# Contents

# 11 THE LANDSCAPE

## 11.1 INTRODUCTION

The Landscape and Visual Impact Assessment (LVIA) prepared by CSR was informed by a desktop study and several surveys of the site and receiving environment in February and July 2022 and a final visit in February 2024. The assessment is in accordance with the methodology prescribed in the Guidelines for Landscape and Visual Impact Assessment, 3rd edition, 2013 (GLVIA) published by the UK Landscape Institute and the Institute for Environmental Management and Assessment.

The report identifies and discusses the landscape and visual constraints effects in relation to the proposed development of the site starting at the Groody River bridge, running along the southern bank of the River Shannon, and alongside University Road and McLaughlan Road, to Plassey Park Road.

### 11.1.1 Statement of Authority

This assessment has been carried out by Evelyn Sikora BA, MA, MILI, is a qualified Landscape Architect with a BA degree from Edinburgh College of Art (2006). She also holds a master's degree in planning and Sustainable Development (UCC, 2010) and is a Corporate member of the Irish Landscape Institute. Evelyn has over ten years' experience in Landscape and Visual Assessment (LVIA) and has experience in a range of projects throughout Ireland. These include a number of infrastructural projects including road schemes, flood relief projects, telecommunications, quarry developments, wind farms, solar farms, recreation, residential and commercial development, in both rural and urban contexts.

## 11.2 METHODOLOGY

Ireland is a signatory to the European Landscape Convention (ELC). The ELC defines landscape as 'an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors' (Council of Europe, 2000). This definition is important in that it expands beyond the idea that landscape is only a matter of aesthetics and visual amenity. It encourages a focus on landscape as a resource in its own right - a shared resource providing a complex range of cultural, environmental, and economic benefits to individuals and society.

It is also important to note that this definition of landscape applies not only to all types of rural landscape, marine and coastal landscapes (seascapes) but also to the landscape of villages, towns and cities (Section 2.5, LI, IEMA, 2013 ).

### 11.2.1 Guidance

The *Guidelines for Landscape and Visual Impact Assessment* 2013 (abbreviated to GLVIA 2013 ) notes that as a cultural resource, the landscape functions as the setting for our day-to-day lives, also providing opportunities for recreational and aesthetic enjoyment and inspiration. It contributes to the sense of place experienced by individuals and communities and provides a link to the past as a record of historic socio-economic and environmental conditions. As an environmental resource, the landscape provides habitat for fauna and flora. It receives, stores, conveys, and cleans water, and vegetation in the landscape stores carbon and produces oxygen. As an economic resource, the landscape provides the raw materials and space for the production of food, materials (e.g. timber, aggregates) and energy (e.g. carbon-based fuels, wind, solar), living space and for recreation and tourism activities.

The GLVIA (2013) notes that landscape is not unchanging. Many different pressures have progressively altered familiar landscapes over time and will continue to do so in the future, creating new landscapes. For

example, within the receiving environment, the environs of the proposed development have altered over the last thousand years, from wilderness to agriculture and settlement or townscape .

Many of the drivers for change arise from the requirement for development to meet the needs of a growing population and economy. The concept of sustainable development recognises that change must and will occur to meet the needs of the present, but that it should not compromise the ability of future generations to meet their needs. This involves finding an appropriate balance between economic, social and environmental forces and values.

The reversibility of change is also described as an important consideration. If change must occur to meet a current need, can it be reversed to return the resource (in this case, the landscape) to its previous state to allow for development or management for future needs.

Climate change is one of the major factors likely to bring about future change in the landscape, and it is accepted to be the most serious long-term threat to the natural environment, as well as economic activity (particularly primary production) and society. The need for climate change mitigation and adaptation, which includes the management of water and more extreme weather and rainfall patterns, is part of this.

#### *11.2.1.1 Key Guidance Documents*

Landscape and Visual Impact Assessment (LVIA) is a tool used to identify and assess the significance of and the effects of change resulting from development on both the landscape as an environmental resource in its own right and on people's views and visual amenity.

The methodology for assessment of the landscape and visual effects is informed by the following key guidance documents, namely:

- *Guidelines for Landscape and Visual Impact Assessment, 3rd Edition*. Landscape Institute and the Institute of Environmental Management and Assessment (2013) (hereafter referred to as the GLVIA 2013).
- *Guidelines on the Information to be Contained in Environmental Impact Statements*. (EPA, 2022)

This guidance is authored by the Landscape Institute in the UK and the IEMA, which contains a network of members in UK and Ireland and internationally. The guidance was prepared within the parameters of relevant EU directives at the time and is updated, where necessary, by Landscape Institute bulletins online. The GLIVA 2013 is used internationally and is the industry standard for LVIA in Ireland.

The EPA guidance (2022) refers to the use of topic specific guidance and specifically references the GLVIA 2013 in relation to professional judgement. It recognises (at para 3.72) that:

> "*Some uncertainty is unavoidable in EIA, especially about matters that involve an element of judgement, such as assigning a level of significance to an effect. Such judgements should be explicit and substantiated rather than presented as objective fact. This is best done using agreed referable approaches, e.g. the Guidelines on Landscape and Visual Impacts Assessment provide guidance on what constitutes a severe visual effect*".

References are also made to the '*Landscape and Landscape Assessment – Consultation Draft of Guidelines for Planning Authorities*' document, published in 2000 by the Department of Environment, Heritage and Local Government.

#### *11.2.1.2 Policy Documents*

Other documents referred to include:

- Limerick City and County Development Plan 2022-2028
- Limerick Shannon Metropolitan Area Transport Strategy

### 11.2.2 Landscape and Visual Assessment Process

The GLVIA 2013 outlines the assessment process, which combines judgements on the sensitivity of the resource, and the magnitude of the change as a result of the proposed development. These are then combined to reach an assessment of the significance of the effect.

Another key distinction to make is that in the GLVIA methodology, a distinction is made between landscape effects and the visual effects of a proposed development.

'Landscape' results from the interplay between the physical, natural and cultural components of our surroundings. Different combinations of these elements and their spatial distribution create distinctive character of landscape in different places. 'Landscape character assessment' is the method used in LVIA to describe landscape, and by which to understand the potential effects of a development on the landscape as 'a resource'. Character is not just about the physical elements and features that make up a landscape, but also embraces the aesthetic, perceptual and experiential aspects of landscape that make a place distinctive.

Views and 'visual amenity' refer to the interrelationship between people and the landscape. The GLVIA 2013 prescribes that effects on views and visual amenity should be assessed separately from landscape, although the two topics are inherently linked. Visual assessment is concerned with changes that arise in the composition of available views, the response of people to these changes and the overall effects on the area's visual amenity.

#### *11.2.2.1 Establishment of Baseline*

The process set out in the GLVIA 2013 and in the EPA (2022) involves the preparation of the baseline or receiving environment characteristics. This includes two stages, which are a desk-based study and site visit/field study. These allow the assessor to establish the existing receiving environment and key landscape and visual characteristics and their sensitivities.

<u>The desk-based study includes:</u>

- Review of preliminary proposals and identification of preliminary study area
- Review of current Development Plan(s) within the study area, and any other plans as appropriate, to identify relevant national and local designations and polices.
- This may include designations such as scenic routes, protected views and other landscape designations including any Landscape Character Assessments International designations such as UNESCO designations would also be relevant here, if present.
- Other information that may be consulted include aerial imagery, OSI Discovery series mapping, historic (6-inch and 25 inch) mapping and CORINE Landcover Maps (2018).

A site visit was then carried out to review and confirm the findings of the desk-based study and provide a more detailed description of the landscape and visual character of the study area. Based on both the desk

study and site visit, the assessor identifies landscape and visual receptors and their relative sensitivity. Several site visits were carried out in February and July 2022 and a final visit in February 2024.

#### *11.2.2.2 Assessment of Effect*

Once the Baseline is established, and the proposed development drawings and descriptions reviewed, the assessment process is commenced, as outlined in Section 10-5.

Use of "Impact" and "Effect"

Section 1.16 of the GLVIA (referring to the EIA Directive), advises that the terms 'impact' and effect' should be clearly distinguished and consistently used in the preparation of an LVIA.

'Impact' is defined as the action being taken. In the case of the proposed development, the impact would include the construction of the proposed Greenway and associated works.

'Effect' is defined as the change or changes resulting from those actions, e.g. a change in landscape character, or changes to the composition, character and quality of views in the receiving environment. This report focusses on these effects.

#### *11.2.2.3 Methodology for Landscape Assessment*

In Section 11.5 of this report, the landscape effects of the proposed development are assessed. The nature and scale of changes to the landscape elements and characteristics are identified, and the consequential effect on landscape character and value are discussed. Trends of change in the landscape are taken into account. The assessment of the significance of the effects takes account of the sensitivity of the landscape resource and the magnitude of change to the landscape, which resulted from the proposed development.

Definitions and descriptions of sensitivity, magnitude of change and quality and longevity of effects are derived from the GLVIA (2013). The GLVIA does not set out specific definitions of descriptions used but contains widely used principles and case studies / examples that are intended to inform a professional's methodology, supported by their experience and judgements in relation to landscape and landscape change. These descriptions expand and complement the EPA guidelines as intended, in relation to topic-specific guidance.

Sensitivity of the Landscape Resource

Sensitivity is a combination of Landscape Value and Landscape Sensitivity:

- Landscape values can be identified by the presence of landscape designations or policies, which indicate particular values, either on a national or local level. In addition, a number of criteria are used to assess the value of a landscape. These are described further below, in Section 11.4.9.
- Landscape susceptibility is defined in the GLVIA as, "*the ability of the landscape receptor to accommodate the proposed development without undue consequences for the maintenance of the baseline scenario and/or the achievement of landscape planning policies and strategies.*" Susceptibility is a function of its land use, landscape patterns and scale, visual enclosure and distribution of visual receptors, scope for mitigation, and the value placed on the landscape. Susceptibility also relates to the type of development – a landscape may be highly susceptible to certain types of development but have a low susceptibility to other types of development.

It includes consideration of landscape values as well as the susceptibility of the landscape to change.

With regard to landscape effects, a proposed development has the potential to improve the environment as well as damage it. In certain situations, there might be policy encouraging a type of change in the landscape, and a particular development may achieve this.

Landscape Sensitivity ranges from Low to Very High as outlined in Table 11-1.

**Table 11-1: Categories of Landscape Sensitivity**

| Sensitivity | Description |
|---|---|
| **Very High** | Areas where the landscape exhibits a very strong, positive character with valued elements, features and characteristics that combine to give an experience of unity, richness and harmony. The character of the landscape is such that its capacity for accommodating change in the form of development is very low. These attributes are recognised in landscape policy or designations as being of national or international value and the principal management objective for the area is protection of the existing character from change |
| **High** | Areas where the landscape exhibits strong, positive character with valued elements, features and characteristics. The character of the landscape is such that it has limited/low capacity for accommodating change in the form of development. These attributes are recognised in landscape policy or designations as being of national, regional or county value and the principal management objective for the area is conservation of the existing character. |
| **Medium** | Areas where the landscape has certain valued elements, features or characteristics but where the character is mixed or not particularly strong. The character of the landscape is such that there is some capacity for change in the form of development. These areas may be recognised in landscape policy at local or county level and the principal management objective may be to consolidate landscape character or facilitate appropriate, necessary change |
| **Low** | Areas where the landscape has few valued elements, features or characteristics and the character is weak. The character of the landscape is such that it has capacity for change; where development would make no significant change or would make a positive change. Such landscapes are generally unrecognised in policy and where the principal management objective is to facilitate change through development, repair, restoration or enhancement. |
| **Negligible** | Areas where the landscape exhibits negative character, with no valued elements, features or characteristics. The character of the landscape is such that its capacity for accommodating change is high; where development would make no significant change or would make a positive change. Such landscapes include derelict industrial lands or extraction sites, as well as sites or areas that are designated for a particular type of development. The principal management objective for the area is to facilitate change in the landscape through development, repair or restoration |

*Magnitude of Landscape Change:*

The magnitude of change is a factor of the scale, extent and degree of change imposed on the landscape with reference to its key elements, features and characteristics (also known as 'landscape receptors'). Five categories are used to classify magnitude of landscape change.

For the purpose of assessment, five categories are used to classify the landscape sensitivity of the receiving environment, from Very High sensitivity to Negligible. These categories are defined in Table 11-2.

**Table 11-2: Magnitude of Landscape Change**

| Magnitude of Change | Description |
|---|---|
| **Very High** | Change that is large in extent, resulting in the loss of or major alteration to key elements, features or characteristics of the landscape and/or introduction of large elements considered totally uncharacteristic in the context. Such development results in fundamental change in the character of the landscape |
| **High** | Change that is moderate to large in extent, resulting in alteration or compromise to key elements, features or characteristics, and/or introduction of large elements considered uncharacteristic in the context. Such development results in a moderate to large change to the character of the landscape |
| **Medium** | Change that is moderate in extent, resulting in partial loss or alteration to key elements, features or characteristics of the landscape, and/or introduction of elements that may be prominent but not necessarily uncharacteristic in the context. Such development results in moderate change to the character of the landscape. |
| **Low** | Change that is limited in extent, resulting in minor alteration to key elements, features or characteristics of the landscape, and/or introduction of elements that are not uncharacteristic in the context. Such development results in minor change to the character of the landscape |
| **Negligible** | Change that is very limited in extent, resulting in no alteration to key elements, features or characteristics of the landscape, and/or introduction of elements that are characteristic in the context. Such development results in minimal change to the character of the landscape. |

#### *11.2.2.4 Methodology for Visual Assessment*

In Section 11.6 of this report, the visual effects of the proposed development are assessed. Visual assessment considers the sensitivity of the viewers (i.e. groups of people) and the magnitude of the changes to the composition and character of views. The assessment is made for a number of viewpoints selected to represent the range of visual receptors in the receiving environment. The significance of the visual effects experienced at these locations is assessed by measuring the visual receptor sensitivity against the magnitude of change to the view resulting from the proposed development.

Sensitivity of Visual Receptor

Visual receptor sensitivity is a function of two main considerations:

- Susceptibility of the visual receptor to change. This depends on the occupation or activity of the people experiencing the view, and the extent to which their attention or interest is focussed on the views or visual amenity they experience at that location.

Visual receptors most susceptible to change include residents at home, people engaged in outdoor recreation focused on the landscape (e.g. trail users), and visitors to heritage or other attractions and places of community congregation where the setting contributes to the experience.

Visual receptors less susceptible to change include travellers on road, rail and other transport routes (unless on recognised scenic routes which would be more susceptible), people engaged in outdoor recreation or sports where the surrounding landscape does not influence the experience, and people in their place of work or shopping where the setting does not influence their experience.

- Value attached to the view. This depends to a large extent on the subjective opinion of the visual receptor but also on factors such as policy and designations (e.g. scenic routes, protected views), or the view or setting being associated with a heritage asset, visitor attraction or having some other cultural status (e.g. by appearing in arts).

For the purpose of assessment, five categories are used to classify visual receptor sensitivity. These categories range from Very High to Negligible and are described in Table 11-3.

**Table 11-3: Categories of Visual Receptor Sensitivity**

| Sensitivity | Description |
|---|---|
| **Very High** | Viewers at iconic viewpoints - towards or from a landscape feature or area - that are recognised in policy or otherwise regarded as being of very high value or national value. This may also include residential viewers whose primary view is of very high value. |
| **High** | Viewers at viewpoints that are recognised in policy or otherwise designated as being of high value, or viewpoints that are highly valued by people that experience them regularly (such as views from houses or outdoor recreation features) and are valued by the local community. This would include tourist attractions, and heritage features of regional or county value, and viewers travelling on scenic routes. |
| **Medium** | Viewers at viewpoints representing people travelling at slow or moderate speed through or past the affected landscape in cars or on public transport, where they are partly but not entirely focused on the landscape, or where the landscape has some valued views. The views are generally not designated, but which include panoramic views or views judged to be of some scenic quality, which demonstrate some sense of naturalness, tranquillity or some rare element in the view. |
| **Low** | Viewers at viewpoints reflecting people involved in activities not focused on the landscape e.g. people at their place of work or engaged in similar activities such as shopping, etc. The view may present an attractive backdrop to these activities but there is no evidence that the view is valued, or that it is regarded as an important element of these activities. Viewers travelling at high speeds (e.g. motorways) may also be considered of low susceptibility. |
| **Negligible** | Viewpoints reflecting people involved in activities not focused on the landscape e.g. people at their place of work or engaged in similar activities, such as shopping, where the view has no relevance or is of poor quality and not valued. |

*Magnitude of Change to the View*

Classification of the magnitude of change takes into account the size or scale of the intrusion of the proposed development into the view, relative to the other elements and features in the composition( i.e. its relative visual dominance), the degree to which it contrasts or integrates with the other elements and the general character of the view, and the way in which the change will be experienced (e.g. in full view, partial or peripheral, or glimpses). It also takes into account the geographical extent of the change, the duration and the reversibility of the visual effects.

Five categories are used to classify magnitude of change to a view. These range from Very High to Negligible and are defined in Table 11-4.

**Table 11-4: Magnitude of Visual Change**

| Sensitivity | Description |
|---|---|
| **Very High** | Full or extensive intrusion of the development in the view, or partial intrusion that obstructs highly valued features or characteristics, or the introduction of elements that are completely out of character in the context, to the extent that the development becomes dominant in the composition and defines the character of the view and the visual amenity |
| **High** | Extensive intrusion of the development in the view, or partial intrusion that obstructs valued features, or introduction of elements that may be considered uncharacteristic in the context, to the extent that the development becomes co-dominant with other elements in the composition and affects the character of the view and the visual amenity |
| **Medium** | Partial intrusion of the development in the view, or introduction of elements that may be prominent but not necessarily uncharacteristic in the context, resulting in change to the composition but not necessarily the character of the view or the visual amenity |
| **Low** | Minor intrusion of the development into the view, or introduction of elements that are not uncharacteristic in the context, resulting in minor alteration to the composition and character of the view but no change to visual amenity. |
| **Negligible** | Barely discernible intrusion of the development into the view, or introduction of elements that are characteristic in the context, resulting in slight change to the composition of the view and no change in visual amenity. |

In this case, a number of tools are used to assist in the assessment of visual effects. These include Photomontages, which are produced from selected viewpoints. Initial viewpoints for photomontages are selected during the desk study with the exact location confirmed in the field during the site visit. The completed photomontages are also used to assist in the assessment of visual effects.

*Significance of Effects*

In order to classify the significance of landscape and visual effects, the predicted magnitude of change is measured against the sensitivity of the landscape/viewpoint. The definitions used by the EPA (2022) provide a useful scale to describe the significance of the effects.

There are seven classifications of significance, namely: (1) imperceptible, (2) not significant, (3) slight, (4) moderate, (5) significant, (6) very significant, (7) profound.

The relationship between the magnitude of change and sensitivity of the receptor with the varying classifications of Significance is illustrated on the below extract from the EPA (2022) Guidelines (with labels amended and simplified based on GLVIA (2013 (guidance):

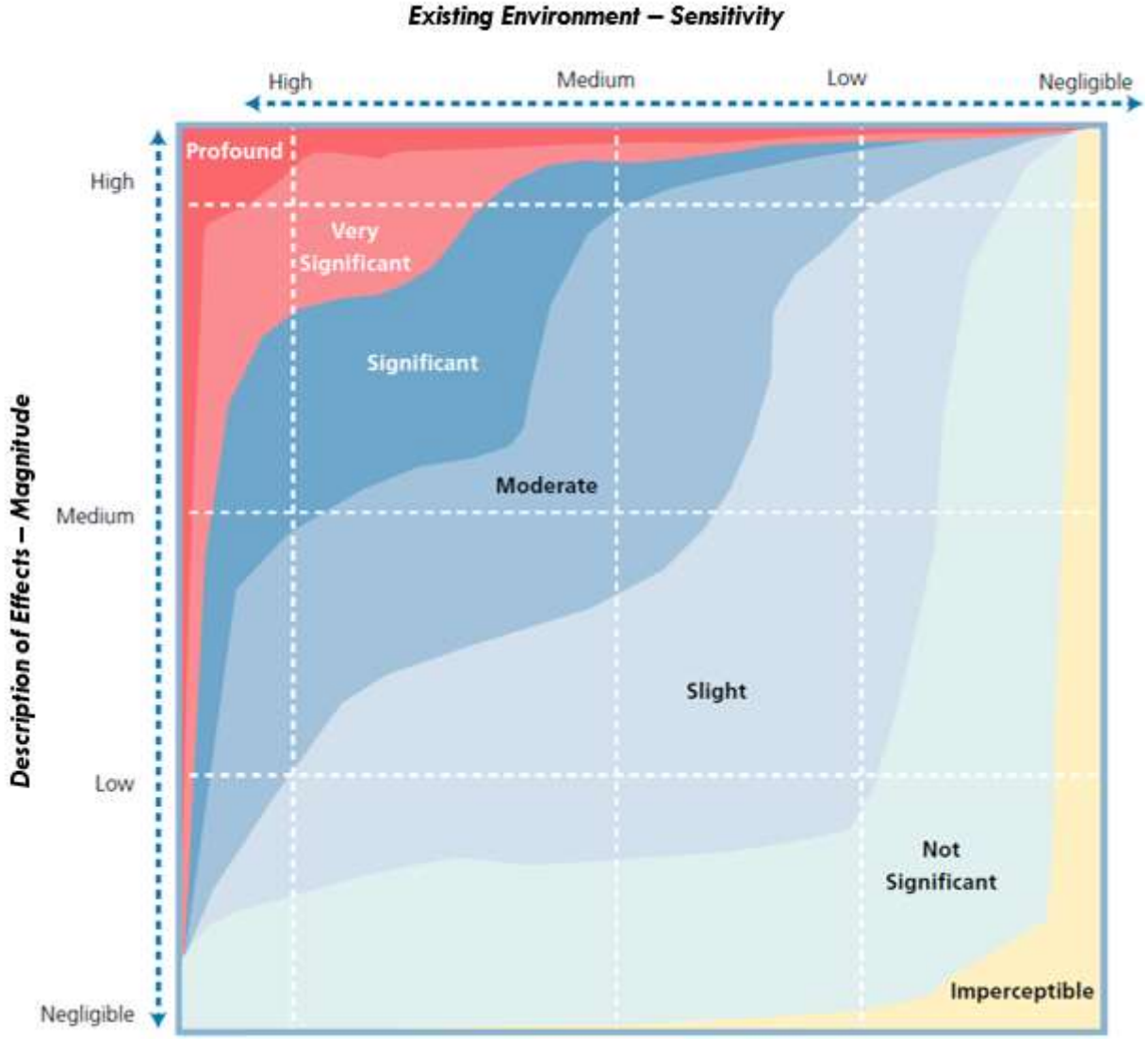


**Figure 11-1: Significance of Effect (Source: EPA 2022)**

*Note: This graphic is a guideline only, and an element of professional judgment is also applied. The assessor also uses professional judgement informed by their expertise, experience and common sense, to arrive at a classification of significance that is reasonable and justifiable.*

The GLVIA 3rd Edition recognises (at para 2.23) that:

*"professional judgement is a very important part of LVIA. While there is scope for quantitative measurement of some relatively objective matters, much of the assessment must rely on qualitative judgements."*

**Table 11-6: Quality of Effect *(Source: CSR based on GLVIA 2013)***

| Quality | Description |
|---|---|
| Adverse Effect | Scheme at variance with landform, scale, pattern. Would degrade, diminish or destroy the integrity of valued features, elements or their setting or cause the quality of the landscape(townscape)/view to be diminished; |
| Neutral Effect | Scheme complements (or does not detract from) the scale, landform and pattern of the landscape(townscape)/view and maintains landscape quality |
| Beneficial Effect | Improves landscape(townscape)/view quality and character, fits with the scale, landform and pattern and enables the restoration of valued characteristic features or repairs / removes damage caused by existing land uses. |

Impacts/effects are also categorised according to their longevity or timescale as in Table 11-7.

**Table 11-7: Duration of Effect (Source: EPA 2022)**

| Duration | Description |
|---|---|
| Temporary | Impacts lasting one year or less |
| Short-term | Impacts lasting one to seven years |
| Medium-term | Impacts lasting seven to fifteen years |
| Long-term | Impacts lasting fifteen to sixty years |
| Permanent | Impacts lasting over sixty years |

### 11.2.3 Statement of Difficulties Encountered

None encountered.

## 11.3 Landscape and Visual Characteristics of the Proposed Development

Full details of each element to be constructed are included in Chapter 4 Description of the proposed development. However, elements of the proposed development that are particularly relevant to the Landscape and Visual assessment include the following:

- Construction of a new 3.5-4.0m wide path for cyclists and pedestrians, and widening of an existing path, along the River Shannon from the existing riverside path at the Groody River bridge west of UL Boathouse, to the northern extents of University Road and McLaughlan Road.
- Construction of new 2.0m wide cycle lanes and 1.8-2.0m wide footpaths along University Road and McLaughlan Road.
- The path is to be built up to retain mature trees and surfaced with a permeable asphalt between the Groody River and Kilmurry Village (areas within the UL grounds).
- Removal of vegetation and trees – including sections of relatively young tree groups, as well as some more mature trees, to facilitate path construction and widening.
- Removal and replacement of four bridge decks (one on path east of UL Boathouse, two near Plassey Mill, and one east of Plassey Beach).
- Construction of a proposed 12.9m long bridge near the Plassey Beach.

- Construction of a 20m long concrete retaining wall with an integrated seating and planting at the Plassey Beach.
- Construction of a fully accessible 20m long concrete ramp at a 3% slope at the Plassey Beach to provide access from the proposed Greenway to the beach for all users.
- Four proposed concrete box culvert bridges; one east of Groody Bridge, two east and west of the existing hump bridge along the existing path west of UL Boathouse, and one west of the UL Boathouse.
- 26 No. locations where new culvert pipes will be constructed as part of the drainage infrastructure for the proposed path, directing surface water to the River Shannon.
- Proposed rest areas at Plassey Mill and the Plassey Beach.
- Four temporary construction compounds are proposed; one west of the UL Boathouse, one south of the Fisherman cottages and east of Plassey Mills, one on open grassland east of the Kilmurry Student Village, and one at the end of McLaughlan Road.
- Replacement tree planting is proposed along the route at several locations (including south of Fisherman Cottages, north of Dromroe Student village, east of Cook Medical campus).

## 11.4 RECEIVING ENVIRONMENT

### 11.4.1 Site Context and Landscape Character

The proposed Greenway is located along the southern bank of the River Shannon where it runs through the grounds of the University of Limerick from the River Groody Bridge to the end of McLaughlan Road, with a spur to the east of Kilmurry Student Village that connects to University Road. A gravel path or desire line is extant along the majority of the proposed route. There are footpaths along McLaughlan Road, but there are neither footpaths nor cycle lanes along University Road. Figure 11.2 below shows the location of the study area, which lies to the east of Limerick City, within the grounds of the University of Limerick along the River Shannon, and through part of the National Technology Park.

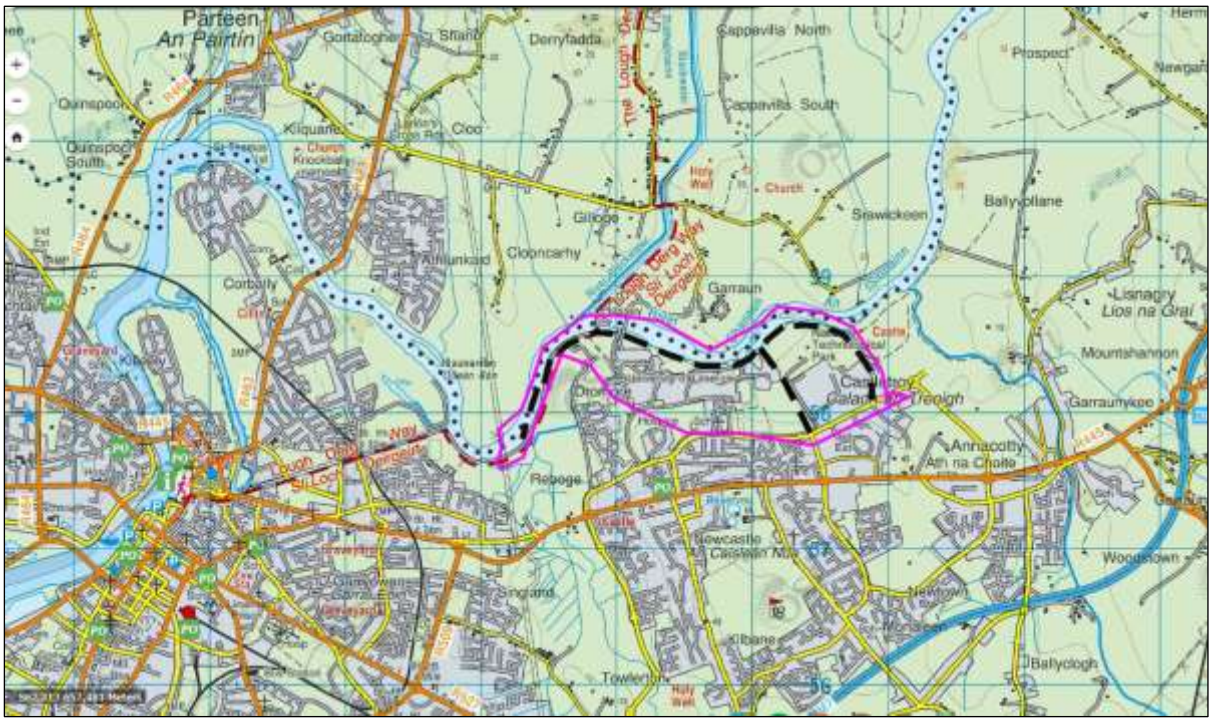

**Figure 11-2:** ***The study area is illustrated by a magenta line, with proposed path indicated by a dashed black line.***

The study area includes the visual corridor of the River Shannon on the northern and southern banks, as well as extending some way further south from the existing path on the southern side of the Shannon as far as Plassey Park Road. Two spurs from the path connect south to Plassey Park Road, namely University Road and McLaughlan Road. The study area therefore includes part of the University of Limerick Campus which is close to the proposed route and to the existing walkway, as well as the lands to the east which connect to Plassey Park Road. The study area for Landscape and Visual Effects remains relatively close to the proposed pathway as the majority of potential effects are likely to be in the immediate vicinity of the proposed works.

The Landscape Character of the site is described below under several headings, including landform and landcover, land use, cultural heritage, recreation and amenity and settlement and transport. An initial site visit was carried out in February 2022, following by site visits in July 2022, and February 2024.

### 11.4.2 Landform - Topography and Drainage

The landform of the site is generally level as it borders the river corridor, with the area immediately along the rivers generally at or below 10m OD, with some areas above 10m but less than 20m.

The majority of the proposed path lies along the southern bank of the River Shannon.

There are localised changes in level along the existing trail, with some areas close to the level of the river Shannon, as seen near the Plassey Mill ruins, as shown in Plate 11.1.

**Plate 11-1: Existing path close to the water's edge near UL Boathouse.**

Localised changes in the level of the existing path occur, as in the area near the 'Island' where the path is slightly elevated, with a mill race to the south and the river to the north, as seen in Plate 11.2.

**Plate 11-2: Path is raised with mill race to the right-hand side**

Other slight changes in level were observed in areas where there are small interventions such as grass mounding, or localised changes in topography of the University in the vicinity of the Sports arena.

Three bridges (two of which are in use) connect the University campus to the campus on the north side of the Shannon, and these afford elevated views of the river corridor. The Plassey Bridge or Black Bridge is located furthest to the west and listed on the NIAH – the bridge is pedestrian but no longer in use.

East of Plassey Bridge, the next bridge is a road and pedestrian bridge which is connected to the riverside path by steps as shown in Plate 11.3 below. A pedestrian only bridge (the Living Bridge) lies further east.

**Plate 11-3: Steps lead from the riverside path to the to the road bridge near Dromore student village**

### 11.4.3 Land Cover

*Wider landscape*

While the land cover of the wider study area (incorporating the pedestrian riverside walkway, and part of the UL campus to the south) contains a mosaic of built form and open space, the immediate River Shannon corridor is primarily dominated by tree cover. Immediately adjacent to the river corridor and existing walkway, there are some formal grassed open spaces, such as those near Dromroe and Kilmurry villages and to the front of Plassey House. Several pitches are evident in the vicinity of the Sports Arena and one east of Kilmurry village.

South of the proposed walkway/cycleway, the University campus is a mosaic of large areas of built form interspersed with considerable areas of open space, tree lined roads and parking areas. The Sport Arena includes a number of sports facilities and pitches. Further east in the study area, the University buildings give way to several large-scale facilities in the IDA technology park, including the Johnson and Johnson, Cook Ireland and Troy Studio buildings.

*Site and immediate surroundings*

A formal riverside pathway, with some hard surfacing in sections, is evident from the Groody River bridge to the UL Boathouse (which connects to Limerick City at Lock Quay) to just south of Kilmurry student village. Past this point, the path becomes an informal track, through open fields, woods and young tree groups as far as the Castletroy. The path ranges in width but is in places little more than 1 metre in width and generally less than 2m.

A shore area known as the 'Beach' is located near Kilmurry village, which is a distinctive area where there is a small shore providing access to the river and is a popular recreational area in summertime.

Away from the river, pedestrian footpaths from the riverbank connecting to and traversing through Kilmurry village are circuitous and navigation can be difficult. A network of paths along University Road and a path along part of McLaughlan Road are also evident, while pedestrian and cycle tracks are evident along Plassey Park Road. Representative images of the different sections of the path are included below where the Landover of the study area is described form west to east in two sections – Groody River Bridge to Castletroy, and from Kilmurry/McLaughlin Road to Plassey Park Road.

### Groody River Bridge to Castletroy

Tree cover is a conspicuous feature of the landcover in the immediate vicinity of the proposed path. The River Shannon corridor has considerable bankside trees and vegetation, some of which include mature trees of high quality.

The Tree Survey includes an Arboricultural Assessment for the Preliminary Design (contained in the EIAR Part III - Appendices) which includes further detail of such trees and tree groups and incudes a Tree Classification Drawing (21537_T_101).

The Assessment notes that the western section beginning at the River Groody bridge and extending east which is mainly within the UL campus grounds contains trees of high quality:

*The path servicing the western portion of the route located in the University of Limerick campus is a well-defined and maintained bound gravel surface, averaging 1.8m in width and is raised above the adjoining river on top of the embankment. This section of the route can be described as high-quality riverside woodland with a broad age profile from large veteran trees to self-regenerating saplings and other understory species. Natural riparian tree species such as Willow, Alder and Ash dominate however a number of other species such as Beech and Oak are also present, which are of an age that suggest they were probably planted by the original estate owners prior to the development of the University on these lands.*

The Arboricultural Assessment categorises trees according to their quality, which is as follows;

***Category A**: Trees of high quality with an estimated remaining life expectancy of at least 40 years.*

*(A **Sub-category A1** is as follows: Trees that are particularly good examples of their species, especially if rare or unusual; or those that are essential components of groups or formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue)*

***Category B:** Those trees of moderate quality with an estimated remaining life expectancy of at least 20 years.*

***Category C:** Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm.*

***U Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years.***

As shown in Drawing 21537_T_101, a high proportion (41 out of a total of 80) of the trees along the River Shannon corridor mainly within the UL grounds, between the Groody River bridge and Kilmurry Village are Category A1. The majority of the remainder (32) are Category B trees, with just 6 Category C trees and 1 Category U tree. The trees therefore along the river Shannon corridor are of high quality and of high value.

There are also several large tree groups in this section, TG21 which extends along the existing path and riverbank between the Groody River and the UL Boathouse, and TG 22 which is a large tree group in the vicinity of the Plassey Mills and Fisherman's cottages, both of which are Category B.

TG4 is another large tree group (Category B) located inland between the Living bridge and the Dromroe student village.

Tree Groups 12-20 lie along the riverbank between Kilmurry Village and Castle Troy. All are categorised as Category B.

Mature trees of high quality are evident particularly from the UL Boathouse to just east of Kilmurry Student village. Plate 11.4 below shows mature trees just east of the UL boathouse, while Plate11.5 shows woodland along the path leading away from the river, near Plassey Mills.

**Plate 11-4: Hard surfaced path with mature bankside trees east of UL boathouse**

**Plate 11-5: Mature trees line path close to Plassey Mills**

A remarkable stand of trees (mostly Beech) is found adjacent to the riverside path near the Dromroe student village as shown in Plate 11.6. These add considerably to the character of the area, and the setting of the student village also. The adjacent grass space has been mounded in places with some young tree planting also. A pollinator friendly maintenance regime is evident also in relation to the grassland.

**Plate 11-6: Mature Beech trees (Category A) along path close to Dromroe village, with adjacent open space**

To the east of Dromroe village, the walkway traverses underneath a pedestrian bridge (living bridge), and beyond this, the path is lined with mature trees, and the mill race is on the south of the path, creating a distinctive area as the path is lined by trees and water on both sides, creating a tranquil and atmospheric walkway. This is illustrated in Plate11.7.

**Plate 11-7: Trees line the path (unsurfaced) with Mill race to right, east of the Living Bridge**

**Plate 11-8: Bankside trees at 'The Shore' or 'Beach' area (seen here at high water level in winter)**

East of Kilmurry village, tree cover continues along the riverbank, but the existing path runs slightly inland, as shown below in Plate 11.9, and through some open spaces.

**Plate 11-9: Open space and trees along existing informal path east of Kilmurry village**

Beyond this, as one travels east, the path winds through fields with tree groups. The tree cover here varies from a dense canopy in certain areas, such as shown above near Castle Troy.

**Plate 11-10: Dense undergrowth east of Kilmurry village towards Castle troy**

**Kilmurry Village to McLaughlin Road**

A spur runs from Kilmurry Village to University Road. A series of paths and open grassed spaces interspersed with tarmac parking areas run through Kilmurry student accommodation village, which is accessed by University Road. There are some trees to the west of Kilmurry village as shown in Plate 11-11 below.

**Plate 11-11: Grass, tarmac and some younger trees in Kilmurry Village**

The areas of University Road and McLaughlan Road are similar in character, relatively wide roads with footpaths on both sides, with some grass and trees.

As set out in the Tree Classification Drawing, Tree Group 23 extends from east of Kilmurry Village along University Road, all of which are considered Category B in the Tree Classification drawing.

More mature trees are evident along McLaughlan Road, all categorised either Category B or Category C.


**Plate 11-12: Path, grassed areas and trees along McLoughlan Road**

McLoughlan Road and University Road join Plassey Park Road, the main road south of the UL campus. This is a wide road with footpaths and cycle paths on both sides, grass strips and mature tree planting as shown in Plate 11-13.

**Plate 11-13: Existing cycle and pedestrian paths along tree lined Plassey Park Road**

While tree cover is the dominant feature of the land cover, and particularly the riverside pathway, within the UL campus, the study area also includes smaller areas of grassland, including rough grassland or amenity grassland, mainly within the campus, and some to the east of the scheme between McLaughlin Road and Kilmurry Village.

### 11.4.4 Land Cover – Built Form

Features of built form within the study are generally lie further inland – south of the rivers. To the western extent of the proposed scheme, – but a small terrace of cottages are found to the west of the study area, near Plassey bridge, and lend a distinctive character to this riverside area as shown in Plate 11.14.

**Plate 11-14: Boatmen's cottages with Plassey Mills remains in the background**

Other elements of built form are mainly university buildings, including the student 'villages ' of Dromroe and Kilmurry, and Plassey Park house itself, which display various types of buildings many of which are set within large areas of open space. Buildings are generally set back along Plassey Park Road and are larger scale and industrial in nature.

### 11.4.5 Cultural Heritage, Recreation and Amenity

There are several elements of cultural heritage interest along the proposed route. At the western end, the remains of Plassey Mill is visible to the south of the existing path, a relatively tall stone structure seen amongst the trees, and the fisherman's cottages close by. This is depicted in Plate 11-14.

Further west there is the Plassey Bridge, a pedestrian bridge (listed on the NIAH) which is now blocked to pedestrians and appears unused. Plassey House itself is visible from the walkway, which is now part of the University.

**Plate 11-15 Plassey House, set in mature trees, seen from the existing walkway**

Several other large houses and gardens were formerly located within the study area, some of which remain. These include a house and gate lodge at Milford, and a house called Shannon Park, which remain today, south of Plassey House and Mills. Also shown on the map, but which do not remain today, are the houses and gardens of Roselawn and Willlowbank, which were in the area of the Kilmurry student village and the lands to the east, to the rear of Troy studios.

A house called Castle Troy House is shown in the 6-inch map in Figure 11-3, to the west of Castle Troy. Other features such as the Mill Race. Mill Dam and several Eel weirs are also shown on this map.

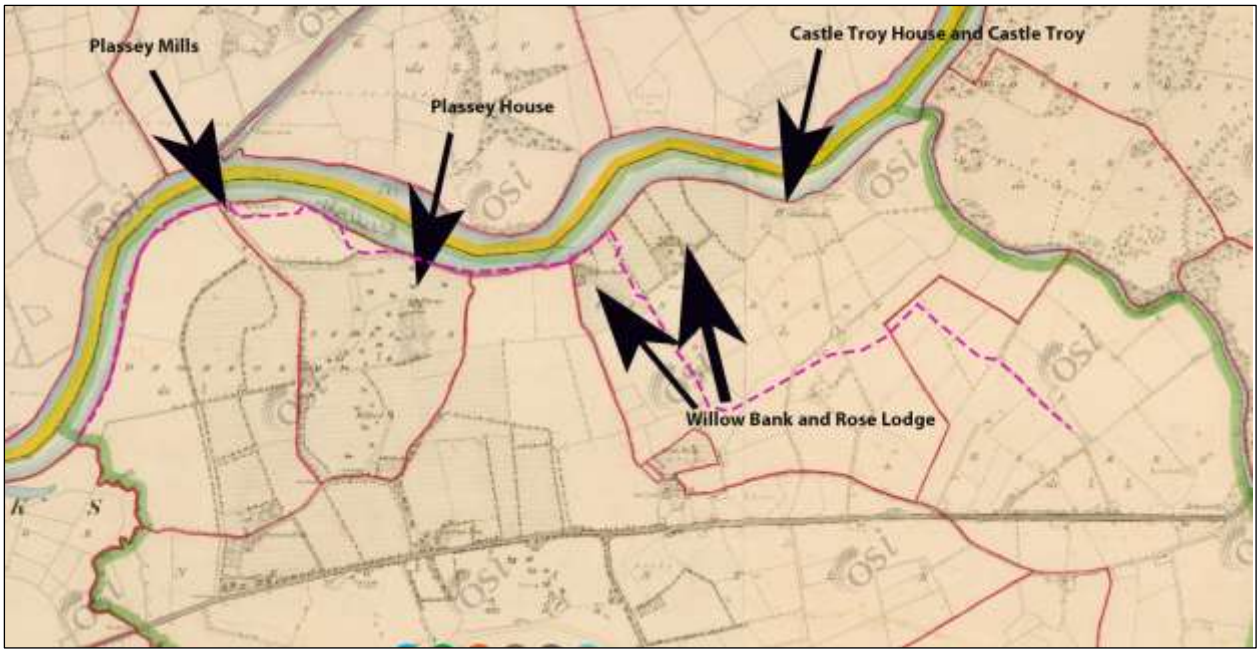


**Figure 11-3: Cultural Heritage within the western study area (Source: Historic Environment Viewer)**

In terms of recreation, part of the existing trail is on the Lough Derg Way. The Lough Derg Way is a long-distance walkway which begins at the Riverside Walkway in Limerick City, close to Sarsfield House. This walkway is parallel to the Abbey River for a short stretch, and at Lock Quay, leaves the city centre and follows the canal as far as the UL boathouse. The path is wider near Lock Quay, and a narrow strip of grass runs along the middle to divide pedestrians and cyclists as shown in Plate 11.16 below.

**Plate 11-16: the Lough Derg Way path east of Lock Quay in Limerick City**

The waymarked trail continues along the existing path in the study area, past the Groody River Bridge to the UL boathouse to Plassey Bridge, and the mapped trail follows the bridge and is parallel to the Blackwater River and then follows the Ardnacrusha Headrace canal northeast to Cloonlara and on to O'

Briensbridge. Therefore, the proposed cycleway/walkway includes part of the Lough Derg Way as shown in Figure 11-4.


**Figure 11-4: Lough Derg Way (blue) with indicative Greenway route (red)**

### 11.4.6 Land Use

The immediate vicinity of the proposed pathway itself is already an existing recreational facility which is well-used. Other recreational facilities exist on campus for both formal and informal recreation, including the Sports Arena and related facilities The University campus has educational but also adjacent are commercial/enterprise activities, with several large enterprises located in the IDA National Technology Park in the eastern part of the study area. There are a small number of open fields to the east of the study area,

### 11.4.7 Settlement and Transport

The existing path runs along the southern riverbank of the River Shannon. The spurs to the south of the riverside path at UL connecting to Plassey Park Road are University Road (south of Kilmurry Village) and along McLaughlin Road and along currently paved roads as shown in Plates 11.17 and 11.18.

**Plate 11-17: McLaughlan Road**

**Plate 11-18: University Road (from Kilmurry student village to Plassey Park Road) with trees, parking and grass verges**

The University of Limerick Campus has a number of roads traversing the campus, with the University campus accessed off the main Plassey Park Road which travels east west and denotes the southern boundary of the campus. It was noted on the site visits that while orientation is straightforward when following the existing riverside path, the campus has a high number of internal roads and roundabouts, and in some areas,

particularly in the Kilmurry Student village and environs, this can be disorienting and with poor legibility. In contrast, the riverbank walk with in the UL grounds is easily navigated.

### 11.4.8 Summary of Landscape Character

Overall, the character of the western part of the study area is strongly influenced by the setting of the existing walking path close to the river, particularly the section on the banks of the River Shannon, and the high proportion of mature trees which area a feature of the existing riverbank walk and of the wider UL campus grounds. Some of these trees are likely associated with the grounds of Plassey House which lies near the riverbank. Several other large houses and grounds are shown on the historic maps (25-inch, 6 inch and Cassini Maps).

The landscape character can be divided in two areas:

- **University of Limerick Campus – River Groody Bridge to Kilmurry Village:** The existing riverbank walk from the River Groody Bridge through the UL campus
- **IDA National Technology park to Plassey Park Road:** The riverbank to the rear of the IDA National Technology Park, and the section which traverses the existing routes at University Road, McLaughlin Road and Plassey Park Road.

Within the UL campus, the mature trees, clusters of buildings and open spaces and areas along the riverbank is distinctive. However, the campus contains a high proportion of buildings, and as noted above, internal roads and roundabouts. The river corridor which includes the proposed Greenway is somewhat set apart from the main campus, is a quieter and tranquil area. Apart from Plassey House, other historic structures also lend a particular character to the area. The Plassey Mills remains also add character, as do some of the other structures, such as the Mill Race leading to Plassey Mills, the stone bridge and the Plassey Bridge near the boatmen's cottages.

The landscape character along the river to the rear of the IDA lands along the riverbank (east of Kilmurry Village) is more remote, with areas of open fields followed by more dense woodland as one approaches Castle Troy. The landscape character along the main routes to the east of Kilmurry Village including the spurs at University Road and MacLaughlin Road and Plassey Park Road have a different character, which is that of a route along relatively wide, tree-lined roads most of which have footpaths, grass verges and trees. Plassey Park Road is distinctive with much of the road having separated footpaths and cycleways.

### 11.4.9 Landscape Value

The GLVIA Guidelines sets out the methodology for assigning landscape sensitivity. This is based on combining judgements on landscape value, and landscape susceptibility which relates to the type of development proposed. Landscape sensitivity is addressed in Section 11.5, along with the assessment of effects however landscape values are discussed here.

Landscape values are derived from both indications of value as seen in national and local policy, as well as other indications that a landscape or landscape element, is valued. These values can further be categorised in two ways – values which should be conserved, and those that provide opportunity for enhancement.

Landscape value, as referred to above, can be identified by the presence of landscape designations or policies which indicate particular values, either on a national or local level. These include international designations (such as UNESCO World Heritage sites) national designations, and local designations such as scenic routes, scenic views or amenity designations which are included in County Development Plans.

Important tourism, cultural heritage or recreational areas are also indicative of value. In addition, where landscapes do not have designations, a number of criteria are used to assess the value of a landscape. For undesignated landscape in the vicinity of the site, these criteria include:

- Landscape Quality/Condition
- Cultural Heritage/Conservation value
- Aesthetic/Scenic Quality
- Rarity or Representativeness
- Public Accessibility and Recreation Value
- Sense of naturalness

Based on the above criteria, we can describe the landscape values of the site and immediate vicinity, and the wider landscape. These are best described with reference to the landscape character areas:

**University of Limerick Campus – Groody River Bridge to Kilmurry Village**

The landscape value of the site and immediate vicinity within the University of Limerick grounds (UL boathouse to Kilmurry Village) is considered **High.** The landscape can be described as of high quality and in good condition, with a high number of mature trees which are classed as Category A or B (High or Moderate value) semi natural areas and a number of well- maintained open spaces, both informal and formal. The presence of the River Shannon also contributes to good landscape quality. The Section above has identified several features of cultural heritage value which are a link to the history of the site and add to its quality. This area has high aesthetic qualities, with many areas of high-quality scenery, with a strong sense of naturalness, especially those views towards the river, riverbank and areas of mature trees. The 'Shore' areas also has high scenic qualities. Some of the mature trees can be described as features of rarity but this is also within the Lower River Shannon SAC. The area is publicly accessible and has a high recreation value, as a location popular for walking and which is partly along the Lough Derg Way, a waymarked trail which connects form the existing river path, along the river to Limerick City.

**IDA National Technology park to Dublin Road**

East of the UL Campus, the study area includes the open lands and riverbank east of Kilmurry village, to the rear of the National Technology Park, as well as several roads within the Technology Park. This area is considered of **Medium** value. The vicinity of the riverbank contains some open fields, and though some parts of the path are relatively wide, there are many sections which are several quite overgrown areas where the landcover includes tree groups and scrub but with some mature trees. The landscape quality is not as high as the neighbouring area within UL, with several overgrown areas and invasive species observed, an overall the areas is not as easily accessed. Overall the aesthetic value is considered Medium, with less of a connection to the river and some areas where vegetation restricts views. This area is still within the SAC. While publicly accessible, this access is less formal than that on the UL grounds and certain parts are overgrown and remote. The area however has a remote feel and a strong sense of naturalness.

The proposed route will traverse more formal areas include the roads University Road, McLaughlan Road and Plassey Park Road. These are of lower landscape value, being existing road corridors, relatively quiet cul-de-sac roads in the case of University Road and McLaughlin Road, while Plassey Park Road is a busier road. Landscape quality here is Low-Medium.

### 11.4.10 Visual Receptors

Visual Receptors are those people, or more commonly groups of people who will experience views of the proposed development in certain locations.

The GLVIA (2013) Guidelines note that the types of viewers (or visual receptors) who will be affected by the development, and the places they will be affected, should be identified. People have differing responses to changes in views and visual amenity, and this is known as susceptibility. The susceptibility of a viewer, therefore, depends on the context such as the location, as well as their activity, or reason for being in a particular place. A person may be involved in recreation, or be a resident, at work, passing through a landscape, on roads or other means. Certain activities or locations in the landscape may be specifically associated with the experience and enjoyment of the landscape, such as the use of waymarked trails, tourist trails or scenic routes. Therefore, when combined with the value of the view, visual receptor sensitivity is described for all viewpoints and is an important component of the viewpoint selection.

As set out in Table 11.4, visual receptor sensitivity can range from Very High to Negligible.

In the case of the proposed development, viewers likely to experience the changes as a result of the proposed development which are considered of higher sensitivity include :

- Recreations users – those using the existing pathway for walking, running and cycling, and accessing the UL Boat Club, UL Beach/Shore area, and those engaged in waterside activities - where they are likely to be focussed on the surrounding landscape and on particular views
- Viewers at Cultural Heritage/Scenic locations: Viewers in the vicinity of Cultural heritage sites along the walkway
- Viewers at areas where there are pleasant or scenic view of the riverbank, river and other features
- Residents close to the proposed Greenway as well as students resident on campus

Viewers which are considered of Lower (Low or Negligible) sensitivity, as their focus is not on the outside and the surroundings, include:

- Those working and studying inside buildings where the setting is not important to the quality of the working environment
- Those engaged in sporting activities which do not involve appreciation of the landscape/surroundings

Following the site visits and a review of the proposals, a list of potential viewpoints was drawn up. This includes a number of locations where sensitive visual receptors would have views of the proposed development, as well as areas where landscape features of high value (as discussed in Section 11.4.9) are located. Viewpoints from within the buildings on the campus were reviewed but viewers here will generally experience very little change, and viewers of one of the most obvious historic buildings, Plassey House, would not observe any change to the setting of the house with its lawns and trees.

The selection of viewpoints also includes locations where large number of viewers would experience a change in view. The two different character areas within the study area- Groody River bridge to Kilmurry village (UL Campus) area, the IDA Technology Park and Plassey Park Road, are all represented. These viewpoints are listed in Section 10.5.2.

## 11.5 LANDSCAPE PLANNING CONTEXT

**Limerick Development Plan 2022-2028**

The relevant landscape planning context for the area is the Limerick (City and County) Development Plan 2022-2028. The Plan includes both City and Rural areas.

**Landscape Character**

***Policy EH P8 Landscape Character Areas:***

> *"It is a policy of the Council to promote the distinctiveness and where necessary safeguard the sensitivity of Limerick's landscape types, through the landscape characterisation process in accordance with the 'Draft Guidelines for Landscape and Landscape Assessment' (2000) as issued by the Department of Environment and Local Government, in accordance with the European Landscape Convention (Florence Convention) and with 'A National Landscape Strategy for Ireland – 2015- 2025'. The Council shall implement any relevant recommendations contained in the Department of Arts, Heritage and the Gaeltacht's National Landscape Strategy for Ireland, 2015 – 2025."*

The Limerick Development Plan includes the Landscape Character Areas from the 2010-2016 Plan (as extended) as well as a number of Landscape Character Areas in the City.

A number of the Landscape Character Areas fall within the study area. These are illustrated in Figure 11-5.

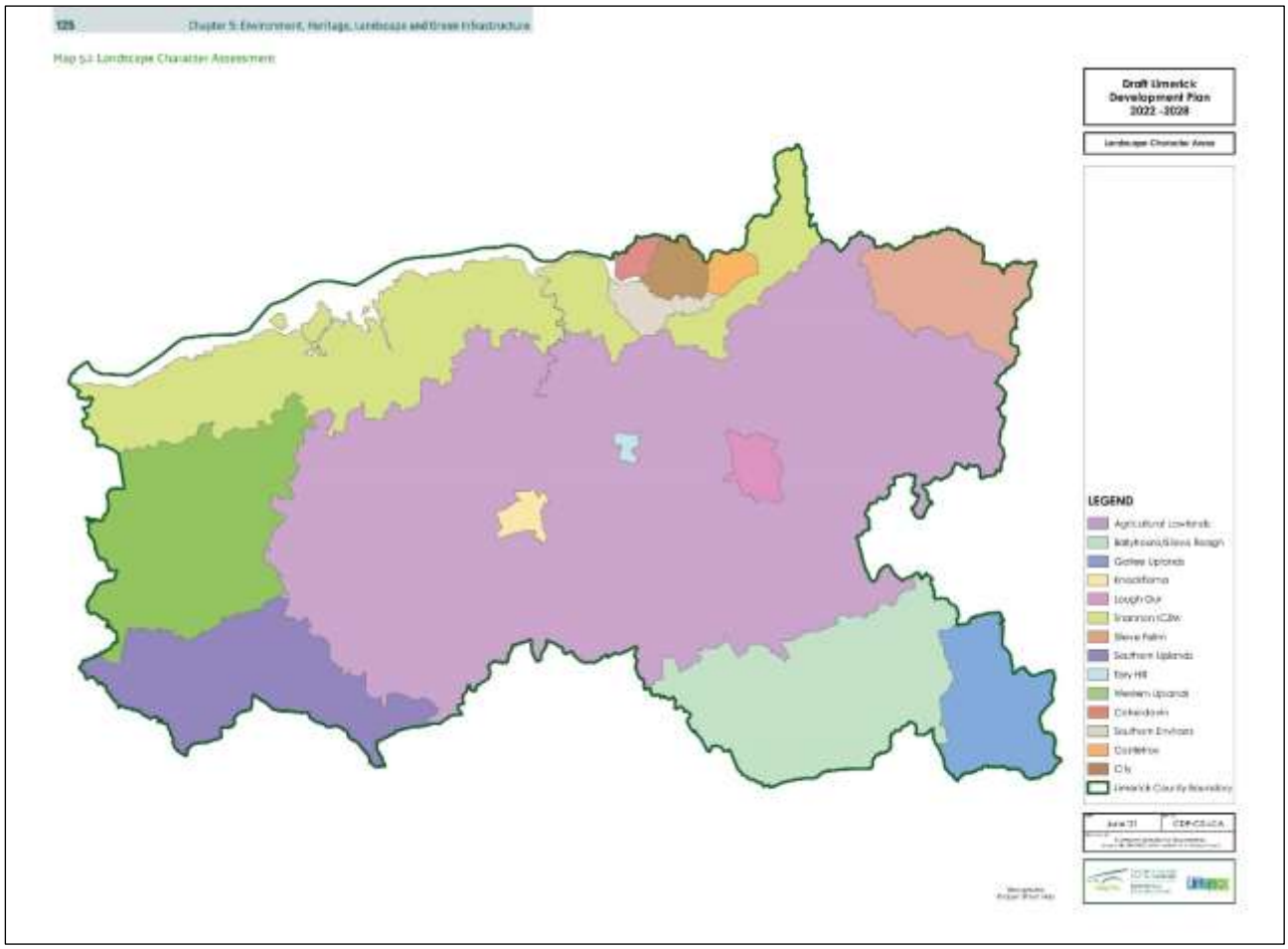


**Figure 11-5: Landscape Character Areas Co. Limerick**

Landscape Character Areas within the study area include:

- City LCAs (shaded brown) including areas of Caherdavin, City and Castletroy and the Southern Environs. The site and study area are located within the Castletroy area of the City LCA.

The LCAs within the City are described as follows, numbered UCA01-04, each with a number of Specific Urban Character Area Objectives in Section 3.4.2.5 as follows:

***UCA O3 Castletroy**:*

> *"A substantial character area is the University of Limerick campus. The campus is expansive at over130 hectares and located both north and south of the River Shannon in Counties Limerick and Clare. The campus is largely self-contained and is substantially enclosed. Its presence has attracted technology companies to the area, with the National Technology Park located to the east."*
>
> Specific Objectives include:
>
> *a) Infill and brownfield development patterns to be favoured.*
>
> *b) River Groody Green Wedge to be retained.*
>
> *c) Building Height Strategy to inform design of higher buildings, in particular:*
>
> *– Any proposed buildings of height must be balanced with the need to maintain the status of the University rather than the creation of a high building cluster;*
>
> *– A modest increase in building height at important intersections/nodes and street corners may be required to enhance legibility and sense of place*

**Views and Prospects**

Views and Prospects are identified within the County and the within the City area as illustrated on Figure 11-6, and illustrated on Map 5.2 in the LDP.

Section 5.4.2 of the Plan refers to Views and Prospects, and identifies important prospects in Limerick County, including views of prominent landscapes or views of special amenity value. These include views in the south of the County (as shown in Figure 11-6 below) which are routes near Galbally, Ardpatrick and Ballylanders, close to the Ballyhoura mountains, as well as Lough Gur and Tory hill views and prospects.

In the city, the Plan notes the many views of significance in the city, including riverscapes, townscapes and landscapes and the importance of landmark buildings such as King John's Castle.

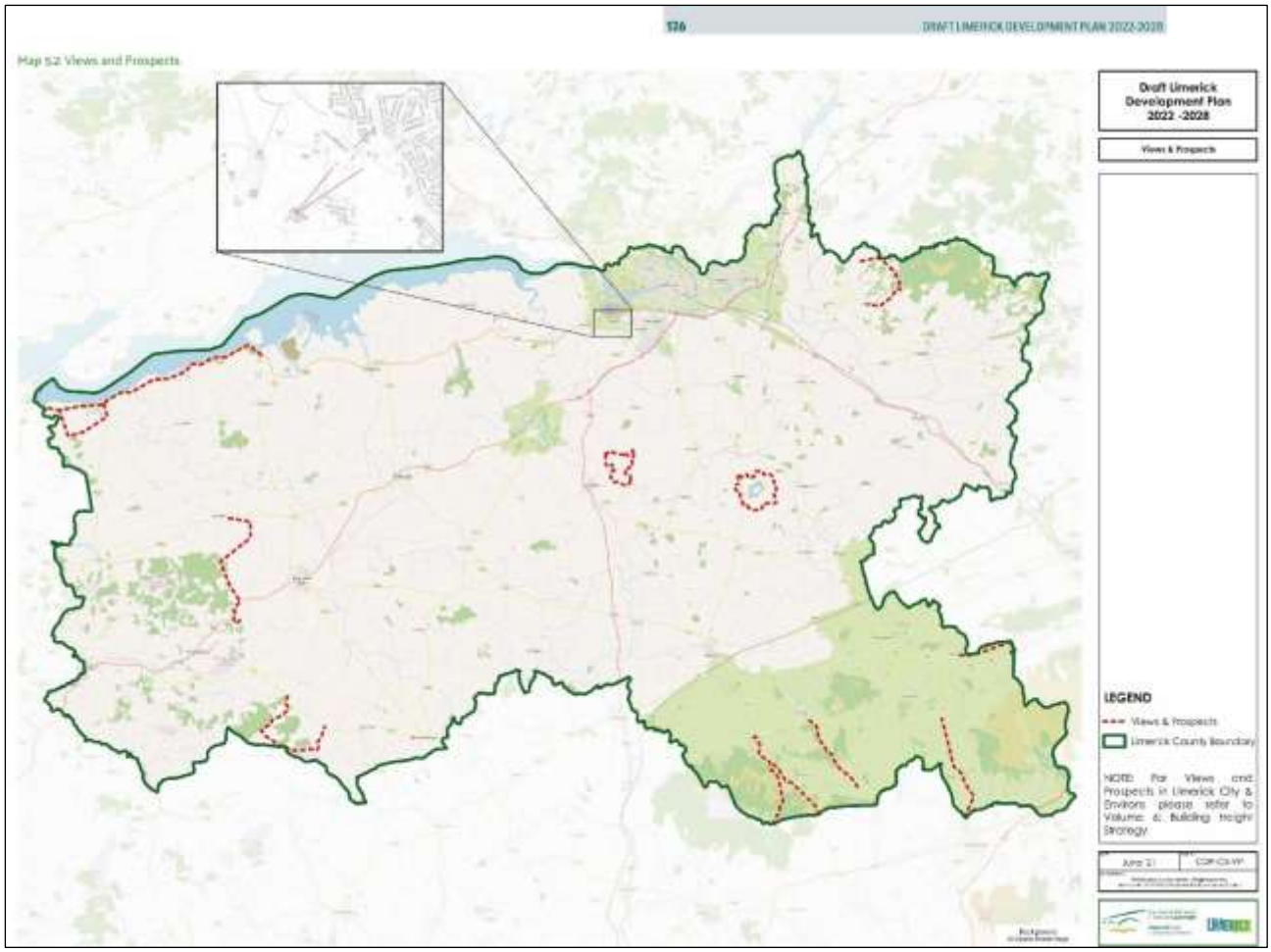


**Figure 11-6: Views and Prospects in Co. Limerick (Source: LDP)**

The inset area of Figure 11-6 indicates the protected views and prospects near the City are four short range views of the Monastic Site in Mungret, to the southwest of the City.

The proposed development will not affect these protected views.

While other important views and prospects are also referenced within the City area, these are not categorised as protected views. In the accompanying *Building Height Strategy for Limerick City*, Section 3 Urban Analysis contains information regarding 'Significant Views and Landmarks (p49). Views within the city are categorised, as follows:

**Linear Views of Landmark Buildings, the City Walls & City Skyline**

Linear Views occur when a single landmark building (e.g. King John's Castle) is the main point of focus within the view path. Views tend to be framed within relatively narrow viewing corridors. The city skyline is a combination of elements - the general scale of buildings, streets and spaces from area to area, major landmarks on the skyline, other individual higher buildings, higher building groups and landscape elements.

**River Prospects**

The Plan states that River Prospects are usually (though not exclusively so) experienced while crossing a bridge. While many bridge crossings allow opportunities to pause and appreciate views, many of these views can also be enjoyed in motion as a viewer moves across a bridge. River Prospects in this instance refer to the ability to see landmark building(s) from bridges.

The study area contains some pleasant views from bridges that cross the Shannon within the study area, with the road bridge having glimpses of Thomond Park and of Troy castle in the winter months, and of the nearby wind turbine.

A third category of 'Approach Road views' refers to views entering the city from the north, south, east and west however these are indicative in location.

No protected views in Limerick City will be affected.

**Landscape and Natural Heritage Related Policies**

Policies relating to the natural heritage, including the rivers and specifically the River Shannon tree and hedgerow protection and riparian buffers are included below.

Chapter 1 of the Plan includes a Strategic Vision for Limerick. This includes four Key Ambitions, one of which relates directly to the Shannon:

> *"Limerick will provide room for people to enjoy the River Shannon/Estuary. The animation of the waterfront will increase public access and create new recreational opportunities for residents and visitors."*

Other landscape related policies are found in Chapter 6 Environment, Heritage, Landscape and Green Infrastructure.

***Objective EH O18 Riparian Buffers***

> *"It is an objective of the Council to maintain riverbank vegetation along watercourses and ensure protection of a 20m riparian buffer zone on greenfield sites and sites are maintained free from development. Proposals shall have cognisance of the contents of the Inland Fisheries Ireland document Planning for Watercourses in Urban Environments."*

***Objective EH O10 Trees and Hedgerows***

*"It is an objective of the Council to:*

a) *Retain and protect amenity and biodiversity value of the County and City by preserving as far as possible trees, woodlands and hedgerows, having regard to the significant role that trees and hedgerows play in local ecology, climate change and air quality and their contribution to quality place making and the associated health and wellbeing benefits.*

b) *Require, in the event that mature trees, or extensive mature hedgerow is proposed to be removed, that a comprehensive tree and hedgerow survey be carried out by a suitably qualified tree specialist to assess the condition, ecological and amenity value of the tree stock/hedgerow proposed for removal and to include mitigation planting and a management scheme. The Council will seek in all cases to ensure when undertaking development, or when permitting development, that the loss of, or damage to, existing trees is minimised.*

c) *Require the planting of native trees, hedgerows and vegetation and the creation of new habitats in all new developments and public realm projects. The Council will avail of tree planting schemes administered by the Forest Service, in ecologically suitable locations, where this is considered desirable.*

*d) To identity and prepare TPO's where trees of exceptional amenity, cultural or environmental value are identified which warrant a high level of protection.*

*e) To implement the Limerick City and County Tree Policy when completed and review as appropriate."*

Chapter 7 of the Development Plan (Sustainable Mobility and Transport) contains policies relating to sustainable transport including walking and cycling, as well as a policy relating to the Limerick Northern Distributor Road.

***Objective TR O8 Walking and Cycling Infrastructure***

*It is an objective of the Council to:*

*a) Improve and provide clear, safe and direct pedestrian linkages, cycle networks, including the greenways and primary segregated cycle routes, between the employment zones, shopping areas and residential areas throughout Limerick;*

*b) Maintain and expand the pedestrian route network, infrastructure and where possible, retrofit cycle and pedestrian routes into the existing urban road network, to provide for accessible safe pedestrian routes within Limerick.*

***Objective TR O9 Limerick Cycle Network***

*"It is an objective of the Council to implement in full, the Cycle Network, which will be set out in the final LSMATS with priority given in the short term to delivering the primary cycle network and cycle routes serving schools."*

***Objective TR O36 Limerick Northern Distributor Road***

*It is an objective of the Council to:*

*a) Support the development of the Limerick Northern Distributor Road, which will connect the Coonagh to Knockalisheen Road Scheme to the existing R445 (old N7) and adjoining road network to the east of Limerick City, which will incorporate Smarter Travel measures, in accordance with all environmental and planning assessments.*

The Northern Relief Road though not in the planning process, is illustrated indicatively in Map 7.1 of the LDP.

***Zoning***

Volume 2 of the Plan contains a zoning map, Map 3 (*Limerick City and Suburbs (in Limerick), including Mungret and Annacotty - Zoning Map*), in which the zoning for the study area includes University zoning on the University lands, and High Tech/Manufacturing Campus zoning to the east of the lands which include the National Technology Park as well as some open fields.

**Limerick Shannon Metropolitan Area Transport Strategy**

Section 8 refers to walking, with Section 8.3.7 specifically referring to amenity walks in the study area and surrounds:

*Amenity walks within and through Castletroy offer significant potential for tourism development, particularly along the River Shannon, Groody and Mulcair.*

Section 9 of the Strategy refers specifically to cycling. This includes several types of cycling strategy, and in Section 9.1.7, specifically mentions the study area in the context of the Greenway Cycle Network:

*Greenway Networks correspond to traffic free or low-trafficked routes and typically comprise of*

*repurposed derelict railway lines, routes through parks or alongside rivers. As many of these routes* are quite rural and nature-focussed, they can serve *both an amenity and commuter function. The Greenway Network proposed for LSMA has been developed on the basis of an existing network of Greenway routes and the upgrade of existing paths to provide a comprehensive cycling network. Proposed Greenway Routes include extension of the Shannon Fields Greenway to UL along the banks of River Shannon to the NTP and Annacotty;*

### 11.5.1 Summary of Development Plan Policies

- The LDP includes policies on landscape character of the city and county. Specific Objectives relating to UCA 3 Castletroy do not mention specifics of the campus landscape, such as the mature trees, however tree related policies are covered elsewhere in the Plan. Protected views in the City and County are identified, none of which will be affected by the proposed Greenway development.

- Policies on Rivers and the Shannon Estuary reflect the importance of this river and the intention to increase opportunities for the public to enjoy the river. Policies relating to the retention of trees and hedgerows as well as the maintenance of riparian buffers are set out in the Plan. Tree surveys and mitigation planting are required in certain cases. It is noted that a tree survey has been carried out as part of this EIAR.

- Policies relating to promoting walking and cycling opportunities in the City and County are included which include identification of existing walkway/cycleway connections along parts of Plassey Park Road and parts of the riverbank walk in the UL campus.

## 11.6 Description of Predicted Effects

This section described the predicted landscape and visual effects on the existing landscape receptors the landscape from sensitive receptors. Mitigation measures are not considered in the calculation of potential impacts.

The main landscape and visual effects of the proposed development are described under the headings of Sensitivity, Magnitude of Change and Significance of Effect.

### 11.6.1 Construction Phase

#### *11.6.1.1 Predicted Landscape Effects*

**Landscape Sensitivity**

Section 11.3 above described the landscape character and value of the study area. There are two distinct character areas within the study area, each with their corresponding landscape value as described in Section 11.4.9, which feeds into the judgement on landscape sensitivity.

Landscape values are combined with susceptibility to the changes as a result of the proposed development, to arrive at an overall Landscape sensitivity. Based upon a review of the proposed development in each of these character areas, the Landscape Sensitivity of these areas is as follows:

- **University of Limerick Campus – Groody River bridge to Kilmurry Village: High** Landscape Sensitivity. As noted in Section 11.4.9, this area is considered High Value and has a high proportion of highly valued mature trees along the riverbank path, (as well as on the opposite bank) which contribute to a distinctive character. There are also number of elements of cultural heritage along

and near to the path including the Plassey Mills, Plassey Bridge, Plassey House, fishermen's cottages and the Plassey Mill Race. Plassey Beach is another distinctive area of high sensitivity and special character. The proposed Greenway follows the majority of the existing path and therefore is in close proximity to some of these elements.

- **IDA/National Technology Park grounds – Plassey Park Road** : **Medium** Landscape Sensitivity. This area is considered of Medium value, and in this location the path is partly defined and informal in other parts. Areas of higher value include some wooded areas, the vicinity of Troy/Black Castle and some areas of open grassland, young woodland and scrub have a pleasant character and are considered Medium. The area which includes the proposed route at Kilmurry Village and along University Road, and Plassey Park Road is considered of Low-Medium sensitivity.

**Magnitude of Change**

During the construction phase, expected to last for 3 months per section, the following activities will be carried out:

- Vegetation clearance: Vegetation and trees will be removed to facilitate path widening and, in some locations, creation of a new path. This will involve vegetation clearance and removal and in areas of grassland, stripping and stacking of turf on one side of the proposed Greenway, which will be re-seeded. Tree branches will be chipped on site and used as mulch.
- Bridge removal: 4 no. concrete bridge decks are to be removed. This will involve the breaking up of the bridge decks and the removal of the aggregate for use elsewhere on the site. Removal of a number of metal gates, and concrete and wooden fences will also be carried out.
- Earthworks: the construction of the path will involve machinery removing material as well as bringing material to the location of the proposed path and laying the surface, as well as installation of public lighting, seating, etc.
- Four temporary construction compounds and one temporary working area are proposed and there will be haul roads constructed between the compounds and paved roads. The locations of the construction compounds (measuring 40mx40m) were selected to avoid trees and vegetation. This is particularly important in the case of the Kilmurry Student Village and south of the Fisherman Cottages compounds which are in the vicinity of relatively mature trees.

The construction phase will result in localised changes in parts of the UL Campus, particularly around the compounds. The movement of machinery in these areas and along the proposed route of the Greenway during the Construction phase will result in a magnitude of change ranging from Medium to High along the proposed Greenway route within the UL grounds. The tranquil landscape character with its sense of remoteness will be temporarily affected by the construction works.

A High magnitude of change is likely along the riverbank section east of Kilmurry Village, as there will be a temporary compound in the open field just east of the village, and some vegetation clearance in the vicinity of Castle Troy however this will avoid the area in the immediate vicinity of the Black/Troy Castle and is routed to minimise tree removal as it connects to McLaughlan Road. The changes in the vicinity of Plassey Park Road will be less pronounced as these are already busy routes with construction work ongoing in sections of Plassey Park Road/University Road junction.

**Significance of Effect**

**University of Limerick Campus – UL Boathouse to Kilmurry Village:** Moderate-Significant, adverse, temporary Landscape Effect during the construction phase. This will be a localised effect, confined to the

immediate vicinity of the proposed Greenway and the areas around the construction compounds, and not throughout the wider campus.

- **IDA National Technology park to Plassey Park Road**: Slight-Moderate, adverse, temporary landscape effect. This will be localised, as the majority of this area is slightly more remote and is further away from buildings and other routes, however the requirement for more vegetation clearance will result in a considerable temporary effect on the landscape character.

#### *11.6.1.2 Predicted Visual Effects*

Viewpoints were identified to represent a range of visual receptors, in particular sensitive visual receptors, which include residents, those engaged in recreation or appreciation of cultural heritage. The selection of viewpoints also include views representative of locations visited by larger numbers of people, and locations of particular scenic qualities as well as viewpoints in the vicinity of cultural heritage sites along the route. Views from each of the tree character areas identified have been included.

The selected viewpoints are listed in Table 11-8 and illustrated on Figure 11-7.

***Table 11-8: Viewpoint Locations***

| Viewpoint No | Description |
|---|---|
| **1** | View from beginning of trail at Groody River Bridge |
| **2** | View from trail near Plassey Mills looking towards bridge |
| **3** | View from existing path looking towards Plassey Mills |
| **4** | View approaching tree lined trail at Dromroe Student village (looking east) |
| **5** | View from trail underneath the 'Living Bridge' (looking west) |
| **6** | View from tree-lined trail approaching Plassey Bridge looking east) |
| **7** | View from trail adjacent to Plassey Beach |
| **8** | View from shore at Plassey Beach |
| **9** | View from gates opposite entrance to Kilmurry Village |
| **10** | View from grass area at Kilmurry |
| **11** | View from Kilmurry at proposed northern end of path |
| **12** | View from Kilmurry looking south along University Road |
| **13** | View from end of path at McLaughlin Road |

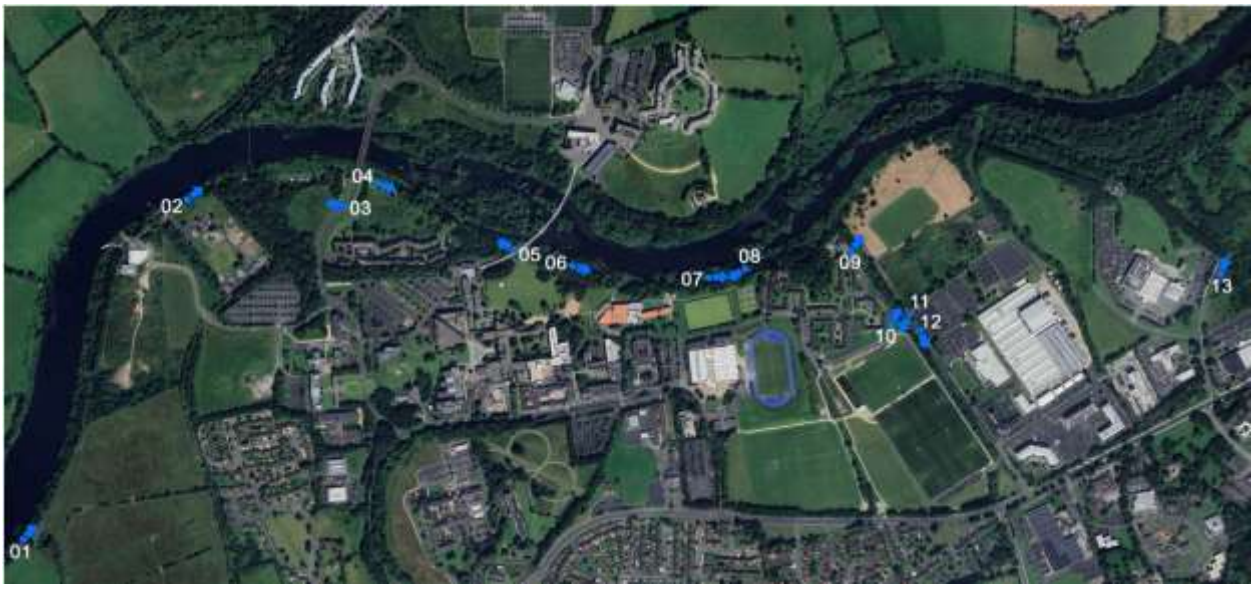


**Figure 11-7: Viewpoint Location Map (Source : Innovision)**

Visual Effects at the construction phase are likely to be primarily associated with vegetation and tree removal, visibility of the temporary construction compounds and of construction machinery on the site.

While the photomontages and the accompanying detailed descriptions describe the main changes which will take place and the effects at the Operational Phase, Table 11.9 below summarise the visual effects at the construction phase for each of the viewpoints.

The visual effects during construction are in this case, more pronounced than at the Operational phase. Depending on the view, viewers will see actions such as removal of trees and vegetation, breaking up and removing of some existing hard surfaces and topsoil stripping, construction of the proposed path and railings, and machinery entering and exiting the site. The visual effects tend to be adverse as the finished pathway will not be visible, and the view is of a construction activity and the temporary loss of the pleasant tranquil character which many of the views represent.

The duration of the effects in the Table 11.9 below are all temporary in duration.

**Table 11-9: *Viewpoint Assessment Summary: Construction Phase***

| Viewpoint No | Description | Magnitude of Change | Significance of Effect |
|---|---|---|---|
| **1** | View from beginning of trail at Groody River Bridge | Medium | Slight-Moderate, adverse |
| **2** | View from trail near Plassey Mills looking towards bridge | Medium | Moderate, adverse |
| **3** | View from existing path looking towards Plassey Mills | Medium | Slight-Moderate, adverse |
| **4** | View approaching tree lined trail at Dromroe Student village (looking east) | Medium | Moderate, adverse |
| **5** | View from trail underneath the 'Living Bridge' (looking west) | Medium | Moderate-Significant, adverse |
| **6** | View from tree-lined trail approaching Plassey Bridge looking east) | Medium | Moderate, adverse |

| Viewpoint No | Description | Magnitude of Change | Significance of Effect |
|---|---|---|---|
| **7** | View from trail at Plassey Beach | High | Significant, adverse |
| **8** | View from water's edge at Plassey Beach | High | Significant, adverse |
| **9** | View from gates opposite entrance to Kilmurry Village | Low | Slight, adverse |
| **10** | View from grass area at Kilmurry | Low | Slight, adverse |
| **11** | View from Kilmurry at proposed northern end of path | Low | Slight, adverse |
| **12** | View from Kilmurry looking south along University Road | Low | Slight, adverse |
| **13** | View from end of path at McLaughlin Road | Low-Medium | Slight, adverse |

There will be visual effects also at the four locations where the temporary construction compounds are located. The most pronounced are likely to be in the vicinity of the Dromroe student village where the compound will be easily visible and by a number of visual receptors (those on the path, approaching and form the Dromroe village itself, and some from the bridge to the west). the compound just east of Kilmurry student village is also likely to be highly visible and both are considered to give rise to Moderate, adverse temporary visual effects. The compound at the western end, near the Wastewater treatment plan is likely to be less easily visible, as is that at McLaughlin drive, which are considered Slight, adverse, temporary visual effect.

### 11.6.2 Operational Phase

#### *11.6.2.1 Predicted Landscape Effects*

**Landscape Sensitivity**

This is described in Section 11.4.9 and remains the same for both the Construction and Operational Phase.

**Magnitude of Change**

The main elements undergoing change are the loss of some mature trees, tree groups and vegetation, and some elements removed, as well as path widening and other elements. More pronounced effects occur in several areas such as the Plassey Beach area, where a proposed bridge, ramp and retaining wall and railings are proposed. Other areas undergoing slightly more change are the wooded areas which the route will traverse near Plassey Mills, near Troy Castle, and in the vicinity of the Living Bridge, with vegetation clearance necessary in these areas.

Loss of Trees and Bankside Vegetation: Within the UL Campus section, the proposed route follows the existing path, and the existing path is widened along the majority of the route. The exceptions are the areas where the proposed Greenway diverts off the existing path to avoid effects on mature trees, north of Dromroe student village as well as some woodland between Dromroe and the Living Bridge. Tree removal due to path construction is also proposed between Plassey Mills and the Fishermen's cottages, where the path is proposed to traverse a wooded area to minimise effects on the privacy of the dwellings. Both the widening of the of the existing path and the creation of new sections of path result in some removal of mature trees.

These are indicated on the Tree Survey (Constraints Drawing) Tree Survey as T7, T49/50, T51 all of which are Category B trees. The removal of some younger trees and vegetation will also be necessary at several locations, resulting in the removal of the tree groups TG1,TG8,TG11 and the trees mentioned above north and east of Dromroe village. Removal of Category A trees, of which there are 41 in this section, has been avoided.

As the Tree Survey notes (described in Section 11.4.3), a high proportion (41 out of a total of 77) of the trees along the River Shannon corridor are Category A1. 74 of these trees are within the UL Campus, and only three mature trees are to be removed in this area, along with the tree groups noted above. This then is a very small proportion of the total number of trees, and the vast majority of the mature and all of the Category A (High Quality) trees are retained. Though there is removal of some tree groups this is relatively small scale within the Campus.

Between Kilmurry student village and Troy (Black) Castle parts of the path are relatively open but certain sections are much more overgrown. Removal of some scrub vegetation and trees from larger tree groups is indicated on the Drawings in the Tree Survey Report. As the drawings show, the Category B tree groups along the route of the path are largely retained with small proportions of Tree Groups 12,13,14,19,20,21,22 to be removed. Refer to EIAR Part III - Appendices.

The amendments to the path which is routed away (inland) from the existing narrow bridge near the Plassey Beach area, will result in some vegetation and tree removal (as illustrated in Viewpoint 7).

This, taken with the proposed ramp and particularly the retaining wall and railings at the Beach will result in a change in character to this area. It should be noted that this area was the subject of several design iterations, with the aim of minimising the visual effects on this area, with the extent of the retaining wall considerably reduced as the design process evolved.

The beach is a unique area in the campus with a strong sense of naturalness and a distinctive character. The proposal will increase the amount of hard surface and of 'man-made features' in a view which is relatively naturalistic. However, the reduction in the length of the railing (as part of the iterative design process) has reduced vegetation removal as well as the visual effects from the shore itself. While some key trees are removed on the shore, the majority of trees in the area have been retained.

The ramp will provide access for all to the shore, and the extensive railing and wall all result in a medium magnitude of change to the character of the area, which is naturalistic and a scenic and pleasant part of the campus, the beach being a notable feature.

Rest areas along the route are proposed near Plassey Mills, incorporating the existing stone walls into the feature. The stone bridge near Plassey Mills is to be retained and a 10m long single span steel bridge constructed adjacent to it. These proposals will result in small scale changes to the character.

Other works include bank stabilisation near Plassey Mill Race. Replacement tree planting is proposed along the route at several locations, including to the rear of the fishermen's cottages and to the front of the student residence at Dromroe village.

In summary –

- **Groody River Bridge to Kilmurry Village**: This area is expected to undergo a **Medium** magnitude of change in certain areas – in particular the Plassey Beach area, and the Plassey Mills area. These will undergo an increase in hard surfacing, vegetation removal and a localised change in character will occur. Some tree and vegetation is proposed along the route, but the majority of the trees and all of the Category A trees are to be retained, with removal of 7 no. individual trees only, some

younger trees and trees within larger tree groups proposed. New sections of path in front of (north) and east of Dromroe village are proposed to avoid important mature trees. The remaining areas however, such as those in Kilmurry village and along the path between the Groody River bridge and the Plassey Mills will undergo a **Low** magnitude of change.

- **IDA Technology Park – Plassey Park Road** : The magnitude of landscape change is considered to range from **Low** The creation of a more formal and wider pathway along the majority of the route will result in a Low magnitude of change. The change will be noticeable and will include the proposed path in open grassy areas as well as a considerable clearance of understorey vegetation. The Tree Survey drawings (included in EIAR Part III - Appendices) depict large groups of trees considered to be Class B, and tree removal to facilitate the path is relatively limited.

**Significance of Effect**

- **University of Limerick Campus – River Groody bridge to Kilmurry Village**
  The majority of the areas where the proposed Greenway traverses the UL campus are expected to undergo Not Significant to Slight landscape effects, which are neutral in quality, where the path is simply widened and re-surfaced with some small-scale vegetation loss.

  Slight to Moderate, adverse effects result in certain areas– the woodland east of Dromroe village and west of the Living Bridge, where some tree removal is necessary to facilitate an alternative route. However over time, as the vegetation along the path route recovers and the ground layer re-establishes, the effects will reduce. The Plassey Mills rest area, which is located at the end of the disused Plassey Bridge, will also undergo a localised change in character, but this will be less pronounced and considered a Moderate, neutral, localised effect, as there are already some elements (a wider path, stone walls) which render this change less obvious.

  The area around Plassey Beach will undergo the most noticeable change, considered of Medium-magnitude. This is a High sensitivity landscape and, in this location, the effects on the localised landscape character of the shore would be considered Moderate, and adverse. Through the shore is a small area (geographically) and the effects do not extend to the wider landscape, the small size of the shore area means it has a lower capacity to absorb new elements and the ramp, retaining wall and railings and removal of several distinctive mature trees, and the widened and hard surfaced path adjacent to the shore, will result in a changed character, as no part of the shore is unaffected. The effect is considered Moderate and range from Long Term/Permanent. Some limited re-vegetation is likely to occur over time once the railings and ramp are in place.

  The landscape effects will be very localised to the immediate vicinity of the path, and not perceptible from the wider UL campus landscape.

- **IDA Technology Park-Plassey Park Road**: The landscape effects are considered overall to be overall Slight. The removal of mature trees is likely to be limited, in particular between the Kilmurry village area to just east of the Black/Troy Castle, where the majority of the Tree Groups (classified as B value in the Tree Survey) are retained and thus the wooded character of much of this part of the path will remain.

Along with this, the very dense undergrowth (with its somewhat oppressive character) along this part of the study area will be removed, considerably opening up the character of the path and creating a more inviting atmosphere for the user.

Some tree removal occurs at the end of McLaughlin Road where the path connects to the riverbank and this is not indicated on the Tree Survey, but tree removal was minimised by avoidance of the semi-mature street trees which are adjacent to the road. The proposed Greenway 'spurs' along University Road and the existing McLaughlin Road are considered to result in Not Significant, neutral landscape effects.

#### *11.6.2.2 Predicted Visual Effects*

The main visual effects will be evident at the Operational Phase. For each viewpoint, the visual assessment consists of a description of the existing view, the magnitude of the change, and the significance of the visual effect. The viewpoints are assessed in Table 11-10.

***Table 11-10 Assessment of Viewpoints***

| **Viewpoint No 1: View from beginning of trail at Groody River Bridge** |
|---|
| **Existing View**<br>This view shows the hard surfaced path, with timber fencing on both sides. Trees line the path on both sides to the left of the view, with a small tree and undergrowth in the field in the centre of the view. To the right of the view there is a view to an open field. |
| **Visual Receptor Sensitivity**<br>Visual receptors in this location would be recreational users the path, where there is a pleasant character primarily created by the trees. Viewers here are considered to be of **High sensitivity** as per the criteria in Table 11-4:<br>'*…viewpoints that are highly valued by people that experience them regularly (such as views from houses or outdoor recreation features) and views which are valued by the local community*' |
| **Proposed View**<br>The proposed view shows the existing path is retained, but bollards restrict access. To the right of the view, a new path is visible, with timber fencing defining the new path from the field. Metal railings separate the two pathways. |
| **Magnitude of Change**<br>The magnitude of change is considered Low, as per the criteria set out in Table 11.4:<br>"*Minor intrusion of the development into the view, or introduction of elements that are not uncharacteristic in the context, resulting in minor alteration to the composition and character of the view but no change to visual amenity*"<br>There is some change shown in the proposed photomontage to the composition of the view, due to minor removal and the introduction of a new cycle path, timber fencing and a short section of metal railing. A more open view to the fields is evident due to the vegetation removal. However the existing tree lines path and view to the open field remains the same and the change is considered of Low magnitude. |
| **Significance of Effect**<br>The significance of effect, as outlined in Table 11.3, resulting from a High visual receptor sensitivity, and a Low magnitude of change results in a Moderate effect. However this is a guide only and using professional judgement, the visual effect is considered **Slight, and neutral**. The quality of the effect is considered neutral, as while it does increase the hard surface, however the view still has a high |

| **Viewpoint No 1: View from beginning of trail at Groody River Bridge** |
|---|
| proportion of vegetation, and the character is slightly more open which (depending on the viewer) can be perceived as a slightly safer environment. |

| **Viewpoint No 2: View from trail near Plassey Mills looking towards bridge** |
|---|
| **Existing View**<br>This view shows the existing relatively narrow path, with timber fencing on both sides. Low-level vegetation is encroaching on the path in the foreground, and in the middle ground, a low concrete parapet wall is visible. Trees overhang the path on the right-hand side, while on the left the trees are further back form the path. In the distance, curving stone walls (leading to Plassey Bridge) are just visible, along with a steel gate. |
| **Visual Receptor Sensitivity**<br>Visual receptors in this location would be recreational users the path, where there is a pleasant character primarily created by the trees. Viewers here are considered to be of **High sensitivity** as per the criteria in Table 11.4:<br>'*…viewpoints that are highly valued by people that experience them regularly (such as views from houses or outdoor recreation features) and views which are valued by the local community*' |
| **Proposed View**<br>The proposed view shows a much wider tarmacadam path, with higher steel railings replacing the timber fence. The concrete bridge parapet is replaced by steel railings. These railings are higher; however they are coloured so as to be less obtrusive than the existing steel gate in the background. and contrast sharply with views of the curved stone walls in the distance, which are retained. Some of the trees to the left of the path are removed as well as some overhanding branches. In the distance, the steel gate is replaced by dark green metal fencing. |
| **Magnitude of Change**<br>The magnitude of change is considered Low, as per the criteria set out in Table 11.4:<br>"*Minor intrusion of the development into the view, or introduction of elements that are not uncharacteristic in the context, resulting in minor alteration to the composition and character of the view but no change to visual amenity*"<br>While there is some change in the proposed photomontage to the composition of the view, due to vegetation removal, the wider path and the introduction of higher railings, the pleasant, tree-lined character of the path and the view largely remains the same. |
| **Significance of Effect**<br>The significance of effect, as outlined in Table 11.3, resulting from a High visual receptor sensitivity, and a Low magnitude of change results in a Moderate effect. However this is a guide only and using professional judgement, the visual effect is considered **Slight, and neutral**. The quality of the effect is considered neutral, as while it does increase the extent of hard surface, however the view still has a high proportion of vegetation, and the character is slightly more open which (depending on the viewer) can be perceived as a slightly safer environment. |

**Viewpoint No 3: View from existing path looking towards Plassey Mills**

**Existing View**

This view is taken from the existing path, looking towards a grassed area, with a glimpse of the fishermen's cottages through the deciduous trees which form the backdrop to the view.

**Visual Receptor Sensitivity**

Visual receptors in this location would be recreational users the path, where there is a pleasant character primarily created by the trees and open grassed area. Viewers here are considered to be of **Medium sensitivity** as per the criteria in Table 11.4:

*…views are generally not designated, but which include panoramic views or views judged to be of some scenic quality, which demonstrate some sense of naturalness, tranquillity or some rare element in the view.*

**Proposed View**

The proposed view shows the proposed Greenway path traversing the grassed area, leasing towards the trees. The path is lined by a timber fence to the left, and by shrubs to the right. To the right of the path, additional tree planting is shown, while the wet grassland to the left of the path is retained.

**Magnitude of Change**

The magnitude of change is considered Low-Medium, as per the criteria set out in Table 11.4:

Low is considered:

*"Minor intrusion of the development into the view, or introduction of elements that are not uncharacteristic in the context, resulting in minor alteration to the composition and character of the view but no change to visual amenity"*

*Medium is considered:*

*'…introduction of elements that may be prominent but not necessarily uncharacteristic in the context, resulting in change to the composition but not necessarily the character of the view or the visual amenity'*

While there is some change in the proposed photomontage to the composition of the view, due to the proposed path, and planting of shrubs and trees, the view towards the distant trees over a grassed area remains. The proposed tree planting adds to the quality and visual interest of the view.

**Significance of Effect**

The significance of effect, as outlined in Table 11.3, resulting from a Medium visual receptor sensitivity, and a Low-Medium magnitude of change results in a **Slight-Moderate** effect. The quality of the effect is considered neutral to beneficial, as while it does introduce some hard surface, the view still has a high proportion of vegetation, and this is increased by the tree and shrub planting.

**Viewpoint No 4: View approaching tree-lined trail at Dromroe Student village (looking east)**

**Existing View**

This view shows a loose gravel path adjacent to a large area of amenity grass, and in the middle ground the path runs under line of very mature trees, the main element of the view, which occupy much of the left-hand side of the view. To the right, smaller scattered trees are visible among the grassland. This is a pleasant view with a sense of naturalness, and a character reminiscent of parkland. A glimpse of the timber-clad Dromroe village buildings is seen to the right of the image. (Note – the avenue of mature trees is possibly more striking when the tree trunks are visible in the wintertime).

**Visual Receptor Sensitivity**

Visual receptors in this location would be recreational users of the path, where there is a pleasant, parkland character, primarily created by the mature trees and grassland. Viewers here are considered to be of High sensitivity as per the criteria in Table 11.4:

**Viewpoint No 4: View approaching tree-lined trail at Dromroe Student village (looking east)**

*'…viewpoints that are highly valued by people that experience them regularly (such as views from houses or outdoor recreation features) and views which are valued by the local community'*

**Proposed View**

The proposed view shows that the existing path under the mature trees remains, and that a wider hard surfaced path is shown to the right of the view, in the grassland, avoiding the mature trees as well as the smaller trees. Bollards are shown restricting access to the existing path, while lighting columns are also shown along the proposed cycle path to the right of the view. A timber fence divides the cycle path from the open grassland. Additional tree planting is shown to the right of the view, screening the views of the Dromroe buildings.

**Magnitude of Change**

The magnitude of change is considered Low-Medium, as per the criteria set out in Table 11.4:

*"Minor intrusion of the development into the view, or introduction of elements that are not uncharacteristic in the context, resulting in minor alteration to the composition and character of the view but no change to visual amenity"*

The new path to the right of the view is the main change in the proposed photomontage, resulting in a slight reduction in the expanse of grassland in the view, and therefore a slight change in the to the composition of the view. The introduction of several elements of 'street furniture' which include bollards, a timber fence and lighting standards contribute to a more urban character to what is currently a view of open parkland with a striking mature tree avenue. However, the main element of the view, the mature tree avenue, remains, as does the expanse of grassland and scattered trees.

**Significance of Effect**

The significance of effect, as outlined in Table 11.3, resulting from a High visual receptor sensitivity, and a Low magnitude of change results in a Moderate effect. However this is a guide only and using professional judgement, the visual effect is considered **Slight, and adverse to neutral.** While the proposed path at a wider of 3.5m does increase the hard surface in the view, the elements of street furniture give an urban feel to a view which has strong semi-natural parkland quality. However the main elements which are the mature Beech trees and the overall of the character of the view remain.

**Viewpoint No 5: View from trail underneath the 'Living Bridge' (looking west)**

**Existing View**

This view shows an existing, relatively narrow, path which passes underneath the 'Living Bridge'. Informal vegetation is seen to either side, with the path entering an area of woodland in the middle ground. Overhanging trees prevent any long-distance views along the path. The character of the view is pleasant but not highly scenic.

**Visual Receptor Sensitivity**

Visual receptors in this location would be recreational users of the path, where there is a pleasant but not particularly scenic view. Viewers here are considered to be of Medium sensitivity as per the criteria in Table 11.4:

*…views are generally not designated, but which include panoramic views or views judged to be of some scenic quality, which demonstrate some sense of naturalness, tranquillity or some rare element in the view.*

**Proposed View**

The proposed view shows that the existing path under the mature trees remains, and that a wider hard surfaced path is shown to the left of the view, through the woodland, and while tree removal is evident,

| **Viewpoint No 5: View from trail underneath the 'Living Bridge' (looking west)** |
|---|
| trees remain on both sides of the proposed path. The existing path in the foreground and the proposed new path are both lined with timber fencing, and a bollard restricts access to the existing path after is passes under the bridge. |
| **Magnitude of Change**<br>The magnitude of change is considered Low, as per the criteria set out in Table 11.4:<br><br>*"Minor intrusion of the development into the view, or introduction of elements that are not uncharacteristic in the context, resulting in minor alteration to the composition and character of the view but no change to visual amenity"*<br>The widening of the existing path, and a new path to the left of the view is the main change in the proposed photomontage, resulting in an opening in the woodland to the left of the view, therefore a slight change in the to the composition of the view. The timber fencing and bollards restrict the open character of the existing view and give the impression that the woods are 'fenced off'. However, the main element of the view, the bridge and wooded areas, remain. |
| **Significance of Effect**<br>The significance of effect, as outlined in Table 11.3, resulting from a Medium visual receptor sensitivity, and a Low magnitude of change results in a **Slight effect**. The visual effect is considered **Slight, and neutral**. The quality of the effect is considered neutral, as while it does increase the hard surface in the view, and there is some tree removal to facilitate the path, , the main elements and the overall of the character of the view remain. However the fencing and bollards change the open character of the view. |

| **Viewpoint No 6: View from tree-lined trail approaching Plassey Bridge looking east)** |
|---|
| **Existing View**<br>This view shows an existing, relatively narrow, raised path which is lined by mature trees on both sides, the path is in close proximity to large mature tree-trunks. The mature trees provide a dense canopy overhead, creating a strong sense of enclosure which is distinctive. The grounds slopes to the right (to the Plassey Mill Race) and to the left slopes towards the riverbank, which also makes the path distinctive. These features combine to create a unique character in this view. |
| **Visual Receptor Sensitivity**<br>Visual receptors in this location would be recreational users of the path, and at this location the view is considered highly scenic and of unique character. Viewers here are considered to be of High sensitivity as per the criteria in Table 11.4:<br>'*viewpoints that are highly valued by people that experience them regularly (such as views from houses or outdoor recreation features) and views which are valued by the local community*'' |
| **Proposed View**<br>The proposed view shows that the existing path under the mature trees remains, and that a wider hard surfaced path is shown to the left of the view, which weaves around the trees. One small tree and one mature tree are removed. |
| **Magnitude of Change**<br>The magnitude of change is considered Low , as per the criteria set out in Table 11.4: |

| **Viewpoint No 6: View from tree-lined trail approaching Plassey Bridge looking east)** |
|---|
| *"Minor intrusion of the development into the view, or introduction of elements that are not uncharacteristic in the context, resulting in minor alteration to the composition and character of the view but no change to visual amenity"*<br>The proposed path to the right of the view along will be noticeable as the main focus of the viewer here will be on the trees and the intimate woodland setting. with the removal of a mature tree |
| **Significance of Effect**<br>The significance of effect, as outlined in Table 11.3, resulting from a High visual receptor sensitivity, and a Low magnitude of change results in **Slight-Moderate** The quality of the effect is considered adverse , as it does introduce a new elements, that of a hard surface in the view, and one of the four mature trees clearly visible in the view is removed. |

| **Viewpoint No 7: View from trail at Plassey Beach** |
|---|
| **Existing View**<br>This view shows an existing, narrow section of path bordered by trees on the right-hand side, and by low ground cover vegetation on both sides. To the left of the view, the ground slopes towards the riverbank, creating a 'shore' area. One multi-stemmed tree is visible to the left of the bank. In the distance, the path crosses over a bridge but this is difficult to discern in the view. The character is a pleasant view, with elements of water, riverbank 'shore' and woodland, which has a strong sense of naturalness, and scenic qualities. |
| **Visual Receptor Sensitivity**<br>Visual receptors in this location would be recreational users of the path, and at this location the view is considered scenic, and the view of Plassey Beach is a unique feature. Viewers here are considered to be of High sensitivity as per the criteria in Table 11.4:<br>'*viewpoints that are highly valued by people that experience them regularly (such as views from houses or outdoor recreation features) and views which are valued by the local community*'' |
| **Proposed View**<br>The proposed view shows that the existing path under the trees has been widened considerably, and a steel railing is seen to the left and right of the path, restricting the view to the shore. A viewing area is visible to the left of the view, extending out over the riverbank.<br>A larger paved hard surface is seen in the foreground of the view (a seating area is proposed to the rear of the viewer) and to the right, the path continues on into the woods, also bordered by steel railing. Some tree removal is evident to both the left and the right of the view and the multi-stemmed tree to the left of the view along the shore is removed. The railings also remove the open access to the riverbank or 'shore'. |
| **Magnitude of Change**<br>The magnitude of change is considered High , as per the criteria set out in Table 11.4:<br>*Extensive intrusion of the development in the view, or partial intrusion that obstructs valued features, or introduction of elements that may be considered uncharacteristic in the context, to the extent that the development becomes co-dominant with other elements in the composition and affects the character of the view and the visual amenity.*<br>There is a considerable increase in hard surface, which occupies a medium proportion of the view. The tarmacadam extends across the whole extent of the view, compared to a narrow earthen path, tree |

| **Viewpoint No 7: View from trail at Plassey Beach** |
|---|
| removal also reduce the strong natural quality of the view and coupled with the extensive railings this results in a change to the composition and character of the view, becoming more urban. |
| **Significance of Effect**<br>The significance of effect, as outlined in Table 11.3, resulting from a High visual receptor sensitivity, and a medium magnitude of change results in a Significant effect. The significance of effect, as outlined in Table 11.3, the combination of a High visual receptor sensitivity and a High magnitude of change results in a Very Significant visual effect. With professional judgement applied this may be reduced to **Significant.** The effect is considered **adverse** in quality. |

| **Viewpoint 8:** View from Plassey Beach |
|---|
| **Existing View**<br>This view shows a view along the Beach, with the river, a narrow shore which gently slopes up to the existing path and tree line. Some grassy vegetation is evident along the upper slopes of the shore area, and mature trees extend along the full width of the view, in the background. A mature multi-stemmed tree is seen to the right of the view along the shore. The view has a strong sense of naturalness and tranquillity. |
| **Visual Receptor Sensitivity**<br>Visual receptors in this location would be recreational users of the Beach area , and at this location the view is considered very scenic, with elements of water, beach, grasses and trees - the Beach itself is a unique feature. Viewers here are considered to be of High sensitivity as per the criteria in Table 11.4: *'viewpoints that are highly valued by people that experience them regularly (such as views from houses or outdoor recreation features) and views which are valued by the local community''* |
| **Proposed View**<br>The proposed view shows that a concrete retaining wall with a steel fence extends along the length of the shore, and the grassy vegetation has been removed. A new seat will be attached to the ramp wall and the ramp extending to the shore is visible in the background. The large multi-stemmed tree in the background has been removed. |
| **Magnitude of Change**<br>The magnitude of change is considered High , as per the criteria set out in Table 11.4:<br>*Extensive intrusion of the development in the view, or partial intrusion that obstructs valued features, or introduction of elements that may be considered uncharacteristic in the context, to the extent that the development becomes co-dominant with other elements in the composition and affects the character of the view and the visual amenity.*<br>There is a pronounced change in the character and composition of the view. The concrete retaining wall, ramps and railings are uncharacteristic elements in the view, and their presence which remove the sense of naturalness, created by the gradual slope form path to the shore and the river. The wall and railings are visually intrusive and cut off the viewer from the path. The removal of the mature tree contributes to the change in the natural character of the shore area. |
| **Significance of Effect**<br>The significance of effect, as outlined in Table 11.3, the combination of a High visual receptor sensitivity and a High magnitude of change results in a Very Significant visual effect. With professional judgement applied this may be reduced to **Significant.** The effect is considered **adverse** in quality. |

| **Viewpoint No 9: View from gates opposite entrance to Kilmurry Village** |
|---|
| **Existing View**<br>This view shows a view through a steel mesh fence, beyond which a building is visible to the left of the view, with a tree line to the right, and hard surfaced yard in the foreground and middle ground. |
| **Visual Receptor Sensitivity**<br>Visual receptors in this location are currently those walking in Kilmurry village, and not recreational users of the path. At this location the view is not considered of scenic value. Viewers here are considered to be of Low sensitivity as per the criteria in Table 11.4:<br>'*Viewers at viewpoints reflecting people involved in activities not focused on the landscape e.g. people at their place of work or engaged in activities such as shopping, etc.*' |
| **Proposed View**<br>The proposed view shows the fence is removed, and a coloured hard surfaced path is located adjacent to the existing treeline and kerb. Other elements in the view remain. |
| **Magnitude of Change**<br>The removal of the fence and introduction of a coloured surfaced path are the only changes.<br>The magnitude of change is considered Negligible, as per the criteria set out in Table 11.4:<br>*Barely discernible intrusion of the development into the view, or introduction of elements that are characteristic in the context, resulting in slight change to the composition of the view and no change in visual amenity.* |
| **Significance of Effect**<br>The significance of effect, as outlined in Table 11.3, resulting from a Low visual receptor sensitivity, and a Low magnitude of change results in a **Not Significant** visual effect. The quality of the effect is considered beneficial, as the path is a minor element in the view and is suitable in terms of scale. The main elements of the view are unchanged, and removal of the fence opens up the view. |

| **Viewpoint No 10: View from grass area at Kilmurry** |
|---|
| **Existing View**<br>This view shows a view over a grassed area in the foreground, with a road in the middle ground and a row of mature trees and shrubs beyond. To the right of the view, entrance gates are evident, and the road and carpark are visible beyond this gate, with trees lining the road in the background. |
| **Visual Receptor Sensitivity**<br>Visual receptors in this location are currently those walking in Kilmurry village, on the grassed areas, and not recreational users of the path. At this location the view has some limited scenic value, primarily as a result of the mature tree planting, viewers here are considered to be of Low-Medium sensitivity as per the criteria in Table 11.4:<br>Low is described as:<br>'*Viewers at viewpoints reflecting people involved in activities not focused on the landscape e.g. people at their place of work or engaged in activities such as shopping, etc.*'<br>Medium sensitivity as per the criteria in Table 11.4:<br>'*…views are generally not designated, but which include panoramic views or views judged to be of some scenic quality, which demonstrate some sense of naturalness, tranquillity or some rare element in the view*' |
| **Proposed View** |

| **Viewpoint No 10: View from grass area at Kilmurry** |
|---|
| The proposed view shows that a paved path is visible to the left of the view and runs to the rear of some of the shrubby vegetation, crossing the road on the far side of the entrance gates. |
| **Magnitude of Change**<br>The magnitude of change is considered Negligible, as per the criteria set out in Table 11.4:<br>*Barely discernible intrusion of the development into the view, or introduction of elements that are characteristic in the context, resulting in slight change to the composition of the view and no change in visual amenity.* |
| **Significance of Effect**<br>The significance of effect, as outlined in Table 11.3, resulting from a Low-Medium visual receptor sensitivity, and a Negligible magnitude of change results in an **Imperceptible visual effect**. The quality of the effect is considered **neutral**. |

| **Viewpoint No 11: View from Kilmurry at proposed northern end of path** |
|---|
| **Existing View**<br>This view shows the vehicular entrance to Kilmurry student village. A gate denoted the entrance and allows views into the buildings, while mature trees are visible to the left and right of the entrance. |
| **Visual Receptor Sensitivity**<br>Visual receptors in this location are currently those walking towards Kilmurry village or at the end of University Road. At this location the view is not considered of scenic value. Viewers here are considered to be of Low-Medium sensitivity. Low is defined as per the criteria in Table 11.4:<br>'*Viewers at viewpoints reflecting people involved in activities not focused on the landscape e.g. people at their place of work or engaged in activities such as shopping, etc.*'<br>Medium sensitivity as per the criteria in Table 11.4:<br>'*…views are generally not designated, but which include panoramic views or views judged to be of some scenic quality, which demonstrate some sense of naturalness, tranquillity or some rare element in the view*' |
| **Proposed View**<br>The proposed view shows a raised traffic table on the road in front of the entrance gates. This connects to a path to the right and left of the view. Very limited vegetation removal is visible to the right of the view, but barely noticeable due to the retention of existing trees. A short section of fence is included to the right of the view. |
| **Magnitude of Change**<br>The magnitude of change is considered Negligible as per the criteria set out in Table 11.4:<br>'*Change that is limited in scale, resulting in no alteration to landscape receptors, and introduction of elements that are characteristic of the context. Such development results in no change to the landscape character, quality or perceived value.*' |
| **Significance of Effect**<br>The significance of effect, as outlined in Table 11.3, resulting from a Low-Medium sensitivity and Negligible magnitude of change is an **Imperceptible visual effect.** The quality of the effect is considered **neutral.** |

| **Viewpoint No 12: View looking south along University Road** |
|---|
| **Existing View** |

| **Viewpoint No 12: View looking south along University Road** |
|---|
| This view looks along University Road from the Kilmurry village and Troy Studios entrances. The road is visible in the centre of the view, with a grass verge to the left, and a partial grass verge to the right, with several hard surfaced lay-by areas for car parking. Mature trees line the road to the left and the right. |
| **Visual Receptor Sensitivity**<br>Visual receptors in this location are considered of Low sensitivity:<br>'*Viewers at viewpoints reflecting people involved in activities not focused on the landscape e.g. people at their place of work or engaged in activities such as shopping, etc.*' |
| **Proposed View**<br>The proposed view shows a new pavement to the right of the view, extending along the road, with a segregated cycle and pedestrian path, the cycle path surface coloured red. Some minor vegetation removal is evident to the right of the view to facilitate the pathway; however the trees are retained, and the overall view remains similar. |
| **Magnitude of Change**<br>The magnitude of change is considered Low as per the criteria set out in Table 11.4:<br>"*Minor intrusion of the development into the view, or introduction of elements that are not uncharacteristic in the context, resulting in minor alteration to the composition and character of the view but no change to visual amenity*" |
| **Significance of Effect**<br>The significance of effect, as outlined in Table 11.3, resulting from a Low sensitivity and Low magnitude of change is a **Slight visual effect**. The quality of the effect is considered **neutral.** |

| **Viewpoint No 13: View from end of path at McLaughlin Road** |
|---|
| **Existing View**<br>This view shows the view looking along McLaughlan Road. In the foreground, the road curves around to the left, with a row of trees adjacent to the road. In the foreground, a path to the right of the view leads towards a field gate, with trees beyond. To the left, a grassed area with some individual trees is visible. |
| **Visual Receptor Sensitivity**<br>Visual receptors in this location are considered of Medium sensitivity:<br>'*…views are generally not designated, but which include panoramic views or views judged to be of some scenic quality, which demonstrate some sense of naturalness, tranquillity or some rare element in the view*'<br>There are some pleasant qualities to the view, and viewers would include those walking on the existing path which is used for recreation. In addition, the gate leads to an informal track which connects to a riverside path. |
| **Proposed View**<br>The proposed view shows a new pavement to the right of the view, extending along the road, with a grade-segregated cycle and pedestrian path, the cycle path surface coloured red. The gate is removed, and bollards are visible, with a pavement extending to the rear of the main band of tree planting. Some limited tree removal is seen to the right of the view. In the foreground, a raised traffic table and pedestrian crossing is visible. |
| **Magnitude of Change**<br>The magnitude of change is considered Low as per the criteria set out in Table 11.4: |

| **Viewpoint No 13: View from end of path at McLaughlin Road** |
|---|
| *"Minor intrusion of the development into the view, or introduction of elements that are not uncharacteristic in the context, resulting in minor alteration to the composition and character of the view but no change to visual amenity"* |
| **Significance of Effect**<br>The significance of effect, as outlined in Table 11.3, resulting from a Medium sensitivity and Low magnitude of change is a **Slight** visual effect. The quality of the effect is considered **neutral.** |

**Table 11-11: Visual Assessment Summary: Operational Phase**

| Viewpoint No | Description | Magnitude of Change | Significance of Effect |
|---|---|---|---|
| **1** | View from beginning of trail at Groody River Bridge | Low | Slight neutral |
| **2** | View from trail near Plassey Mills looking towards bridge | Low | Slight neutral |
| **3** | View from existing path looking towards Plassey Mills | Low-Medium | Slight -Moderate neutral to beneficial |
| **4** | View approaching tree lined trail at Dromroe Student village (looking east) | Low-Medium | Slight, neutral to adverse |
| **5** | View from trail underneath the 'Living Bridge' (looking west) | Low | Slight, neutral |
| **6** | View from tree-lined trail approaching Plassey Bridge (looking east) | Medium | Slight -Moderate, adverse |
| **7** | View from Plassey Beach | High | Significant, adverse |
| **8** | View from trail at Plassey Beach | High | Significant, adverse |
| **9** | View from gates opposite entrance to Kilmurry Village | Negligible | Not Significant, beneficial |
| **10** | View from grass area at Kilmurry | Negligible | Imperceptible, neutral |
| **11** | View from Kilmurry at proposed northern end of path | Negligible | Imperceptible, neutral. |
| **12** | View from Kilmurry looking south | Low | Slight, neutral |
| **13** | View from end of path at McLaughlin Road | Low | Slight, neutral. |

The Operational Phase visual effects vary from Imperceptible and neutral (in one viewpoint,10), to Significant and adverse (in two viewpoints). Of the thirteen viewpoints, two are considered Imperceptible (Viewpoints 10, 11), one Not Significant (Viewpoints 9), six Slight (1,2,4,5,12,13,) two Slight-Moderate (3,6), and two Significant (7,8). The quality of the effects range from neutral to adverse, with nine of the 12 viewpoints considered neutral, three considered adverse and View 3 considered neutral to Beneficial and view 9 Beneficial. Neutral effects occur in the majority of the viewpoints, and these are views where the proposed changes are of a scale and character which fit in well with the existing elements in the view. Adverse effects result in views where extensive tree removal is evident, and which alters adversely the character of the view, or where extensive areas of hard surface and fencing are introduced and are

uncharacteristic creating an urban character. While design and construction methods were adapted to maximise tree retention, in particular along the River Shannon, some tree removal is proposed.

**University of Limerick Campus – Groody River Bridge to Kilmurry Village**

Visual effects in the UL section of the Greenway, are represented by Viewpoints 1-10. This area is considered of the highest landscape value, and the existing riverside walk represents viewers of High sensitivity at a number of locations. With the exception of the Plassey Beach area, visual effects range from Not Significant to Slight-Moderate, with the majority Slight in quality.

Beneficial changes are illustrated in Viewpoint 3 which shows increased accessibility to an area of trees and increased tree planting. Adverse effects in certain locations such as the narrow section of path between the River Shannon and the Mill Race (Viewpoint 6) which has a unique quality that a hard surfaced path (wider in some cases) and tree removal will affect, while the other adverse effects are at the UL Beach/Plassey Beach.

The UL Beach/Plassey Beach area is one of two areas of the Greenway scheme where more pronounced visual effects will result. One is the Plassey Beach area (represented by viewpoints 7 and 8 ) and is one of the areas undergoing a more pronounced visual change, with visual effects ranging from Moderate to Significant, and neutral to adverse in nature. The views show an increase in the hard surface due to the proposed path and new bridge alignment; however it is the proposed concrete retaining wall, ramp and railing that result in the most pronounced adverse effects. This both visually and physically cuts off the shore area from the existing path, but more importantly, the naturalistic character of this unique area is permanently changed. The removal of two of the multi-stemmed trees currently growing along the Shore also contributes to the adverse visual effects.

Viewpoints 9-11 represent the area around Kilmurry village which the Greenway traverses, which is of lower sensitivity than the riverbank area. Here, the visual effects range from Imperceptible to Slight and neutral in quality.

**IDA National Technology park to Dublin Road**

Viewpoints 12 and 13 represented the limited changes along the two 'spurs' which connect form the riverbank to the Plassey Park Road (University Road and McLaughlin Road), which are Imperceptible and Slight respectively.

## 11.7 PROPOSED MITIGATION MEASURES

### 11.7.1 Construction Phase

- Avoidance of trees/vegetation removal: A qualified Arborist to be on site to assist in marking out appropriate locations for temporary compounds, and to determine path alignment in certain locations – including the proposed Greenway front of Dromroe, where it avoids the mature Beech tree avenue, and through the wooded area between Dromroe village and the Living Bridge.
- Ground protection measures will be required for temporary construction compounds and Haul routes, these if passing within RPA's on nearby trees. A geo-membrane and a root protections system (e.g. Cellweb, or equivalent) is proposed for use in these areas, and they can be lifted and removed on completion with appropriate measures (to be specified) in the vicinity of the Compounds. The temporary compounds and haul routes will be removed after the sections they serve is completed. The ground will be ripped, top and sub soil replaced, and the area will be reseeded. However,

where specified by an Ecologist, and in areas where the grass is being let grow to encourage pollinators, areas may be left to naturally re-vegetate.

- The Haul route between Kilmurry village and McLaughlan Road will be along the route of the proposed Greenway.

### 11.7.2 Operational Phase

Avoidance: The following design features of the scheme are integral to the design, and the priority was to avoid issues identified in the constraints:

- One of the key features of the site's landscape and visual character are the mature trees on the site, along the river corridor, and in particular the River Shannon corridor, some of which are likely to be associated with Plassey House. The design evolved as potential effects on certain mature trees (classified during the Tree Survey) particularly Category A trees, were identified. To avoid any removal of these trees, the path route was amended to avoid a significant stand of Category A Beech trees north of Dromroe student village. A path diversion is also proposed east of Dromroe village to avoid other mature trees.
- Several parts of the path are narrow, and the path passes immediately close to mature Category A and B trees. In these areas, special construction methods will be used to avoid damage to tree roots and to build up the path rather than excavate. This allows the retention of these important trees and of the character of these areas.
- A qualified Arborist is to be on site to assist in the setting out of certain parts of the path where the proposed route is close to existing trees to avoid as many trees as possible. Some tree removal will be necessary as outlined in Drawing 21537_T_102 and the Preliminary Design drawings but, as far as possible, this is confined to mainly younger or trees of lesser value and mature trees, especially Category A trees are to be avoided.

Further ameliorative, remedial or reductive measures proposed are as follows:

- Re-planting of trees is proposed in certain locations (e.g. to the rear of the fishermen's cottages and in front of the student residences at Dromroe). These species will include native Oak (*Q. robur*), Birch (*B. pubescens*) which are also found in the campus, and which are also compatible with the tree found in the vicinity of the University Campus and Plassey House. It is likely that natural regeneration of trees such as Willow (*Salix sp*), Alder (*Alnus*) will occur in certain areas once the Greenway is completed.

## 11.8 RESIDUAL IMPACTS

The residual impacts are the impacts that the development is most likely to have on the receiving environment having regard to the proposed mitigation measures.

### 11.8.1 'Do Nothing' Scenario

It should be noted that if the above works were not carried out, the study area would remain as it is. It is likely that the section east of Kilmurry student village would continue to become overgrown, making access difficult, if not well maintained.

### 11.8.2 Construction Phase

Predicted impacts at construction stage are likely to be as per the potential impacts described in Section 11.6.1.1 and 11.6.1.2.

### 11.8.3 Operational Phase

It is anticipated that the impacts will be largely as predicted in section 11.6.2. The mitigation measures are aimed at ensuring that the works are controlled to the greatest possible extent and that there is no unintended damage to vegetation to be retained or other landscape features.

The adherence to the mitigation measures at the construction stage in relation to the construction methods in relation to works close to mature trees is essential, to ensure that they are retained as depicted on the Tree Survey, and as set out in Section 11.4.3.

## 11.9 Assessment of Cumulative and In-Combination Impacts

### 11.9.1 Cumulative Impact Assessment

As set out in Chapter 14 of this EIA report, Cumulative effects may arise from:

- The interaction between the various impacts within a single project;
- The interaction between all of the different existing and/or approved projects in the same areas as the proposed project.

This section initially discusses the interaction between several existing and approved projects in the area.

A number of projects were identified in close proximity to the proposed development. These are in two main locations – several works near the western end of the proposed scheme, near the UL Boathouse, and several works near the Kilmurry Student Village/University Road area.

A proposed Wastewater treatment plant upgrade was given permission which is directly adjacent to the proposed Greenway near the UL boathouse, however the planning drawings indicate that the vegetation along the existing path will not be affected and vegetation to the east and west of the plant will be retained. Landscape Effects are considered Not Significant and neutral. Visual effects would be considered Not Significant and neutral.

A nearby application related to the UL boathouse pontoon 22281. The works involve the replacement of the existing decking and the installation of a security gate at the entrance to the pontoon and this work has been carried out. The location of the pontoons however is unchanged. At the time of the initial site visit (2022), access was restricted via temporary site fencing which resulted in some visual clutter. This has been removed, and the new access gate is a slightly incongruous element in the otherwise simple riverside walkway. The combination of this change with the proposed development (a widened hard surfaced path with some tree removal) would result in some relatively minor (Not Significant and adverse) visual effects. These effects will be very localised. The open views and access from the slipway will remain.

An application for a single storey, Golf Academy Building (15697) was approved and Extension of Duration granted in 2021. This proposal lies directly adjacent to the existing riverside path and the proposed path adjacent to the UL Boathouse. Should this development proceed, the proposal shows tree planting (Effects TBC) inside the development boundary which is immediately adjacent to the existing riverside path. However the removal of a considerable area of scrub/emerging woodland and replacement with amenity grassland, combined with the very limited tree removal as a result of the proposed development will result in Slight and adverse landscape effects both at Construction and Operational stage. Construction and Operational phase visual effects are possible where the proposed buildings (and floodlights) are likely to be visible through the trees at certain times of the year and are considered Slight and adverse.

There are several projects (both nearing completion and those which have planning permission) in the vicinity of the Kilmurry student village and University Road area.

Planning Ref no 18252 (c) proposed '*widening of Plassey Park road for the length within the National Technology Park from the Annacotty roundabout to the vicinity of the junction of Plassey Park road with Milford road. (d) Addition of cycle lanes on Plassey Park road. (e) also as part of the proposed works are new boundary fences, footpaths, pedestrian crossings, relocation of affected public lighting columns, landscaping and all associated site works and services.*

These works have been carried out.

A recent application (208003) proposed upgrades to the existing walking and cycling facilities on both Plassey Park Road & Plassey Road, in conjunction with upgrades to minor road junctions, bus stops, new road surfacing, installation of LED public lighting & surface water drainage works.

This development also proposed cycle lanes and footpaths along the southern half of University Road, which is nearing completion, as well as a pedestrian crossing. The proposed Limerick City Greenway development will dovetail with these works to provide a continuous pedestrian and cycle facility along the length of University Road and connecting to Kilmurry student village. Visual and landscape effects are considered Not Significant and neutral, while the recently completed GAA pitches and associated facilities in Maguire's Field, west of University Road, along with the proposed development is likely to result in an overall Not Significant to Slight, neutral cumulative landscape and visual effect in the area. Visual effects as a result of the use of floodlighting in the pitch is not considered to be as noticeable as the pedestrians will be walking in an urban are with existing lighting poles along Plassey Park Road and University Road.

Closer to the river Shannon, and east of Kilmurry Village, the proposed Limerick City Greenway runs through green space slightly inland from the river's edge. Adjacent to this there is a permitted development (2360712) which consists of two pitches, a rugby pitch and a training pitch, a small changing building to the west. North of the pitches, several biofiltration ponds are connected by a swale. Tree planting is proposed adjacent to the north of to the pitches. The northern site boundary appears to run immediately adjacent to the existing informal pedestrian path, but no works are proposed here, and the tree clumps appear to be retained. An alternative linked path runs through the existing /meadow' area, which is adjacent to the proposed Limerick City Greenway, and adjacent to the biofiltration ponds, connecting with the Greenway on the western side.

These two proposals will add a more formal layout to what is currently an informal pitch area, and a more informal area with clumps of shrubs and several trees nearer the water's edge. Elements introduced include hard surfacing, wider path and a building in the form of changing rooms.

No floodlighting is proposed and therefore is considered that Cumulative visual effects are Not Significant to Slight and adverse to neutral, and landscape effects are Not Significant and neutral. The inclusion of additional planting (native and some of native provenance) and the managing of the existing meadow is considered neutral to beneficial. Visual effects are likely to be adverse and temporary during construction and should both features be under construction at the same time, effects are likely to be Slight, temporary and adverse.