

## 14.0 **LANDSCAPE AND VISUAL**

### 14.1 **Introduction**

#### 14.1.1 **Scope**

This chapter assesses the landscape and visual impacts (LVIA) associated with the proposed neighbourhood centre and residential development (hereafter referred to as proposed development) on 14.28 hectares of land (the Application Site) to the west of the Clonminch Road in Tullamore, Co. Offaly. A detailed description of the proposed development can be found in Chapter 3 of the EIAR.

#### 14.1.2 **Statement of Authority**

The Landscape and Visual Impact Assessment (LVIA) has been prepared by Park Hood Chartered Landscape Architects on behalf of the Steinfort Investments Fund. Park Hood is a Chartered Member of the Irish Landscape Institute and Landscape Institute UK with extensive experience in preparation of Landscape / Townscape and Visual Impact Assessments for large scale projects throughout Ireland and the UK. The primary author is Andrew Bunbury who is a fully qualified Landscape Architect and Chartered Member of the Landscape Institute (CMLI) with over 25 years' consultancy experience in the profession across Ireland and the UK. He works between the Dublin, London and Belfast offices of Park Hood where there are 25 members of staff including a further ten Chartered Landscape Architects.

All work is undertaken in compliance with the *Landscape Institute's Code of Standards of Conduct and Practice for Landscape Professionals* and checked in accordance with Park Hood's ISO 14001:2015 and ISO 9001:2015.

This Chapter is supported with Appendices as follows:-

- Appendix 14A: LVIA Figures and Photomontages including the following figures:-
  - Figure 14.1 Location Map;
  - Figure 14.2 Existing Landscape Setting
  - Figure 14.3 Environmental Designations
  - Figure 14.4 Planning Designations
  - Figure 14.5 Zone of Theoretical Visibility and Viewpoint Map
  - Figure 14.6 Proposed Landscape Setting
  - Figure 14.7 Eastern Node Masterplan
  - Figure 14.8 to 14.10 Viewpoint 1 – N52 Tullamore Bypass (Railway Crossing);
  - Figure 14.11 to 14.13 Viewpoint 2 – N52 Tullamore Bypass;
  - Figure 14.14 to 14.16 Viewpoint 3 – R443 Clonminch Road (northbound);
  - Figure 14.17 to 14.19 Viewpoint 4 – R443 Clonminch Road (southbound);
  - Figure 14.20 to 14.22 Viewpoint 5 – Clonminch Wood, Gayfield;
  - Figure 14.22 Viewpoint 6 – Residential Area off (Old) Clonminch Road
  - Figure 14.23 Viewpoint 7 – R443 Clonminch Road (near railway bridge)
  - Figure 14.22 Viewpoint 8 – Chancery Lane (open space)
- Appendix 14B Generic LVIA Terminology;
- Appendix 14C Photomontage methodology; and
- Appendix 14D Tree Survey Report (Andy Boe 2019).

## 14.2 **Methodology**

### 14.2.1 **Guidance**

The overall approach and methodology undertaken within this LVIA are based on the *Guidelines for Landscape and Visual Impact Assessment (3rd Edition)* by *The Landscape Institute and the Institute of Environmental Assessment (2013)* (GLVIA).

### 14.2.2 **Summary of LVIA Objectives and Key Tasks**

The objective of the LVIA is to evaluate the likely significance of landscape character and visual amenity effects to the Application Site and study area to assist the determining authority in considering the acceptability of this proposal. It is based on the interpretation of the physical and aesthetic characteristics following criteria and terminology partially drawn from *Principles and Overview of Processes (Chapter 3)* within the GLVIA. The Generic LVIA Terminology is contained within Appendix 14B. The LVIA focuses on key effects and issues as follows:

- The effect of the proposed development upon the landscape resource;
- The effect of the proposed development on the perception of the landscape; and
- The effects arising from the proposed development on visual amenity.

The LVIA methodology can be summarised as undertaking the following key tasks:-

- Site Visits between 2020 and 2021;
- Assessing the baseline Landscape Setting and Conditions;
- Evaluation of key components of the proposed development based on site layouts, plans and elevations prepared by Van Dijk Architects and other members of the design team;
- Consideration of Mitigation and Enhancement Measures;
- Assessment of Landscape Effects;
- Assessment of Visual Effects; and
- Summary of Significance of Landscape and Visual Amenity Effects.

### 14.2.3 **Definition of Landscape and Visual Effects**

For the purpose of this assessment, this chapter adopts the definition of landscape presented in the European Landscape Convention and as such, the term 'landscape' refers equally to areas of rural countryside and urban – built up – areas (typically historically referred to as 'townscape'). The definition of landscape is:-

*“An area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors.”*

The assessment process helps identify the effects of the proposed development on views and on the landscape / townscape. Landscape and visual effects can be quite different and are assessed separately; although the process is similar and effects ultimately arise as a result of combined impacts upon the landscape and visual amenity of a proposed development. Developments can have significant visual effects but no impact on landscape/townscape character and some can be vice versa.

Landscape Effects are the effects on landscape / townscape as a resource and defined as follows:

*“An assessment of landscape effects deals with the effects of change and development on landscape as a resource. The concern ... is with how the proposal will affect the elements that make up the landscape, the aesthetic and perceptual aspects of the landscape and its distinctive character. ... The area of landscape that should be covered in assessing landscape effects should include the site itself and the full extent of the wider landscape around it which the proposed development may influence in a significant manner.”* (GLVIA3 paragraphs 5.1 and 5.2)

Visual Effects are the effects on Views and Visual Amenity and summarised as follows:-

*“...establish the area in which the development may be visible, the different groups of people who may experience views of the development, the places where they will be affected and the nature of the views and visual amenity at those points.”* (GLVIA3 paragraph 3.13)

#### 14.2.4 **Photomontages and Visualisations**

To support the visual assessment, photomontages, wirelines and graphics have been prepared from 8 no. representative viewpoints to allow assessment of its potential scale and nature in these views and these are contained in Appendix 14A. The viewpoint selection process and photomontage methodology are contained in Appendix 14C and is based on *Landscape Institute Technical Guidance Note 06/19: 'Visual Representation of Development Proposals (2019)*.

#### 14.2.5 **Study Area**

The study area includes the Application Site itself and the wider landscape where the proposed development may have an influence either directly or indirectly. There is no specific guidance on extents of study areas applicable to this type of development in Ireland so it has been based on site surveys and study of Zone of Theoretical Visibility Maps. This concluded an appropriate and objective study area is confined to south-east Tullamore area and peripheral rural areas within 1km of the Application Site as any significant views or effects are within this range.

#### 14.2.6 **Consultation**

A pre-planning meeting was held with Offaly County Council on the 28<sup>th</sup> January 2021 to review the history of the project and the nature of the proposed planning application. The meeting included a review of a proposal for a mixed-use scheme on these lands (ABP-307832-20) which was refused planning permission in 2020 by An Bord Plenála for the following reason: -

*The design of the proposed Link Street, which is identified as an objective of the development plan for these Masterplan lands, linking Clonminch Road/R443 to the west and Chancery Lane to the north, is substandard in terms of its horizontal alignment and fails to have adequate regard to its strategic function and to the provisions of the Design Manual for Urban Roads and Streets (DMURS) issued by the Department of Transport, Tourism and Sport and the Department of the Environment, Community and Local Government in March 2019, as amended, in relation to such routes. The proposed development*

would, therefore, result in an unsatisfactory standard of development and would, therefore, be contrary to the proper planning and sustainable development of the area.

In the Inspector's report leading up to the decision, Section 11.7.11 reviewed the "Landscape and Visual Impact" and noted the following:-

*"The lands on the periphery of the urban area are currently zoned for residential and other uses. This peri-urban character is reinforced by the rail and road corridors traversing the area. Views into the site are limited and the area is of low visual and landscape sensitivity. I do not consider that the landscape or visual amenity impacts of the development would be unacceptable.*

*I have considered all of the submissions and having regard to the above, I am satisfied that impacts that are predicted to arise in relation to Landscape and Visual impact would be avoided managed and mitigated by the measures which form part of the proposed scheme, the proposed mitigation measures and through suitable conditions. Having regard to the development plan objectives and the urban edge location of the lands, the long-term cumulative impacts of the development of this masterplan area are not regarded as significant negative. I am therefore satisfied that the proposed development would not have any unacceptable direct, indirect or cumulative impacts in terms of Landscape and Visual impact.*

*I have considered all of the submissions received and having regard to the above, I am satisfied that impacts that are predicted to arise would be avoided managed and mitigated by the measures which form part of the proposed scheme, the proposed mitigation measures and through suitable conditions. I am therefore satisfied that the proposed development would not have any unacceptable direct, indirect or cumulative impacts in terms of landscape and visual amenity."*

In the lead up to the decision, a Consultation Response from the Department of Culture, Heritage and the Gaeltacht dated 10<sup>th</sup> September 2020 addressed biodiversity issues and noted that some non-native plants were proposed in the Landscape Plans and accompanying specifications. It recommended a planning condition to address this matter that would state "New hedging must comprise native species of Irish origin only in order to ensure there is no net loss of biodiversity due to the removal of hedgerows due to the development. Any new tree planting must accord with the "Pollinator Friendly Planting Code – Professional planting recommendations" of the All-Ireland Pollinator Plan 2015-2020".

#### 14.2.7 LVIA Criteria

The objective of the LVIA is to evaluate the likely significance of landscape character and visual amenity effects to the application site and study area to assist the determining authority in considering the acceptability of this proposal. It is based on the interpretation of the physical and aesthetic characteristics following criteria and terminology described in the following tables. These are partially drawn from *Principles and Overview of Processes (Chapter 3)* within GLVIA. Mitigation measures proposed to prevent/avoid, reduce and, where possible, offset or remedy any significant adverse landscape or visual effects are described.

#### 14.2.8 Baseline Landscape Character Assessment

The baseline study studies extend to include to the wider context into which the proposed development will be introduced. The baseline description of existing conditions forms an objective evaluation of the townscape / landscape character and visual amenity of the study area. This forms the base against which the townscape / landscape and visual effects deriving from the proposed development can be identified, assessed and measured. It involves a desk-top analysis and review of material including:-

- National and Regional Landscape Character or local Landscape Character Assessments;
- Review of historical planning applications on the Application Site;
- Existing National, Regional or Local Designations and relevant Planning Policy;
- Current and historical Ordnance Survey Ireland (OSI) Maps evidence;
- Aerial Photographs via Bing, Google and OSI; and
- Relevant environment / ecology, cultural heritage, historical and archaeology evidence.

As part of the baseline assessment, the combination of desk-top analysis and site survey allows a judgment to be made on the key elements that contribute to the landscape character and its wider condition (positive, neutral or negative) and wider value and sensitivity. Landscape value, quality and sensitivity are affected by factors including:

- (i) whether the resource is common or rare;
- (ii) whether it is considered to be of local, regional, national or global importance;
- (iii) whether there are any statutory or regulatory limitations / requirements relating to the resource;
- (iv) the quality of the resource;
- (v) the maturity of the resource, and
- (vi) the ability of the resource to accommodate changes.

*Table 14.1: Determination of Landscape Value and Sensitivity*

Terminology	Definition	Summary
Highest Value Landscape	Nationally or regionally important landscape with high quality, highly valued rare or unusual features recognised by designation such as National Parks, Areas of Scenic Value or World Heritage Sites. Distinct landscapes that exhibit a strong structure and character with valued features that combine to give the experience of scenic quality, tranquillity, rarity and harmony. Negligible pedestrian and traffic conflict.	Very vulnerable to change.  High Sensitivity
Very Attractive Landscape	Locally or regionally designated landscapes – as designated in Area Plans or by the EPA - or areas where local evidence indicated as being more valued than the surrounding area.	Some ability to absorb change in some situations without having significant effects.  Medium Sensitivity

Medium Landscape	“Everyday” or community / undesignated landscapes which may be appreciated by the local community but has no or little wider recognition of its value.	Able to accommodate change without significant effects.  Low Sensitivity
Poor Landscape	Low importance and degraded landscapes with few redeeming features.  No evidence of being valued by the community	Damaged landscapes very capable of accommodating change. Very Low Sensitivity

#### 14.2.9 Criteria for Landscape Character Impacts

This EIAR Chapter considers how the proposed development would impact on existing landscape elements and resources which are normally associated with the direct effects on the application site itself. The indirect impacts of the on the wider landscape are assessed with reference to landscape types or character areas.

This is affected by factors including:

- (i) the physical extent and nature of the key elements that make up the proposal;
- (ii) the landscape context of these effects; and
- (iii) the time-scale of impact, such as whether it is temporary (short, medium or long term), permanent with reversible potentials, or irreversibly permanent.

*Table 14.2: Magnitude Criteria for Landscape Character Effects*

Terminology	Definition
Major	Total loss or major alteration to key elements / features / characteristics of the baseline (i.e., pre-development) landscape and /or introduction of elements considered to be totally dominant when set within the attributes of the receiving landscape.
Moderate	Partial loss or alteration to one or more key elements / features / characteristics of the baseline (i.e., pre-development) landscape or view and /or introduction of elements that may be prominent but may not necessarily be considered to be substantially uncharacteristic when set within the attributes of the receiving landscape.
Slight	Minor loss or alteration to one or more key elements / features / characteristics of the baseline (i.e., pre-development) landscape or view and /or introduction of elements that may not be uncharacteristic when set within the attributes of the receiving landscape.
Negligible	Very minor loss or alteration to one or more key elements / features / characteristics of the baseline (i.e., pre-development) landscape or view and /or introduction of elements that are not uncharacteristic with the surrounding landscape - approximating the ‘no change’ situation.

In those instances where there would be no change to the landscape, the magnitude is recorded as ‘zero’ and the level of effect as ‘no change’.

#### 14.2.10 Visual Amenity Assessment

Visual Effects are concerned wholly with the effect of the development on views, along with the general visual amenity and are defined by the Landscape Institute in GLVIA3, Paragraph 6.1 which states:-

*“An assessment of visual effects deals with the effects of change and development on views available to people and their visual amenity. The concern here is with assessing how the surroundings of individuals or groups of people may be specifically affected by changes in the context and character of views as a result of the change or loss of existing elements of the landscape and/or introduction of new elements.”*

The baseline studies establishes the area from which the proposal may potentially be visible and the different groups of people (“visual receptors”) who may experience views or changes to view context. Viewpoints are usually identified in locations that are publicly accessible, such as roads, public realm / domain areas, footpaths or publicly accessible open spaces. Selection is also based on a determination of the extent of visibility towards the Application Site or from locations where there may be significant numbers of visual receptors who will see the proposed development e.g., main roads. Viewpoints are chosen to be representative, specific or illustrative and cover as much of the study area as reasonable or necessary and address all areas where there may be changes in terms of views or visual amenity.

Viewer sensitivity is based on the nature of the visual receptor (resident, tourist, commuter etc.) and the visual quality or value attached to a particular view.

*Table 14.3: Viewer Sensitivity and Types*

<b>Terminology</b>	<b>Definition</b>	<b>Summary</b>
High	Notable views of heritage assets, quality, valued or scenic landscapes. Views that may be designated or feature in guidebooks, scenic tours, associated with culture, literature and art or an important contributor to experience.	People engaged in outdoor activity whose interest is likely to be focused on the landscape or particular views. e.g., hill-walkers, tourists, scenic tours, users of public rights of way or visitors to heritage assets. Residents (at home).
Medium	Ordinary views where the reason for visual receptor to be in the area and does not involve or depend upon an appreciation of the views of the landscape.	Outdoor activity with focus on recreation, sports or water-based activities such as golf, mountain biking, or country sports. Travellers on road and rail. Residents / Communities living within close proximity of the proposal.
Low	Areas that may be viewed by the majority as incidental landscapes where the focus of the viewer is on their work or activity and the setting is not important to the visual amenity or quality of working life.	Landowners for proposal. Workers with employment related to construction and management / maintenance activity and likely to have a low interest or appreciation of the view.

The visual effects deriving from the proposed development are based on the combined judgement of the anticipated change in nature, visual amenity and duration of the particular view (magnitude) and

the nature of the visual receptor (sensitivity). The magnitude and nature of visual effects are based on a number of factors including:-

- Scale of change;
- Distance from proposed development site;
- Contrast in terms of mass, colour, form and texture deriving from new feature(s);
- Extent of intervening vegetation (and seasonality if deciduous) or buildings and topography;
- Speed of passing visual receptor (and how long view is experienced);
- Angle and elevation of view e.g., oblique, direct, perpendicular;
- Nature of backdrop or skyline; and
- Duration of change or effect.

Where mitigation measures are proposed or relevant, these are described as part of any judgement.

*Table 14.4: Magnitude Criteria for Visual Effects*

<b>Terminology</b>	<b>Definition</b>
Major	A major change or obstruction of a view that may be directly visible, appearing as a prominent and contrasting feature and/or appearing in the foreground / middle ground.
Moderate	A moderate change or partial view of a new element within the view that may be readily noticeable, directly or obliquely visible including glimpsed, partly screened or intermittent views, appearing as a noticeable feature in the middle ground.
Slight	A small level of change, affecting a small part of the view that may be obliquely viewed or partly screened and/or appearing in the background landscape. May include moving views at speed. The proposal forms a minor component in the wider view which might be missed by the casual viewer / observer.
Negligible	The proposal is barely discernible or may be at such a distance that it is very difficult to perceive equating to a no-change situation.

#### 14.2.11 Nature of Landscape and Visual Effects

The assessment process aims to be objective and quantify effects as far as possible. However, landscape and visual assessment has aspects of it that can be considered subjective. Magnitude of change to a view can be factually defined but any subsequent objective assessment should be based on professional training, experience, observation, evidence and informed opinion.

*Table 14.5: Nature of Landscape and Visual Effects*

<b>Terminology</b>	<b>Definition</b>
Positive Effect	A change that improves the quality of the landscape character and fits very well with the existing setting.
Neutral	A change which does not affect the scale, landform or pattern of the landscape and maintains existing quality.

Adverse Effect	A change which reduces the quality of the landscape and cannot be fully mitigated.
----------------	--

#### 14.2.12 Significance Criteria and Determination

Final judgment is made about which landscape effects are significant. Significance of an effect is determined by the combination of sensitivity or value of the affected receptor(s) and the predicted magnitude of change which combine to form a level of effect.

The assessment of likely significant environmental effects as a result of the proposed development takes into account the construction and operational phases. The duration of the effect has been assessed as either 'short-term', 'medium-term' or 'long-term'. Short-term is considered to be up to 1 year, medium-term is considered to be between 1 and 10 years and long-term is considered to be greater than 10 years. Note that this proposed development is regarded as being permanent and long-term in LVIA terms.

This LVIA bases "Significance" of effects on the following definitions:-

- "Significant" in the Oxford Dictionary 2021 is defined as "Sufficiently great or important to be worthy of attention; noteworthy."; and
- "Significance" in the GLVIA guidelines 2013 is defined as "A measure of the importance or gravity of the environmental effect, defined by significance criteria specific to the environmental topic."

Table 14.6: Summary Scale of Significance

<ul style="list-style-type: none"> <li>▪ Sensitive views or visual receptors;</li> <li>▪ Effects on recognised scenic, rare or distinctive landscapes;</li> <li>▪ Effects on mature or diverse landscape elements, features, characteristics, aesthetic or perceptual qualities; and</li> <li>▪ Large scale changes</li> </ul>	<p>More Significant</p> 
<ul style="list-style-type: none"> <li>▪ Effects on poorer condition or degraded landscapes;</li> <li>▪ Effects on low sensitivity visual receptors; and</li> <li>▪ Small scale changes</li> </ul>	 <p>Less Significant</p>

Significance of visual effects is not absolute and can only be defined in relation to each development and its specific location. Usually an effect is considered 'significant' if the level of effect is 'moderate/substantial' or 'substantial'. The significance of landscape and visual effects is determined by cross-referencing sensitivity of landscape or view with the magnitude of change.

Table 14.7: Assessment of Significance Matrix

Landscape and Visual Sensitivity	Magnitude of Impact			
	Negligible	Low	Medium	High
Negligible	Negligible	Negligible or minor	Negligible or minor	Minor
Low	Negligible or minor	Negligible or minor	Minor	Minor or moderate
Medium	Negligible or minor	Minor	Moderate	Moderate or major
High	Minor	Minor or moderate	Moderate or major	Major

### 14.3 **Receiving Environment / Baseline Landscape Setting**

#### 14.3.1 **Site Location**

The Application Site extends to 14.28 hectares (35.33 acres) and is located in south-east of Tullamore on lands to the east of the Clonminch Road and north of the N52 Tullamore Bypass. The town centre is approximately 1.9km to the north. The site includes part of the Clonminch Road to enable provision of cycle lanes and parts of open field to the north to facilitate services infrastructure that extend to 3.5 hectares in total. The core area for the residential development and neighbourhood centre which is the focus of this LVIA is collectively c.10 hectares. **See Appendix 14A - Figure 14.1 Site Location Plan**

#### 14.3.2 **Baseline Landscape Character**

##### *Landform, Topography and Drainage*

The proposed site is located on gently undulating lands with highest areas being +73m towards the Clonminch Road. The lands fall very gradually to the east to levels of +67m (a difference of 6m over approximately 500m). A small rocky outcrop to the north is the only part of the site that has a steeper profile. The low-lying character continues beyond the Application Site boundaries across this part of Tullamore.

*Photo 14.1: Existing Site Setting*



*View across Application Site from short lane accessing off (Old) Clonminch Road lands looking north towards housing estate at Clonminch Wood*

It is likely that the majority of the site was subject to historical profile changes to level out the lands to make suitable for agricultural use but the ground is likely to have had a flat character before this activity. Localised contour changes were undertaken to facilitate construction of transport infrastructure related to the railway line in the 19<sup>th</sup> century and N52 Tullamore Bypass about 12 years ago but these did not involve any significant cutting or embankments or ones that affect the Application Site itself.

There are no notable or named watercourses on the site and drainage is managed naturally or via man-made ditches on field boundaries. No streams or waterbodies are depicted on OSI historical but a spring is annotated in the area of the rocky outcrop to the northern part of the Application Site.

#### Land-use and Vegetation

The site is currently used as farmland comprising all or part of six fields in intensive arable use. There is limited space between on field edges and boundaries with land-take maximised for agricultural worth. The periphery of the site towards the Gayfield housing estate and houses on Clonminch Road are bound by variable quality hawthorn (*Crataegus monogyna*) and blackthorn (*Prunus spinosa*) dominated hedgerows set on low banks with sections of colonising scrub including brier, gorse (*Ulex europaeus*) and ivy (*Hedera helix*). Within the hedgerows several Ash (*Fraxinus excelsior*) and some Elm (*Ulmus sp.*), Sycamore (*Acer pseudoplatanus*) and Pine (*Pinus sylvestris*) trees have emerged and these give the hedgerows a more substantial character. Other hedgerows and ditches have more limited boundary definition.

*Photo 14.2: Land-use and Vegetation*



*Internal view across Application Site showing nature of existing lands and field boundaries*

OSI historical map evidence suggests the field structure and layout has remained largely unaltered since the 19<sup>th</sup> century when the area was simply annotated as “Clonminch”. However, the site boundaries to the west now abut residential housing estates that form part of the southern townscape of Tullamore which extends across the low-lying lands to the north. To the east, the lands are in use as farmland with the baseline character is similar to that on the Application Site though some of the fields are in improved pasture for silage or grazing purposes. Incidental clusters of trees and wooded linear hedgerows on field boundaries and belts aside the railway line reduce the extent of longer distant views.

A Tree Survey (July 2019) was undertaken by Arboriculture Consultant Andy Boe of the Application Site lands and extended areas that are part of the wider Eastern Node Masterplan (See Appendix14D). This

noted the following with regards to the Application Site:-

- *This site is made up of multiple individual fields bordered by hedgerows of predominantly Hawthorn, and occasional hazel and Elder. Some small fruit trees and blackthorn can be found in the western part of the site.*
- *The site has a population of 52 trees surveyed as individual trees and as groups.*
- *The tree population has a diversity of ages with the majority being semi-mature and early mature;*
- *In summary, 83% trees or groups are categorised as C, 17% trees or groups are classed as B. No trees are classified as A. The majority are self-seeded.*
- *From an amenity, arboricultural and landscape point of view the trees are not noteworthy. A large percentage of the trees have only established through self-seeding. Over 80% have a remaining contribution of over 10+ years.*

#### Settlement and Infrastructure

Located just over 200m to the south and continuing to the east is the N52 Tullamore Bypass, a wide single-carriageway road including verges and crash barriers (approximately 12m wide in total) that opened in 2009 cutting a swathe through the countryside in the south Tullamore area.

*Photo 14.3: Local Infrastructure*



*View west along the N52 Tullamore Bypass located to the south and east of the Application Site*

The site can be accessed by a field gate off Clonminch Road to the west opposite Clonminch House and via a short lane off the old Clonminch Road to the south. A partially gravelled lane leads though the site but this would not be normally suited to anything other than farm machinery.

There are no residential properties or buildings on the Application Site. OSI historical maps indicate a couple of buildings were located in the area in the 19<sup>th</sup> century but no evidence remains on site. A significant change in the locality was the construction of the “Athlone Line” railway line (opened 1859 by the Great Southern & Western Railway) located just over 300m to the north of the core of the

Application Site. The single line is still use in and operated by Iarnród Éireann and is discernible in the landscape largely due to the wooded belts aside the track and a slightly elevated profile comparative to the adjacent lands.

*Photo 14.4: Local Infrastructure*



*Iarnród Éireann line to north of Application Site*

While the landscape on the site itself has remained largely unchanged, Tullamore extended significantly to the south alongside the R443 Clonminch Road over the course of the 20<sup>th</sup> century with housing estates now characterising much of the landscape between the northern site boundary and the historic town core. The majority of the housing estates are accessed off the Clonminch Road. The route of Clonminch Road remains similar to that depicted on 19<sup>th</sup> century OSI maps and it continues to be the main road leading south out of Tullamore abutting the western boundary of the Application Site for a length of approximately 85m. It is a single carriageway with footpaths that extends to approximately 13m in width as it passes the Application Site lands. The road was realigned to the south-west of the site in the 20<sup>th</sup> century on the trajectory towards the Clonminch Roundabout and connection with the N52 / N80. The old Clonminch Road remains as a spur off the realigned road and is a narrow lane that provides access to a cluster of approximately 18 residential properties (predominantly bungalows).

To the north of the site, the boundary abuts the townland of Gayfield that comprises a number of housing estates that cover the lands leading towards the railway line. This section of Clonminch Road in this area includes a linear alignment of 23 one to two storey properties including a pharmacy aligning and facing the road to the west. Within Gayfield, housing estates at Clonminch Wood, Limefield, Tara Crescent and St. Columba's Terrace extend comprising detached and semi-detached properties set off cul-de-sacs and closes. Further residential properties are being constructed at the time of writing on lands off Clonminch Road just to the north of the Application Site. There are no existing pedestrian or vehicular accesses or linkages between the Gayfield area and the Application Site.

*Photo 14.5: Local settlement and built environment*



*View towards residential housing estate at Clonminch Wood to north-west of Application Site*

North of the railway line are further urbanised areas including residential housing estates, sports pitches, institutional lands, open spaces, graveyards, commercial / retail lands and open fields off Chancery Lane and leading towards the R420 Church Road.

To the west of Clonminch Road (opposite the site) is the Clonminch Hi-Technology Park which is based at Clonminch House, a three-storey office development set on an approximate 0.6ha site that includes open landscape areas and car parking. The building is a local landmark on account of being modern with glazed facades and more substantial than other properties on this part of Clonminch Road.

*Photo 14.6: Local Development*



*Clonminch House on Clonminch Road is a local landmark in the south Tullamore area*

### Tullamore Town

The town centre of Tullamore is located 1.9km to the north-west. Dating back to the 16<sup>th</sup> century, it is the county town of Co. Offaly and had a population of 14,607 in the 2016 census. The town importance and growth increased as a result of the construction of the Grand Canal in 1798 and the subsequent opening of railway lines in 1854. These shifted the county's economic centre of gravity to Tullamore and it became an important industrial, retail and key services centre to its rural hinterland playing a pivotal role within the central part of the Midlands Region. The Offaly section of the Grand Canal comprises 64km (from Edenderry to Shannon Harbour) and is now a focus for a wide range of uses, especially for recreation and tourism purposes.

The historical town centre is High Street near which there are numerous historic buildings and three churches; Tullamore Catholic Church, Tullamore Presbyterian Church and St. Catherine's Church of Ireland. To the south of the historical core leading towards the Application Site and off the Clonminch Road are housing estates comprising a mix of detached and semi-detached single, dormer and two-story houses, open fields, institutional lands and commercial premises. The close proximity of the town and nature of residential and commercial developments has led to fragmentation of the urban / rural edge or interface.

*Photo 14.7: Local settlement and built environment*



*Internal view of housing estate at Clonminch Wood to north of Application Site*

Beyond the town edge, the lowland areas are sporadically settled with scattered detached houses aligning road corridors and farmsteads or larger houses set back from roads off avenues. Several of the farms have extensive sheds, Dutch barns and working yard areas though the majority of settlement types are single storey properties set on sizeable garden plots. The farmland has a relatively large-scale pattern, with farms scattered evenly across the patchwork of arable and pasture fields. The

relative lack of trees or hedgerows gives parts of the south Tullamore landscape an open, expansive character.

#### 14.3.3 Published Landscape Character

There is no published landscape character assessment for this part of Co. Offaly at this time. A *Historic Landscape Characterisation* for Co. Offaly was produced in 2005 by the *Discovery Program / Ar Thóir Na Sean* but this has no specific reference to the character or quality of the Application Site lands or south Tullamore area.

Within the *Tullamore Town and Environs Development Plan 2010-2016*, it notes the following for the Southern Environs of Tullamore in which the Application Site is located:-

- *Land Uses:- The masterplan area primarily comprises agricultural lands and has an area of approximately 322 hectares. The lands are zoned for a mix of uses including residential, public/community/educational, business/employment, mixed use and open space.*
- *Topography Landscape Character:- The landscape is of a flat character, with mature trees and hedgerows. There is a commercial forestry plantation in the southern area of the site.*
- *Significant Views:- The mature trees of Charleville Demesne are a highly visible landmark at the western boundary of the site along Charleville Road, contributing to the character of the area.*
- *Natural Heritage:- To the west, the site abuts the Charleville Wood candidate Special Area of Conservation (cSAC) and proposed Natural Heritage Area (pNHA), one of the most ancient woodland sites in Ireland. The site contains several mature hedgerows.*
- *Built and Cultural Heritage:- There are national monuments located on the masterplan site.*
- *Connectivity and Movement:- Due to the predominantly agricultural land uses on the site there is little route permeability.*

#### 14.3.4 Public Amenities and Facilities

The site is privately owned and there is no public access or rights of way. A review of information provided by Fáilte Ireland shows no promoted tourism amenities, sites, routes or attractions in close proximity to the Application Site.

The Offaly County Development Plan indicates no public rights of way or scenic amenity routes on or near the Application Site that would be affected by activity in this area.

The principal area of public open space in Tullamore is Lloyd Town Park on Cormac Street with other substantial areas of open space in the Arden area to the north of the town centre and at Cloncollog to the southeast. Other amenities in the town include the Grand Canal which is an attractive walking route providing a linear corridor of tourism related activity, the Tullamore Dew Distillery and the privately owned lands of the Charleville Castle Demesne. Intervening townscape and vegetation ensure that any activity on the Application Site would have no bearing on the views or amenity of these areas.

### 14.3.5 Planning and Landscape Designations

#### Offaly County Development Plan 2014-2020

The Offaly County Development Plan (OCDP) identifies natural heritage areas or sites, areas of geological interest and areas of high amenity in Chapter 7 but none are on or close enough proximity to the Application Site to be affected by its activity or land-use. In terms of designations and policy relevant to the Application Site area, the Offaly Development Plan refers readers to the Tullamore Development Plan as below.

#### Tullamore Town and Environs Development Plan 2010-2016 (TTEDP) (as varied and extended to 2020).

The site is part of the Tullamore Southern Environs which extend to c.322 hectares. The TTEDP notes the following in Chapter 4 – Overall Strategy with regards to these lands:-

*“This area lies to the south of the developed town edge and is predominantly based in the Spollenstown area. The southern boundary of these lands is defined by the Tullamore Bypass corridor. The Tullamore Business Park is included in these lands and a huge opportunity exists to provide a variety of employment opportunities on undeveloped lands to further expand the business/technology lands uses already in existence. The Tullamore Bypass offers a valuable connection of superior road infrastructure in the area. This area can also provide for a mix of residential uses, commercial uses serving the residential component, recreational facilities and amenities”.*

The Southern Environs is subdivided into four areas and the site is located in the Eastern Node that extends to c.62 hectares. A high-level Masterplan provides an urban design strategy and indicative built form for this area including an east-west route from Chancery Lane to Clonminch Road. The TTEDP Masterplans note that it is “...foreseen that this area will be developed as a high-quality residential area with a good quality landscape and open space character” and lists the following specific objectives:-

- EN1. Seamlessly integrate into adjacent mature residential areas;
- EN2. Provide surface water areas as amenity features which can operate as surface water attenuation (SUDS) systems. The location and construction phasing of such features shall be agreed with the Planning Authority prior to the commencement of development within this node;
- EN3. Encourage the provision of a potential bus route connecting peripheral environs areas as well as serving neighbourhood centres and business park users;
- EN4. Provide a neighbourhood centre to service new residents in this node. The provision of this neighbourhood centre shall occur concurrent with the provision of residential development within this node;
- EN5. Provide a primary level school to service new residents in this node. The development of the primary school shall occur concurrently with the provision of residential development with this node. In addition, as part of the preparation of a more detailed masterplan for this node, it must be demonstrated that consultation has taken place with the Department of Education in relation to the provision of schools in this node;
- EN6. No building shall be occupied within this node prior to the provision of water, foul sewerage and surface water infrastructure to the satisfaction of the Planning Authority; and

- *EN7. Provide a bridge in this node across the railway.*

Of note in landscape terms for this chapter is the designation of a significant tract of land aside the N52 Road and railway line as open space on *TTEDP Map 15 Land Use Zoning Map*. This equates to a near 2km corridor of between 50 to 75m wide and totals approximately 12.75 hectares.

The TTEDP identifies natural heritage areas or sites, areas of nature or geological interest, areas of high amenity, open space and amenity in Chapter 13 but none are on or close enough proximity to the Application Site to be affected by its activity or land-use. In relation to natural heritage in general, the following are relevant:

- *NH4. Identify key landscape character defining elements in the masterplan areas and provide for their formal protection where necessary;*
- *NH5. Identify appropriate 'buffer areas' around these key landscape character defining elements and restrict development in these areas to that which enhances such elements;*
- *NH6. Where feasible and appropriate, link these key landscape character defining elements to help create amenity/recreational/ecological corridors within and between the masterplan lands, the town, the environs and the greater county area; and*
- *NH8. Identify and provide formal protection to trees and hedgerows which offer high amenity value and support significant biodiversity.*

*Sustainable Residential Developments in Urban Areas – Guidelines for Planning Authorities (DoEHGL 2009)*

This includes information on how public open spaces should be designed, namely;

- *Public open space should be provided in a comprehensive and linked way and designed as an integral part of the development;*
- *Wherever possible, the majority of open space should be multi-functional. Areas providing for informal amenity and children's play can often successfully be combined;*
- *Public open space should be well designed from a visual perspective as well as functionally accessible to the maximum number of dwellings within the residential area;*
- *Attractive natural features e.g., trees and hedgerows should be retained, protected and incorporated into public open space areas;*
- *Public open space areas should be provided with a maximum amount of surveillance from dwellings within the estate;*
- *Open space should be suitably proportioned and narrow tracts, which are difficult to manage, are not acceptable;*
- *The use of hard landscaping elements such as paving or cobbled areas should provide an increasingly important role in the design and presentation of open space concepts, while having regard to surface water runoff. Proposals should include landscaping plans;*

- *The provision of open spaces to serve new residential developments should be on a hierarchical basis varying in size from large town parks to small children's play areas and passive recreation spaces close to people's homes; and*
- *Generally, houses shall not be permitted to back onto public open spaces;*
- *The Planning Authorities will require a standard of 80m<sup>2</sup> of public open space per dwelling and developers will be required to reserve a minimum of 15% of the total subject site area as recreational public open space.*

In terms of calculation of open space, DoEHGL advises *"In calculating the area of public open space, the area of roads, grass margins, roundabouts, footpaths, and land associated with other infrastructure or land which by their nature or topography is not capable of being used for amenity purposes shall not be taken into account when the provision of public open space is being assessed."*

#### National Inventory of Architectural Heritage

The National Inventory of Architectural Heritage (NIAH) identifies no monuments or historic sites on the Application Site.

#### Environmental Protection Agency

Maps available from the Environmental Protection Agency (EPA) indicate no protected landscapes, environment or ecology areas on or close to the Application Site.

#### 14.3.6 **Landscape Sensitivity**

Sensitivity is based on the landscape's physical landform shape, scale, pattern, its visual environment/enclosure, any sense of remoteness or tranquillity, presence of man-made features, its skyline, inter-visibility with adjacent sensitive areas and the presence of sensitive or rare features. Landscape sensitivity ultimately is an assessment of the ability of a surrounding landscape or townscape to accommodate and absorb change within the application site without affecting its character.

In terms of published guidance, the *TTEDP Map 13.6 Landscape Classification Map* identifies the Application Site, the wider Eastern Node area and the majority of lands in this part of Tullamore as being **Low** landscape sensitivity. The nearest high sensitivity lands are annotated at the Charleville demesne which is sufficiently distant from the Applications Site for activity or development to result in any landscape or visual effect. *Map 13.7 Areas of High Amenity* shows no designated lands close to the Application Site. The nearest are within the town centre or associated with the Grand Canal and are too distant or there to be a landscape or visual effects as a consequence of activity on the Application Site.

Within the *Offaly County Development Plan, Table 7.11.1 and Map 7.15 Landscape Sensitivity Classification* categorise the Application Site as **Low** sensitivity adding that *"This class largely encompasses the county's main urban and farming areas. These areas comprise natural enclosing features (e.g., topography, vegetation) which have the capacity to absorb a range of new development."*

*Photo 14.8: Local Landscape Character and Type*



*View from N52 Tullamore By-Pass looking over fields towards Application Site and south Tullamore area*

In visual amenity terms, the site is rated as having **Low** sensitivity on account of a limited visual envelope due to a combination built-up townscape towards Tullamore and the low rolling topography and accumulation of mature hedgerows in this area. Longer views are afforded from elevated or exposed areas on the N52 but these are of a distant or partial nature and, in overall terms the Application Site is well concealed from public vantage points. From the majority of areas in south Tullamore, it would be considered that the site has a good ability to absorb changes without significant detriment to landscape or townscape character or visual amenity of this area.

#### 14.3.7 Landscape Condition

The Application Site comprises a rural landscape set on the urban periphery which is largely managed farmland and, in broad terms, the landscape value and quality would be categorised as **Medium** based on its “everyday” character and undesignated status in landscape or amenity terms. The rolling landscape, while attractive in its own right does not possess many notable features other than hedgerows and (low quality) trees which would not be considered unique or rare in this part of Ireland. The cores of the fields are intensely managed arable lands and there is little in the way of any species or landscape diversity away from hedgerows and ditches that would result in a higher category of value. The TTEDP describes the Eastern Node area as follows:-

*“The Eastern node is relatively featureless with a flat topography that generally slopes from the west at the Clonminch Road towards the north east. There are no mature hedges or trees noted within the Nodal Masterplan Area with the most obvious feature being various electricity poles and overhead ESB lines. There are distant views of church steeples.”*

*Photo 14.9: Landscape Condition*



*View across Application Site showing baseline agricultural landscape leading towards boundary of the Clonminch Wood housing estate*

South Tullamore is characterised by extensive housing estates with retail and commercial development aligning the main roads leading from the town centre. Where the urban edge meets the rural landscape, there are often formal and abrupt edges with the adjacent fields being subject to differing management regimes. The developments within the Gayfield townland, including Clonminch Wood, back or side onto the Application Site lands and there are variable landscape treatments along the collective boundary which often has resulted in a disjointed and visually poor boundary definition to the rural countryside. However, the Application Site displays no visible signs of anti-social behaviour that are often associated with rural landscapes on town edges.

#### 14.3.8 Do Nothing Scenario

Given that the area is designated for a "... *high quality residential area*" in the TTEDP, it is likely that the area site will be subject to similar applications for housing development in the future. The nature of any future applications is impossible to determine but they could be of a more piecemeal and disjointed nature.

Until any application is granted, it is reasonable to assume there will be limited visual or character alterations to the existing situation and landscape setting. The landowners are aware of the designations and the incentive for extensive works to improve or maintain the existing landscape for anything other than intensive agricultural use is limited on account of the designation. On balance of these factors, it is considered that the continued use of the land for farming purposes represents a **Low** magnitude of landscape impact.

#### 14.3.9 Baseline Visual Evaluation

The *Offaly County Development Plan (Chapter 7.12.1, Table 7.11.5 and Map 7.18)* identifies *Views and Prospects of Special Amenity Value or Special Interest* throughout the county which are considered important to protect due to the presence of certain visually vulnerable features. None of these are in close proximity to the site or will be impacted by activity or land use on the Application Site.

The TTEDP notes under *Significant Views* that Charleville Demesne is a highly visible landmark but intervening screening elements and distance ensure no landscape or visual effects will occur to this area. No other viewpoints or noted vantage points are identified in the County Plan.

During site surveys, representative viewpoints were selected based upon an objective assumption about the types of places people visit, their movement through the landscape and where they visit, work or stay. Viewpoints were selected within publicly accessible areas based on both a Zone of Theoretical Visibility Map and the following criteria:-

- Site investigation to establish those locations where there was likely to be significant views (e.g., exposed and elevated landscapes);
- Site investigation to establish those locations where there was likely to be a significant number of visual receptors (e.g., main roads or town areas); and
- Ensuring that key areas in the broader study area are covered to give representative likely visual effect.

The site's location on a gently undulating and low-lying area ensures that views are limited to areas within 750m of the Application Site. The most open views in this part of Tullamore are afforded from the R52 Tullamore Bypass where the slightly elevated nature of the road allows open views across southern and eastern parts of the site though these are of an oblique and partial nature. Closer views are afforded from a short 150m section of the Clonminch Road to the west. Both roads are subject to constant use and would have high numbers of visual receptors. Glimpse, partial or filtered views are afforded from ends of streets or open spaces within the housing developments within the Gayfield area.

Views from areas north of the railway line are obscured by vegetation on the embankments and there are no views from Tullamore town centre or townscape areas aside Church Road or Charleville Road.

Selected representative viewpoints for the visual assessment are taken from the following locations which are shown on Figure 14.5 Zone of Theoretical Visibility and Viewpoint Map:-

- Viewpoint 1: N52 Tullamore Bypass (Railway Crossing);
- Viewpoint 2: N52 Tullamore Bypass;
- Viewpoint 3: R443 Clonminch Road (northbound);
- Viewpoint 4: R443 Clonminch Road (southbound);
- Viewpoint 5: Clonminch Wood, Gayfield;
- Viewpoint 6: (Old) Clonminch Road;
- Viewpoint 7: R443 Clonminch Road (Railway Crossing); and
- Viewpoint 8: Chancery Lane (open space)

#### 14.4 **Characteristics of the Proposed Development**

##### 14.4.1 **Nature of Proposed Development**

A detailed description of the proposed development is provided at Chapter 3 and is not repeated here. Of relevance to this chapter, the proposed development (Phase One of the Eastern Node Southern Environs Masterplan for Tullamore) comprises the following:-

- Construction of 349 no. residential units (houses and apartments) including private garden areas across 10.07 hectares / 24.86 acres (density of 35 per hectare);
- Construction of a Neighbourhood Centre (including café, pharmacy and shop) and Neighbourhood Building with Medical Centre;
- Provision of a Crèche;
- The buildings will range between 2-5 storeys in height;
- Parking to serve the proposed development will be provided at surface level, underrcroft level, in-curtilage, on the street and in communal parking areas;
- Vehicular access and junction onto the Clonminch Road;
- Construction of hierarchy of streets including bus circulation, pedestrian and cycle routes to provide linkages to all development areas and existing road network.
- Provision of cycle and pedestrian linkages including a new cycle-link and upgrade to the town centre;
- Extensive landscape works related to public amenity spaces including equipped children's play areas, boundary planting, landscape buffers, amenity planting, semi-mature avenue trees, extra heavy standard and standard garden trees, hedgerow planting and meadow / wildflower and grass seeding works. This includes key public parkland at "Clonminch Square" and "St. Columba's Green" in Phase One and Phase Two areas respectively; and
- The area of the open spaces and public realm provision is 1.62 hectares (equating to 16% of the Application Site lands) with a further 0.66 hectares (6.6%) in other landscaped areas including pocket parks, the boulevard and incidental open spaces.

##### 14.4.2 **Site Layout Considerations**

As part of the design process, existing environmental and technical constraints and assets were reviewed with the design team and the landscape design considerations focused on provision of public realm areas, open spaces, playgrounds, and major pedestrian routes within the Eastern Node site that would be accessible to all members of the community. This application has the benefit on drawing on earlier planning decisions related to the site in terms of reviewing and addressing layout considerations which related primarily to the link street and the extent of roads and surface car parking (Reference: ABP-307832-20). To address these matters, the site layout for this proposal included the following:-

- The main Link Street has been redesigned to have a more sinuous and legible alignment that is DMURS compliant. The proposed buildings aligning this central street / boulevard include three-storey houses

and are positioned in a manner to give it a more streetscape and enclosed appearance. This link will consequently have the character of an urban street rather than a suburban roadway;

- The potential visual dominance of car parking provision has been reduced through designing in mews lanes, communal parking areas, under-croft parking for apartments and in-curtilage parking for properties on secondary streets. Only linear parking provision is facilitated on the main streets leading through the development;
- Provision of bus stop and parking near entrance on Clonminch Road;
- The Crèche is relocated to be part of Phase One;
- Improved accessibility to the Neighbourhood Centre with access provision facilitated from both sides of the link street that will also improve its legibility and focus in the future townscape;
- Provision of cycle priority at road junctions and allowance for future connectivity to Chancery Lane;
- Improved connectivity to Gayfield / Clonminch Wood including to the proposed school site;
- Reducing heights of proposed residential properties to single-storey aside Clonminch Wood to lessen potential dominance; and
- Additional provision of pocket parks and landscape areas

#### 14.4.3 Existing Landscape Assets

As noted above, within the core of the Application Site, there is little in terms of landscape features or vegetation of note or worthy of retention with field patterns subject of historical disruption and hedgerows being of limited landscape (or ecological) interest.

It is the design intention to ensure that the peripheral hedgerows and associated trees (apart from that on Clonminch Road and at locations of proposed linkages) are retained intact and augmented as part of this proposal. The open spaces seek to retain any trees considered to be in reasonable condition or greater where feasible based on information from Tree Survey Report (Boe 2019) and Ecology Assessment (Goodwillie 2020);

#### 14.4.4 Landscape Design Considerations

The objectives include creation of different landscape treatments including avenue tree types and building types to create identifiable character zones. In essence, there are three elements to the landscape design considerations:-

##### Green Infrastructure and Connectivity

- Crofton Avenue, the main street through the site, is designed as a strong “green” boulevard which will be aligned with avenue trees, landscape areas and broad walking routes and cycle-ways allowing for a landscaped link between the site entrance, key open spaces and the public realm plaza / park aside the Neighbourhood Centre;
- Off the avenue are a clear hierarchy of roads and interconnected streets to enable residents, users and visitors to move in a sustainable manner (as alternative options to vehicle trips) to the Neighbourhood Centre, parklands and school sites.

- Provision of pathway network to provide a safe and traffic-free environment for walkers, runners and cyclists;
- Landscape areas will be retained and enhanced towards the site boundary and throughout the site to allow for connected habitat creation and wildlife corridors. This will include areas managed for biodiversity and ecosystems that will see a net gain of biodiversity on the site. All tree planting will accord with the “Pollinator Friendly Planting Code – Professional planting recommendations” of the All-Ireland Pollinator Plan 2015-2020”.; and
- Enhanced and upgraded cycle-way connectivity to Tullamore Town Centre along Clonminch Road;  
*Parklands and Open Space*

- The proposed layout includes significant open space and multi-functional public realm areas extending to 16% of the Application Site area (1.62 hectares) which is interconnected by landscaped links or Greenways that have both a functional connection and aesthetic purpose;
- The main open spaces and parks are at areas to be called St. Columba’s Green and Clonminch Square which will have mixes of informal and formal landscape character with recreational and amenity spaces. Each area of public space has a landscape character and design to give them a distinct or notable sense of place;
- A further open space is located to the north-west of the site and is located in such a manner to be able to join with the existing linear open space abutting the site boundary at Clonminch Wood that will give the resulting area more resonance and
- All age groups will be catered for with the layout and design of open spaces based on best practice in terms of universal design to be safe and aesthetic areas that will complement interaction between varied groups. This will include provision of playgrounds to cater for the recreational and educational requirements of children of residents. These will be designed to be both secure and overlooked in line with RoSPA safety advice and European Standard (EN 1176);
- The existing overhead ESB powerlines which ingress into the skyline on the site will be undergrounded as part of the development to ensure that the pylons do not have to be considered or accommodated into the parkland designs;
- On-going open space management plans will identify areas that can be managed to encourage habitats creation as the designed landscape measures mature and evolve;
- The site layout has been designed in a manner that allows for natural surveillance of all open spaces with houses fronting these areas to give a feeling of security and encourage positive social behaviour;
- The design sets out a clear distinction between public realm areas, communal and private spaces. Public spaces will feel welcome to all, while communal spaces will be differentiated from the public areas either physically or perceptively; and
- Open spaces are designed with consideration given to their long-term management ensuring this is not onerous with heavy resource requirements.

### Public Realm

- St Columba's Green will be located near Neighbourhood Centre and school and will act as a nodal point on the landscaped corridor between Clonminch Road and ultimately Crofton Park which is proposed as part of the wider Eastern Node masterplan. This area will include a major public realm scheme including a paved plaza which will be designed to create a strong identity and distinctiveness to these areas.

## 14.5 Potential Landscape and Visual Effects

### 14.5.1 Introduction

Any assessment must be measured against that of the situation that pertains at present. In the case of this large site, it is – on balance – **Medium** in terms of landscape quality and condition and **Low** in terms of landscape sensitivity. The lands have been affected by the close proximity of the town edge and busy roads and are parts of a jagged rural/town interface but the fields and peripheral areas have a “Everyday” character which may be appreciated by the local community but has no or little wider recognition of its value beyond that.

### 14.5.2 Potential Construction Effects

The nature of groundworks, construction activity, house building and associated infrastructure will mean that the Application Site will be subject to a **Major** alteration rated as **Significant** on account of re-grading and profiling works for a temporary period. While effects will be lessened due to distance, intervening vegetation, built form and topography across neighbouring housing estates, those areas and properties abutting the Application Site lands will experience **Slight to Moderate Adverse** effects during this temporary period.

Due to the short-term nature of the construction period and limited visual envelope, the LVIA assesses that these impacts will be acceptable with mitigation measures set in place. This will include hoarding and fences will assist in limiting views from public amenity / open space areas while retained vegetation, peripheral built form and topography ensure any effects during this time to the broader Tullamore area will not be of a significant nature.

### 14.5.3 Completed Development and Long-Term Impacts

The proposed development is regarded as being permanent or long term in landscape and visual terms. The lands have been subject to intensive farming activity and are adjacent to existing housing estates with limited distinctive landscape features so while the changes will be **Major** the baseline setting of this housing zoned area is not one of a pristine or sensitive landscape.

The LVIA assesses the effects will be acceptable on account of the housing layout design and the proposed mitigation measures that includes planting to site boundaries and extensive internal open spaces that will assist in absorbing the development into the local landscape setting by the medium term. The magnitude of effects will reduce appreciably over time as the landscape and planting matures and merges the development into the surrounding landscape.

Away from the Application Site, intervening vegetation, built form and topography ensure any effects to the wider Tullamore townscape / landscape will be of a **Minor / Negligible Neutral** nature and are considered not significant.

#### 14.5.4 Cumulative Effects

Cumulative landscape or visual effects are the combined effects that arise through the interaction of two or more developments, whether of the same type or not, within the landscape and visual baseline context. Collectively they give rise to an overall combined effect.

A significant cumulative effect will occur where the addition of the proposed development to other existing and developments results in a landscape or view that is defined by the presence of more than one major development and is characterised primarily by large scale development so that other patterns and components are no longer definitive.

The proposed development is set within an area that is already defined in part by large housing estates and infrastructural elements including the N52 Tullamore Bypass and railway line that make up the south Tullamore townscape. The following table includes for those consented sites where there may be cumulative effects on the landscape / townscape and visual amenity of this part of the city.

*Table 14.8: Cumulative Effects*

<b>Development or Proposal</b>	<b>Distance from Site</b>	<b>Nature of Cumulative Effect</b>
Clonminch Road  (Part 8 – 19 units)	Adjacent to Site	This is a residential development on lands between the Application Site and the Limefield estate and it is currently being completed. There will be <b>Minor</b> cumulative effects on close proximity views but these would not be significant due to enclosed nature of this development. The key change will be a sense that Tullamore has extended south but in cumulative terms, the Part 8 development would have no significant bearings on the magnitude or nature of effect to local landscape character.
PA Ref. 1939 (99 dwellings); PA Ref.18330 (29 dwellings) PA Ref. 17231 (127 dwellings) PA Ref. 18555 (68 dwellings) PA Ref. 16236 (82 dwellings)	All these developments are to the north of Tullamore town centre and in excess of 2.5km from the Application Site	Due to intervening townscape and topography, there is no inter-visibility. There will be Negligible cumulative effects in townscape character and visual amenity terms.

#### 14.5.5 Interrelationships

The landscape and visual impact of the proposed development can be related to cultural heritage, human beings, material assets and ecology.

The nearest heritage site is Violet Cottage (dating from 1840 to 1880) located to the west of Clonminch Road approximately 75m distant from the Application Site boundary. From this property there will be slight views of the entrance to the proposed development and proposed buildings aside Clonminch Road which will have slight but not significant or unacceptable effects on its setting due to nature of intervening road and built development (**See Figure 14.17 to 14.19 Viewpoint 4**). All other designated monuments (including the Grand Canal) are distant enough from the Application Site to not be subject to any significant changes to their setting or amenity.

The design process took into account visual impact to local residential properties which back or gable onto the site in the Clonminch Wood and Gayfield townland areas where changes to the landscape setting could affect the setting and amenity. Landscape works to the boundary areas and integration of open spaces were designed into the scheme to minimise potential visual effects and assist in integration of the proposed development.

The proposed landscape works were reviewed by the project ecologist and plant species include significant indigenous species and other ecology measures are included which will have a positive effect as it matures on local ecology and diversity. There are no designated natural environment areas or landscape close enough to be affected by activity on the Application Site.

#### 14.6 **Mitigation Measures**

14.6.1 The appearance of the development is a major influence on how the site is perceived by the public so the proposed development includes for extensive landscape and open space works with the overall objective of providing a layout that integrates the development into the surrounding townscape / landscape and provides a series of coordinated and linked green spaces. This includes designing of green infrastructure, formal and informal open spaces, parklands, public realm and other external areas for the amenity and use of residents and others in this area as shown on the Landscape Design drawings. **See Figure 14.5 Proposed Site Layout**

#### 14.6.2 **Landscape Design**

The key areas of public open provision equates to 1.62 hectares (3.75 acres – 16.1% of the residential land use within the Application Site) with the majority in new parks at Clonminch Square (4,131m<sup>2</sup>), St Columba's Green (7,035m<sup>2</sup>) and the associated Public Square (1,130m<sup>2</sup>). Further open space is provided on towards the Clonminch Wood boundary at Green Street West (2,496m<sup>2</sup>) and at Green Park (1,415m<sup>2</sup>) and within pocket parks, linkages and the widened landscape corridor aside the link street boulevard which will collectively contribute to the landscape character and visual amenity of the site as these areas mature enhancing the local sense of place. The key landscape measures include the following:-

- The construction work and development areas are located away from peripheral trees and hedgerows allowing for their retention and augmentation;

- The site layout will ensure properties face areas of open space (and streets) to provide passive supervision / ownership ensuring no hidden corners (as per Space Syntax research and recommendations);
- Provision of new cycle and pedestrian linkages along Clonminch Road to Tullamore town centre that will link through the proposed development to the Neighbourhood Centre and beyond along boulevards, parklands and open spaces. The ultimate objective is these connect via a new bridge over the railway line to the Chancery Lane area to the north as part of the wider Eastern Node Masterplan;
- Creation of significant and linked open spaces for recreational and amenity purposes that links the core of the site physically and aesthetically with the Clonminch Road and provides potential connectivity into the adjacent housing estates in the Gayfield area. Identifiable future linkages are also considered in relation to the wider proposed development across the Eastern Node;
- Landscape works to assist with visual integration and screening. The collective tree planting will, as they mature, assist in merging the proposed development into the surrounding landscape and views from the Tullamore Bypass;
- Provision of Communal Open Spaces for the Apartment complex areas;
- Materials or rock excavated from the existing site will be crushed for re-use on this scheme or assimilated into the open space designs, thus negating the requirement for import of additional fill.

#### 14.6.3 Existing Trees and Vegetation

The TTEDP advises that that the council “*will not normally grant planning permission for development which requires the felling of sound mature trees, save where it is absolutely necessary in the interests of safety (both for the development and for traffic) or the siting of development. In such cases, the Councils will require the developer to replant suitable trees and take steps to ensure their survival.*” The Tree Survey (2019) noted the majority (83%) of the 52 trees or tree groups were categorised as “*Low quality with remaining life expectancy of at least 10 years or young trees with a stem diameter below 150mm*”. Further, many are Common Ash (*Fraxinus excelsior*) and may be subject to Ash- dieback and future felling necessitated for health and safety reasons.

The existing hedgerows are limited ecological interest with former field patterns significantly disrupted. The site design allows for retention of all peripheral trees and augmentation of boundary hedgerows apart from the section aside Clonminch Road (to facilitate access and sightlines) where replacement planting and a new hedgerow is proposed. Tree Nos. 01, 06, 07, 08, 14, 15, 16, 17 and 18 (moderate quality/Category B) and Tree Nos. 03, 04, 05, 19, 20, 21, 22, 23, 24 and 29 (low quality/Category C) are to be retained.

The hedgerows will be overhauled to remove dead, dying and dangerous branches and any colonising scrub or brier. For retained trees, the recommendations given in *BS5837:2012 Guide for trees in relation to construction* will be adopted to ensure site and tree safety.

In total it is proposed to fell six wooded groups or trees (Tree Survey Numbers 02, 09, 10, 11, 12 and 13) as part of this development though all are categorised as “low quality” or Category C. Significant replanting is proposed as part of this development as replacement as outlined below.

#### 14.6.4 Proposed Landscape Works

The landscape works include for planting of trees within parkland areas and the central boulevard core through the proposed development that will entail over 600 no. semi-mature’ or ‘extra-heavy standard’ size trees to provide an instant impression. The collective trees will, as they mature, assist in merging the proposed development into the surrounding landscape and local views as well as set about creation of the areas new landscape character. Other landscape works will include structure planting, amenity planting, garden trees, hedgerows and wooded belts (in excess of 1,000m<sup>2</sup>). The extent of planting will more than compensate for the loss of internal hedgerows and that aside Clonminch Road and enhance the overall wooded character and nature of the site; for every tree lost there will be at least 100 no. semi-mature or extra heavy provided as replacements.

Planting and augmentation of existing boundary hedgerows will consist of evergreen and deciduous trees with under-story scrub mix. A range of plant species and heights will be selected to provide quick establishment and assist in visual integration. Amenity planting will consist of trees, native woodlands, hedgerows, shrub / groundcover planting, meadow / wildflower and grass seeding works. As the planting matures, it will change the nature of the site and its visual amenity and the height of planting for assessment purposes is as follows:-

- Planting at Year 1 : 3 metres;
- Planting at Year 15 : 8 metres; and
- Planting at maturity : 20 metres (i.e., Year 25)

Plants selected will be predominantly indigenous and species selection based on those in the “All-Ireland Pollinator Code 2021-2025” to ensure successful plant establishment that will merge visually and ecologically into this area. Landscape works will be undertaken by an ALCI approved landscape contractor and in accordance with *BS 4428:1989 Code of practice for general landscape operations (excluding hard surfaces)*. Any trees or shrubs dying, damaged or removed will be replaced in the following planting session with plant of similar size and species. Trees supply and planting shall correspond to *BS 8545 Trees: from nursery to independence in the landscape - Recommendations*.

While the baseline site character will change due to this proposal, in terms of woodland and trees there is the opportunity for this part of Tullamore to have significantly enhanced tree cover and a more wooded character in the longer term with positive effects on amenity, environment and ecology.

#### 14.6.5 Eastern Node Masterplan Design and Landscape Strategy

The proposed development is the first phase of the Eastern Node of the Southern Environs of Tullamore based on the designations originating in TTEDP. The Nodal Masterplan is formed around a central neighbourhood centre and school site with the main arterial route through the centre of the Eastern

Node with future connection planned for across the railway towards Chancery Lane to the north. The total area extends to c.62 hectares of land between the Gayfield estate and R443 Clonminch Road to the west, the Tullamore Bypass to the south and east and the Dublin—Galway railway line to the north.

**See Figure 14.7 Eastern Node Masterplan**

The Development Plan identifies significant areas of Public Open Space along the north and east of the site equating to a nearly 2km corridor of between 50 to 75m wide aside the railway line and the N52 Road (equating to an estimated 12.75 hectares). The outline proposals include trails, cycling and pedestrian paths, meadows, woodland planting with nodes of formalised activity at strategic locations.

*Plan 14.1: Eastern Node Masterplan*



*View of Eastern Node Masterplan with Application Site located to the west / left*

The areas of proposed planting in the Masterplan are set out in such a manner to screen the adjacent transport corridors and provide a buffer and green edge to the Eastern Node. It will be readily accessible from proposed developments within the Eastern Node from which greenways and tree-lined avenues will connect with internal parks, greens and open spaces providing opportunities for informal recreation, play and nature. The masterplan demonstrates an even distribution of open space with a strong interlinking landscape corridor created through the core of the site which includes, in part, a central boulevard which is commenced in the Phase One application. Connectivity and integration with

open spaces in the adjacent Gayfield estate is included with the retention of trees along the historical boundary factored into the Masterplan designs.

The Masterplan identified key internal hedgerows and trees which are in good health or aesthetic condition and these have been integrated into the designed open space areas.

The Neighbourhood Centre and St Columba's Green is designed to be the community hub with the landscape treatments focused on public realm area of high-quality finish. In this area, planting and landscaping will be of a formal nature and the focus will be on durable materials and design to ensure that this area can provide a civic and functional role at the heart of the development. There are opportunities to incorporate pieces of artwork at key locations such as the neighbourhood square and open spaces which can act as focal points and orientation as well as bring an aesthetic quality and sense of identity to this part of Tullamore.

## 14.7 **Predicted Impacts of the Proposed Development at construction and operational stages**

### 14.7.1 **Introduction**

The aim of the LVIA is to objectively and professionally assess how the proposed development will affect the landscape, townscape and visual amenity of this part of Tullamore. The terminology and glossary used in this chapter to describe landscape and visual effects is based on a review of the Principles and Overview of Processes (Chapter 3) of the GLVIA. The LVIA Criteria and Terminology is outlined in Section 14.2 above.

The magnitude and significance of any effect is determined by the scale and context of the proposed development and any resulting contrast between this and the existing landscape setting and visual amenity. A further consideration is not just its proximity to adjacent townscape or landscape areas but also the number of people who use or pass through this area who may feel that the visual and townscape / landscape quality of the area has been affected by this proposal.

### 14.7.2 **Construction Stage**

The nature of groundworks, construction activity, road building and associated infrastructure will mean that the core of the Application Site will be subject to **Major** alteration on account of re-grading and profiling works. The elements that will have landscape and visual impacts are as follows:-

- Fixed construction plant, including cranes and scaffolding and gantries;
- Earthworks and ground profiling;
- Underground services installation and drainage including SUDs;
- Replacement and repair of boundary fencing;
- Mobile construction plant, such as excavators and lorries;
- Storage and compound areas;
- Erection of welfare facilities and retention of existing protective hoardings;
- Security and safety lighting;
- The presence of an evolving development;

- Impacts to existing vegetation include felling of six wooded groups or trees (Tree Survey Numbers 02, 09, 10, 11, 12 and 13);
- Removal of approximately 600 linear meters of mixed quality hedgerows to the centre and east of the Application Site though many of these are sparse or not of any significance in landscape or visual amenity terms;

There is likely to be **temporary Moderate Adverse** effects during the construction period with the new access and hedgerow removal (approx. 80m) on the Clonminch Road initially being the most evident change in public perception terms. The south Tullamore area is partially characterised by significant transport corridors (with a number of local sites under development) ensuring effects deriving from construction traffic would not represent a significant change, in landscape or visual terms, from the existing situation. Construction traffic and materials can access from Clonminch Road which is already a busy road and any increased usage will not be significant in landscape and visual terms.

The removal of the roadside hedgerow on Clonminch Road will have a significant impact on the landscape character and visual quality of this short section of road with **Moderate Adverse** effects. The removal of internal hedgerows will not be significant in landscape or visual terms due to their nature and distance from possible vantage points. All trees in boundary hedgerows will be retained (subject to on-going health and safety condition surveys).

The construction stage will represent a significant change to the site character and result in direct effects to peripheral areas within the Clonminch Wood housing estate and adjacent areas off Clonminch Road with **Slight to Moderate Adverse** effects on these areas.

Across the wider Tullamore area including the town centre, the construction phase will have **Negligible** effects on any appreciation of the setting. The collective factors of existing site context, built environment, vegetation and distance ensure any effects would be of a **Low Magnitude** and not of a significant nature.

#### 14.7.3 Assessment of Operational Effects (on completion of development)

The landscape and visual effects deriving from this proposed development are deemed to be permanent changes (i.e., effects lasting over twenty-five years and irreversible). The changes are related to a proposed residential development and neighbourhood centre as described in Chapter 3 of this EIAR and summarised in 14.4 above.

##### Application Site

The proposal will result in permanent changes to the landscape character of the Application Site due to loss of farmland and hedgerows. This will be replaced by a built townscape character across this part of the Eastern Node designated lands including buildings, landform changes and boundary treatments that will essentially change its context to a residential and urbanised area (based on a density of 36.6 dwellings per hectare).

All boundary trees and hedgerows (apart from approximately 80m on the Clonminch Road boundary) will be retained. Peripheral hedgerows and wooded belts will be augmented and retained ensuring

that they contribute to visual screening and buffers. The loss of trees and hedgerows should be considered in relation to the proposed landscape works to open spaces and across the central core of the site that will, as it matures, redress and significantly increase the extent of trees and vegetation on the site. The generally low profile of the internal hedgerows being removed ensures their consequence in landscape terms is not significant.

The collective development will have **Major** effects to the character and sense of place across the site but would not necessarily be one of an adverse nature on account of the significant landscape and open space development (equating to approximately 21% of the Site) in line with the Eastern Node designation that would contribute to the local landscape character in the medium to longer term. Furthermore, the site is not one that would be considered a pristine landscape or one of a very sensitive nature (as noted in the relevant Development Plans) due to current land-use and its location on the urban / rural interface.

#### Clonminch Road

On and aside the Clonminch Road in the area south of the railway line, there would be a conscious feeling the urbanised form has shifted south beyond the current town edge and that areas perceived as open landscape or farmland have become part of the Tullamore townscape. Across much of the southern town, the effects will be **Negligible** due to intervening townscape and vegetation on the site boundaries which will remain intact. The new site entrance off Clonminch Road will be a readily discernible change with **Major** effects on a short section (approximately 175m) of the road due to removal of existing hedgerow and the view now including an apartment block, residential properties and a new road junction. While significant, the design allows a set back of the proposed buildings allowing planting of trees and hedgerows in the intervening landscape that would have **Slight Positive** effects on the character of this section of the road by the medium-term offsetting some of the perceived adverse effects deriving from the loss of farmland for urban development in this area.

Residential properties that abut the site boundary towards on the (old) Clonminch Road to the south / south-west will experience **Slight Adverse** effects in terms of sense of place as the context of the site and backdrop to these areas changes to townscape. In areas to the north of the site on Clonminch Road, effects on character are lessened due to intervening vegetation and built elements and these areas are already heavily urbanised in character; effects are judged as **Slight Neutral**. Any significance and magnitude of effects will reduce over time as the landscape matures as the proposal allows for retention and augmentation of existing boundary vegetation.

#### R52 Tullamore By-pass and Rural Hinterland

The Tullamore Bypass is the dominant landscape feature in the south Tullamore / Eastern Node area and cuts through open countryside in a broad swathe from the railway crossing to the Clonminch Roundabout. The proposed development will be largely obscured due to its low profile in this landscape type comprising an accumulation of hedgerows but there will be a discernible extension of the urban townscape to the south towards the road. Effects on the landscape character of this section of the

Bypass and adjacent areas are assessed as **Slight Neutral**. Any significance and magnitude of effects will reduce over time as the proposed planting within the site matures.

The Eastern Node designation includes for a green belt of landscape of up to 75m wide on the northern and western side of the Bypass towards the Application Site that will allow for the retention of existing vegetation in this area. It is also likely that this area will be subject to further landscape works and planting as part of the Eastern Node works. The collective would ensure limited effects deriving from the proposed development on the Bypass character and associated views into the longer term.

#### Tullamore

The proposal will have a **Negligible Neutral** effect on the sense of place and character of the town centre and the vast majority of Tullamore. It would not result in any lessening of appreciation or enjoyment of its key features, designated or quality areas including the Grand Canal, the Tullamore Dew Distillery and Charleville Castle Demesne.

This proposal will introduce a large scale residential and neighbourhood development onto the town's southern periphery on land that has been historically farmland. Any effects should be measured in context with the adjacent townscape and the Development Plan zoning that ensure this will appear as a logical and appropriate location for this type of development. Further the landscape of this area has been rated as **Low Sensitivity** in the TTEDP allowing a reduced rating in terms of significance and magnitude of change.

TTEDP Chapter 5 notes the following in terms of opportunities in this area:-

- *There is an opportunity to utilise the Tullamore N52 bypass as the clear boundary of the urban area;*
- *The provision of an east-west route within the site from Charleville Road to Clonminch Road could form a southern relief road which has an urban street character; and*
- *Existing streams and hedgerows with mature trees could be integrated into and help structure an open space network.*

The proposed development takes into account, ties into and addresses these three opportunities.

There will be glimpse views from sections of adjacent roads and areas though the muted and non-reflective colours of the proposed development and extent of existing and proposed vegetation will lessen its discernibility tying it visually into the adjacent land-uses and types. In such views, the development will have **Slight Adverse** effect on landscape character, scale, landform, land-cover and pattern of the south Tullamore area but this would not be on considered unacceptable or out of context in landscape and visual terms.

Table 14.9: Landscape Effects Summary

Area	Sensitivity	Summary of Landscape Effects	Magnitude	Significance	Significant (Yes / No)
Application Site	Low / Medium	Loss of vegetation and change of baseline setting from predominantly open fields to townscape and parklands	Major	Slight Adverse	Major Significant
Clonminch Road	Low / Medium	Changes to local sense of place but development mostly screened from these areas	Slight / Moderate	Slight Adverse	Medium Not Significant
N52 and Tullamore Hinterland	Low / Medium	Changes to local sense of place but development mostly screened from these areas	Slight / Moderate	Slight Adverse	Medium Not Significant
Tullamore Town	Medium / High	Change of peripheral town edge area to townscape	Slight / Negligible	Slight Neutral / Negligible	Low to Negligible Not Significant

### Visual Effects

The following tables summarise the views and context of the 8 no. representative viewpoints and the likely impact on the views and visual quality deriving from the proposed development.

Table 14.10: Viewpoint 1 – N52 Tullamore By-Pass

Representative Viewpoint Summary	View from N52 By-Pass on elevated section of road near railway crossing
<b>Viewpoint Baseline</b>	<p>Travelling south and west on the broad N52 Road, there are open views from this elevated section of the Bypass as it crosses the Iarnród Éireann railway line near Cloncollog. The road traverses a rural landscape with the nearest outskirts of Tullamore town, despite being less than 300m distant, being obscured by an accumulation of field hedgerows and wooded belts.</p> <p>The Application Site is located over 700m to the west and there are partial views over lower sections of hedgerows or through gaps. Glimpse views are also afforded of the gable ends of houses in the Clonminch Wood estate and the Tullamore Hi-Technology Park / Clonminch House on Clonminch Road. There are no views of the centre of Tullamore of the associated Church steeples or towers.</p>

	The majority of viewers will be road users passing at speed and the view towards the Application Site would be of an oblique nature and unlikely to be the focus of their attention.
<b>Viewpoint Sensitivity</b>	Low / Medium – road users
<b>Predicted Visual Changes</b>	<p>The proposed development will be a notable extension and be seen as encroachment into the rural landscape aside Clonminch Road though the view is distant enough that the implications will not have a significant effect on any appreciation of the views across the fields or the Tullamore area backdrop. Effects are assessed as <b>Slight Adverse</b>.</p> <p>The proposals include for landscape works which assist in assimilating it into the view as it matures tying it visually into the adjacent wooded or townscape character. Given the distance and scale of panoramic view, the effects on views on this representative viewpoint would not be of a significant or unacceptable nature in visual amenity terms.</p> <p>Should the rest of the Eastern Node be realised, there would be development across the intervening land that would be potentially more visible from this section of the Bypass. However, the Development Plan stipulates a 50 to 75m band of open space on the west and north side of the road that, if landscaped effectively, would ensure that the collective changes can be absorbed and accommodated into the south Tullamore area without unacceptable impacts.</p>
<b>Significance Summary</b>	Minor: proposed development will form a minor component in the oblique and panoramic view but would not have a marked effect on its overall quality.

*Table 14.11: Viewpoint 2 – N52 Tullamore By-Pass*

<b>Representative Viewpoint Summary</b>	<b>View from N52 By-Pass to south of Application Site</b>
<b>Viewpoint Baseline</b>	<p>The N52 traverses the open countryside to the south of the Application Site and this viewpoint is representative of the closest potential views from this section of road (approximately 230m distant). The lack of roadside hedgerows on the north-side of the road approaching the Clonminch Roundabout allows open vantage across flat pastureland towards the site boundary though the majority is obscured by intervening hedgerows. Glimpse views are afforded of some roofs within the Clonminch Wood Estate, the Tullamore Hi-Technology Park (Clonminch House) and bungalows off (Old) Clonminch Road to the west. There are no views of the centre of Tullamore of the associated Church steeples or towers.</p> <p>The majority of viewers will be road users passing at speed and the view towards the Application Site would be of an oblique nature and unlikely to be the focus of their attention.</p>

<b>Viewpoint Sensitivity</b>	Low / Medium – road users
<b>Predicted Visual Changes</b>	<p>The proposed development will be a notable encroachment into the rural landscape to the north of the Bypass with the southernmost gables and roofs visible over intervening hedgerows trees having <b>Slight Adverse</b> effects on visual amenity. The key change will be the sense that townscape has extended representing an expansion of built environment in south Tullamore.</p> <p>Effects will derive from the new residential properties and landscape works though peripheral hedgerows are to be retained and augmented which will reduce the magnitude of change as they mature.</p> <p>Should the rest of the Eastern Node be realised, there will more development across the intervening land that would be potentially more visible from this section of the N52. However, the Development Plan stipulates a 50 to 75m band of open space on the west and north side of the road that, if landscaped effectively, would ensure that the collective changes can be absorbed and accommodated into the south Tullamore area without unacceptable impacts.</p>
<b>Significance Summary</b>	Minor / Moderate: The proposal is likely to form a readily apparent component within the overall view

*Table 14.12: Viewpoint 3 – R443 Clonminch Road (northbound)*

<b>Representative Viewpoint Summary</b>	<b>R443 Road to south-west of Application Site on approach to Tullamore</b>
<b>Viewpoint Baseline</b>	<p>The R443 Clonminch Road is the main road to the south of Tullamore and off which there has been linear residential and commercial development leading to the Clonminch Roundabout (and the connection to the N52 Bypass). The extent of development increases to the north towards Tullamore but on the 500m section between the roundabout and the Application Site boundary it is bound by both fields and clusters of residential housing sited off an older section of the Clonminch Road.</p> <p>Travelling north, views towards the site are obscured by intervening houses, associated gardens and vegetation until within 100m when the boundary hedgerow on Clonminch Road becomes visible. Local views are dominated by the broad road and the Tullamore Hi-Technology Park to the west. Internal views of the site are obscured by the mature roadside hedgerow apart from a short gap at the field gate.</p> <p>The majority of viewers will be road users using this as the main approach to the town from the south. There are pedestrian footpaths on both sides and the Hi-Technology Park has a large number of potential visual receptors.</p>

<b>Viewpoint Sensitivity</b>	Low / Medium – road users, adjacent residential properties and office workers in the Hi-Technology Park
<b>Predicted Visual Changes</b>	<p>The most evident change in this area will be the widening of the Clonminch Road and junction works to provide the main access and connection into this part of the Eastern Node (including cycle lanes). This will entail removal of existing roadside hedgerows and in conjunction with the apartment / housing development to the east of this section of road have a <b>Major</b> localised effect.</p> <p>The residential areas proposed as part of this development are set back from the Clonminch Road boundary to allow landscape works to be undertaken that will replace the removed hedgerow introducing approximately 20 no. trees to the roadside setting. There will be <b>Slight Adverse</b> effects due to the change of landscape from field to an urbanised landscape but the associated landscape works including an avenue of trees and parkland creation would, as they mature, limit the extent of oblique views into the proposed development and consequent visual impacts.</p>
<b>Significance Summary</b>	Moderate: The proposal is likely to form a readily apparent component within the overall view

*Table 14.13: Viewpoint 4 – R443 Clonminch Road (southbound)*

<b>Representative Viewpoint Summary</b>	<b>R443 Road to west of Application Site travelling south towards Clonminch Roundabout</b>
<b>Viewpoint Baseline</b>	<p>The R443 Clonminch Road is the main road to the south of Tullamore and off which there has been linear residential and commercial development leading to the Clonminch Roundabout (and the connection to the N52 Bypass). Travelling south, the road is contained within built environment on both sides as it approaches the Application Site boundary apart from a short section where it crosses the railway line. On-going construction of a residential development (19 units) is taking place just to the north of the Application Site that will change the view context and built environment in this area on completion.</p> <p>Views of the Application Site are obscured until within 100m when its boundary hedgerow on Clonminch Road becomes visible. The existing view is dominated by the broad road while internal views of the site are obscured by the mature roadside hedgerow.</p> <p>The majority of viewers will be road users using this as the main exit from town to the south. There are pedestrian footpaths on both sides of the road and adjacent residential properties including the listed Violet Cottage.</p>
<b>Viewpoint Sensitivity</b>	Low / Medium – road users and adjacent residential properties

<b>Predicted Visual Changes</b>	<p>The most evident change in this area will be the widening of the Clonminch Road and junction works to provide the main access (including cycle lanes) and connection into this part of the Eastern Node. This will entail removal of the existing roadside hedgerow and introduction of a housing and apartment development adjacent to Clonminch Road will have a <b>Major</b> localised effect.</p> <p>The residential areas proposed as part of this development are set back from the Clonminch Road boundary to allow landscape works to be undertaken in this area that will replace the removed hedgerow introducing approximately 20 no. trees to the roadside setting. There will be <b>Slight Adverse</b> effects due to the change of landscape from field to an urbanised landscape but the associated landscape works including an avenue of trees and parkland creation would, as they mature, limit the extent of oblique views into the proposed development and consequent visual impacts.</p>
<b>Significance Summary</b>	Moderate: The proposal is likely to form a readily apparent component within the overall view

*Table 14.14: Viewpoint 5– Clonminch Wood*

<b>Representative Viewpoint Summary</b>	<b>View from open space within the Clonminch Wood housing estate in the Gayfield townland</b>
<b>Viewpoint Baseline</b>	<p>To the north and west of the Application Site is the Clonminch Wood housing estate that is part of the wider residential developments across the Gayfield townland. The estate comprises detached and semi-detached properties set off cul-de-sacs and closes with properties to the south backing onto or gables the site. Rows of houses lead towards the Application Site boundary that comprises a mature hedge with trees over and through which potential views are afforded. This representative viewpoint is located aside an area of existing open space abutting the Application Site boundary to the east of the Clonminch Wood estate.</p>
<b>Viewpoint Sensitivity</b>	Medium/ High –adjacent residential properties
<b>Predicted Visual Changes</b>	<p>The proposed development will be a discernible change to views from this area open space altering it from one of looking out over predominantly rural fields to that of a residential housing estate with <b>Moderate</b> effects to visual amenity due to proximity (less than 30m to the nearest proposed dwelling). While the existing boundary hedgerow is to be retained and would assist in limiting views of the proposed development, the key change will be the sense that townscape has extended and that Clonminch Wood is no longer the edge of the town having <b>Slight Adverse</b> effects. This would be more due to a sense of place than actual view due to the extent of retained vegetation. The proposed site layout allows for the existing open space within this part of Clonminch Wood to be balanced with an equal sized area of open space within the Application Site to create a more substantial parkland that would have positive effects on local amenity.</p>

<b>Significance Summary</b>	Moderate: The proposal is likely to form a readily apparent component within the overall view
-----------------------------	---

*Table 14.15 Viewpoint 6 – Old Clonminch Road*

<b>Representative Viewpoint Summary</b>	<b>Residential area aside and off the Old Clonminch Road to the south-west of the Application Site</b>
<b>Viewpoint Baseline</b>	<p>To the south-west of the Application Site is a short section of the (old) Clonminch Road which was left over as a spur off when the R443 Clonminch Road was realigned as part of road improvements. It is a narrow lane that provides access to a cluster of approximately 18 residential properties (predominantly bungalows) that are all within 250m of the Application Site.</p> <p>The flat nature of the topography, buildings and existing vegetation within gardens or on boundaries ensure there are no views towards the core of the Application Site.</p>
<b>Viewpoint Sensitivity</b>	Medium –adjacent residential properties
<b>Predicted Visual Changes</b>	The proposed development will be obscured by intervening buildings and vegetation so <b>Negligible</b> visual impacts are predicted. A glimpse and oblique view will be afforded along the existing lane that provides access to the site of rear garden fences at approximately 80m distant but this will not be of a significant nature or affect the quality or nature of this view.
<b>Significance Summary</b>	Negligible: proposal will be barely discernible equating to a no-change situation.

*Table 14.16 Viewpoint 7 – R443 Clonminch Road*

<b>Representative Viewpoint Summary</b>	<b>View from R443 Clonminch Road on elevated section of road near railway crossing</b>
<b>Viewpoint Baseline</b>	<p>The R443 Clonminch Road is the main road to the south of Tullamore and off which there is linear residential and commercial development. Travelling south, the road is visually contained within built environment until a short section where it rises to cross the railway line. From this elevation, views are opened up to the south over the Gayfield townland in the direction of the Application Site (over 600m distant).</p> <p>The majority of viewers will be road users using this as the main exit from town to the south but there is pedestrian use on adjacent footpaths.</p>
<b>Viewpoint Sensitivity</b>	Low / Medium – road users
<b>Predicted Visual Changes</b>	The proposed development will be obscured by intervening buildings and trees and <b>Negligible</b> visual impacts are predicted. There will be <b>Slight</b> effects due to the

	construction of cycle lanes on the east side of the road but this would have no consequence on view quality or appreciation.
<b>Significance Summary</b>	Negligible: proposal will not be visible equating to a no-change situation.

*Table 14.17 Viewpoint 8 – Chancery Lane*

<b>Representative Viewpoint Summary</b>	<b>View from elevated open space within housing estate at Chancery Lane to north of the railway line and the Application Site</b>
<b>Viewpoint Baseline</b>	<p>To the north of the Application Site, the nearest public roads and town areas are off Chancery Lane approximately 500m distant from the nearest proposed dwellings. The Chancery Lane area includes residential housing estates that merge into commercial, retail and institutional premises off the Church Road further north.</p> <p>This representative viewpoint is located in an area of open space off Chancery Lane where there a slight hill allows elevated views towards the railway line to the south in the direction of the Application Site.</p>
<b>Viewpoint Sensitivity</b>	Medium –adjacent residential properties
<b>Predicted Visual Changes</b>	The proposed development will be obscured by intervening hedgerows and trees aligning the railway line and <b>Negligible</b> visual impacts are predicted.
<b>Significance Summary</b>	Negligible: proposal will not be visible equating to a no-change situation.

#### 14.7.4 “Worse Case” Scenario

The visual effects are assessed on the basis of and photography undertaken for the photomontages / visualisations on a clear summer’s day (1<sup>st</sup> June 2020) in good lighting conditions. Visual effects can invariably change due to cloud, rainfall, dusk and sun angle that would lead to differences in clarity, colour and contrast. It is therefore reasonable to assume there would be reduced visibility in these scenarios particularly in mid to long distance views. Consequently, the assessment of effects is based on the worst-case scenario where the proposed development would be most visible.

There is a case that in winter, with less foliage on intervening trees and vegetation, views are likely to be more open but investigations on this site suggests this would not have any significant bearing on the impact assessment due to the thickness of boundary vegetation and location of key viewpoints. It is notable that in winter months the sun is generally lower, reducing contrast and therefore potentially reducing visual impact further.

#### 14.7.5 Residential Impacts

The nearest housing estates are at Clonminch Wood (Viewpoint 5 above) and off (old) Clonminch Road (Viewpoint 6 above). In general, the houses within these areas are internally focused with rear or side gardens with largely blank gables facing towards Application Site. The proposal will result in **Negligible** changes to the internal character of these areas but they will no longer be seen as the outskirts of the town with the landscape to the east being integrated into townscape which will affect the wider “sense of place”. However, the lower ridge heights of the nearest proposed houses (single-storey) and intervening screening elements will ensure the visual impacts to the majority of properties in the Gayfield townland area and off Clonminch Road will not be of a significant nature and largely of a **Neutral** nature. Beyond those houses that abut the Application Site, the effects on character reduce appreciably due to an accumulation of vegetation and buildings and the character being already of an urbanised nature.

The retention of existing trees and hedgerows on the site periphery and siting of open space will assist in absorbing the development into this urban / rural edge but there will be short to medium term **Slight Adverse** effects to the character of immediately adjacent properties as adjacent phases of development are completed. The significance and magnitude of effects will reduce over time as the landscape matures as the proposal allows for retention and augmentation of existing boundary vegetation.

It is worth noting that this development of extensive open space as plaza, parkland and green associated with the new neighbourhood centre will ensure increased local amenity and recreational areas for existing residents in this area.

The development offers the opportunity to provide a logical and readable urban / rural edge at the revised town edge boundary that will be able to integrate into the wider Eastern Node masterplan in the future.

#### 14.7.6 Monitoring

##### Landscape Management and Maintenance of Public Open Spaces

The management of all areas will initially be undertaken by an ACLI approved landscape contractor with the developer remaining as client for duration of their contract for each section of the development. After 12 months the maintenance will be handed over to the long-term Management Company who will take over maintenance of set areas on completion of the development. There will be a five-year guarantee after construction that all the proposed planting works still exists and has established in line with landscape design expectations. This will ensure that no planting has been removed or damaged due to the subsequent construction or plant failure. The planning application is accompanied by Landscape Management and Maintenance Plans setting out the objectives for management of external spaces or public realm areas for a 20-year period.

Regular monitoring will be undertaken to determine success of landscape operations and ensure they are behaving in the manner anticipated at design stage. If required, elements of the design can be adapted to accommodate changes required by actual field experience.

#### 14.7.7 **Difficulties Encountered**

No particular difficulties were encountered in compiling information for this report.

## **LANDSCAPE AND VISUAL – REFERENCES**

There are a number of published guidance documents including Development Plans, which include planning designations relevant to the Study Area as listed below:-

- *Offaly County Development Plan (CDP) 2014-2020; Offaly County Council (2014);*
- *Tullamore Town & Environs Development Plan (Extended until 2020);*
- *Offaly Historic Landscape Characterisation by Anthony Corns and Margaret Murphy (The Discovery Programme) 2005;*
- *National Landscape Strategy 2015–2025;*
- *Design Manual for Urban Roads and Streets by the Department of Transport, Tourism and Sport and the Department of Housing, Planning and Local Government (2019);*
- *Sustainable Urban Housing: Design Standards for New Apartments (2015); and*
- *Sustainable Residential Development in Urban Areas and the accompanying Urban Design Manual: A Best Practice Guide (2009).*

Other sources of information include:-

- *National Inventory of Architectural Heritage - <http://www.buildingsofireland.ie/Surveys/Buildings/>;*  
and
- *Environmental Protection Agency - <https://gis.epa.ie/EPAMaps>*

The baseline assessment included study of Ordnance Survey Ireland historical and recent mapping to assess how this part of Tullamore has developed since the 19<sup>th</sup> century as well as allow for calculations of relevant distances or areas.

**APPENDIX 14A**

**LVIA FIGURES AND PHOTOMONTAGES**

**APPENDIX 14B GENERIC LVIA TERMINOLOGY**

<b>Terminology</b>	<b>Definition</b>
Access Land	Land where the public have access either by legal right or by informal agreement.
Activity	Activity on site tends to draw the eye whether it is a moving object or light reflection of an object changing with movement and thus the degree of impact is increased. It is sudden changes in contrast ratios that draw the attention of the viewer.
Baseline Studies	Work undertaken to determine and describe the environmental conditions against which any future changes can be measured, predicted or assessed.
Characterisation	The process of identifying areas of similar landscape character, classifying and mapping them and describing their character.
Characteristics	A distinctive element or combination of elements, which make a particular contribution to distinctive landscape character.
Compensation	Measures devised to offset or compensate for residual adverse effects which cannot be prevented / avoided or further reduced.
Cumulative	The additional changes caused by a proposed development in conjunction with other similar Developments or as the combined effect of a set of Developments, taken together.
Cumulative Town /Landscape and Visual Assessment (CLVIA)	The changes to townscape / landscape or visual amenity caused by the proposed development in conjunction with similar Developments or as the combined effect of a set of Developments, taken together.
Designated Landscape	Areas of landscape/ townscape identified as being of importance at international, national or local levels, either defined by statute or identified in Development plans or other documents. e.g. Greenbelt, Conservation Areas, Areas of High Scenic Quality or National Parks
Development	Any proposal that results in a change to the existing landscape and / or visual environment.
Digital Terrain Model	Computerised representation of ground topography in 3D as digital model based on the contour data (either 10m or 50m grid) of the OSI Ordinance Survey Maps.
Direct Effect	An effect that is directly attributable to the proposed development
Distance	The greater the distance, the less detail is observable and the more difficult it is to discern the proposal from its background, diminishing potential impact.

“Do nothing” situation	Continued change/evolution of a landscape in the absence of the proposed development.
Elevation	Viewed from a higher elevation, a proposal is likely to be viewed against a backdrop thus decreasing the degree of impact. Viewed from a lower elevation, a proposal may be seen against the skyline and thus the impact is increased.
Enhancement	Proposals that seek to improve the landscape resource and the visual amenity of the proposed development site and its wider setting, over and above its baseline condition.
Environmental Impact Assessment (EIA)	An Environmental Impact Assessment (EIA) is the process of examining the anticipated environmental effects of a proposed project - from consideration of environmental aspects at design stage, through consultation and preparation of an Environmental Impact Assessment Report (EIAR)
Geographical Information System (GIS)	A system that captures, stores, analyses, manages and presents data linked to location. Its links spatial information to a digital database.
Indirect Effects	Effects that result indirectly from the proposed project as a consequence of the direct effects, often occurring away from the site, or as a result of a sequence of interrelationships or a complex pathway. They may be separated by distance or in time from the source of the effects.
Key Characteristics	The combinations of elements, which are particularly important to the current character of the landscape and help to define it. If the key characteristics which are identified were to change or be lost, there would be significant consequences for the current condition of the landscape.
Land Cover	The surface cover of the land, usually expressed in terms of vegetation cover or lack of it. Related but not the same as Land Use.
Land Use	What land is used for, based on broad categories of functional land cover, such as urban and industrial use and different types of agriculture and forestry.
Landform	The shape and form of the land surface which has resulted from combinations of geology, geomorphology, slope, elevation and physical processes.
Landscape	An area, perceived by people, the character of which is the result of the action and interaction of natural and / or human factors.
Landscape and Visual Assessment (LVA)	A tool used to identify and assess the likely significance of the effects of change resulting from Development both on the landscape as an environmental resource in its own right and on people’s views and visual amenity.

Landscape Character	A distinct, recognisable and consistent pattern of elements in the landscape that makes one landscape different from another, rather than better or worse.
Landscape Character Areas (LCA)	Landscape Character Area as defined in local or regional policy guidance. These areas that have been determined to be single unique areas that are distinct geographically or of a particular landscape type. Every LCA is geographically specific and has its own distinctive character and sense of place based upon patterns of geology, landform, land-use, cultural, historical and ecological features.
Landscape Capacity	The degree to which a particular landscape character type or area is able to accommodate change without significant effects on its character, or overall change to the landscape character type.
Landscape Constraints	Components of the landscape resource such as views or mature trees recognised as constraints to Development.
Landscape Effects	Effects on the landscape as a resource in its own right.
Landscape Elements	Individual components, which make up the landscape such as trees and hedgerows.
Landscape Features	Particularly prominent or eye-catching elements in the landscape such as tree clumps, church towers or wooded skylines.
Landscape Patterns	Spatial distributions of landscape elements combining to form patterns, which may be distinctive e.g. hedgerows that combine to form a distinctive field pattern.
Landscape Quality / Condition	A measure of the physical state of the landscape. It may include the extent to which typical character is represented in individual areas, the intactness of the landscape and condition of individual elements.
Landscape Value	The relative value that is attached to different landscapes by society. A landscape may be valued by different stakeholders for a variety of reasons.
Landscape Resource	The combination of elements that contribute to landscape context, character and value.
Magnitude (of effect)	A term that combines judgements about the size and scale of the effect, the extent the area over which it occurs, whether it is reversible or irreversible and whether it is short or long term in duration.
Mitigation	Measures including any process, activity, or design to avoid, reduce, remedy or offset for potential adverse environmental effects arising from a proposed development.
Perception	Combines the sensory (that we receive through our senses) with the cognitive (our knowledge and understanding gained from sources and experiences)

Photomontage	A visualisation which superimposes an image of the proposed development upon a photograph or a series of photographs.
Receptors	Defined aspects of the landscape resource that have the potential to be affected by a proposal.
Seascape	Landscapes with views of coast or seas, and coasts and adjacent marine environments with cultural, historical and archaeological links with each other.
Sensitivity	A term applied to specific receptors, combining judgements of the susceptibility of the receptor to the specific type of change or Development proposed and the value related to that receptor.
Significance	A measure of the importance or gravity of the environmental effect, defined by significance criteria specific to the environmental topic.
Townscape	The character and composition of the built environment including the buildings and relationships between them, the different types of urban open space, including green spaces, and the relationships between buildings and open spaces.
Tranquillity	A state of calm and quietude associated with peace, considered to be a significant asset of landscape.
Visual Amenity	The overall pleasantness of the views people enjoy of their surroundings, which provides an attractive visual setting or backdrop for the enjoyment of activities of the people living, working, recreating, visiting or travelling through the area.
Visual Effects	Effects on specific views and the general visual amenity experienced by people.
Visual Receptors	Individuals and / or defined groups of people who have the potential to be affected by the proposal.
Visual Reference Points	Abbreviated to VRP, these are selected locations of viewpoints within the study area towards the proposal that allow analysis of the existing and proposed visual setting.
Combined Views	This occurs when the observer is able to see two or more Developments from one viewpoint and within the same arc of vision.
Successive Views	This occurs where the observer has to turn their head to see the various Developments.
Sequential Views	This occurs when the observer has to move to another viewpoint to see the same or different Developments (i.e. when moving through the landscape).
Size	The greater the proportion of the view taken up by the proposed development the greater the impact. Camouflage brought about by form and colour can alter the degree of impact.

Visualisation	A computer simulation, photomontage or other technique illustrating the predicted appearance of a Development.
Wireframe	A computer generated line drawing of the DTM (digital terrain model) and the proposed development from a known location.
Weather conditions	Visibility is affected by the sun direction during different times of the day. It is also affected by clarity of air. For example on a bright and sunny morning after a frosty night the air tends to be clear. This is in contrast to a heat haze, which may be experienced during summer months.
Zone of Theoretical Visibility	Often abbreviated to ZTV, this is a digitally produced map showing the areas of land within which a Development is theoretically visible.

## **APPENDIX 14C PHOTOMONTAGE PREPARATION AND PRESENTATION – METHODOLOGY**

### **1 Introduction**

1.1 The principle function of a photomontage is as an illustrative tool to demonstrate development proposals for the benefit of the consultation process and any planning application. These images have the advantage of providing a high degree of accuracy on the basis of mathematical formulae correlated with OSI digital survey data. The photomontages are used to give a precise impression of a development in context, before it is built.

1.2 The *Guidelines for Landscape and Visual Impact Assessment (3rd Edition)* by *The Landscape Institute and the Institute of Environmental Assessment* states the following:

*“Photomontage is the most widespread and popular visualisation technique for illustrating changes in views and visual amenity. A photomontage is the superimposition of an image onto a photograph for the purpose of creating a representation of potential changes to any view”.*

1.3 The scale, type and size of a development and the receiving landscape character are relevant in considering what type of visualisation is appropriate. Situations vary and each case requires professional interpretation. Where possible consultations are made with relevant Planning Departments in advance of any planning application to review and confirm viewpoint locations and visualisation types. The following relates primarily to the preparation of digital photomontages but the techniques used are also relevant to 3D photowires of wireframes.

#### **Guidance Documents**

1.4 Park Hood base their methodology and approach to photography (including camera and lens selection), choice of presentation and printing techniques on the following documents:-

- *Guidelines for Landscape and Visual Impact Assessment (3rd Edition)* by *The Landscape Institute and the Institute of Environmental Assessment (2013)* (GLVIA); and

- *Landscape Institute Technical Guidance Note 06/19: Visual Representation of Development Proposals (2019).*

### **Photography**

- 1.5 Viewpoints are generally identified in locations that are publicly accessible and based on a determination of the actual visibility of the subject site or from where there are significant numbers of potential visual receptors.
- 1.6 Photographs taken as high-quality jpeg files using a single lens Canon Eos 6D (with a 50mm Focal Length (FL) on a Full-Frame-Sensor (FFS) and the following procedures are undertaken during the photographic process:-
- Camera levelled and mounted on tripod with panoramic head to avoid parallax error;
  - The proposed development is set as central as possible in the panorama unless there is a specific context which requires inclusion;
  - Lens focus set to manual and “infinity” to ensure principal distance (rear nodal point to image plane) coincides with marked focal length;
  - Shoot images with a fixed overlap of 20° for panoramic images;
  - Photographs “follow the sun” insofar, views from the east are shot in the morning and views from the west in the afternoon;
  - Record the viewpoint elevation including allowance for eye height (average 1.6m) and Northing and Easting OS grid coordinates;
  - Record the GPS of notable landmarks features in the view or local area to assist in verification process of camera position, topographical surveys and Ordnance Survey Ireland grid; and
  - Additional photographs are taken of the tripod in position to cross reference with the GPS data taken by the camera.
- 1.7 The camera EXIF data automatically records date, time, and focal lengths. The attached Solmeta GMAX GPS Geotagger records location information including longitude, latitude, altitude / elevation, direction, and Universal Coordinated Time (UTC) as EXIF information to images when shooting. Triangulating from known datum, the camera location can be pinpointed and correlated with the Ordnance Survey national grid.

### **Photomontage Models**

- 1.8 A photomontage consists of a base photograph composited digitally with a computer-rendered image of the proposal under consideration.
- 1.9 The digital base model is prepared in-house using detailed drawings of the proposed development based on the project drawings, specifications and plans using a combination of Autodesk Civil 3D, Adobe Photoshop CS3 and 3d Studio-MAX. The based model is based on parameters including ridge heights, floorplans and built element dimensions of the proposed development to inform this study in terms of its scale and nature in the selected views.

- 1.10 The digital ground model is generated using digital terrain map obtained from Ordnance Survey with a 10m grid (or 5m if available). This model is collated and coordinated with the OS grid and cross referenced with the topographical survey and digital ACE maps of the site context.

#### **Photograph Alignment and Presentation**

- 1.11 The camera position and Ordnance Survey grid are aligned with the camera target moved until it aligns with the grid “Field of View” and the GPS of notable landmarks. Once aligned, the camera is matched and ready for positioning of proposed development. Based on accurate FOV data and GPS recording, this is no requirement for any resizing or repositioning to background photographs.
- 1.12 The most common presentation form is on A3 paper in landscape format (420mm x 297mm) which is suitable for single frame images that can be printed at technically correct scales (to 27° FOV). However, proposed developments in landscapes often are part of much wider panoramic views and if viewed at scale and at A3 size, it can often exaggerate the effects when studied as part of a desk-study exercise. Therefore, A1 paper can be necessary in some instances allowing the field of view to be increased.
- 1.13 To create the panoramic view photographs are merged together to create a wider image. Panoramas are mapped by planar projection if up to approximately 75° Field of View and, if wider, stitched by cylindrical process using AutoPano-Giga. During the stitching process, none of the photographs are distorted in terms of scaling.
- 1.14 Park Hood assess the requirements for each proposal individually with the presentation methodology adjusted accordingly within Landscape Institute Guidelines and advice. To assist in understanding and context, an additional set of visuals is often produced to allow easy comparison and assessment of consequent effects / impacts.
- 1.15 An information panel aside the photomontage summarises the key information including the viewpoint location, photograph date, field of view and distance to site.

**APPENDIX 14D TREE SURVEY REPORT (ANDY BOE 2019)**