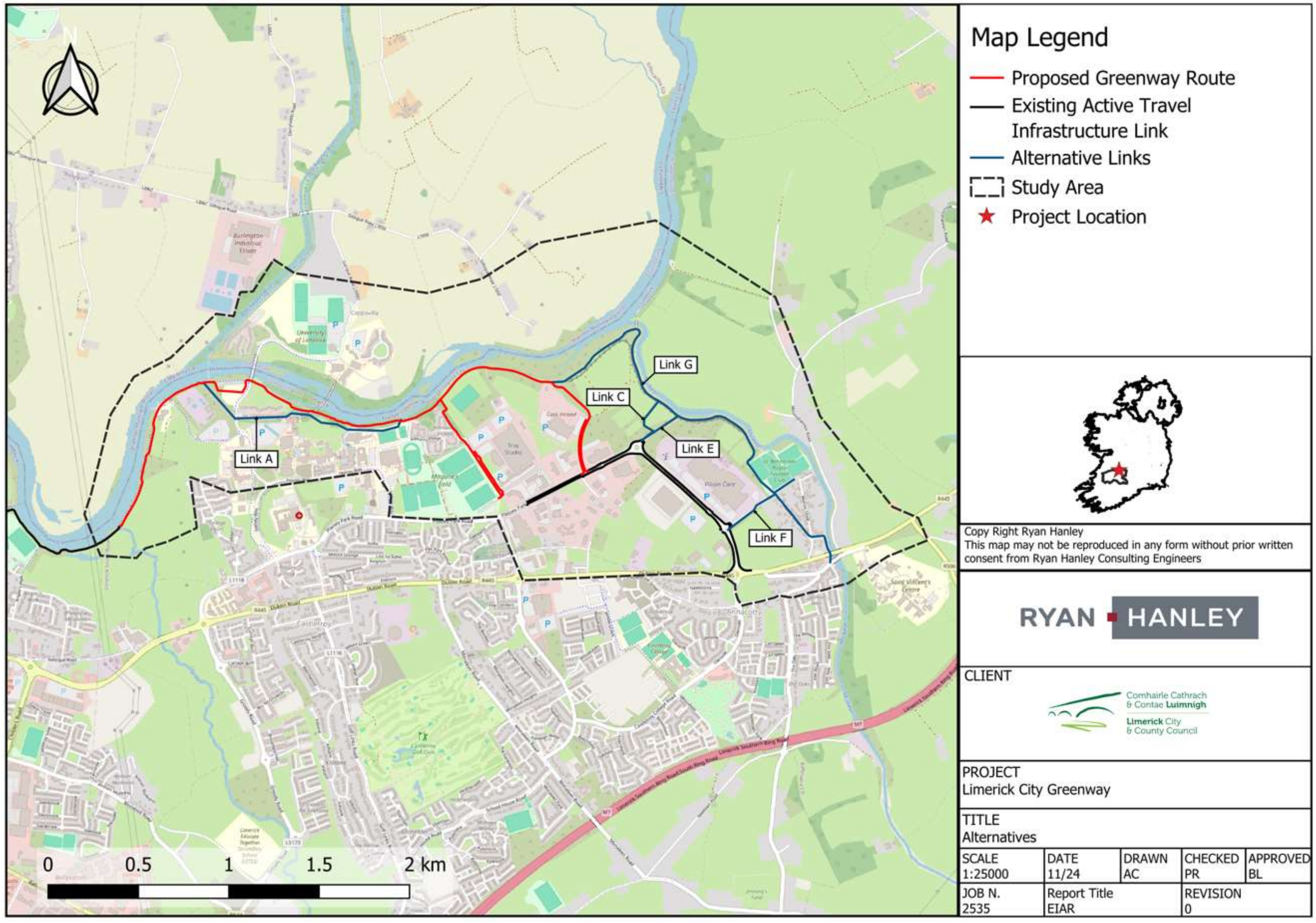

Figure 2.3: Route alternatives considered for the Greenway

2.4.5 Options Appraisal

The following table compares the proposed route against the alternative Links that were considered for the Greenway.

Table 2. 1 Summary of Options

	Preferred route	Alternative route comprised of Link A and Link G
General overview	The proposed route commences east of an existing bridge over the River Groody and runs along an existing gravel path alongside the River Shannon. East of Kilmurray Student Village in UL, the proposed greenway will be constructed on grassland. The proposed greenway will connect via University Road and McLaughlan Road to Plassey Park Road. The project will include new amenity spaces; public lighting, seating, bike racks, wayfinding signage, and information boards.	The alternative greenway route would start at the River Groody until it meets the Plassey Mill Race. Link A would follow the Mill Race through the UL campus and would rejoin the preferred route west of Plassey Beach. The alternative greenway route would follow the same path as the preferred route until the turn south to McLaughlan Road. Link G would continue east along the banks of the River Shannon and turn south-east at the confluence of the River Mulcair with the River Shannon. Link G would continue along the banks of the River Mulkear, through the UL Bohemians RFC club grounds, and along Mulcair Drive. Link C, Link E and Link F are not considered in this assessment because they provide connections between Plassey Park Road and Link G. They have also been excluded from the cost estimate provided in this table below.
Technical viability	This option is technically viable. Several potential access routes have been identified for construction purposes. Space limitations are not an issue to reach the extents of the Greenway. Site compounds will be placed at suitable locations along the construction site.	This option is technically viable but some of the links cannot be constructed due to land unavailability, flooding risk, and safety in relation to proposed construction or commercial activities.
Social acceptability	The preferred Greenway route is a benefit for the community, providing a means to achieve better physical and mental health. It would become an alternative transport mode for cyclists and pedestrians for various purposes such as work, study, tourism, leisure, and recreation.	The alternative route is a benefit for the community, providing a means to achieve better physical and mental health. It would become a transport mode for cyclists and pedestrians for various purposes such as work, study, tourism, leisure, and recreation.

	Preferred route	Alternative route comprised of Link A and Link G
	The proposed Greenway route will further improve connectivity between Limerick city and the suburbs. The preferred Greenway route runs along the River Shannon which would be a favored route by cyclists and pedestrians and links to existing paths along the route.	The alternative Greenway route will further improve connectivity between Limerick city and the suburbs The alternative Greenway Link A would run through the UL campus with busy roads, providing a safety risk for pedestrians and cyclists, not just for Greenway users but for students and staff in the UL Campus. The alternative Greenway Link G would run along the banks of the River Mulcair in Flood Risk Zone A which is predicted to flood at 1 in 10 yearly intervals which would close the route for periods until water levels subside. This may lead to negative social commentary.
Environmental viability	No significant impacts are anticipated, and mitigation measures to maintain drainage, provide biodiversity, and promote habitats will be put in place.	The alternative route has higher potential impact on key ecological receptors because it runs along the River Mulkear where more habitats and species would be disturbed than the preferred route.
Economic viability	The construction cost estimate for the preferred Greenway route excluding land acquisition is €10.5M.	The construction cost estimate for the alternative Greenway route excluding land acquisition is €14.5M. The difference is the addition of Link G.

2.4.5.1 Multi Criteria Analysis

Multi Criteria Analysis (MCA) assesses options against an explicit set of objectives. It creates a structured framework for comparing a set of defined options across diverse criteria so that these can be evaluated across a range of priorities and/or values. Using MCA, the proposed and alternative route options have been assessed against technical, social, environmental, and economic criteria. The qualitative analysis is based on a "traffic light" system, according to the criteria in Table 2.2.

Table 2.2 MCA qualitative criteria

Qualitative description	
Meets proposed objective. Potential impacts are low and considered compatible after the implementation of some mitigation measures	
Partially meets objective. Potential impacts can occur and are considered moderate. Needs implementation of proposed mitigation measures	

Does not meet objective. Potential impacts are likely to occur and affect the achievement of the proposed objective. Implementation of mitigation measures, and if applicable, compensation measures, are aimed for long-term recovery	

The MCA for the proposed and alternative route is summarised in Table 2.3. The assessment was undertaken on the basis of potential impacts and achievement of objectives in the absence of design and mitigation measures, which may overcome many of the potential effects identified.

A summary of the assessment is as follows:

- **Environmental**: the links for the alternative route has higher potential for environmental impact, especially Link G along the River Mulcair.
- **Technical:** the alternative route includes links that might result in higher risks during construction and operation of the proposed greenway, due to intersections with areas of higher traffic (Link A).
- **Economic:** the links for the alternative route have a higher surface interference with current utilities within the area (existing Link A, and future Link G areas in a commercial campus), therefore increasing the risk of damaging these infrastructures.
- **Social:** in promoting human health and safety, because of the higher traffic areas that the alternative links run into, the scoring for this aspect is lower than the preferred route.

Table 2.3 MCA Ranking

Parameters Criteria	Objective	Proposed route	Alternative route
Environmental	Minimise the risk for potential sources of environmental pollution		
	Support the objectives of the Habitats Directive		
	Avoid damage to the flora and fauna within the study area		
	Protect the landscape character and visual amenity within the path and its surroundings		
	Avoid damage to or loss of features of cultural heritage		
	Protect soil resources and function		
	Minimise detrimental impact of climate change on the environment resulting from GHG emissions		
Technical	Minimise health and safety risks associated with the construction, operation and use of the Greenway		

Parameters Criteria	Objective	Proposed route	Alternative route
	Ensure the options are aligned with planning objectives		
	Ensure the path options are adaptable to future risks		
Economic	Minimise economic risk		
	Minimise risk to current transport infrastructure		
	Minimise risk to current utility infrastructure		
Social	Promote human health and safety		
	Enhancement of quality of life for the community		
	Enhancement to amenity value of the area		
	Support strategic planning and development objectives towards sustainable transportation		

2.4.6 Mitigation Measures

The best practice design and mitigation measures set out in this EIAR will contribute to reducing any risks associated with the proposed development in this location and have been designed to break the pathway between the site and any identified environmental receptors. The mitigation methods proposed follow the principal of avoidance of impact where possible in the first instance, followed by minimisation of impacts where full avoidance is not possible. The mitigation methods proposed represent industry best practice. Alternative mitigation methods that are not best practice were not considered to be reasonable and were therefore not considered further in the EIAR.

2.4.7 Conclusions and Recommendations

The preferred option put forward in this report, has been selected for several reasons:

- **Safety of Users**: Although the route is within a flood zone, safe access to the route is expected to be maintained throughout the year. Additional safety measures may be required to manage access during flooding, such as the inclusion of lockable gates to prevent access to the route in Flood Risk Zone A located at the junction east of Kilmurray Student Village and where the cycle lane and footpath changes to a shared path at McLaughlan Road. These would prevent access to this section of the proposed Greenway during a flood event.
- **Increased use of Greenway**: The proposed Greenway would provide a more inclusive amenity by making the route more accessible abled and less-abled users between Limerick City, the University

of Limerick, and the National Technology Park. The increased level of connectivity achieved by the Greenway will likely increase the frequency of its use.

- **Enhancement to amenity value of the area**: The preferred route offers the opportunity to showcase a range of the existing views, wildlife and heritage in the area by developing paved areas equipped with amenity service including bicycle racks, benches, and information boards related to the area of interest.
- **Cost**: The cost estimate for construction of the preferred route is less than the cost estimate for the alternative route.
- **Access for Construction**: Access for construction can be achieved for the proposed route using sectional construction areas that are supplied from compounds. Each compound is accessible from public roads thereby providing separation between public side construction vehicles (e.g. delivery trucks) and works side vehicles (e.g. digger, dumper) in the sections.
- **Welfare for Construction**: The contractor will set up welfare facilities in each compound.

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