
Chapter 15
Landscape and Visual
Amenity



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15. Landscape and Visual Amenity

15.1. Introduction

This chapter of the Environmental Impact Assessment Report (EIAR) identifies, describes and presents an assessment of the likely significant effects of the proposed Project on existing Landscape and Visual resources. The assessment will examine the potential impacts during the construction and operational phases.

15.2. Legislation, Policy and Guidance

The key legislation and guidance referenced in the preparation of the EIAR is outlined in Chapter 1 (Sections 1.5, 1.6 and 1.7). Specific to the Landscape and Visual amenity chapter, the legislation, policy and guidance documents outlined below has informed the assessment.

15.2.1. Legislation

The Transport (Railway Infrastructure) Act 2001 (as amended) provides for the making of a Railway Order application by Córas Iompair Éireann to An Bord Pleanála. The European Union (Railway Orders) (Environmental Impact Assessment) (Amendment) Regulations 2021 (S.I. No. 743 of 2021) gives further effect to the transposition of the EIA Directive (EU Directive 2011/92/EU as amended by Directive 2014/52/EU) on the assessment of the effects of certain public private projects on the environment by amending the Transport (Railway Infrastructure) Act 2001 ('the 2001 Act'). An examination, analysis and evaluation is carried out by An Bord Pleanála in order to identify, describe and assess, in the light of each individual case, the direct and indirect significant effects of the proposed railway works, including significant effects derived from the vulnerability of the activity to risks of major accidents and disasters relevant to it, on: population and human health; biodiversity, with particular attention to species and habitats protected under the Habitats and Birds Directives; land, soil, water, air and climate; material assets, cultural heritage and the landscape, and the interaction between the above factors. In carrying out an EIA in respect of an application made under section 37 of the 2001 Act, An Bord Pleanála is required, where appropriate, to co-ordinate the assessment with any assessment under the Habitats Directive or the Birds Directive. Ireland has given effect to the Habitats and Birds Directives through Part XAB of the Planning and Development Act 2000 (as amended) and the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. No. 477 of 2011) as amended.

The following assessment of the likely effects of the proposed Project on the landscape and visual amenity has been undertaken in accordance *inter alia* with the above legislative and regulatory regime.

15.2.2. Policy

Ireland signed and ratified the Council of Europe's European Landscape Convention (ELC) which came into effect on 1 March 2004. The ELC obliges Ireland to implement policy changes and objectives concerning the management, protection and planning of the landscape.

The National Landscape Strategy was established for the purpose of ensuring compliance with the ELC and to establish principles for protecting and enhancing landscape whilst managing change in a positive way.

Landscape Policy at county level informed the baseline for the proposed Project from the following county development plans.

- Kildare County Development Plan 2017 – 2023;
- South Dublin County Development Plan (SDCDP) 2022 - 2028;
- Dublin City Development Plan 2022 - 2028;
- Project Ireland 2040 - National Development Plan 2018-2027 (NDP 2018);
- Project Ireland 2040 - The National Planning Framework (NPF 2020); and
- Eastern and Midlands Regional Spatial and Economic Strategy 2019 - 2031 (RSES 2019).

15.2.3. Guidance

The approach to the baseline reporting and assessment follows the methodology outlined in Section 15.3 and was guided by the following:

- EPA, Guidelines on the Information to be Contained in Environmental Impact Assessment Reports (2022);
- Landscape Institute and Institute of Environmental management and Assessment, Guidelines for Landscape and Visual Impact Assessment, 3rd Edition, (2013);
- TII, Landscape character assessment (LCA) and landscape and visual impact assessment (LVIA) of Specified Infrastructure Projects - Overarching Technical Document, PE-ENV-01101, December 2020;
- TII, Landscape character assessment (LCA) and landscape and visual impact assessment (LVIA) of Proposed National Roads - Standard, PE-ENV-01102, December 2020; and
- Technical Guidance Note 06/19 Visual Representation of Development Proposals (The Landscape Institute, 2019).

15.3. Methodology

The methodology for the landscape and visual impact assessment (LVIA) is set out below in Section 15.3.4 and is informed by published best practice guidance documents as follows along with published guidance from TII referenced in Section 15.2.3.

- Landscape Institute and Institute of Environmental Management and Assessment, Guidelines for Landscape and Visual Impact Assessment, 3rd Edition, (2013), hereinafter referred to as GLVIA 3; and
- Technical Guidance Note 06/19 Visual Representation of Development Proposals (The Landscape Institute, 2019).

The assessment of effects on landscape resources and visual amenity are separate but interconnected. Landscape is defined, in the European Landscape Convention (ELC, Ref. 6.), as “an area, as perceived by people, whose character is the result of the action and interaction of natural and/ or human factors”.

A clear distinction has been drawn between landscape and visual effects as described below:

- Landscape effects relate to the effects of a proposed development on the physical characteristics of the landscape and its resulting character and quality; and
- Visual effects relate to the effects on views experienced by visual receptors (e.g. residents, footpath users, tourists etc.) and on the visual amenity experienced by those people.

15.3.1. Study Area

The proposed Project has been divided into four distinct geographic zones along the length of the rail corridor (Zones A to D) as outlined in Chapter 4 Project Description. The proposed Project is described from west to east along the railway corridor. A LVIA Study Area is illustrated in Figure 15-2 to Figure 15-10: Baseline Landscape and Visual Amenity and in Volume 3A of this EIAR. The study area was identified for the purpose of identifying sensitive landscape and visual receptors that may potentially be affected by the proposed Project and for the purpose of identifying and assessing significant cumulative effects. The study area extents varies throughout the length of the proposed Project and is broadly as follows:

- 1km distance from the railway centreline within the agricultural landscape from Hazelhatch to Kishoge;
- 0.5km distance from the railway centreline within the built-up landscape east of Kishoge; and
- 0.25km distance from the railway centreline within the built-up landscape from north of the Phoenix Park Tunnel to Glasnevin.

15.3.2. Survey Methodology

15.3.2.1. Desk surveys

The desk-based study of the baseline was informed by county development plans and map data sources as follows:

- Kildare County Development Plan 2017 - 2023;
- South Dublin County Development Plan (SDCDP) 2022 – 2028;
- Dublin City Development 2022 - 2028¹;
- Ordnance Survey Ireland maps at varying scales; and
- Aerial photography.

¹ At the time of going to print the final geospatial datasets for the 2022 Plan were not publicly available. The datasets referred to and illustrated in this EIAR and supporting documentation including Volume 3A of this EIAR are therefore based on the previous 2016 Plan. The assessments have, however, had regard to the published PDF maps included as part of Volume 3 - Zoning Maps of the 2022 Plan.

15.3.2.2. Field surveys

A summary of the field surveys undertaken to inform the LVIA is outlined in Table 15.1.

Table 15.1: Dates of Field Surveys

Date	Purpose of Survey	Extent of Survey
21 st April 2021	Fieldwork to inform the baseline.	Baseline landscape and visual amenity from Hazelhatch to Clondalkin
6 th May 2021		Baseline landscape and visual amenity from Clondalkin to Inchicore
27 th May 2021		Baseline landscape and visual amenity from Glasnevin to River Liffey
1 st June 2021		Baseline landscape and visual amenity at South Circular, Kilmainham and Islandbridge Areas
24 th March 2022		Baseline landscape and visual amenity at Heuston Yard
18 th March 2022	Baseline Photography for photomontages	To capture verified photography for photomontages - Viewpoints selected for visual impact assessment
24 th March 2022	Fieldwork to inform the baseline	Baseline landscape and visual amenity within Heuston Yard and in the Hazelhatch to Adamstown area.
18 th and 31 st March 2022	Baseline Photography for photomontages	Selected locations throughout the Study Area.
25 th July 2022	Baseline Photography for photomontages	Selected locations throughout the Study Area
18 th November 2022	Baseline Photography for photomontages	Selected locations throughout the Study Area

15.3.3. Models/ Tools Used in Assessment

The assessment has been informed by photomontages of the proposed Project from 12 viewpoint locations. These are presented in Volume 3B of the EIAR. For each viewpoint, the existing view is presented along with the proposed view during year 1 of operation. For some of the viewpoints, the proposed view during year 15 of operation is depicted to indicate the maturing mitigation planting. An additional photomontage was requested by Kildare County Council to assess the impact of the proposed works on the setting and character of a heritage feature - the Lime Kiln. The photomontage from Stacumny Road Bridge (OBC21) is also presented in Volume 3B of this EIAR and an assessment on the setting and character of the heritage feature is presented in Chapter 21 Architectural Heritage.

All photomontages and accompanying baseline photography have been completed in accordance with the Landscape Institute Technical Guidance Note 06/19 Visual Representation of development proposals. As the site topographic survey for the proposed Project was limited to the footprint and immediate surrounds of the site, it was necessary to use additional elevation data to include all viewpoint locations selected for photomontage.

The photographer was equipped with a professional level single-lens reflex (SLR) camera. Specifically, to meet the requirements of best practice, this houses a full frame sensor and is fitted with a 50 mm lens. A specialised panoramic head was fitted to the camera tripod for those viewpoints adjacent to the site. This enables the capture of multiple photographs in a linear sequence for the preparation of a panoramic image. Such imagery is required to include sufficient landscape context to depict the entire Proposed Project at close quarters. A mapping grade GPS (Trimble GeoXH) was

used to record the precise coordinate position of the camera at each viewpoint. This offers corrected accuracy typically in the range of +/- 30 cm in the x and y plane. In addition, the photographer had all necessary information per viewpoint to capture the correct photographic detail – viewpoint map, photographic reference, Google Earth and details of the proposed Project, and surrounding terrain. All photography was captured at a focal length of 50 mm in RAW format for post-processing. The camera was consistently set up at 1.67m above ground level at each viewpoint location with the exception of Stacumny Bridge (refer to photomontage for further detail). The photography was captured in the clearest possible weather in the available time frame. This saw a mixture of broken cloud with sunny spells.

A 3D model of the proposed Project was provided to the photomontage team along with an indication of finishes, textures and colours of the Project components. The photomontage team utilised this data to prepare a finished textured 3D model of the final preliminary design in specialist software.

The information captured at each viewpoint location was used to simulate a replica camera view in the 3D environment: Easting (from GPS); Northing (from GPS); Elevation (calculated from the Enhanced DTM data from OSI; GPS does not offer an accurate z-value reading); Angle of View (specific to focal length and camera sensor size); Direction of View (from GPS coordinate info); Date (from photography meta-data); Time of Day (from photography meta-data); Weather Conditions (from photography and recorded on site).

Draft renders were output and integrated into the photography for review. This was an iterative process involving adjustments to textures and lighting. A full set of final calibrated renders were prepared ready for integration into the photography. The final renders were integrated into the photography with masking aided by detailed street maps and Google Earth photography. The final set of renders were formatted at A3 (dimensions 36 cm x 24 cm) for a recommended viewing distance of 50 cm.

15.3.4. Assessment Methodology

The assessment of effects on landscape resources and visual amenity are separate but interconnected. The methodology for the landscape and visual impact assessment (LVIA) was informed by the guidance set out in Section 15.2.3 above.

15.3.4.1. Key Parameters for Assessment

The key activities that have potential to result in likely significant landscape effects on landscape and visual amenity are outlined below.

Construction Phase

- Construction activities including the temporary presence of site compounds;
- Loss of wooded vegetation, including trees and hedgerows due to construction; and
- Construction activities associated with the introduction of new proposed structures.

Operation and Maintenance Phase

- Changes to landscape character and/ or visual amenity due to the presence of permanent elements of the proposed Project.

15.3.4.2. Assessment Criteria and Significance

The criteria for determining the significance of effects is a two-stage process that involves defining the sensitivity of the receptors and the magnitude of the impacts. This section describes the criteria applied in this chapter to assign levels of sensitivity of the receptors and levels of magnitude of potential impacts.

The likely landscape and visual effects of the proposed Project have been assessed by considering the changes that would occur to the existing landscape and visual amenity as a result of the introduction of the proposed Project. The assessment of effects is arrived at by combining judgements concerning the sensitivity of the landscape or visual receptor (person) with judgements concerning the predicted magnitude of impact resulting from the proposed change. It is important to note that significance is determined on a case-by-case basis using professional judgement with the methodology below as a guide and this approach accords with the guidance in GLVIA 3.

The sensitivity of the landscape and visual receptors is arrived at by combining judgements concerning susceptibility (ability to accommodate change) and value. The magnitude of impact is arrived at by combining judgements concerning size and scale of the change, the geographic extent of the change and its duration and reversibility. This methodology is summarised in Figure 15-1 and is explained in detail below.

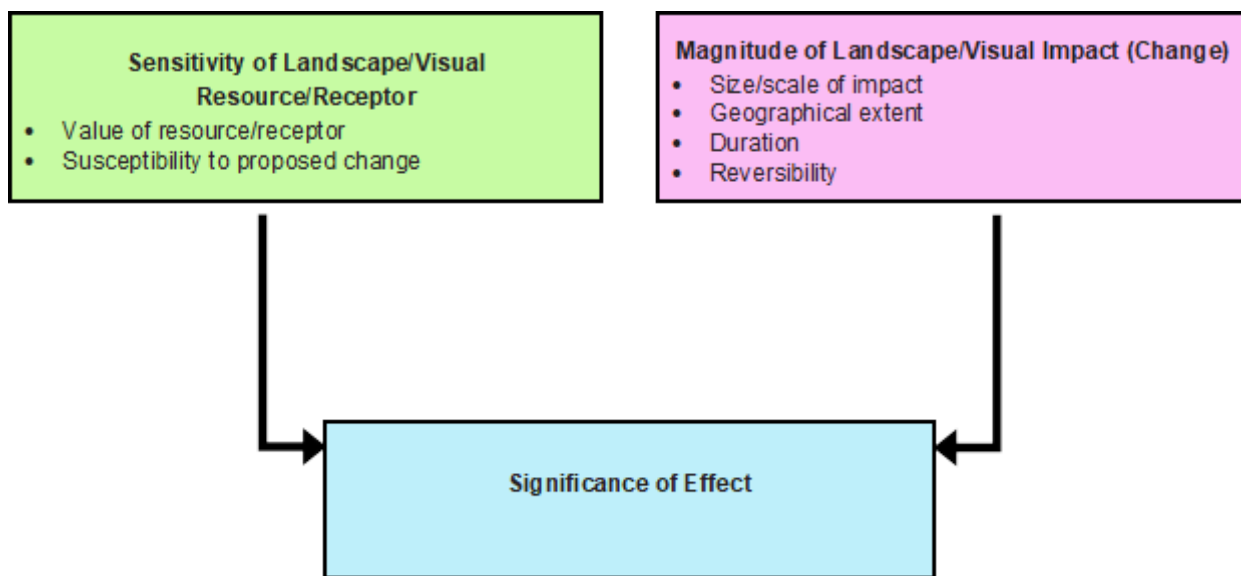


Figure 15-1 Summary of Assessment Methodology

15.3.4.2.1. Sensitivity of Landscape Receptors

Sensitivity is determined by assessing both the value attached to a landscape receptor and its susceptibility to the change likely to result from the proposed Project. The sensitivity of a landscape receptor is a combination of ‘judgements of their susceptibility to the type of change or development proposed and the value attached to the landscape’ (GLVIA 3, para 5.39).

15.3.4.2.2. Value

The value of the landscape receptor is established as follows:

‘the value of the Landscape Character Types or Areas that may be affected, based on review of any designations at both national and local levels, and, where there are no designations, judgements based on criteria that can be used to establish landscape value; and

the value of individual contributors to landscape character, especially the key characteristics, which may include individual elements of the landscape, particularly landscape features, notable aesthetic, perceptual or experiential qualities, and combinations of these contributors’ (GLVIA, para 5.44).

The value of a landscape receptor will reflect relevant designations and their level of importance as referenced in GLVIA 3 (para 5.45). It is important to note that these designations are not the sole indicator of value or valued landscapes. Non-designated landscapes can be of value. An assessment of value is made by reference to clearly stated and recognised criteria, including perceptual qualities such as those detailed in GVLA (Box 5.1 para 5.28).

Landscapes are valued at international, national, local authority or community level with examples as follows:

- Internationally valued landscapes such as World Heritage Sites;
- Nationally valued landscapes such as National Parks;
- Locally valued landscapes such as those covered by local authority landscape designation or, in the absence of such designation, landscapes assessed as being of equivalent value using clearly stated and recognised criteria; and
- Landscapes that are not nationally or locally designated or judged to be of equivalent value using clearly stated and recognised criteria but are valued at community level.

15.3.4.2.3. Susceptibility

Landscape susceptibility is defined as follows: *‘the ability of the landscape receptor (whether it be the overall character or quality/ condition of a particular landscape type or area, or an individual element and/ or feature, or a particular aesthetic and perceptual aspect) to accommodate the proposed development without undue consequences for the maintenance of the baseline situation and/ or the achievement of landscape planning policies and strategies’ (GLVIA, para 5.40).*

The levels of sensitivity for landscape receptors are broadly defined in accordance with Table 15.2 below.

Table 15.2: Landscape Sensitivity

Sensitivity	Susceptibility	Value
Very High	<p>Exceptional landscape quality, no or limited potential for substitution. Key elements/ features well known to the wider public.</p> <p>The landscape receptor is of very high susceptibility to the Project and has little</p>	Nationally/ internationally designated/ valued landscape, or key elements or features of national/ internationally designated landscapes.

Sensitivity	Susceptibility	Value
	or no tolerance to change.	
High	Strong/ distinctive landscape character; absence of landscape detractors. The landscape receptor is of high susceptibility to the Project and has low tolerance to change.	Regionally/ nationally designated/ valued countryside and landscape features or landscapes judged to be of equivalent value using clearly stated and recognised criteria.
Medium	Some distinctive landscape characteristics; few landscape detractors. The landscape receptor is of medium susceptibility to the Project and has medium tolerance to change.	Locally or regionally designated/ valued countryside and landscape features or landscapes judged to be of equivalent value using clearly stated and recognised criteria
Low	Absence of distinctive landscape characteristics; presence of landscape detractors. The landscape receptor is of low susceptibility to the Project and has high tolerance to change.	Undesignated landscapes and landscape features which have little value to local communities.
Negligible	Absence of positive landscape characteristics. Significant presence of landscape detractors. The landscape receptor is of negligible susceptibility to the Project and has very high tolerance to change.	Undesignated landscapes and landscape features which have no particular scenic qualities or are in poor condition or altered by presence of intrusive manmade structures.

15.3.4.2.4. Magnitude of Impact on Landscape Receptors

The effect on landscape receptors and the overall judgement of the magnitude of landscape impact is based on combining judgements on '*size or scale, the geographic extent of the area influenced, and its duration and reversibility*' (GLVIA 3, paragraph 5.48).

The changes caused to landscape receptors as a result of the proposed Project is evaluated in terms of their size or scale, geographical extent, duration and reversibility. Duration is defined as short term lasting 0-5 years, medium term lasting 5-10 years, long term lasting 10-20 years and permanent lasting more than 20 years.

Levels of magnitude of impact on landscape receptors are defined in Table 15.3 below.

Table 15.3: Magnitude of Impact on Landscape Receptors

Magnitude of Impact	Definition
Large	Total loss or addition or/ very substantial loss or addition of key elements/ features/ patterns of the baseline (i.e. pre-development landscape) and/ or introduction of dominant elements which are uncharacteristic with the attributes of the receiving landscape.
Medium	Partial loss or addition of or moderate alteration to one or more key elements/ features/ patterns of the baseline (i.e. pre-development landscape) and/ or introduction of elements that may be prominent but may not necessarily be substantially uncharacteristic with the attributes of the receiving landscape.
Small	Minor loss or addition of or alteration to one or more key elements/ features/ patterns of the baseline (i.e. pre-development landscape) and or introduction of elements that may not be uncharacteristic with the surrounding landscape.

Magnitude of Impact	Definition
Negligible	Very minor loss or addition of or alteration to one or more key elements/ features/ patterns of the baseline (i.e. pre-development landscape) and/ or introduction of elements that are not uncharacteristic with the surrounding landscape approximating to a 'no-change' situation.
No Change	No loss, alteration or addition to the receiving landscape resource.

15.3.4.2.5. Visual Receptor Sensitivity

Sensitivity of visual receptors (people) is arrived at by combining judgements concerning their susceptibility to the type of change or development proposed and the value attached to the particular views.

The susceptibility of different visual receptors (people) to changes in views and visual amenity is mainly a function of:

- 'The occupation or activity of people experiencing views at the particular locations; and
- The extent to which their attention or interest may therefore be focused on the views and the visual amenity they experience at particular locations.' (GLVIA 3, para 6.32).

Judgements made about the value of views takes account of the following factors:

- 'Recognition of the value attached to particular views, for example in relation to heritage assets, or through planning designations; and
- Indicators of value attached to views by visitors, for example through appearances in guidebooks or on tourist maps, provision of facilities for their enjoyment (such as parking places, sign boards or interpretive material) and references to them in literature or art' (GLVIA 3, para 6.37).

The criteria for defining sensitivity of visual receptors (people) are tabulated below. Sensitivity results from combining judgements on the susceptibility of the visual receptor (person) (for example resident, commuter, tourist, walker, recreationist or worker), and the numbers of viewers affected with the value attached to views.

Table 15.4: Visual Receptor Sensitivity

Sensitivity	Susceptibility	Value
Very High	Visitors drawn to a particular view (usually promoted or in a designated landscape), including those who have travelled to experience the views. These viewers have very high susceptibility.	Views of internationally designated countryside/ land or widely known/ famous views.
High	Residents. People engaged in quiet outdoor recreation where landscape is an important part of the experience. These viewers have high susceptibility.	Views of nationally designated countryside/ land.
Medium	Observers enjoying the countryside from	Views of designated countryside/ land.

Sensitivity	Susceptibility	Value
	vehicles on quiet/ promoted routes. People engaged in outdoor sport or recreation which may involve appreciation of views (e.g. cyclists, golfers). These viewers have medium susceptibility.	
Low	People engaged in outdoor sport or recreation which does not involve appreciation of views. These viewers have low susceptibility.	Views of undesignated countryside/ land.
Negligible	People at work where the setting is not important to the quality of working life. Road users (commuters) where the view is incidental to the journey. These viewers have negligible susceptibility.	Views of undesignated countryside/ land with significant presence of landscape detractors.

15.3.4.2.6. Magnitude of Impact on visual receptors

The criteria for defining magnitude of impact on visual receptors are defined in Table 15.5 below.

Table 15.5: Magnitude of Impact on Visual Receptors

Magnitude of Impact	Definition
Large	Complete or very substantial change in view. Change dominant involving complete or very substantial obstruction of existing view or complete change in character and composition of baseline, e.g. through removal of key elements.
Medium	Moderate change in view which may involve partial obstruction of existing view or partial change in character and composition of baseline (i.e. pre-development view) through the introduction of new elements or removal of existing elements. Change may be prominent but would not substantially alter scale and character of the surroundings and the wider setting. Composition of the view would alter. View character may be partially changed through the introduction of features which, though uncharacteristic, may not necessarily be visually discordant.
Small	Minor change in baseline (i.e. pre-development view). Change would be distinguishable from the surroundings whilst composition and character would be similar to the pre change circumstances.
Negligible	Very slight change in baseline (i.e. pre-development view). Change barely distinguishable from the surroundings. Composition and character of view substantially unaltered.
No Change	No alteration to the existing view.

15.3.4.2.7. Significance of the Effect

The significance of the effect upon landscape and visual receptors is arrived at by combining judgements concerning sensitivity of the receptor and the magnitude of the impact. The particular method employed for this assessment is presented in Table 15.7. Where a range of significance of effect is presented in Table 15.7, the final assessment for each effect is based upon expert judgement.

The purpose of the LVIA is to determine the likely significant landscape and visual effects of the proposed Project.

GLVIA3 identifies that ‘There are no hard and fast rules about what effects should be deemed ‘significant’ but LVIA’s should always distinguish clearly between what are considered to be the significant and non-significant effects.’ (GLVIA 3 Para 3.32)

Significance can only be defined in relation to each particular development and its specific location. The relationship between receptors and effects is not typically a linear one. It is for each LVIA to determine how judgements about receptors and effects should be combined to derive significance and to explain how this conclusion has been arrived at.

The significance of effects on landscape, views and visual amenity have been judged according to a six-point scale: Profound, Major, Moderate, Minor, Negligible or None as presented in Table 15.6, which contains a description of the significance of effect criteria.

Table 15.6: Significance of Effect Criteria

Significance of Effect	Landscape Receptor	Visual Receptor
Profound	Where proposed changes would be uncharacteristic and/ or would significantly alter a landscape of exceptional landscape quality (e.g. internationally designated landscapes), or key elements known to the wider public of nationally designated landscapes (where there is no or limited potential for substitution nationally).	Where proposed changes would be uncharacteristic and/ or would significantly alter a view of remarkable scenic quality, within internationally designated landscapes or key features or elements of nationally designated landscapes that are well known to the wider public.
Major	Where proposed changes would be uncharacteristic and/ or would significantly alter a valued aspect of (or a high quality) landscape.	Where proposed changes would be uncharacteristic and/ or would significantly alter a valued view or a view of high scenic quality.
Moderate	Where proposed changes would be noticeably out of scale or at odds with the character of an area.	Where proposed changes to views would be noticeably out of scale or at odds with the existing view.
Minor	Where proposed changes would be at slight variance with the character of an area.	Where proposed changes to views, although discernible, would only be at slight variance with the existing view.
Negligible	Where proposed changes would have an indiscernible effect on the character of an area.	Where proposed changes would have a barely noticeable effect on views/ visual amenity.
None	Where the project would not alter the landscape character of the area.	Where the project would retain existing views.

For the purposes of this assessment, those effects indicated as being Profound or Major are regarded as being significant in terms of the LVIA methodology. This is a typical approach for landscape and visual impact assessments adapted from GLVIA 3, which may differ from other environmental disciplines. Effects of Moderate and lesser significance have been identified within the assessment, though are not considered significant in terms of the LVIA methodology.

Table 15.7: Matrix Used for the Assessment of the Significance of the Effect.

		Magnitude of impact				
		No change	Negligible	Small	Medium	Large
Sensitivity of receptor	Negligible	None	Negligible	Negligible or Minor	Negligible or Minor	Minor
	Low	None	Negligible or Minor	Negligible or Minor	Minor	Minor or Moderate
	Medium	None	Negligible or Minor	Minor	Moderate	Moderate or Major
	High	None	Minor	Minor or Moderate	Moderate or Major	Major or Profound
	Very High	None	Minor	Moderate or Major	Major or Profound	Profound

15.3.5. Consultation

The overall project stakeholder and public consultation undertaken in respect of the Project is set out in the Public Consultation No. 1 Findings Report (for PC1) and Public Consultation No. 2 Findings Report (for PC2) which are included in Volume 4, Appendix 1.3 and 1.4. All feedback was collated, including feedback specific to the EIAR topic ‘Landscape and Visual’. This feedback has informed this chapter including the baseline and impact assessment presented.

Specific consultation was also undertaken with key stakeholders in relation to EIA Scoping. A summary of the issues raised in relation to the scope of the EIA is included in Volume 4, Appendix 1.2. Feedback on the scope and level of detail of the assessment, data sources and methodologies as they pertain to the EIAR topic ‘Landscape and Visual’ have been reviewed and have influenced this chapter of the EIAR.

Specific consultation was also undertaken with representatives of various Departments in Kildare, South Dublin and Dublin City Councils. This included a combination of presentations, workshops and meetings to discuss the project, technical design issues and environment and planning matters.

Nine pre-application meetings were held with ABP to explain the project and present technical and environmental information. A summary of the information presented and the environmental issues discussed at the nine meetings is provided in Volume 4, Appendix 1.6. Feedback relevant to the topic ‘Landscape and Visual’ has been reviewed and has influenced this chapter of the EIAR.

In addition to this broader consultation, topic specific consultation was also undertaken in the form of formal data requests, meetings and workshops. Those related to ‘Landscape and Visual’ are listed below in Table 15.8.

Table 15.8: Topic-Specific Consultation Summary regarding LVIA

Consultee	Summary of Consultation Response/ Meeting
An Bord Pleanála	Pre-application meeting (5 th Aug 2021) with An Bord Pleanála. The proposed approach to the topic of Landscape and Visual impact to be assessed in the EIAR was presented to ABP in the form of a project presentation. This included the nature and extent of the study area for the proposed of the LVIA and proposed methodology. Proposed Draft viewpoint locations from which to undertake detailed visual impact assessment was also shared with ABP for comment.

Consultee	Summary of Consultation Response/ Meeting
Dublin City Council South Dublin County Council Kildare County Council OPW An Taisce Fáilte Ireland The Heritage Council Minister for Housing, Local Government and Heritage	<p>Specific consultation issued by e-mail on 28th February 2022 to a shortlist of consultees to seek opinions on the selection of viewpoints for illustration as photomontage. Draft viewpoint locations for the visual impact assessment reporting were issued via e-mail along with a shortlist of viewpoints for comment.</p> <p>Responses were received from Dublin City Council, Kildare County Council and the OPW and are summarised as follows and are summarised as follows.</p> <ul style="list-style-type: none"> OPW provided comments on viewpoints and recommended an additional viewpoint from the gate entry to The Royal Hospital Grounds. They requested capturing both winter and summer views. DCC commented on the limited number (10) of viewpoints selected for illustration as photomontage and recommended an additional viewpoint south from Blackhorse Avenue Bridge (OBO4). Kildare County Council noted that no viewpoints were selected for illustration as photomontage within Kildare and requested a photomontage from Stacumny Bridge to illustrate the effects on the setting of a protected structure.

15.3.6. Difficulties Encountered/ Limitations

Fieldwork was conducted from publicly accessible locations along with controlled access to CIÉ lands at Heuston Yard. Project data concerning changes to existing electricity infrastructure and substation grid connections was assessed on a desk-based basis only.

The existing wooded vegetation dataset which informed the landscape assessment and mitigation measures was obtained from an aerial lidar survey captured in 2021.

The photomontages are indicative of the proposed change in views informed by the available data in the 3d model supporting the preliminary design. In some cases, an estimated reconstruction of part of the existing view, revealed due to removal of wooded vegetation, is presented, and illustrated with orange shading. Proposed structures are illustrated as indicative including those which will require further input by a conservation architect.

Effects on the setting of protected structures and structures of architectural merit are documented in Chapter 20 Archaeology and Chapter 21 Architectural Heritage of the EIAR.

15.4. Receiving Environment

The receiving environment or baseline is outlined in the following sections. This covers policy of relevance to landscape and visual amenity along with the baseline landscape and separately the baseline visual amenity.

15.4.1. Planning Policy of Relevance to Landscape and Visual Amenity

The main policies of relevance to landscape and visual amenity are presented below from the county development plans for Kildare County, South Dublin County and Dublin City.

15.4.1.1. Kildare County Development Plan (KCDP) 2017 to 2023

Policy concerning landscape, designated landscapes, land use zonings and visual amenity is outlined in the following sections.

15.4.1.1.1. Landscape

Policy LA 1 states “Ensure that consideration of landscape sensitivity is an important factor in determining development uses. In areas of high landscape sensitivity, the design, type and the choice of location of proposed development in the landscape will also be critical considerations.”

Policy LA 2 states “Protect and enhance the county’s landscape by ensuring that development retains, protects and, where necessary, enhances the appearance and character of the existing local landscape.”

Section 14 of the KCDP refers to a Landscape Character Assessment for the County. It identifies landscape character areas and categorises them according to sensitivity on a 5 point scale.

15.4.1.1.2. Designated Landscapes (Areas of High Amenity)

Areas of High Amenity are designated as such in the KCDP because of their “outstanding natural beauty and/ or unique interest value and are generally sensitive to the impacts of development.”

This designation applies to water corridors. **Policy WC3** relates to Water Corridors (Rivers and Canals) (Areas of High Amenity) and states “Control development that will adversely affect the visual integrity of distinctive linear sections of water corridors and river valleys and open floodplains.”

15.4.1.1.3. Land Use Zonings of Relevance to Landscape and Visual Amenity

There are no land use zonings of relevance within the study area for the assessment.

15.4.1.1.4. Visual Amenity

Policy SR 1 states “Protect views and designated scenic routes by avoiding any development that could disrupt the vistas or disproportionately impact on the landscape character of the area, thereby affecting the scenic and amenity value of the views.”

15.4.1.2. South Dublin County Development Plan (SDCDP) 2022 to 2028.

Policy concerning landscape, designated landscapes, land use zonings and visual amenity is outlined in the following sections.

15.4.1.2.1. Landscape

Policy NCBH14: Landscapes in the SDCDP states “Preserve and enhance the character of the County’s landscapes, particularly areas that have been deemed to have a medium to high Landscape Value or medium to high Landscape Sensitivity and to ensure that landscape considerations are an important factor in the management of development.”

NCBH14 Objective 1 states “To protect and enhance the unique landscape character of the County by ensuring that development retains, protects and, where necessary, enhances the appearance and character of the landscape, taking full cognisance of the Landscape Character Assessment of South Dublin County (2021).”

NCBH14 Objective 2 states “To ensure that development is assessed against Landscape Character, Landscape Values and Landscape Sensitivity as identified in the Landscape Character Assessment

for South Dublin County (2021) in accordance with Government guidance on Landscape Character Assessment and the National Landscape Strategy (2015-2025).”

NCBH14 Objective 3 states “To ensure that development respects and reinforces the distinctiveness and uniqueness of the Landscape Character Types and retains important characteristics such as habitats, landform, vernacular heritage and settlement patterns.”

NCBH14 Objective 4 states “To require a Landscape/ Visual Impact Assessment to accompany all planning applications for significant proposals, located within or adjacent to sensitive landscapes and to provide mitigation measures to address any likely negative impacts.”

NCBH14 Objective 5 states “To protect skylines and ridgelines from development.”

Further policy concerning landscape, contained within chapter 4 Green Infrastructure is as follows:

Policy GI7: Landscape, Natural, Cultural and Built Heritage states “Protect, conserve and enhance landscape, natural, cultural and built heritage features, and support the objectives and actions of the County Heritage Plan.”

GI7 Objective 2 states “To protect and enhance the landscape character of the County by ensuring that development retains, protects and, where necessary, enhances the appearance and character of the landscape, in accordance with the provisions of South Dublin’s Landscape Character Assessment and the provisions of Chapter 3: Natural, Cultural and Built Heritage of this Development Plan.”

The SDCDP appendix 9 refers to a published landscape character assessment. It identifies landscape character areas (LCA) and categorises them according to both value and sensitivity on a 5-point scale ranging from High, Medium High, Medium, Low/ Medium and Low.

15.4.1.2.2. Designated Landscapes

The SDCDP refers to Areas of Significant Amenity Value including the Dublin Mountains within the Wicklow Mountains National Park, the Liffey River Valley, the Dodder River Valley, the Grand Canal, and a number of smaller river corridors including the Griffeen, Camac, and Owendoher Rivers.

The Grand Canal is of relevance to the Project and policy is outlined below:

NCBH9: Grand Canal states “Protect and promote the Grand Canal as a key component of the County’s Green Infrastructure and ecosystem services network, and protect and enhance the visual, recreational, environmental, ecological, industrial heritage and amenity value of the Grand Canal, recognising its sensitivities as a proposed Natural Heritage Area with adjacent wetlands and associated habitats.”

15.4.1.2.3. Land Use Zonings of Relevance to Landscape and Visual Amenity

Zoning Objective OS states “To preserve and provide for open space and recreational amenities.”

Zoning Objective RU states *“To protect and improve rural amenity and to provide for the development of agriculture.”*

Zoning Objective HA (LV, DV, DM) states *“To protect and enhance the outstanding natural character and amenity of the Liffey Valley, Dodder Valley and Dublin Mountains areas.”*

15.4.1.2.4. Visual Amenity

Policy NCBH15: Views and Prospects states *“Preserve Views and Prospects and the amenities of places and features of natural beauty or interest including those located within and outside the County.”*

NCBH15 Objective 1 states *“To protect, preserve and improve Views and Prospects of special amenity, historic or cultural value or interest including rural, river valley, mountain, hill, coastal, upland and urban views and prospects that are visible from prominent public places and to prevent development which would impede or interfere with Views and/ or Prospects.”*

NCBH15 Objective 2 states *“To require a Landscape/ Visual Assessment to accompany all planning applications for significant proposals that are likely to affect views and prospects.”*

15.4.1.3. Dublin City Development Plan (DCDP) 2022-2028

Policy concerning landscape, designated landscapes, land use zonings and visual amenity is outlined below.

15.4.1.3.1. Landscape

Policy GI19 - Protect and Enhance Landscapes states *‘To continue to protect and enhance the city’s landscape and seascape, the amenities of places and features of natural beauty and interest, through sustainable planning and design for both the existing community and for future generations in accordance with the National Landscape Strategy 2015 – 2025 and any updated strategy.’*

Policy GI21 - Promote City Landscape states, *‘To promote the city landscapes, including rivers, canals, Dublin Mountains and Dublin Bay, as a major resource for the city and forming core areas of the green infrastructure network.’*

Policy GI23 - European Landscape Convention states *‘To continue to protect and enhance landscape, including existing green spaces through sustainable planning and design for both existing community and for future generations in accordance with the principles of the European Landscape Convention.’*

Policy GIO23 – Manage/ Protect/ Enhance Parks states *‘To continue to manage and protect and/ or enhance the city’s parks and public open spaces to meet the social, recreational, conservation and ecological needs of the city and to consider the development of appropriate complementary facilities which do not detract from the amenities of spaces.’*

Policy GI29 - Protect Character of River Corridors states *‘To protect, maintain, and enhance the watercourses and their river corridors in the city and to ensure that development does not cover or encroach upon rivers and their banks. To maintain natural riverbanks and restore them as part of any new development. The creation and/ or enhancement of river corridors will be required and river restoration opportunities where possible will be supported to help improve water quality, and ecology, provide natural flood relief as well as providing amenity and leisure benefits.’*

Policy GI33 – River Liffey states *‘To recognise the unique character, importance and potential of the River Liffey to the city and to protect and enhance its civic, ecological, amenity, historical and cultural connections. To promote the sustainable development of this key resource for amenity and recreational uses in and along the river and its development as a green corridor in the city. In this regard, Dublin City Council will work with river-based organisations and relevant stakeholders who use the river.’*

The DCDP 2022-2028 does not have a published landscape character assessment. In this regard, **Objective GI016** – Landscape Character Assessment states *‘to prepare a Landscape Character Assessment (LCA) for Dublin City, during the lifetime of the plan in accordance with the National Landscape Strategy 2015 – 2025 and the forthcoming National Landscape Character Map and national guidance on local landscape character assessments.’*

15.4.1.3.2. Designated Landscapes

Policy BHA9 - Conservation Areas states *‘To protect the special interest and character of all Dublin’s Conservation Areas – identified under Z8 and Z2 zoning objectives and denoted by red line conservation hatching on the zoning maps. Development within or affecting a Conservation Area must contribute positively to its character and distinctiveness and take opportunities to protect and enhance the character and appearance of the area and its setting, wherever possible.’*

Policy BHA10 – Demolition in a Conservation Area states *‘There is a presumption against the demolition or substantial loss of a structure that positively contributes to the character of a Conservation Area, except in exceptional circumstances where such loss would also contribute to a significant public benefit.’*

Policy GIO20 - Liffey Valley & Phoenix Park Proposed SAA states *‘To seek the designation of: (1) Liffey Valley (from Islandbridge to the western city boundary) and, (2) The Phoenix Park as National Special Amenity Areas and to prepare Special Amenity Area Orders (SAAO) for same, in accordance with the Planning and Development Act 2000, as amended.’*

15.4.1.3.3. Land use zonings of relevance to landscape and visual amenity

Land use zonings of relevance are listed below:

- **Zoning Z2** : Residential Neighbourhoods (Conservation Areas);
- **Zoning Z9**: Amenity/ Open Space Lands/ Green Network; and

- **Zoning Z11:** Waterways Protection.

15.4.1.3.4. Visual Amenity

Policy GI20 – Views and Prospects states ‘To protect and enhance views and prospects which contribute to the appreciation of landscape and natural heritage.’

The DCDP 2022-2028 refers to a views and prospects study to be undertaken in the lifetime of the plan. **Policy GIO17** – Views and Prospects Study states ‘To undertake a ‘Views and Prospects’ study to identify and protect the key views and prospects of the city. Additional views and prospects may be identified through the development management process and local area plans.’

15.4.2. Baseline Landscape

The published landscape baseline within the study area is outlined below for the three aforementioned local authorities, these being Kildare County, South Dublin and Dublin City. The baseline including landscape character, designated landscapes and land use zonings is presented in Table 15.9, Table 15.10 and Table 15.11 below.

Table 15.9: Kildare County Development Plan (KCDP) 2017 to 2023

Category	Receptors and land use zonings within Study Area
County Landscape Character Assessment	<p>The Northern Lowlands (LCA) is categorised as Class 1 Low Sensitivity and the KCDP states “the following Areas with the capacity to generally accommodate a wide range of uses without significant adverse effects on the appearance or character of the area.”</p> <p>The policy specific to Lowland Plains and Boglands which is assumed to include the northern lowlands is as follows:</p> <p><i>‘LL 1 Recognise that the lowlands are made up of a variety of working landscapes, which are critical resources for sustaining the economic and social wellbeing of the county.</i></p> <p><i>LL 2 Continue to permit development that can utilise existing structures, settlement area and infrastructure, whilst taking account of the visual absorption opportunities provided by existing topography and vegetation.</i></p> <p><i>LL 3 Recognise that this lowland landscape character area includes areas of significant landscape and ecological value, which are worthy of protection.</i></p> <p><i>LL 4 Recognise that intact boglands are critical natural resources for ecological and environmental reasons.</i></p> <p><i>LL 5 Recognise that cutaway and cut-over boglands represent degraded landscapes and/ or brownfield sites and thus are potentially robust to absorb a variety of appropriate developments.’</i></p>
Designated Landscapes	The Area of High Amenity designation applies to The Grand Canal within the study area.
Land Use Zonings	None within the study area

Table 15.10: South Dublin County Development Plan (SDCDP) 2022 to 2028

Category	Receptors and land use zonings within Study Area
County Landscape Character Assessment	<p>LCA 2 Newcastle Lowlands is categorised as being of medium sensitivity and of medium/ high value. The published summary description in chapter 3 of the SDCDP is as follows; <i>“This LCA comprises a low-lying agricultural area of high agricultural productivity, with a long history of human settlement and is an important landscape setting for the urbanised east of the County. The Newcastle Lowlands function as an important agricultural resource but are vulnerable to urbanising pressures. In addition, its character as a rural landscape provides a distinct and important identity for this area of western Dublin. To conserve its sense of place requires measures protecting the integrity of the agricultural landscape by controls on urban expansion, ribbon development and other sources of erosion and fragmentation and requires site planning guidance on the use of appropriate vernacular styles and treatments in new developments. The most significant ecological feature in the LCA is the Grand Canal, a proposed Natural Heritage Area.”</i></p> <p>LCA 5 Suburban South Dublin has no published ranking in terms of value and sensitivity in the landscape character assessment. The published summary description in chapter 3 of the SDCDP is as follows; <i>“This Landscape Character Area covers a significant portion of the County and is classified as an urbanised area radiating from the east. The area has historically functioned as the hinterland to Dublin City, with extensive housing estates alongside industrial and commercial developments. Housing and estate layouts date from the late nineteenth century to the present day. There are major transport corridors traversing the LCA, such as the M50 running north-south, the N4, N7 and N81 roads and Luas Red line running east-west. The settlements of Rathfarnham, Templeogue and Clondalkin have important historical legacy and remnants which should be preserved. The large public parks such as Dodder Valley, Tymon Park, Corkagh Park and Griffeen Park offer significant recreational and ecological resources within the urban area, as do the linear corridors of the River Dodder, Camac and Griffeen Rivers which offer areas of natural and semi-natural vegetation.”</i></p>
Designated Landscapes	Areas of significant amenity value are associated with The Grand Canal and The Griffeen River.
Land Use Zonings	<p>Zoning objective OS which states <i>“To preserve and provide for open space and recreational amenities”</i></p> <p>Zoning objective RU which states <i>“To protect and improve rural amenity and to provide for the development of agriculture.”</i></p>

Table 15.11: Dublin City Development Plan (DCDP) 2022 - 2028

Category	Receptors and land use zonings within Study Area
City Landscape Character Assessment	None published
Designated Landscapes	The Conservation Area designation applies to a number of sites within the study area and these are documented for each local landscape character area below.
Land Use Zonings	<p>Zoning Z2 - Residential Neighbourhoods (Conservation Areas).</p> <p>Zoning Z9 - Amenity/ Open Space Lands/ Green Network.</p> <p>Zoning Z11 - Waterways Protection.</p>

15.4.2.1. Local Landscape Character of the Study Area

As outlined in Section 15.3.1 and further detailed in Chapter 4 Project Description, the project has been divided into four main geographic areas (Zones A to D). For the purpose of this assessment,

the local landscape of the study area was characterised and described. The study area identifies 9 local landscape character areas (LLCAs) and these are described below informed by field work and the published county and city development plan data presented in the tables above (Refer to Table 15.9 to Table 15.11). For each LLCA, an assessment of landscape sensitivity (value and susceptibility) is presented in line with the methodology in 15.3.4 above.

15.4.2.1.1. Local Landscape Character Area 1 (LLCA 1) – Hazelhatch to Adamstown

The landscape of the study area at the western end of the route corridor comprises a rural farmed landscape located partly within LCA 2 Newcastle Lowlands (SDCDP) and partly within The Northern Lowlands LCA (KCDP). The existing railway line crosses this farmed landscape extending under a series of existing road bridges, foot bridges and station structures from approximately 750m west of Hazelhatch and Celbridge Station in the south west towards Adamstown in the north east. The existing railway line is generally at grade and lined on both sides by mature hedgerow vegetation. Minor roads cross the landscape, often crossing the existing railway line. These minor roads are generally lined with mature hedgerow vegetation. Occasional small clumps of woodland and stands of mature trees are dispersed throughout this landscape. Topography is relatively flat and as a result, long range views are often limited due to the screening afforded by existing hedgerows. Small settlements such as that at Hazelhatch feature clusters of houses aligned along existing roads. Hazelhatch is located adjacent to the railway line on both sides and adjacent to the station of the same name. Celbridge golf course occupies an extensive area of land adjacent to the existing railway line at Elmhall, east of Hazelhatch.

The Grand Canal crosses this landscape running broadly parallel and south of the existing railway line. The Grand Canal Way promoted walking route extends along the bank of this watercourse. The canal and walking route are lined with mature hedgerow vegetation and trees. Existing overhead powerlines cross the landscape in a broadly east west direction south of the existing railway line. A ruined church and adjacent mature woodland present as a focal point in the landscape near Aderrig, west of Adamstown. A large area of woodland and shrub understorey is present in the landscape between Aderrig and south of the existing railway line.

Table 15.12: LLCA 1 Hazelhatch to Adamstown – Designated Landscapes and land use zonings of relevance to landscape and visual amenity

Category	Receptors within Study Area
Designated Landscapes	The Area of High Amenity (KCDP) designation applies to The Grand Canal located south of the existing railway line at Balscott.
Land Use Zonings	Zoning objective OS (SDCDP) applies to The Grand Canal Corridor Zoning Objective RU (SDCDP) applies to part of this LLCA in the vicinity of Hazelhatch and Aderrig.
Protected Views	None

The southern half of LLCA 1 falls partly within the Newcastle Lowlands LCA (SDCDP) which is of medium sensitivity and of medium/ high value according to the published landscape character assessment. The northern part of this LLCA falls within the Northern Lowlands LCA (KCDP) which is categorised as being of low sensitivity according to the published landscape character assessment. The Grand Canal is a designated Area of High Amenity (KCDP) and crosses this landscape at

Balscott. LLCA 1 is in good condition featuring rural areas of some scenic quality and having recreational value for walkers and cyclists generally as well as at promoted locations such as The Grand Canal. A value ranking of medium to high applies to LLCA 1.

LLCA 1 is considered to be of low susceptibility to the proposed change comprised of alterations to an existing railway line. Although a landscape of scenic quality and in good condition, it has considerable capacity to absorb development of the scale and nature proposed and this is attributed to the extensive wooded and hedgerow cover present as visual screening.

The sensitivity (value and susceptibility) to the proposed change is medium.

15.4.2.1.2. Local Landscape Character Area 2 (LLCA 2) – Adamstown to Clondalkin

The landscape comprises a mixture of suburban and rural areas. The recently developed (and currently expanding) suburb of Adamstown extends in an easterly direction, merging with residential areas at Griffeen Valley and Ronanstown. These residential areas are located immediately north of the existing railway line which crosses this landscape in an east west direction. The existing railway line crosses this landscape extending under a series of existing road bridges, foot bridges and station structures. The existing railway line, is generally at grade and most of it is lined on both sides by mature hedgerow vegetation. Three existing stations are located along the railway line at Adamstown, Kishoge (currently not operating) and Clondalkin/ Fonthill. The Griffeen Valley linear park is located immediately east of Adamstown and extends close to the existing railway line at Adamstown Avenue. The landscape on the southern side of the existing railway line and part of the northern side (east of the R136 Road) generally features a farmed landscape with an irregular small scale field pattern bounded by mature hedgerows. Much of this landscape is expected to change, featuring mixed use development in accordance with the Clonburris SDZ. Industrial development features on the southern side of the railway line, west of the R120 Road and includes an existing quarry. Further south of the railway line, The Grand Canal crosses the landscape following an east west direction and is lined with mature wooded vegetation.

Table 15.13: LLCA 2 Adamstown to Clondalkin – Designated Landscapes and land use zonings of relevance to landscape and visual amenity

Category	Receptors within Study Area
Designated Landscapes	None occur within the Study Area However the river corridor associated with The Griffeen River, within Griffeen Valley Park is described in the SDCDP as being an Areas of Significant Amenity Value
Land Use Zonings	Zoning objective OS (SDCDP) applies to <ul style="list-style-type: none"> The Grand Canal Corridor Griffeen Valley Park A number of open spaces within the built up residential areas of Adamstown, Neilstown and Clonburris. Zoning Objective RU (SDCDP) applies to a small part of this LLCA at the western end, south of the existing railway line. This small area currently features industrial development including a quarry.
Protected Views	None

The LLCA falls partly within the Newcastle Lowlands LCA (SDCDP) categorised as being of medium sensitivity and of medium/ high value according to the published landscape character assessment. Most of the LLCA falls within the Suburban South Dublin LCA (SDCDP), a built up residential area for which there is no published value or sensitivity ranking. LLCA 2 is in good condition featuring mostly residential built up areas along with fringe farmland to the west. The LLCA has features which are of recreational value for walkers and cyclists including public open spaces and The Grand Canal all of which are promoted for recreational amenity. A value ranking of medium applies to LLCA 2.

LLCA 2 is considered to be of low susceptibility to the proposed change comprised of alterations to an existing railway line. Although a landscape in good condition and featuring recreational assets, it has considerable capacity to absorb development of the scale and nature proposed and this is attributed to the screening afforded by built up areas along with mature wooded vegetation.

The sensitivity (value and susceptibility) to the proposed change is medium.

15.4.2.1.3. Local Landscape Character Area 3A (LLCA 3A) – Clondalkin to Inchicore Residential Area

This landscape comprises the residential areas of Cherry Orchard and Ballyfermot located east of the M50 and north of the existing railway line. The area features established two storey residential areas interspersed with public open spaces of varying size and scale including Cherry Orchard Park and Le Fanu Park. Street tree planting features in some of the residential areas and within the public open spaces. The boundary of the existing railway line extends east to west along the southern edge of this LLCA and most of it is lined with hedgerow vegetation. The railway line is primarily in a cutting and passes underneath 3 existing road bridges at Park West Avenue, Le Fanu Road Bridge and Kylemore Road Bridge and the Khyber Pass pedestrian bridge. This footbridge provides access only to the Inchicore Depot for Iarnród Éireann employees. The railway line features four tracks at the western end and narrows down to two tracks from Cherry Orchard eastwards. The existing Park West Station is located at the western end of the railway line. Much of the railway line is bounded to the north by dwellings and rear gardens along Cherry Orchard Road and Landen Road.

Table 15.14: LLCA 3A Clondalkin to Inchicore Residential Area – Designated Landscapes and land use zonings of relevance to landscape and visual amenity

Category	Receptors within Study Area
Designated Landscapes	None within the Study Area.
Land Use Zonings	<p>Land Use Zoning Z2 (DCDP) applies to small residential areas and open spaces in the north eastern part of this LLCA, near Chapelizod.</p> <p>Land Use Zoning Z9 (DCDP) applies to a number of open spaces, the main ones being as follows:</p> <ul style="list-style-type: none"> • Small open spaces at Le Fanu adjacent to the existing railway line; • Le Fanu Park; • Cherry Orchard Park; and • Markievicz Park.
Protected Views	None

LLCA 3A falls within Dublin City for which there is no published landscape character assessment. LLCA 3A features open spaces which have recreational value. This residential area has some scenic quality due to some of the well maintained residential areas and public open spaces. A value ranking of low to medium applies to LLCA 3A.

LLCA 3A is considered to be of low susceptibility to the proposed change comprised of alterations to an existing railway line. The landscape features extensive residential built up areas along with existing street trees and planting within open spaces. The LLCA has considerable capacity to absorb development of the scale and nature proposed due to the screening afforded by existing built up areas and wooded vegetation.

The sensitivity (value and susceptibility) to the proposed change is low.

15.4.2.1.4. Local Landscape Character Area 3B (LLCA 3B) – Clondalkin to Inchicore Industrial and Commercial Area

This landscape is almost entirely comprised of the built up industrial estates in the vicinity of Clondalkin, Fox and Geese, Bluebell and Kylemore. Clondalkin industrial estate occupies an extensive area of land on both sides of the existing railway line. The M50 Motorway crosses the landscape and the railway line in a broadly north south direction at the western end of this LLCA in the vicinity of Park West where there are built up residential areas and open spaces. The eastern boundary of it is defined by the M50 Motorway. Further east of the M50 Motorway, the Park West and Kylemore Industrial estates are located south of the existing railway line. The Grand Canal extends from west to east broadly parallel and south of the railway line. Industrial estates are located between The Grand Canal and the railway line. The boundary of the existing railway line extends east to west through this industrial landscape west of the M50. East of the M50, the existing railway line extends along the northern edge of this landscape and much of it is lined with hedgerow vegetation. The Inchicore Depot occupies an extensive area of land located to the east of Kylemore Road Bridge (OBC5A), south of the railway line. The Inchicore Depot fronts onto the railway line for approximately 1km and features a range of rail related facilities for the maintenance of rolling stock (InterCity trains) and the track infrastructure and offices for Iarnród Éireann.

Table 15.15: LLCA 3B Clondalkin to Inchicore Industrial and Commercial Area – Designated Landscapes and land use zonings of relevance to landscape and visual amenity

Category	Receptors within Study Area
Designated Landscapes	The Landscape Conservation Area (DCDP) designation applies to <ul style="list-style-type: none"> The Grand Canal.
Land Use Zonings	Land Use Zoning Z9 (DCDP) applies to <ul style="list-style-type: none"> The Grand Canal. small areas of open space at Inchicore. Land Use Zoning Z11 (DCDP) applies to: <ul style="list-style-type: none"> The Grand Canal Corridor. Land Use Zoning Objective OS (SDCDP) applies to: <ul style="list-style-type: none"> The Grand Canal Corridor.
Protected Views	None

LLCA 3B falls partly within South Dublin County and partly within Dublin City.

A value ranking of negligible applies to LLCA 3B and this is attributed to the industrialised nature of the landscape.

LLCA 3B is considered to be of negligible susceptibility to the proposed change comprised of alterations to an existing railway line. The landscape features many industrial areas which are not of any scenic quality and has considerable capacity to absorb development of the scale and nature proposed due to the screening afforded by built up areas generally.

The sensitivity (value and susceptibility) to the proposed change is negligible.

15.4.2.1.5. Local Landscape Character Area 4 (LLCA 4) – Kilmainham

This LLCA comprises the residential built up areas of Inchicore and Kilmainham, located south of the existing railway line along with the residential area of Islandbridge, located north of the existing railway line. The area features a mix of residential and commercial developments some of which are of multiple storeys in height. The railway line crosses the urban landscape in an east west direction. It crosses over the Sarsfield Road Under-Bridge (UBC4) and under Memorial Road Bridge (OBC3) and runs parallel to Con Colbert Road and Chapelizod Bypass. The railway along this section comprises three tracks in a cutting below ground level. The line then approaches the South Circular Road junction with two bridges carrying traffic over the railway – South Circular Road Bridge (OBC1) and St John’s Road Bridge (OBC0A). The line then takes a more northerly direction as it approaches Heuston Yard. These established residential areas feature Victorian red brick dwellings with occasional more modern infill residential areas. The Camac River extends in an east west direction following a sinuous path within the built up areas south of the existing railway line. A number of open spaces are dispersed throughout this built up landscape. The South Circular Road/ Con Colbert Road which is a busy dual carriageway extends east to west across this landscape immediately north of the existing railway line. Extensive areas of open space are located within the LLCA including important historic sites such as the National War Memorial Gardens and The Gardens at The Royal Hospital Kilmainham. The National War Memorial Gardens occupies an extensive area north of the South Circular Road/ Con Colbert Road and features mature woodland along the boundary.

Table 15.16: LLCA 4 Kilmainham – Designated Landscapes and land use zonings of relevance to landscape and visual amenity

Category	Receptors within Study Area
Designated Landscapes	<p>The Landscape Conservation Area (DCDP) designation applies to:</p> <ul style="list-style-type: none"> • The Royal Hospital Kilmainham • The National War Memorial Gardens, Islandbridge • Linear Open Space along the Camac River and adjacent Richmond Park • Kilmainham Gaol
Land Use Zonings	<p>Land Use Zoning Z2 (DCDP) applies to</p> <ul style="list-style-type: none"> • Inchicore Area (south of Sarsfield Road) <p>Land Use Zoning Z9 (DCDP) applies to</p> <ul style="list-style-type: none"> • The Royal Hospital Kilmainham; • The National War Memorial Gardens, Islandbridge • Linear open space along The Camac River and adjacent Richmond Park • Open space between Con Colbert Road and the existing railway line

Category	Receptors within Study Area
	<ul style="list-style-type: none"> • Open space at Inchicore adjacent to the existing railway line; • Open space south of Chapelizod Bypass <p>Land Use Zoning Z11 (DCDP) applies to</p> <ul style="list-style-type: none"> • The Camac River
Protected Views	View North towards The Phoenix Park from the grounds of The Royal Hospital Kilmainham (indicated in DCDP on map only – no description)

LLCA 4 falls entirely within Dublin City. A number of designated conservation areas (DCDP) occur within the LLCA as tabulated above. The landscape is in good condition featuring areas of exceptional scenic quality such as river corridors and parks and gardens. A value ranking of high applies to LLCA 4 reflecting the conservation area designations, scenic quality and presence of elements and features that are promoted as visitor attractions, in particular The National War Memorial Gardens and The Royal Hospital Kilmainham.

LLCA 4 is considered to be of medium susceptibility to the proposed change comprised of modifications to an existing railway line. The landscape features many elements such as designed landscapes, river and canal corridors which are of exceptional scenic quality. Some capacity to absorb development of the scale and nature proposed is attributed to the screening effect by existing woodlands and built up areas.

The sensitivity (value and susceptibility) to the proposed change is high.

15.4.2.1.6. Local Landscape Character Area 5 (LLCA 5) – Heuston Yard

This LLCA comprises the existing railway yard and station platforms along with the existing Heuston Station and adjacent residential areas. The Heuston Yard features a series of railway lines, sheds and buildings including the New National Train Control Centre (NTCC). The Phoenix Park Tunnel Branch Line and tunnel portal to the Phoenix Park is located in the north western corner of this LLCA. The northern boundary of Heuston Yard adjoins the bank of the River Liffey and features mature wooded vegetation. Heuston Yard is an expansive and visually open area dominated by railway infrastructure. It is overlooked from the west by the multi storey residences at Clancy Quay. The yard is also overlooked from the south east by a mixed multistorey residential and commercial development on Military Road (Heuston South Quarter).

The character of the LLCA is largely defined by the existing rail infrastructure and related buildings within Heuston Yard. The western part of the site, in particular, is visually open and panoramic views are available of the railway yard and adjacent areas. The views are available in the distance towards The Phoenix Park, in particular the Wellington Monument and the Royal Hospital Building and Gardens through leafless wooded vegetation in winter.

There are no designated landscapes or land use zonings of relevance in Heuston Yard apart from the existing Heuston Station Building at the eastern end of this LLCA which is a designated conservation area.

LLCA 5 falls entirely within Dublin City. The area is mostly characterised by rail infrastructure and features railway structures of limited scenic value. The current railway landscape carries no particular landscape value in its own right apart from the conservation status attributed to Heuston Station

Building and the visual links with The Phoenix Park and The Royal Hospital. A value ranking of negligible applies to LLCA 5.

LLCA 5 is considered to be of negligible susceptibility to the proposed change comprised of modifications to an existing railway line and the introduction of the proposed Heuston West Station. The landscape is currently dominated by rail infrastructure within which the proposed change would not be uncharacteristic. The landscape has capacity to absorb development of the scale and nature proposed.

The sensitivity (value and susceptibility) to the proposed change is negligible.

15.4.2.1.7. Local Landscape Character Area 6 (LLCA 6) – River Liffey

This LLCA comprises The River Liffey and adjacent open spaces and built up areas. The river follows a sinuous course, lined with mature wooded vegetation and featuring open spaces. Further east towards Heuston Station, the river corridor is more developed with a number of residential developments overlooking the river from both sides along with Heuston Yard. The existing railway line crosses the river at the Liffey Bridge (UBO1), a wrought iron structure, immediately south of Conyngham Road. The crossing is located within the more developed eastern part of the river corridor and is overlooked mainly by residential developments.

The character of the LLCA is largely defined by the River Liffey which is a designated landscape conservation area.

Table 15.17: LLCA 6 River Liffey – Designated Landscapes and land use zonings of relevance to landscape and visual amenity

Category	Receptors within Study Area
Designated Landscapes	The Landscape Conservation Area (DCDP) designation applies to: <ul style="list-style-type: none"> • The River Liffey.
Land Use Zonings	Land Use Zoning Z2 (DCDP) applies to: <ul style="list-style-type: none"> • Applies to a small residential area north of The River Liffey. Land Use Zoning Z9 (DCDP) applies to: <ul style="list-style-type: none"> • Open space along the north and south bank of the River Liffey. Land Use Zoning Z11 (DCDP) applies to: <ul style="list-style-type: none"> • The River Liffey.
Protected Views	None

LLCA 6 falls entirely within Dublin City. The River Liffey is a designated landscape conservation area (DCDP) which extends along this watercourse and banks. A value ranking of very high applies to LLCA 6 reflecting the conservation area designation and recognition of the river landscape at a national level.

LLCA 6 is considered to be of very high susceptibility to the proposed change comprised of modifications to an existing railway line crossing the river.

The sensitivity (value and susceptibility) to the proposed change is very high.

15.4.2.1.8. Local Landscape Character Area 7 (LLCA 7) – Phoenix Park

This LLCA features The Phoenix Park. This is the largest enclosed public park in any capital city in Europe. It dates back to 1660 when it was formed as a royal hunting park. The park features a main avenue road route (Chesterfield Avenue) which bisects the open space extending south east to north west. Extensive areas of informal woodland planting are interspersed with large open spaces. It features Victorian gardens and water gardens with ponds of varying size. Other important features of historical interest include the Magazine Fort and a range of military lodges and accompanying demesnes dating back to the 1700s. These included the Viceregal Lodge for the Lord Lieutenant, now home to the President of Ireland.

In the nineteenth century, the park was in a neglected state of condition and a new masterplan design was prepared by Decimus Burton which included the building of new gate lodges, the removal and levelling of old hedgerows and shooting butts, tree planting in strategic locations, drainage, the restoration of the boundary wall, creation and realignment of the Park roads, which included Chesterfield Avenue and the relocation of the Phoenix Column on the main avenue. The Royal Dublin Zoological Society opened Dublin Zoo in 1830. The Promenade Grounds opened in 1840 (later to be known as the People’s Garden) and were considerably improved in the 1860s with the addition of a Head Gardener’s House, rock garden, and horticultural facilities to allow for flower production for planting in the Gardens. Between the People’s Garden and Dublin Zoo, a bandstand and tearooms were built in the final decade of the nineteenth century. Further change in the twentieth century came by way of additional planting of trees and woodlands.

The existing railway line crosses under the eastern part of the Phoenix Park in a tunnel below ground. The southern boundary of the park features mature woodland through which glimpse views are available of the busy Conyngham Road and part of the existing railway line including part of the Liffey Bridge amongst modern residential development in the foreground.

Table 15.18: LLCA 7 Phoenix Park – Designated Landscapes and land use zonings of relevance to landscape and visual amenity

Category	Receptors within Study Area
Designated Landscapes	The Landscape Conservation Area (DCDP) designation applies to: <ul style="list-style-type: none"> The Phoenix Park.
Land Use Zonings	Land Use Zoning Z9 (DCDP) applies to: <ul style="list-style-type: none"> The Phoenix Park.
Protected Views	None

LLCA 7 falls entirely within Dublin City. The LLCA features the historically important Phoenix Park, a designated landscape conservation area (DCDP). A value ranking of very high applies to LLCA 7.

LLCA 7 is considered to be of very high susceptibility to the proposed change comprised of alterations to an existing railway line. The landscape is of outstanding scenic quality and is a unique designed landscape of heritage interest.

The sensitivity (value and susceptibility) to the proposed change is very high.

15.4.2.1.9. Local Landscape Character Area 8 (LLCA 8) – Cabra and Glasnevin

This LLCA features the established Victorian red brick residential areas of Cabra and Glasnevin. These comprise streetscapes built predominantly in red brick and following broadly a rectilinear pattern. The Royal Canal crosses this LLCA extending broadly west to east. The existing railway line emerges from the Phoenix Park Tunnel and extends across this landscape, generally in a cutting, following a north easterly direction and then following a curved alignment close to the boundary of Glasnevin Cemetery. The railway cutting features wooded vegetation. Features adjacent to the existing railway line include McKee Barracks, a designated conservation area, comprised of a series of red brick buildings arranged in a formal rectilinear pattern. McKee Barracks overlooks the existing railway line from the western side, north of Blackhorse Avenue Bridge (OBO4). Glasnevin Cemetery is located at the northern end of the study area. This burial ground occupies an extensive area adjacent and south of the existing railway line and is accessed by means of a small road bridge, Glasnevin Cemetery Road Bridge (OBO10). A small car park with boundary wooded vegetation including standard trees is located adjacent to the existing railway bridge. A number of roads cross the existing railway line within this landscape generally and some of these crossings feature bridges with stone parapets and black painted railings or palisade fence.

Table 15.19: LLCA 8 Cabra and Glasnevin – Designated Landscapes and land use zonings of relevance to landscape and visual amenity

Category	Receptors within Study Area
Designated Landscapes	The Landscape Conservation Area (DCDP) designation applies to: <ul style="list-style-type: none"> • The Royal Canal; • Built up areas adjacent and north of The Phoenix Park. McKee Barracks is a designated conservation area.
Land Use Zonings	Land Use Zoning Z2 (DCDP) applies to: <ul style="list-style-type: none"> • North Circular Road (and adjacent residential areas) extending south to the boundary of The Phoenix Park. Land Use Zoning Z9 (DCDP) applies to: <ul style="list-style-type: none"> • Glasnevin Cemetery; • The Royal Canal and adjacent open space; • Mount Bernard Park; • Small open space south of The Royal Canal adjacent to the existing railway line; • Open space south of Faussagh Avenue, adjacent to the existing railway line; • Built up areas adjacent and north of The Phoenix Park. Land Use Zoning Z11 (DCDP) applies to: <ul style="list-style-type: none"> • Royal Canal.
Protected Views	None

LLCA 8 falls entirely within Dublin City. Designated conservation areas (DCDP) occur within the LLCA including McKee Barracks and The Royal Canal. The urban landscape is in good condition and of good scenic quality. A value ranking of high applies to LLCA 8.

LLCA 8 is considered to be of medium susceptibility to the proposed change comprised of modifications to an existing railway line. The landscape features sensitive elements such as The

Royal Canal corridors which is of exceptional scenic quality. The landscape has some capacity to absorb development of the scale and nature proposed due to the visual screening afforded by built up areas.

The sensitivity (value and susceptibility) to the proposed change is High.

15.4.2.2. Summary - Local Landscape Character Areas – Sensitivity Assessment

A summary of the local landscape character areas is provided in Table 15.20. The assessment of sensitivity to the proposed change takes account of both the value of the LLCA along with its susceptibility to change as outlined in the table below.

Table 15.20: Summary – Local Landscape Character Areas - Assessment of Sensitivity

LLCA	Value	Susceptibility	Sensitivity
LLCA 1 - Hazelhatch to Adamstown	Medium - High	Low	Medium
LLCA 2 - Adamstown to Clondalkin	Medium	Low	Medium
LLCA 3A - Clondalkin to Inchicore Residential Area	Low - Medium	Low	Low
LLCA 3B - Clondalkin to Inchicore Industrial and Commercial Area	Negligible	Negligible	Negligible
LLCA 4 - Kilmainham	High	Medium	High
LLCA 5 - Heuston Yard	Negligible	Negligible	Negligible
LLCA 6 - River Liffey	Very High	Very High	Very High
LLCA 7 - Phoenix Park	Very High	Very High	Very High
LLCA 8 - Cabra and Glasnevin	High	Medium	High

15.4.2.3. Designated Landscapes within the Study Area

A number of designated landscapes occur within the study area and are described in the table below. All of these are considered to be of very high sensitivity.

Table 15.21: Designated Landscapes and land use zonings of relevance to landscape and visual amenity

Receptor	Baseline
Designated Areas of High Amenity in Kildare County	
Grand Canal	The Grand Canal Corridor at Balscott comprises a canal waterway with towpath which is lined with mature wooded vegetation. Dwellings within the townland of Balscott are located on the northern side of the canal.
Designated Areas of Significant Amenity Value in South Dublin County	
The Grand Canal	The Grand Canal Corridor extending from Hazelhatch to Clondalkin comprises a canal waterway with towpath which is lined with mature wooded vegetation.
Griffeen River Corridor	Griffeen River Corridor near Adamstown featuring a public open space with mature wooded vegetation through which the river extends in a north south orientation.
Designated Conservation Areas in Dublin City	
The Grand	The Grand Canal Corridor at Ballyfermot comprises a canal waterway with towpath which

Receptor	Baseline
Canal at Ballyfermot	is lined with some wooded vegetation. Dense industrial and commercial developments are located on the northern side of the canal.
The Camac River and adjacent Richmond Park	The Camac River follows a sinuous course in an east west direction through Kilmainham. The river is lined on either side by mature wooded vegetation. Further afield the river corridor is surrounded by the built up residential areas of Kilmainham.
The National War Memorial Gardens at Islandbridge	The National War Memorial Gardens comprises a formal and semi formally laid out open space located between The River Liffey and Chapelizod Bypass/ Con Colbert Road. The entrance to the gardens is symmetrically aligned with the avenue of mature trees on Memorial Road and lies directly opposite Memorial Road Bridge (OBC3). The boundary is generally defined by mature woodland.
Kilmainham Gaol	Kilmainham Gaol is located off South Circular Road, almost opposite to the entrance to the Royal Hospital Kilmainham. It is located within a built up area adjacent to some relatively recent residential and mixed use developments.
The Royal Hospital Kilmainham	The grounds of The Royal Hospital Kilmainham comprise an extensive designed landscape located south east of the South Circular Road Junction and Heuston Yard. The site comprises formal and informally designed gardens along with a partially wooded burial ground at Bully's Acre. Part of the formal gardens close to the Royal Hospital Building is elevated and commands panoramic views of the gardens with undulating topography and mature woodland along the boundary of St John's Road against the backdrop of the multi storey developments including that at Clancy Quay.
The River Liffey	The River Liffey extends east west through the study area following a sinuous course and is lined with mature wooded vegetation. Multi unit residential developments are located on either side of the River and overlook the river landscape. Part of the Heuston Yard overlooks the south bank of the river. A number of bridges cross the river including The Liffey Bridge (UBO1) which carries the existing railway line and South Circular Road Bridge.
The Phoenix Park	The Phoenix Park is an extensive public open space featuring areas of informal woodland planting which are interspersed with large open spaces. Built features and monuments are dispersed throughout. The Wellington Monument is a focal point appreciated from within the park and surrounding areas.
McKee Barracks	McKee Barracks comprises a series of red brick buildings laid out in a rectilinear pattern located adjacent to and west of the existing railway line (Phoenix Park Tunnel Branch Line) south of Blackhorse Avenue Bridge (OBO4).
The Royal Canal	The Royal Canal and adjacent open spaces features a canal side walkway in use as The Royal Canal Way. Mature wooded vegetation is present. The existing Phoenix Park Tunnel Branch Line extends under the canal in a tunnel.

15.4.3. Baseline Visual Amenity

Visual receptors comprise “the different groups of people who may experience views of the development” (GLVIA3, para 6.3). The baseline, presented below, includes the Designated Views and Prospects and Scenic Routes of relevance to the assessment referenced in County/ City Development Plan Policy in Section 15.2 above. In addition, the desktop baseline study together with field surveys have informed the selection of viewpoints for inclusion in the visual impact assessment for the proposed Project. These are outlined in Table 15.22 below. Finally, the baseline visual amenity is outlined for residents of groups of dwellings located adjacent to the existing railway line.

15.4.3.1. Designated Scenic Routes and Protected Views - Kildare County Development Plan (KCDP) 2017 to 2023

There are no designated Scenic routes or Protected Views in the study area. The closest of these are:

- Scenic Route no. 32 which is located 1.8km north of the existing railway line at the closest point at Hazelhatch. Scenic Route no 32 is located along the R403 Regional Road; and
- Protected View no. RL2 which is located 1.7km north of the existing railway line at the closest point at Stacumny. Protected View no RL2 is located at New Bridge, Coneyburrow, Leixlip.

15.4.3.2. Designated Views and Prospects - South Dublin County Development Plan (SDCDP) 2016 to 2022

There are no designated Views and Prospects in the study area. The closest of these are the views of the River Liffey Valley from the N4 Road at Hermitage and Quarryvale, located 2.63km north of the existing railway line.

15.4.3.3. Designated Views and Prospects - Dublin City Development Plan (DCDP) 2022 to 2028

Views and Prospects of relevance are as follows:

- View North towards The Phoenix Park from the grounds of The Royal Hospital Kilmainham (indicated in DCDP on map only – no description).

15.4.3.4. Viewpoint Locations

In addition to designated views and prospects referenced above, a selection of viewpoints informed by desk study and field surveys were selected for the visual impact assessment. These are presented in Table 15.22 below.

Viewers that would potentially be affected by the proposed Project include residents of dwellings and settlements, road users (both recreational/ tourist and commuter) and recreational visitors to points of interest where landscape is an important part of that experience.

Table 15.22 provides a description of the existing view at each viewpoint. A photograph of the existing view along with photomontage is provided for 12 of the viewpoint locations indicated in the table below. The table indicates the viewer types likely to be affected by changes to the existing views. An assessment of value and susceptibility, culminating in an overall assessment of sensitivity is provided for the most susceptible viewer type at each location in line with the methodology in Section 15.3.4.2. For example, a viewpoint experienced by both residents of dwellings and road users is evaluated in terms of sensitivity for the residents of dwellings.

The location of each of the viewpoints is indicated on Figure 15-2 to Figure 15-10 and in Volume 3A of this EIA.

Table 15.22: Baseline Visual Amenity at Selected Viewpoint Locations

ID	Location	Viewer Types	Description of existing view	Value of view	Susceptibility of viewer	Sensitivity
1	Loughlinstown Road, Hazelhatch	Pedestrians Road users	Views are available of the site for the proposed substation, access, gate and boundary palisade fencing with Loughlinstown Road and traffic in the foreground. Wooded vegetation along the boundary is visible in the foreground. Derelict dwellings within the site are partially visible with some screening by existing wooded vegetation.	Low	Low	Low
2	Straleek/ Hazelhatch	Residents of dwellings. Road users.	Views are available of the existing railway line and boundary fence against a backdrop of mature garden vegetation. The view is attained in between dwellings and built structures in the foreground which partially screen the existing railway line.	Low	High	Medium
3	Straleek Footbridge, Hazelhatch	Pedestrians	Glimpse views are available of the existing railway line from the footpath approach immediately adjacent to the Straleek Footbridge (OBC23B). The views are available of the existing railway line with some mature wooded vegetation in the foreground and some dwellings at Hazelhatch further afield. In the far distance, the wider rural landscape is partially visible.	Medium	Medium	Medium
4	Backweston/ Aderrig	Road users Pedestrians on a rural road	Panoramic views are available of a farmed landscape featuring mature hedgerows. A church (in ruins) is visible in the distance along with a stand of mature trees. Further to the right of this ruin, a high voltage overhead powerline and pylon is visible.	Medium	Medium	Medium
5	Castlegate Place, Adamstown	Residents of dwellings Road users	Views are available at short range of the existing railway line backclothed with mature wooded vegetation. The Finnstown R120 Road Bridge (OBC19) is visible to the left of the viewer. The busy Adamstown Avenue is visible in the foreground.	Low	High	Medium
6	Cherry Orchard	Residents of dwellings	Views are available (above the line of the boundary wall) of hedgerow vegetation and an overhead powerline.	Low	High	Medium
7	Le Fanu Road (Photomontage)	Residents of dwellings	Views are available of a public open space featuring a grassed area, trees and shrubs. A concrete wall and palisade fence along with a stone wall is visible in the background along with part of Le Fanu Road Bridge (OBC7). Terraces of dwellings along Le Fanu Road are partially visible above the line of the stone wall. A pylon and overhead powerline is visible in the distance. Wooded vegetation within the railway line is visible behind the concrete wall and palisade fence.	Medium – High	High	High

ID	Location	Viewer Types	Description of existing view	Value of view	Susceptibility of viewer	Sensitivity
8	Le Fanu Drive	Residents of dwellings	Views are available of Le Fanu Road and Le Fanu Road Bridge (OBC7) with a public open space in the foreground along with a terrace of dwellings on Le Fanu Drive. The rooftops of nearby industrial buildings are clearly visible in the left part of the view. A high voltage overhead powerline including pylons are visible in the distance.	Low	High	Medium
9	Kylemore Road	Residents of dwellings	Views are available of Landen Road and the Kylemore Road Bridge (OBC5A) with traffic in the foreground. An electronic sign board and wall is visible in the foreground. A very small part of the skyline of the Dublin mountains is partly visible in the distance with the existing road and traffic in the foreground.	Low	High	Medium
10	Landen Road	Residents of dwellings Road users	Views are available of part of the existing Khyber Pass Footbridge (OBC5) in between dwellings and with public open space and trees in the foreground. The upper portion of passing trains are visible with a wall and palisade fence in the foreground.	Medium	High	High
11	Corner of Sarsfield Road and St Marys Avenue West	Pedestrians Recreational users of East Timor Public Park	Views are available of the pedestrian access to the Khyber Pass Footbridge (OBC5) along with wooded vegetation and with Sarsfield Road and dwellings in the foreground.	Low	High	Medium
12	Sarsfield Road	Pedestrians	Views are available of the existing Sarsfield Road Under-Bridge (UBC4) with stone wall boundaries on either side and Sarsfield Road and traffic in the foreground. Mature trees and wooded vegetation associated with an existing open space is visible in the left part of the view.	Medium	Medium	Medium
13	Inchicore	Residents of dwellings	Views are attained of a grassed open space and the stone boundary wall of the existing railway line together with wooded vegetation.	Medium	High	High
14	War Memorial Gardens, Islandbridge (Photomontage)	Recreational Visitors to the War memorial Gardens, Islandbridge	Views are available of Memorial Road Bridge (OBC3) and Memorial Road, lined with the avenue of mature trees with the busy Con Colbert Road in the foreground. The existing bridge is clearly visible with stone parapets and railway boundary walls. The existing mesh fencing on top of the walls and parapets, in poor run down condition, is also visible. Two large modern buildings are visible on either side of the bridge. The Kilmainham area is visible in the distance.	High	Very High	Very High

ID	Location	Viewer Types	Description of existing view	Value of view	Susceptibility of viewer	Sensitivity
15	Memorial Road (Photomontage)	Residents of dwellings	Views are available of Memorial Road lined with an avenue of mature trees and road traffic. The Memorial Road Bridge (OBC3) is visible as a small element in the distance along with the entrance to The War Memorial Gardens.	High	Very High	Very High
16	South Circular Road/ Liffey Crossing (Photomontage)	Pedestrians	Views are available of The River Liffey and mature wooded vegetation along the river bank together with dwellings of varying size and scale. The existing Liffey Bridge (UBO1) is clearly visible crossing the river. The Wellington Monument in the Phoenix Park is also visible.	Very High	Very High	Very High
17	South Circular Road (Photomontage)	Residents of dwellings	Views are available of the busy junction at South Circular Road with multi storey buildings (dwellings at Clancy Quay) in the background The bridge parapets to the existing South Circular Road Bridge (OBC1A) are clearly visible with stone finish. Part of the boundary to the Royal Hospital Kilmainham features to the right of the viewer along with mature wooded vegetation within.	Medium	High	High
18	Entrance – Royal Hospital Kilmainham (Photomontage)	Recreational visitors to the Royal Hospital Kilmainham	Views are available of South Circular Road and intermittent busy traffic. The stone boundary wall and wooded vegetation associated with The Royal Hospital Kilmainham (Bully's Acre) is visible in the foreground to the right of the viewer. Red brick dwellings and a larger scale glass fronted building is visible to the left of the viewer. In the distance, part of the existing South Circular Road Bridge (OBC1A) is visible with mature woodland within The Phoenix Park in the background in the distance.	Very High	Very High	Very High
19	Phoenix Park (Photomontage)	Pedestrians	Views are available of parkland, mature woodland and individual trees within the Phoenix Park. Buildings along Conyngham Road are partially visible in the distance. The Liffey Bridge (UBO1) is partly visible as a very small distant element glimpsed in between the mature vegetation.	Very High	Very High	Very High
20	Conyngham Road (Photomontage)	Residents of dwellings	Views are available towards The River Liffey and mature wooded vegetation with the existing Liffey Bridge (UBO1) and railway line in the foreground. Multi storey buildings (dwellings) and car parking are visible in the foreground to the left of the viewer. Multi storey buildings are also visible in the distance to the right of the viewer. The Skyline of the Dublin Mountains is visible in the distance.	High	High	High

ID	Location	Viewer Types	Description of existing view	Value of view	Susceptibility of viewer	Sensitivity
21	Royal Hospital Kilmainham (Photomontage)	Recreational visitors to the gardens at Royal Hospital Kilmainham	Views are available of a parkland landscape associated with the gardens of the Royal Hospital Kilmainham with open spaces, undulating topography and mature woodland. These views are attained against the backdrop of multi storey buildings (dwellings including that at Clancy Quay).	Very High	Very High	Very High
22	Blackhorse Avenue Bridge (OBO4) (Photomontage)	Pedestrians	Views are available towards the railway line in a cutting with McKee Barracks and dwellings on either side and mature wooded vegetation. McKee Barracks Bridge (OBO3) is partially visible crossing the railway line. These views are attained with the stone parapet wall and black painted palisade fence of Blackhorse Avenue Bridge (OBO4) in the foreground. Views through the palisade fence reveal unobstructed views of the existing railway line in a cutting with mature wooded vegetation. McKee Barracks Bridge (OBO3) is clearly visible crossing the railway line. The red brick buildings associated with McKee Barracks are clearly visible in the foreground to the right of the viewer along with dwellings to the left.	High	High	High
23	Blackhorse Avenue	Residents of dwellings	Views are available of the streetscape at Blackhorse Avenue. Blackhorse Avenue Bridge (OBO4) is visible in the foreground along with stone parapet walls which feature a black painted palisade fence on top. The buildings associated with McKee Barracks are visible in the left part of the view along with street trees.	Very High	High	Very High
24	Old Cabra Road Bridge (OBO5) (Photomontage)	Pedestrians	Views are available towards the railway line in a cutting with mature wooded vegetation on either side against the backdrop of the skyline of the Dublin Mountains in the distance. These views are attained with the stone parapet wall and black painted railing of Old Cabra Road Bridge (OBO5) in the foreground. Views through the railing reveal unobstructed views of the existing railway line in a cutting with mature wooded vegetation. Blackhorse Avenue Bridge (OBO4) is clearly visible crossing the railway line and further afield, some buildings are visible in the distance against the backdrop of the skyline of the Dublin Mountains.	Medium	High	High

ID	Location	Viewer Types	Description of existing view	Value of view	Susceptibility of viewer	Sensitivity
25	Old Cabra Road	Residents of dwellings	Views are available of the streetscape at Old Cabra Road. Old Cabra Road Bridge (OBO5) is visible in the foreground along with stone parapet walls which feature black painted railings on top. Street lighting and a bus stop are visible in the foreground. Some mature wooded vegetation is partially visible.	Low	High	Medium
26	Cabra Road	Residents of dwellings	Views are available of the streetscape at Cabra Road. Cabra Road Bridge (OBO6) is visible in the foreground along with stone parapet walls which feature black painted railings on top. Mature wooded vegetation in the vicinity of the bridge is clearly visible.	Medium	High	High
27	Faussagh Avenue	Residents of dwellings	Views are available of the streetscape at Faussagh Avenue along with street lighting. Faussagh Road Bridge (OBO7) along with solid parapet walls which feature a black painted palisade fence on top is clearly visible.	Low	High	Medium
28	Glasnevin Cemetery (Photomontage)	Pedestrians	Views are available of the Glasnevin Cemetery Road Bridge (OBO10) along with the black painted railing boundary to the existing railway line with the car park in the foreground and maturing standard trees. Views are available beyond the railing in the distance of mature wooded vegetation and trees in the cemetery grounds and within the railway line. The electronic gate access to the bridge is visible.	High	High	High

15.4.3.5. Visual Amenity of Residents of Groups of Dwellings located adjacent to the Existing Railway Line

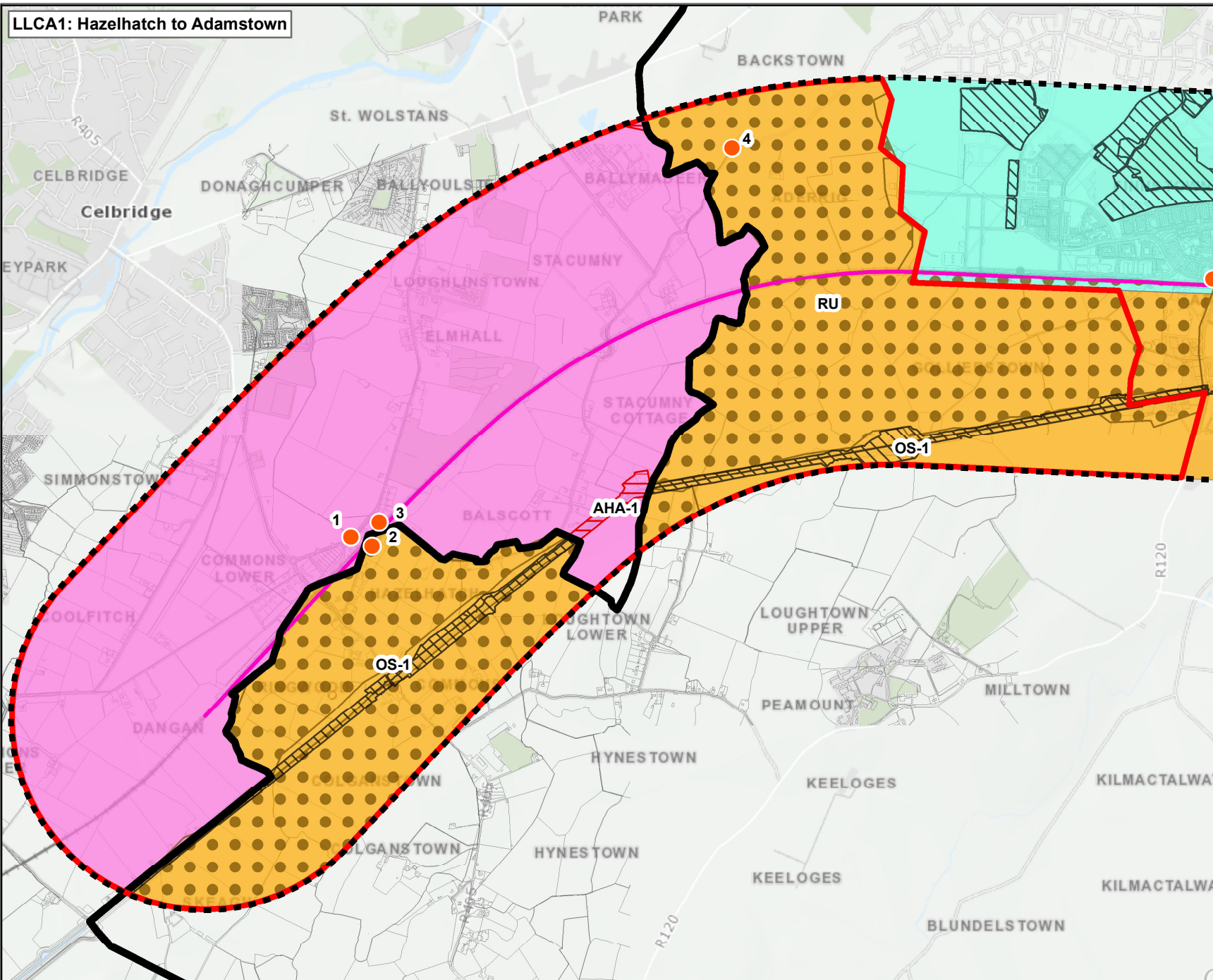
Residents of dwellings located adjacent to the existing railway line are estimated to attain views of the existing railway corridor. Groups of these receptors are identified based on their location and the nature of their general outlook towards the existing railway line. These and the existing views are tabulated below.

Table 15.23: Baseline Visual Amenity of Residents of Groups of Dwellings located adjacent to the Existing Railway Line

Receptor Location	Estimated description of existing view	Value of view	Susceptibility of viewer	Sensitivity
Hazelhatch	Residents of dwellings in Hazelhatch are estimated to attain short range views of the existing railway line and, in some cases, the Hazelhatch and Celbridge Station and car park in particular from second storey windows. The available views of the existing railway line varies in accordance with the extent of wooded vegetation screens. In some cases existing structures such as bridges may be visible.	Low	High	Medium
Cherry Orchard to Khyber Pass Footbridge	Residents of dwellings located adjacent to the existing railway line, are estimated to attain views of the existing railway line in particular from second storey windows. In some cases, the railway line is estimated to be screened from view by wooded vegetation or built structures or a combination of both. In some cases existing structures such as bridges may be visible.	Low	High	Medium
Seven Oaks Apartments	Residents of dwellings at Seven Oaks are estimated to attain views of the existing railway line and adjacent open spaces. In some cases, the Inchicore yard and the existing Khyber Pass Footbridge is expected to be visible.	Medium	High	High
Inchicore to Kilmainham	Residents of dwellings located adjacent to the existing railway line are estimated to attain views of the existing railway line along with wooded vegetation in particular from second storey windows. In some cases, the railway line is estimated to be screened from view by wooded vegetation or built structures or a combination of both. These views may be attained against the backdrop of the woodland in The War Memorial Gardens.	High	High	High
The Old Chocolate Factory, Kilmainham Square Apartments	Residents of dwellings at The Old Chocolate Factory are estimated to attain views of the existing railway line along with wooded vegetation and the Chapelizod Bypass/ Con Colbert Road and the South Circular Road Junction. These views may be attained against the backdrop of the woodland in The War Memorial Gardens.	Medium	High	High
Clancy Quay	Residents of dwellings at Clancy Quay are estimated to attain views of the existing Heuston Yard. In some cases, views will be attained in a	Medium	High	High

Receptor Location	Estimated description of existing view	Value of view	Susceptibility of viewer	Sensitivity
	northerly direction of the River Liffey Corridor and railway line crossing at Liffey Bridge (UBO1) against the backdrop of The Phoenix Park and Wellington Monument. Views in a south and south east direction are estimated to be available of Heuston Yard and The South Circular Road Junction against the backdrop of The Royal Hospital Kilmainham in the distance.			
Cabra and Glasnevin	Residents of dwellings located adjacent to the existing railway line are estimated to attain limited views of this railway line in cutting due to screening by wooded vegetation. In some cases, residents of dwellings are estimated to attain open views of the existing railway line which is generally in cutting. In some cases existing structures such as bridges may be visible.	Medium	High	High

LLCA1: Hazelhatch to Adamstown



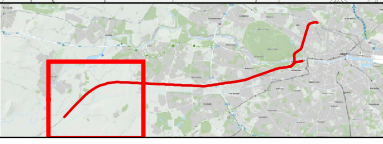
Legend

- Rail Network Centreline
 - Study Area
 - County / City Boundary
 - LLCA Boundary
 - Viewpoints
- South Dublin County Development Plan (SDCDP) 2022 to 2028**
- Objective OS: To preserve & provide for open space and recreational amenities
 - OS-1: The Grand Canal Corridor
 - Objective RU: To protect & improve rural amenity and to provide for the development of agriculture
 - Newcastle Lowlands Landscape Character Area (LCA)
- Kildare County Development Plan (KCDP) 2017 to 2023**
- Kildare Designated Landscapes (Area of High Amenity)
 - AHA-1 The Grand Canal at Balscott
 - Northern Lowlands Landscape Character Area (LCA)



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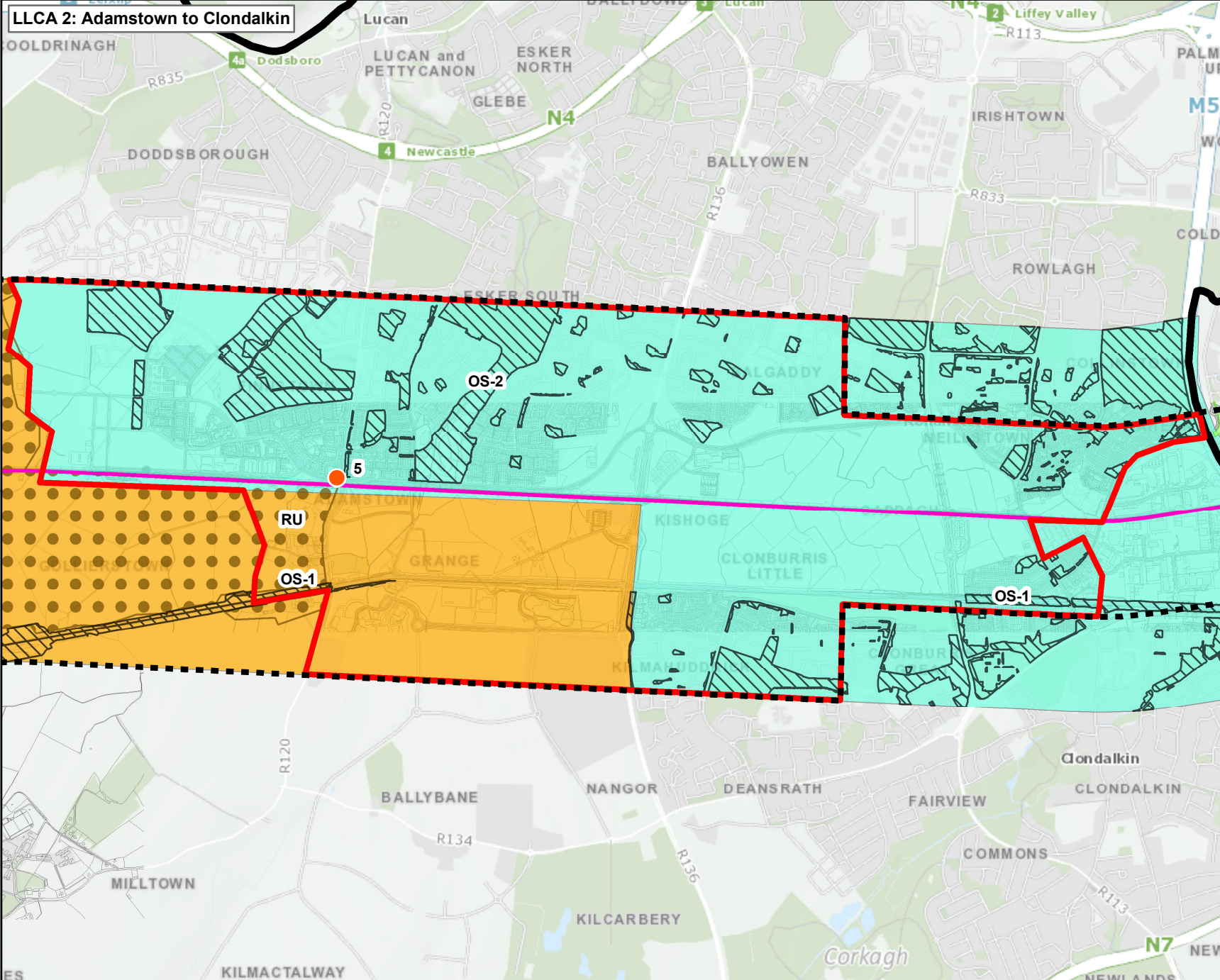


Rev	Date	Dm	Chk'd	App'd	Description
V03	19/01/2023	NR	CR	AG	Landscape and Visual Amenity
V02	22/08/2022	NR	CR	AG	Landscape and Visual Amenity
V01	21/04/2022	NR	CR	AG	Landscape and Visual Amenity

				Engineering Designer 	
Date	19/01/2023	Scale	1:27,500 @ A4	Drawn	NR
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			QMS Code	Approved	AG

Project Title	DART + SOUTH WEST		
Drawing Title	Figure 15.2: Baseline Landscape and Visual Amenity		
Drawing File Name	DP-04-23-DWG-EV-TTA-23752	Version	v03
Status	S3		

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- ### Legend
- Rail Network Centreline
 - Study Area
 - County / City Boundary
 - LLCA Boundary
 - Viewpoints
- ### South Dublin County Development Plan (SDCDP) 2022 to 2028
- Objective OS: To preserve & provide for open space and recreational amenities
 - OS-1: The Grand Canal Corridor
 - OS-2: Griffen Valley Park
 - Objective RU: To protect & improve rural amenity and to provide for the development of agriculture
 - Urban Landscape Character Area (LCA)
 - Newcastle Lowlands Landscape Character Area (LCA)



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Rev	Date	Drn	Chk'd	App'd	Description
V03	19/01/2023	NR	CR	AG	Landscape and Visual Amenity
V02	22/08/2022	NR	CR	AG	Landscape and Visual Amenity
V01	21/04/2022	NR	CR	AG	Landscape and Visual Amenity

DART+ South West

Irish Rail

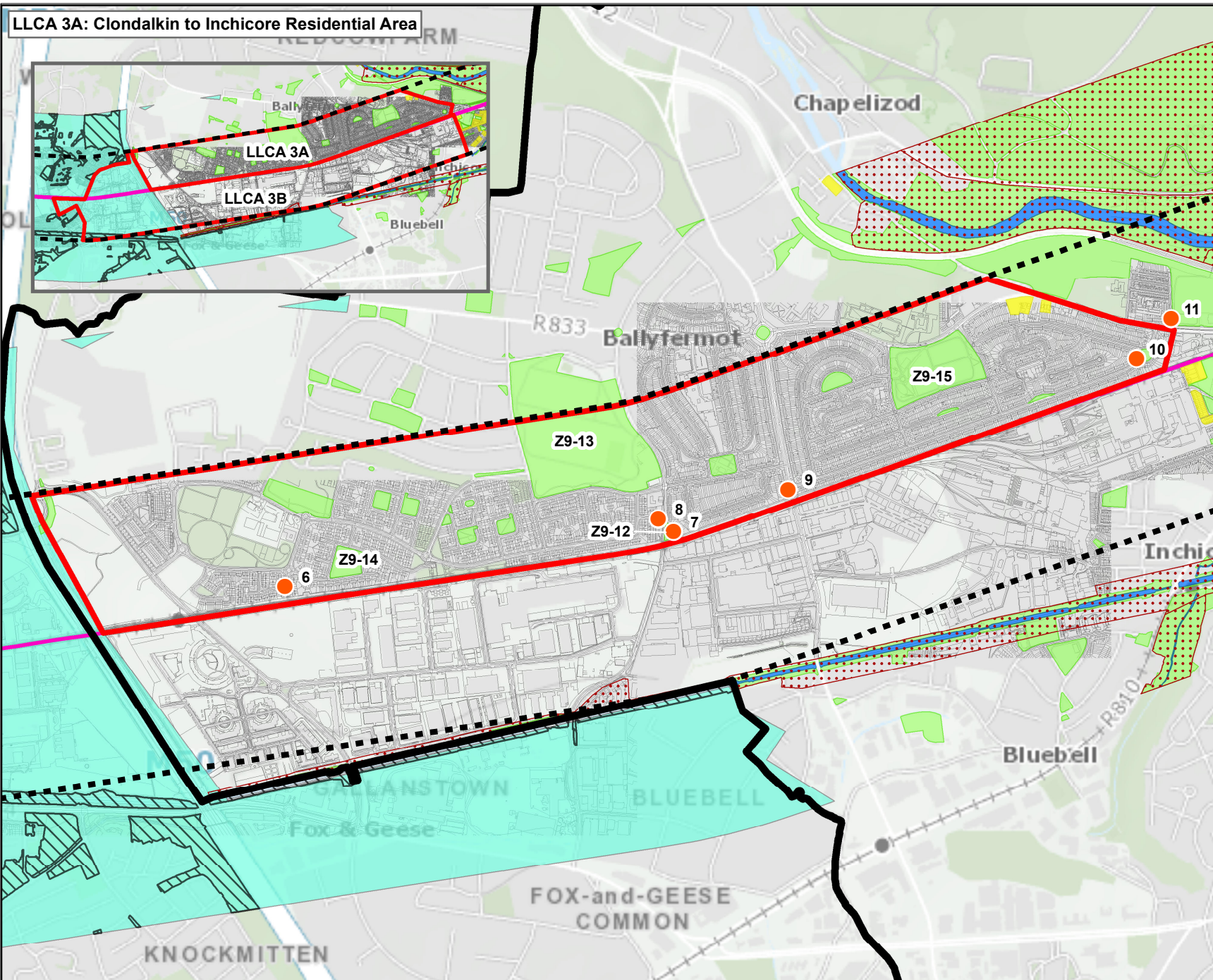
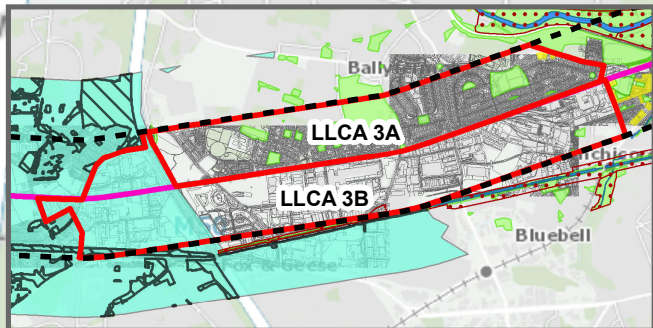
ATKINS
TYPESA
Supported by: **rps**

Date: 19/01/2023 Scale: 1:25,000 @ A4
 Project Code: 5195886 Issuer: TTA OMS Code:
 Drawn: NR Checked: CR Approved: AG

Project Title	DART + SOUTH WEST		
Drawing Title	Figure 15.3: Baseline Landscape and Visual Amenity		
Drawing File Name	DP-04-23-DWG-EV-TTA-23752	Version	Status
		v03	S3

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LLCA 3A: Clondalkin to Inchicore Residential Area



Legend

- Rail Network Centreline
- Study Area
- County / City Boundary
- LLCA Boundary
- Viewpoints

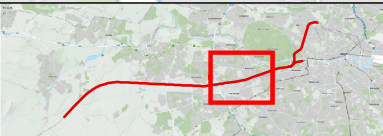
Dublin City Development Plan (DCDP) 2016 to 2022 and Draft Plan 2022-2028

- Zoning Z2
- Zoning Z9
 - Z9-12: Small open space at Le Fanu, adjacent to the existing railway line
 - Z9-13: Le Fanu Park
 - Z9-14: Cherry Orchard Park
 - Z9-15: Markievicz Park



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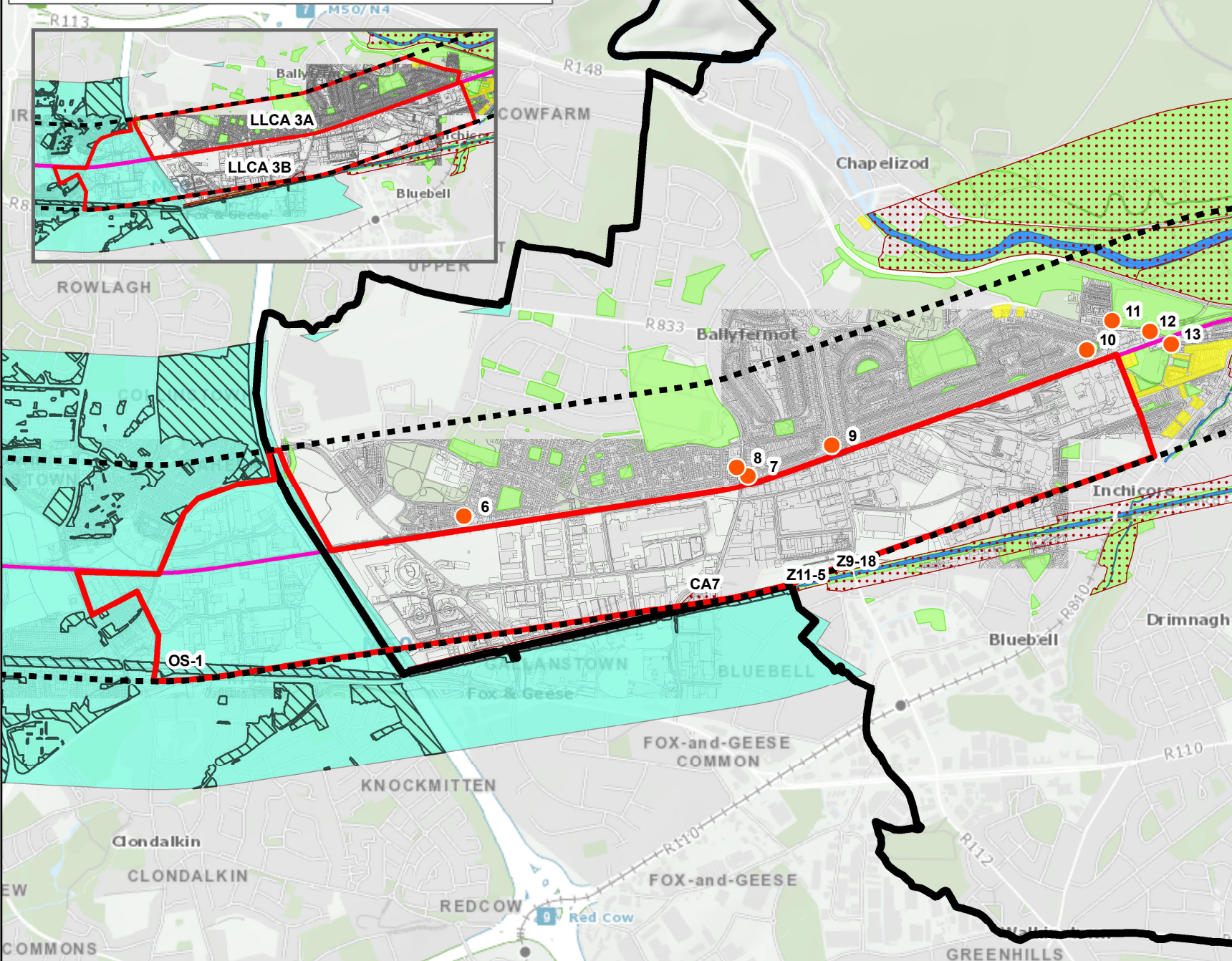
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V02	22/08/2022	NR	CR	AG	Landscape and Visual Amenity
V01	21/04/2022	NR	CR	AG	Landscape and Visual Amenity

Client	Irish Rail		
Date	19/01/2023	Scale	1:10,000 @ A4
Project Code	5195886	Issuer	TTA
Engineering Designer			
Drawn	NR	Checked	CR
Approved	AG	QMS Code	

Project Title	DART + SOUTH WEST		
Drawing Title	Figure 15.4: Baseline Landscape and Visual Amenity		
Drawing File Name	DP-04-23-DWG-EV-TTA-23752	Version	v03
Status	S3		

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LLCA 3B: Clondalkin to Inchicore Industrial and Commercial Area



- Legend**
- Rail Network Centrelines
 - Study Area
 - County / City Boundary
 - LLCA Boundary
 - Viewpoints
- Dublin City Development Plan (DCDP) 2016 to 2022 and Draft Plan 2022-2028**
- Designated Conservation Areas
 - CA7: The Grand Canal
 - Z9
 - Z9-18: The Grand Canal
 - Z11
 - Z11-5: Grand Canal
- South Dublin County Development Plan (SDCDP) 2022 to 2028**
- Objective OS: To preserve & provide for open space and recreational amenities
 - OS-1: The Grand Canal Corridor
 - Urban Landscape Character Area (LCA)



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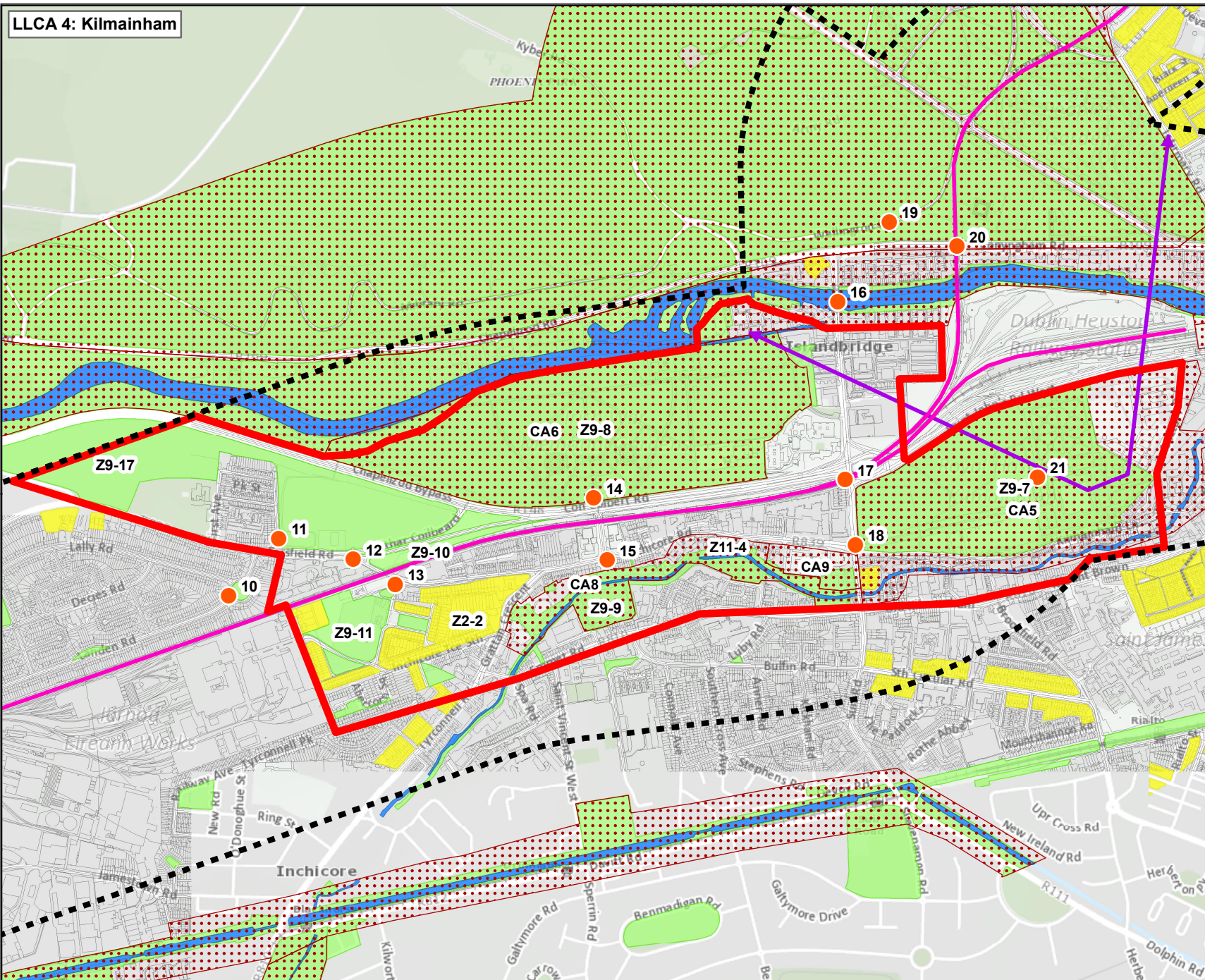


Rev	Date	Dm	Chk'd	App'd	Description
V03	19/01/2023	NR	CR	AG	Landscape and Visual Amenity
V02	22/08/2022	NR	CR	AG	Landscape and Visual Amenity
V01	21/04/2022	NR	CR	AG	Landscape and Visual Amenity

Client		Engineering Designer	
Iarnród Éireann Irish Rail		ATKINS TYPSA Supported by: RPS	
Date	Scale	Drawn	Checked
19/01/2023	1:25,000 @ A4	NR	CR
Project Code	Issuer	OMS Code	Approved
5195886	TTA		AG

Project Title	DART + SOUTH WEST		
Drawing Title	Figure 15.5: Baseline Landscape and Visual Amenity		
Drawing File Name	DP-04-23-DWG-EV-TTA-23752	Version	Status
		v03	S3

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Legend

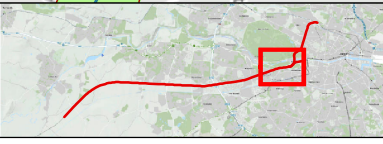
- Rail Network Centreline
- Study Area
- County / City Boundary
- LLCA Boundary
- Viewpoints
- Designated Conservation Areas
 - CA5: The Royal Hospital, Kilmainham
 - CA6: The National War Memorial Gardens at Islandbridge
 - CA8: The Camac River and adjacent Richmond Park
 - CA9: Kilmainham Gaol
- Zoning Z2
 - Z2-2: Inchicore (area south of Sarsfield Road)
- Zoning Z9
 - Z9-7: The Royal Hospital, Kilmainham
 - Z9-8: National War Memorial Gardens, Islandbridge
 - Z9-9: Linear open space along The Camac River and adjacent Richmond Park
 - Z9-10: Open space between Con Colbert Road and the existing railway line
 - Z9-11: Open space at Inchicore adjacent to the existing railway line
 - Z9-17: Open space south of Chapelizod Bypass
- Zoning Z11
 - Z11-4: Camac River
- Designated Views and Prospects
- Direction of View

Dublin City Development Plan (DCDP) 2016 to 2022 and Draft Plan 2022-2028



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V03	19/01/2023	NR	CR	AG	Landscape and Visual Amenity
V02	22/08/2022	NR	CR	AG	Landscape and Visual Amenity
V01	21/04/2022	NR	CR	AG	Landscape and Visual Amenity

DART+ South West

Iarnród Éireann Irish Rail

Client: **Iarnród Éireann Irish Rail**

Date: 19/01/2023 Scale: 1:12,500 @ A4

Project Code: 5195886 Issuer: TTA OMS Code: []

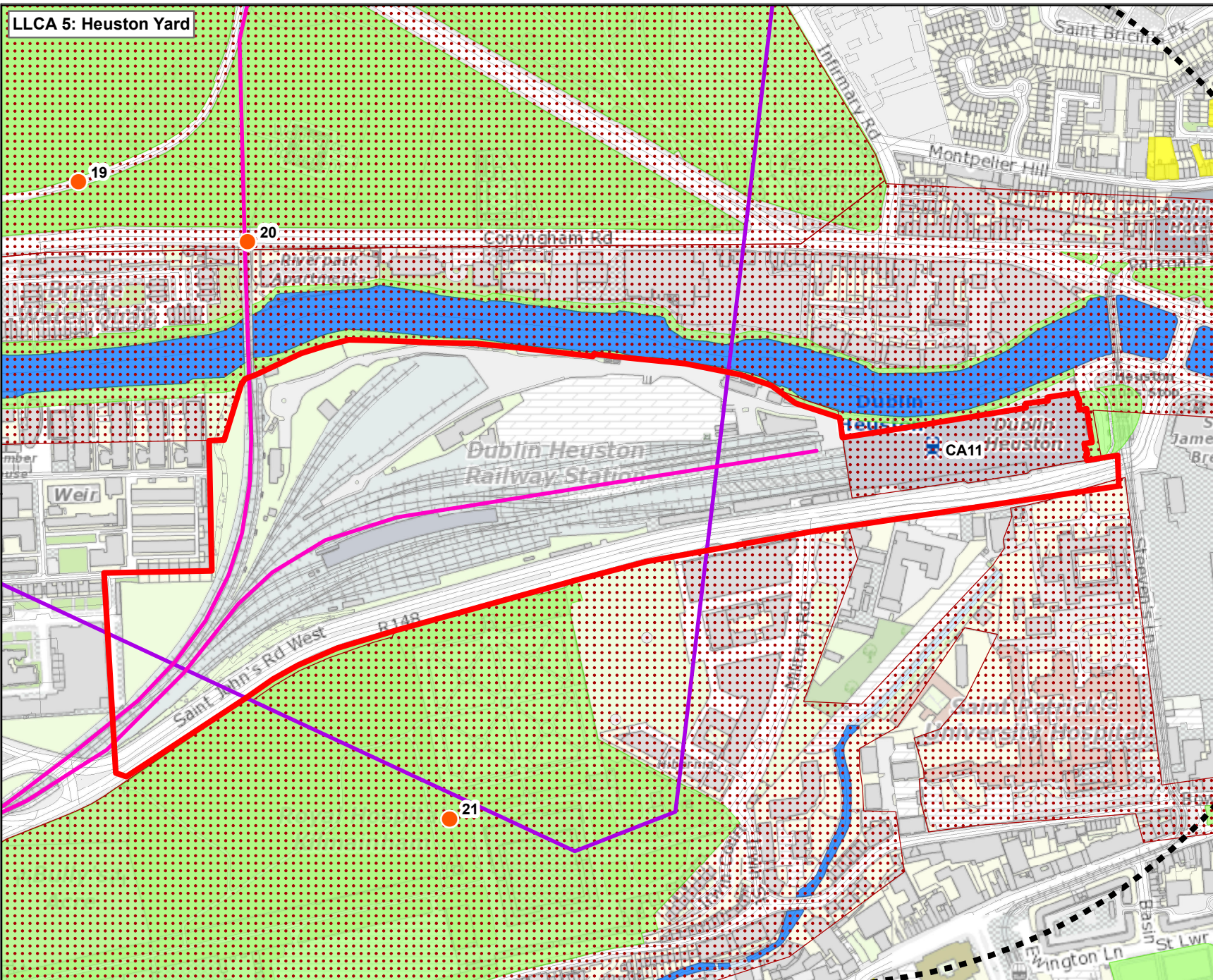
Engineering Designer: **ATKINS** (Member of the SNC-Landes Group) Supported by: **TYPESA** and **RPS**

Drawn: NR Checked: CR Approved: AG

Project Title: **DART + SOUTH WEST**

Drawing Title: **Figure 15.6: Baseline Landscape and Visual Amenity**

Drawing File Name: **DP-04-23-DWG-EV-TTA-23752** Version: v03 Status: S3



Legend

- Rail Network Centreline
- Study Area
- County / City Boundary
- LLCA Boundary
- Viewpoints

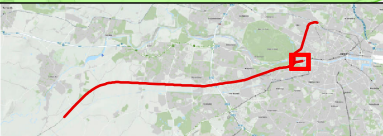
Dublin City Development Plan (DCDP) 2016 to 2022 and Draft Plan 2022-2028

- Designated Conservation Areas
CA11: Heuston Station
- Designated Views and Prospects
- Direction of View



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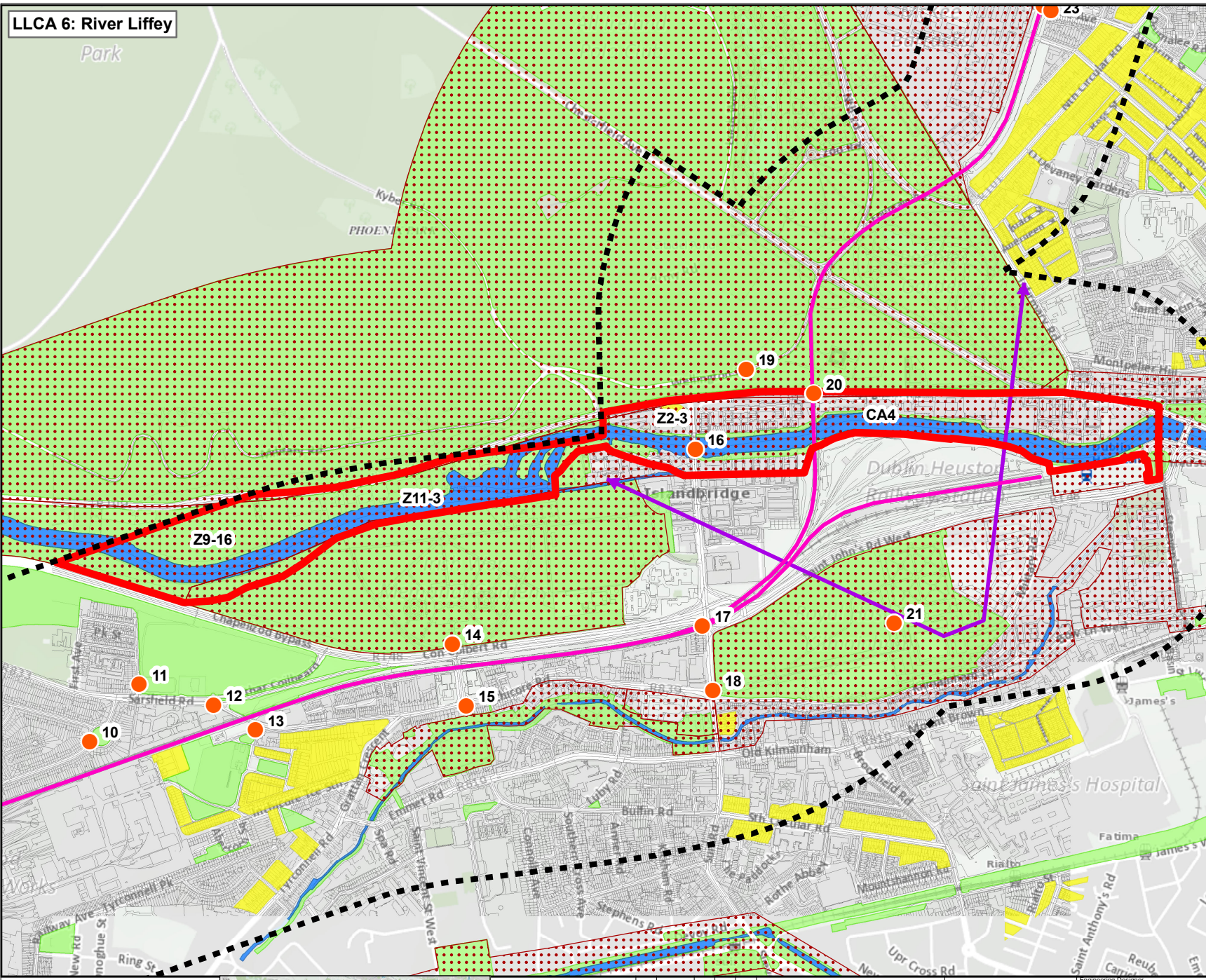


Rev	Date	Dm	Chk'd	App'd	Description
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V02	22/08/2022	NR	CR	AG	Landscape and Visual Amenity
V01	21/04/2022	NR	CR	AG	Landscape and Visual Amenity

Date	19/01/2023	Scale	1:5,000 @ A4	Drawn	NR
Project Code	5195886	Issuer	TTA	Checked	CR
		Engineering Designer	Approved	AG	

Project Title	DART + SOUTH WEST		
Drawing Title	Figure 15.7: Baseline Landscape and Visual Amenity		
Drawing File Name	DP-04-23-DWG-EV-TTA-23752	Version	v03
Status	S3		

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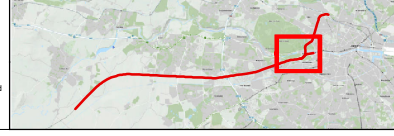
Legend

- Rail Network Centreline
 - Study Area
 - County / City Boundary
 - LLCA Boundary
 - Viewpoints
- Dublin City Development Plan (DCDP) 2016 to 2022 and Draft Plan 2022-2028**
- Designated Conservation Areas
CA4: The River Liffey
 - Zoning Z2
 - Zoning Z2-3: Small residential area north of The River Liffey
 - Zoning Z9
 - Z9-16: Open space along the north and south bank of the River Liffey
 - Zoning Z11
 - Z11-3: River Liffey
 - Designated Views and Prospects
 - Direction of View



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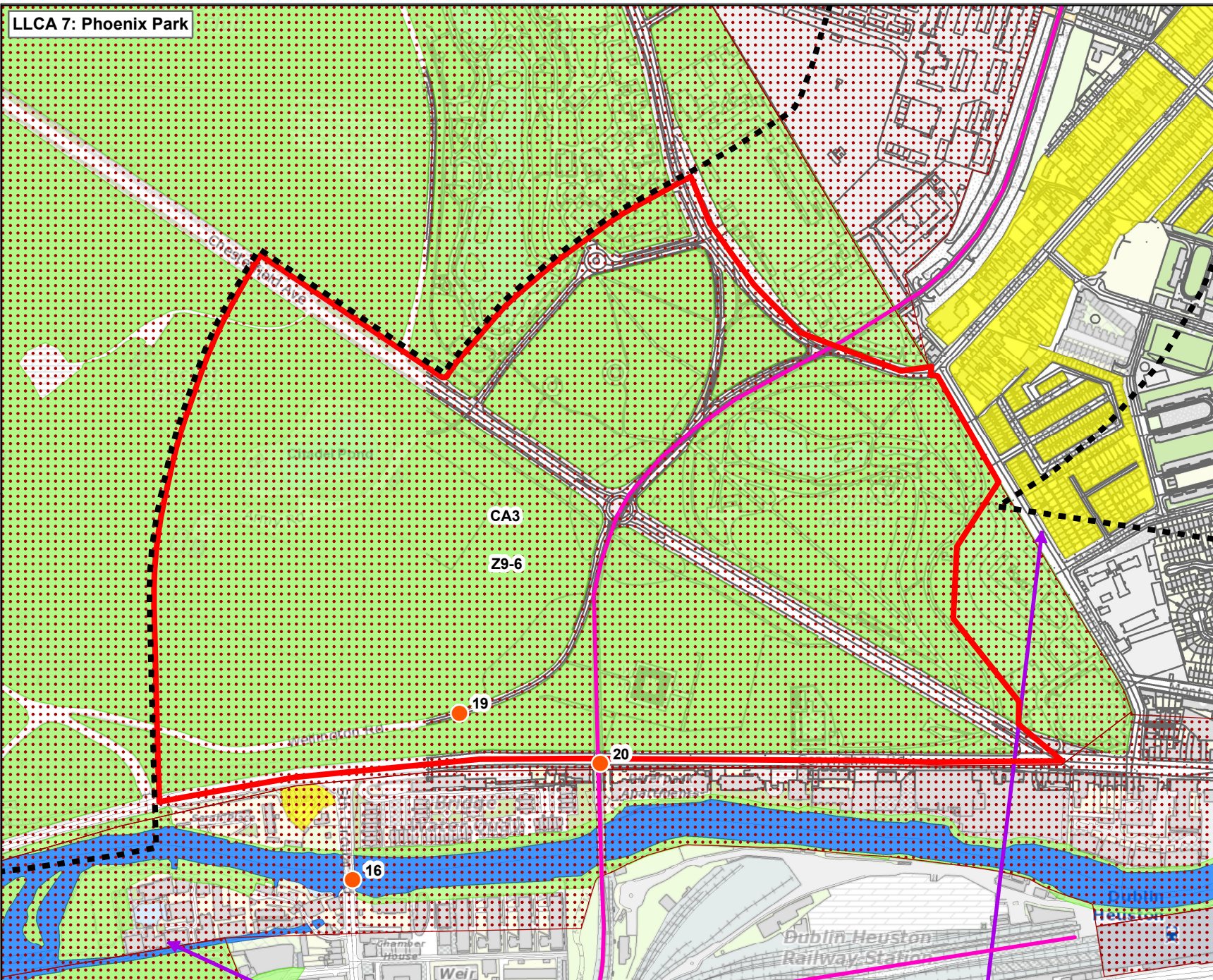


Rev	Date	Dm	Chk'd	App'd	Description
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V02	22/08/2022	NR	CR	AG	Landscape and Visual Amenity
V01	21/04/2022	NR	CR	AG	Landscape and Visual Amenity

Date	19/01/2023	Scale	1:12,500 @ A4
Project Code	5195886	Issue	TTA
Client			
Engineering Designer			
Supported by			
Drawn	NR	Checked	CR
Approved	AG		
Project Code	5195886	OMS Code	

Project Title	DART + SOUTH WEST		
Drawing Title	Figure 15.8: Baseline Landscape and Visual Amenity		
Drawing File Name	DP-04-23-DWG-EV-TTA-23752	Version	v03
Status	S3		

LLCA 7: Phoenix Park



Legend

- Rail Network Centreline
- Study Area
- County / City Boundary
- LLCA Boundary
- Viewpoints

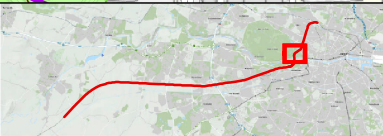
Dublin City Development Plan (DCDP) 2016 to 2022 and Draft Plan 2022-2028

- Designated Conservation Areas
CA3: The Phoenix Park
- Zoning Z9
Z9-6: Phoenix Park
- Direction of View



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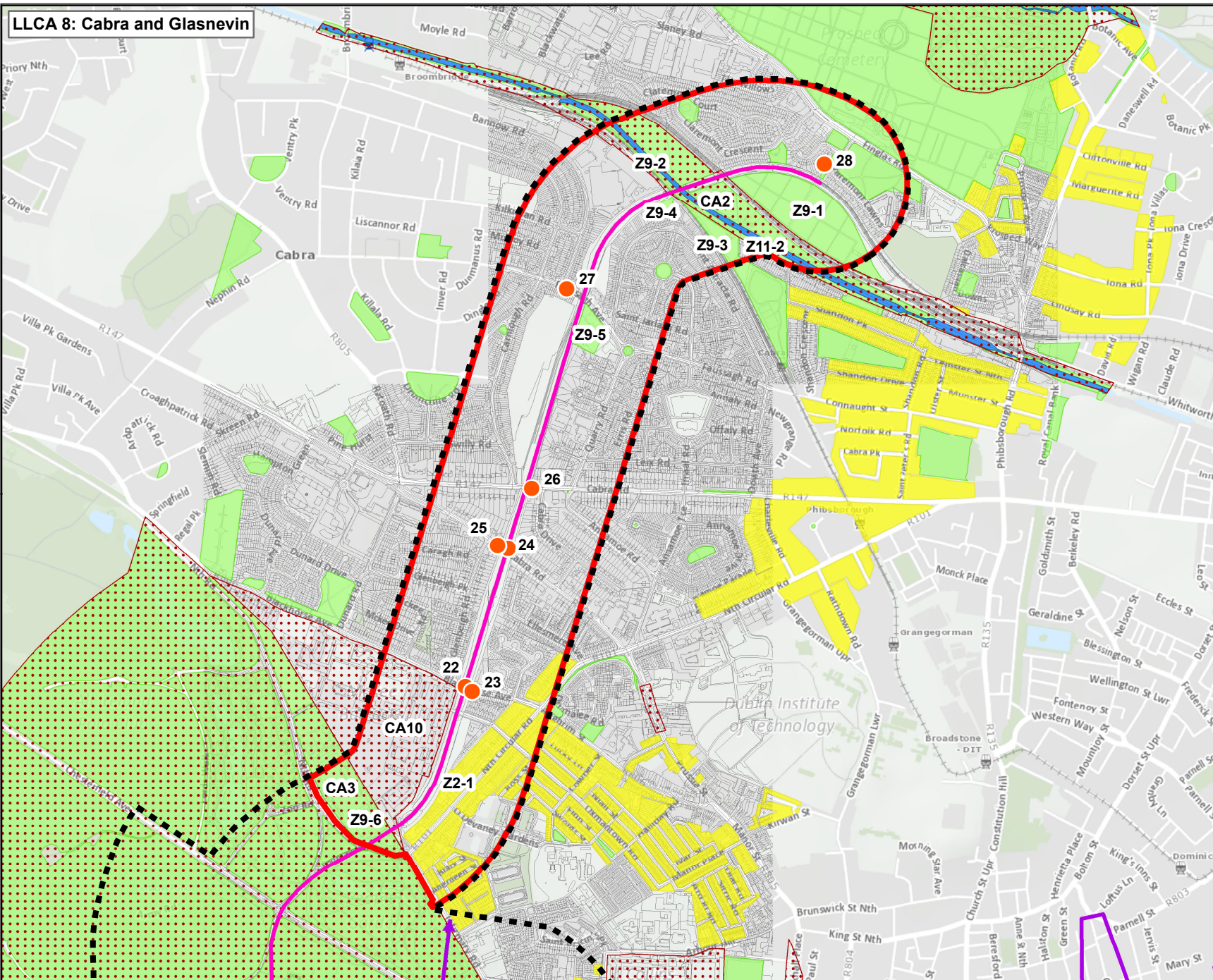
Rev	Date	Dm	Chk'd	App'd	Description
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v02	22/08/2022	NR	CR	AG	Landscape and Visual Amenity
v01	21/04/2022	NR	CR	AG	Landscape and Visual Amenity

Client Iarnród Éireann Irish Rail		Engineering Designer ATKINS TYPISA Supported by: rps	
Date	19/01/2023	Scale	1:6,000 @ A4
Project Code	5195886	Drawn	NR
Issuer	TTA	Checked	CR
		Approved	AG
		O/S Code	

Project Title	DART + SOUTH WEST		
Drawing Title	Figure 15.9: Baseline Landscape and Visual Amenity		
Drawing File Name	DP-04-23-DWG-EV-TTA-23752	Version	v03
Status	S3		

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LLCA 8: Cabra and Glasnevin



Legend

- Rail Network Centreline
 - Study Area
 - County / City Boundary
 - LLCA Boundary
 - Viewpoints
- Dublin City Development Plan (DCDP) 2016 to 2022 and Draft Plan 2022-2028**
- Designated Conservation Areas
 - CA2: The Royal Canal
 - CA3: Built up areas north of The Phoenix Park
 - CA10: McKee Barracks and surrounding area
 - Zoning Z2
 - Z2-1: North Circular Road (and adjacent residential areas) extending south to the boundary of The Phoenix Park
 - Zoning Z9
 - Z9-1: Glasnevin Cemetery
 - Z9-2: The Royal Canal adjacent open space
 - Z9-3: Mount Bernard Park
 - Z9-4: Small open space south of The Royal Canal adjacent to the existing railway line
 - Z9-5: Open space south of Fassaugh Avenue, adjacent to the existing railway line
 - Z9-6: Built up areas north of The Phoenix Park
 - Zoning Z11
 - Z11-2: Royal Canal
 - Designated Views and Prospects
 - Direction of View



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Rev	Date	Dm	Chk'd	App'd	Description
V03	19/01/2023	NR	CR	AG	Landscape and Visual Amenity
V02	22/08/2022	NR	CR	AG	Landscape and Visual Amenity
V01	21/04/2022	NR	CR	AG	Landscape and Visual Amenity

DART+ South West

Iarnród Éireann Irish Rail

ATKINS
Member of the SNC-Landes Group
Supported by: **RPS**

Date: 19/01/2023 Scale: 1:15,000 @ A4
 Project Code: 5195886 Issuer: TTA OMS Code:
 Engineering Designer:
 Drawn: NR Checked: CR Approved: AG

Project Title	DART + SOUTH WEST		
Drawing Title	Figure 15.10: Baseline Landscape and Visual Amenity		
Drawing File Name	DP-04-23-DWG-EV-TTA-23752	Version	v03
Status	S3		

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15.4.4. Evolution of the Environment in the absence of the Project (Do Nothing)

Annex IV of the EIA Directive sets out the information required to be included in an EIAR. This includes “a description of the relevant aspects of the current state of the environment (baseline scenario) and an outline of the likely evolution thereof without implementation of the Proposed Development as far as natural changes from the baseline scenario can be assessed with reasonable effort on the basis of the availability of environmental information and scientific knowledge”.

In the event that the proposed Project does not proceed, an assessment of the future baseline conditions has been carried out and is described within this section.

It is considered that a ‘Do Nothing’ scenario would result in no material alteration to the existing landscape or visual baseline other than localised alterations to the landscape and visual resource as a consequence of residential, commercial or other developments and construction works being implemented through time.

15.5. Description of Potential Impacts

The potential impacts of the Project on landscape and visual amenity are outlined below for both the construction and operational phases.

15.5.1. Potential Construction Impacts

The main activities which will result in landscape and visual effects during construction are listed below:

- Site enabling works including site clearance and loss of existing wooded vegetation;
- Earthworks activities including removal of topsoil, within and adjacent to the existing railway corridor;
- Temporary presence of construction compounds;
- Demolition of existing structures and bridges and construction of new replacement bridges. Modifications to existing approach roads to bridge reconstructions along with the presence of temporary bridge crossings;
- Activities associated with modifications (including parapets) to existing bridge structures;
- Construction of retaining walls, noise barriers and railway boundary walls and fences;
- Activities associated with track realignment, track lowering and reconfiguring tracks to provide for the two electrified Slow lines and two non electrified Fast lines;
- Introduction of overhead electrification equipment (OHLE), Signalling, Electrical and Telecommunications systems;
- Construction of six traction electrical substations including boundary treatment and access routes along with grid connection works; and
- Construction of the Heuston West Station.

The construction of DART+ South West will follow a sequence commencing with site clearance activities, demolition of existing structures followed by the gradual introduction of the proposed Project into the receiving landscape. Construction activities will affect landscape and visual amenity especially in wintertime through leafless wooded vegetation. The activities will occur primarily within the existing railway corridor and will be apparent in a sequential manner as these works move along the existing railway line giving rise to localised impacts and changes of varying scale. Construction effects are expected to be of short term duration (under 5 years). The construction phase is described in detail in Chapter 5 Construction Strategy of this EIAR.

15.5.1.1. Construction Impacts and Effects on Landscape and Landscape Character

Construction effects on local landscape character areas (LLCAs) are outlined below.

15.5.1.1.1. LLCA 1 Hazelhatch to Adamstown - Construction Impacts and Effects

Construction activities associated with the railway track works, introduction of OHLE, noise barriers, lighting and temporary construction compounds will be introduced into this LLCA and will result in effects on the character of the surrounding landscape. In addition, construction activities associated with specific elements will also be introduced into this LLCA resulting in effects on the character of the surrounding landscape including the following:

- At Hazelhatch, two construction compounds will be present, one of which will be temporary and one of which will be for the construction of the substation and will be permanent. Three derelict dwellings will be demolished and some wooded vegetation will be removed. The construction activities associated with the substation and the two site compounds will be partially apparent over the farmed landscape immediately north of the site and from residential areas in Hazelhatch in the vicinity of the railway line. Existing wooded vegetation will provide some screening of this facility from the surrounding landscape. Road works to connect the substation to the ESB supply grid at the existing Celbridge Substation will extend along the R405 Hazelhatch Road and Loughlinstown Road. These works will be partially screened from the wider farmed landscape by roadside hedgerows;
- At Adamstown, a construction compound will be present in the landscape to facilitate construction of the Adamstown substation and will be permanent. An area of grassland and wooded vegetation will be lost. The construction of the substation will be apparent over the farmed landscape immediately surrounding this site. Existing wooded vegetation will provide some screening of this facility from the surrounding landscape. Construction activities to connect the substation to the ESB supply grid at the existing Balgaddy Substation will be apparent along Station Road and Thomas Omer Way. The grid connection works will also cross a short section of farmland at the eastern end;
- Modifications to the parapets of the New Hazelhatch Footbridge (OBC24A), comprised of GRP parapet extensions will have very limited influence on the surrounding landscape; and
- Works to upgrade the existing CIÉ gravel service road will have a limited influence on the landscape to the south of the railway line.

The assessment of construction effects on landscape character takes account of the short term nature of the activities in this LLCA, many of which will be reversible. The construction activities will

be largely located within and adjacent to an existing railway corridor. The construction activities will be clearly apparent on a temporary and intermittent basis from areas of the landscape located closest to the railway line. The scale of the changes apparent over the wider landscape will diminish with increasing distance from the Project and wooded vegetation screens in the surrounding farmland will limit the effects. A negligible magnitude of impact is considered to arise to LLCA 1 of medium sensitivity resulting in a negligible and not significant adverse effect.

15.5.1.1.2. LLCA 2 Adamstown to Clondalkin - Construction Impacts and Effects

Construction activities associated with the railway track works, introduction of OHLE, noise barriers, lighting and temporary construction compounds will be introduced into this LLCA and will result in effects on the character of the surrounding landscape. In addition, construction activities associated with specific elements will also be introduced into this LLCA resulting in effects on the character of the surrounding landscape including the following:

- At Kishoge, a construction compound will be present in the landscape to facilitate the construction of the Kishoge substation and will be permanent. Some wooded vegetation losses will arise. Effects on the surrounding landscape character will be limited to the nearby residential areas in the vicinity of Adamstown Avenue and Kishoge Road. Existing wooded vegetation will provide some screening of this facility from the surrounding landscape. Construction activities to connect the substation to the ESB supply grid will be apparent where these extend east from the proposed substation, parallel to the existing railway line thereafter extending south along the R136 Road.
- Minor modifications to the parapets of the existing Finnstown R120 Road Bridge (OBC19), comprised of GRP parapet extensions, and modifications to station structures with parapets at Adamstown, Kishoge and Clondalkin/ Fonthill will occur and will have very limited influence on the surrounding landscape.

The assessment of construction effects on landscape character takes account of the short term nature of the activities in this LLCA, many of which will be reversible. Many of the construction activities will be largely located within and adjacent to an existing railway corridor. The grid connection construction works associated with the Kishoge Substation will be apparent over the local landscape in the vicinity of these works.

The scale of the changes apparent over the wider landscape south of the railway line will diminish with increasing distance from the Project due to the screening afforded by hedgerows in the surrounding farmland. In the built up residential areas, located mostly on the northern side of the railway line, effects will be mostly limited to the areas in the immediate vicinity of the railway. Further afield, screening afforded by built up areas will limit effects. A negligible magnitude of impact is considered to arise to LLCA 2 of medium sensitivity resulting in a negligible and not significant adverse effect.

15.5.1.1.3. LLCA 3A Clondalkin to Inchicore Residential Area -- Construction Impacts and Effects

Construction activities associated with the widening of the railway corridor, railway track works, introduction of the OHLE, noise barriers, lighting and temporary construction compounds will be

introduced into this LLCA and will result in effects on the character of the surrounding landscape. These will be partially apparent from the residential areas and open spaces located adjacent and north of the railway line. Wooded vegetation along the railway corridor will be removed. In addition, construction activities associated with specific elements will also be introduced into this LLCA resulting in effects on the character of the surrounding landscape including the following:

- Demolition of three existing bridges at Le Fanu Road, Kylemore Road and the Khyber Pass Footbridge and their replacement with new bridges. The construction works at Le Fanu Bridge (OBC7) will include the rebuilding of the approach roads and provision of a temporary pedestrian bridge on the western side along with construction compounds. At Kylemore Road Bridge (OBC5A), some modifications to the approach roads will be required along with the provision of a temporary road bridge and a temporary cyclist/ pedestrian bridge crossing on the western and eastern side respectively;
- Retaining walls, boundary walls and fences, along the boundary of the railway line on both sides of the track as it extends from Cherry Orchard eastwards to Inchicore;
- Construction of the Park West substation which will be located immediately east of the M50 Motorway and grid connection works which will extend east, parallel to the existing railway and along Park West Avenue to connect to the ESB 38kV network on the southern side of the railway line;
- Modifications to existing parapets at the M50 Motorway Bridge (OBC10A), comprised of GRP parapet extensions and modifications to structures at the Park West Station Building Bridge (OBC9D); and
- The removal of 10 pylons and undergrounding of the existing overhead powerline on the southern side of the railway line between Le Fanu Bridge (OBC 7) and Park West Avenue Road Bridge (OBC9B).

The construction activities associated with the Project will be temporarily present in this LLCA. These activities will bring about temporary changes to the surrounding landscape character due to the visibility of a range of construction activities, construction traffic, plant and machinery of varying scale and size and presence of temporary construction compounds which, in some cases will occupy existing public open spaces. These activities along with the railway track and OHLE construction works will be apparent on an intermittent basis. The main effects will be as follows.

Residential areas and open spaces of Le Fanu Road, Le Fanu Drive, Cloverhill Road and Kylemore Drive will be affected by the demolition of the existing bridge (including approach roads) and construction of the proposed new (replacement) Le Fanu Road Bridge (OBC7) and associated road works, retaining walls, temporary bridge and temporary construction compounds one of which will occupy a public open space.

Residential areas of Kylemore Road, Kylemore Drive and Landen Road will be affected by the demolition of the existing bridge and construction of the proposed new (replacement) Kylemore Road Bridge (OBC5A) and associated road works, retaining walls, temporary bridges and the temporary construction compounds.

Residential areas of Landen Road Roundabout and Seven Oaks Apartments will be affected by the demolition of the existing Khyber Pass footbridge (OBC5) and its replacement along with associated footpath access works.

The construction of retaining walls along the northern boundary of the railway line will be apparent from the residential areas adjacent and north of the railway line along Cherry Orchard Avenue, Cloverhill Road, Le Fanu Road, Kylemore Drive and Landen Road. Some dwellings on Landen Road will be directly affected. Tall plant and machinery will be apparent, advancing in sequence along the railway line. The construction of retaining walls on the southern side of the railway line will also be partially apparent from these residential areas along with the removal of pylons and undergrounding of the existing overhead powerline.

At Park West, a construction compound will be introduced into the landscape to facilitate construction of the Park West substation and will be permanent. The construction of the Park West substation along with adjacent temporary construction compounds and activities, will be partly apparent from areas of open space east of the M50 Motorway, adjacent and north of the railway line together with nearby residential areas. Construction activities to connect the substation to the ESB supply grid will also be apparent from open spaces and surrounding residential areas. Effects will be localised and will arise in the context of the busy M50 Road Junction and Park West Avenue.

The construction of the Kylemore (Inchicore Depot) substation within LLCA 3B will have limited effects due to the industrialised context.

Modifications to the parapets of the M50 Motorway Bridge (OBC10A) and structures at Park West Station Building Bridge (OBC9D) will have very limited influence on the landscape character immediately surrounding these facilities.

A small magnitude of impact is considered to arise to LLCA 3A of low sensitivity resulting in a minor and not significant adverse effect. This takes account of the short term duration and reversible nature of many of the construction activities along with their diminishing size and scale with increasing distance from the Project. It is acknowledged however that some construction activities will bring about short term intense changes of considerable size and scale to localised areas within this LLCA.

15.5.1.1.4. LLCA 3B Clondalkin to Inchicore Industrial and Commercial Area - Construction Impacts and Effects

The construction activities and effects associated with the Project, outlined above for LLCA 3A, will also affect the industrial and commercial landscape in LLCA 3B on the southern side of the railway line. In addition, the construction of elements located within LLCA 3B will include the Kylemore (Inchicore Depot) substation and associated grid connection, a noise barrier, an underground storm water attenuation tank and retaining walls along the railway line. The extent of the effects on this landscape will be limited due to the built up nature and scale of the industrial and commercial buildings within this landscape which will provide screening of the construction activities from the wider landscape.

A negligible magnitude of impact is considered to arise to LLCA 3B of negligible sensitivity resulting in a negligible and not significant adverse effect. This takes account of the short term duration and reversible nature of many of the construction activities.

15.5.1.1.5. LLCA 4 Kilmainham - Construction Impacts and Effects

The construction activities associated with the widening of the railway corridor, railway track works, introduction of the OHLE, lighting and temporary construction compounds will be introduced into this LLCA and will result in effects on the character of the surrounding landscape. Wooded vegetation along the railway corridor will be removed. In addition, construction activities associated with specific elements will also be introduced into this LLCA resulting in effects on the character of the surrounding landscape including the following:

- Demolition of structures associated with the existing bridge at Sarsfield Road (UBC4) and demolition of the Memorial Road Bridge (OBC3). In the case of Memorial Road, the entire bridge, featuring stone parapets which is a focal point in the local landscape will be replaced with a new bridge. One mature tree within the avenue of trees on Memorial Road will be removed. Construction compounds will be located along Chapelizod Bypass/ Con Colbert Road and on Memorial Road. Some modifications to existing roads will be required. A temporary bridge on the western side of the Memorial Road Bridge will also be installed;
- Construction of a new cut and cover (buried portal) structure (OBC1A) under the South Circular Road Bridge (OBC1) and associated road works;
- Construction of retaining walls, boundary walls and fences, along the boundary of the railway line on both sides of the track as it extends from Sarsfield Road eastwards to the South Circular Road Junction;
- Demolition of structures within the railway corridor including retaining walls and property boundary walls and the Dan Ryan Truck Rental building; and
- Installation of the storm water attenuation tank (Network 2) within an existing area of hardstanding on the south side of the railway line east of The Inchicore Depot.

The construction activities associated with the Project outlined above will affect the residential areas immediately overlooking the line and areas of the public realm along the Chapelizod Bypass/ Con Colbert Road. Construction activities will be apparent from the entrance to The National War Memorial Gardens and may be barely apparent from the gardens of The Royal Hospital Kilmainham, in particular in wintertime.

Residential areas and open spaces in the vicinity of Sarsfield Road, Chapelizod Bypass/ Con Colbert Road, and Inchicore will be affected by the construction works at the Sarsfield Road Under-Bridge (UBC4) and associated road works, retaining walls and the temporary loss of the existing public open spaces to be used as a construction compound.

Areas in the vicinity of Inchicore Road, Memorial Road, the Chapelizod Bypass/ Con Colbert Road and the National War Memorial Gardens which will be affected by the construction of the proposed new (replacement) Memorial Road Bridge (OBC3) and associated road works, temporary bridge, walls, wooded vegetation losses and the loss of one of the avenue trees on Memorial Road together with the construction compounds for the duration of the works. The loss of the mature tree on Memorial Road will affect the existing avenue of trees at this location, framed on the entrance to The War Memorial Gardens.

Areas in the vicinity of South Circular Road will be affected by the construction activities associated with the proposed cut and cover (buried portal) structure (OBC1A) under the South Circular Road Bridge (OBC1).

The installation of the storm water attenuation tank (Network 2) will be apparent from the residential areas immediately north of this facility on the northern side of the railway line.

Parts of this landscape will be affected by construction activities within the adjacent Heuston Yard (LLCA 5), in particular, the built up residential area of Clancy Quay and potentially areas in the vicinity of St John's Road, Military Road. The gardens of The Royal Hospital Kilmainham may be barely affected.

A small magnitude of impact is considered to arise to LLCA 4 of high sensitivity resulting in a minor and not significant adverse effect. This takes account of the short term duration and reversible nature of many of the construction activities along with their diminishing size and scale with increasing distance from the Project. It is acknowledged however that some construction activities will bring about short term intense changes of considerable size and scale to localised areas within this LLCA.

15.5.1.1.6. LLCA 5 Heuston Yard - Construction Impacts and Effects

The construction activities associated with the railway track works, introduction of the OHLE, noise barriers, lighting and temporary construction compounds will be introduced into this LLCA and will result in effects on the character of the surrounding landscape. Wooded vegetation will be removed. In addition, construction activities associated with specific elements will also be introduced into this LLCA resulting in effects on the character of this landscape. The main elements are as follows:

- New station at Heuston West, including platforms and shelters;
- A bridge with both stairs and ramps which will be constructed above the tracks;
- Retaining walls at the top of the River Liffey embankment;
- Introduction of the OHLE;
- Modifications to the existing road network, footpaths and lighting;
- Installation of an underground storm water attenuation tank; and
- Islandbridge/ Heuston substation including separate permanent access and egress gates onto St John's Road (R148). A retaining wall will be installed on the track side of the site and the grid connection which will be routed a short distance under St John's Road.

The construction activities associated with the Project will be clearly apparent over the landscape of the existing railway yard. Some wooded vegetation losses will arise.

A negligible magnitude of impact is considered to arise to LLCA 5 of negligible sensitivity resulting in a negligible and not significant adverse effect. This takes account of the short term nature of the activities in this LLCA, many of which will be reversible and that the effects will arise in the context of an existing railway yard.

15.5.1.1.7. LLCA 6 River Liffey - Construction Impacts and Effects

The construction activities associated with the Project in particular the OHLE at Liffey Bridge (UBO1) and a retaining wall at the top of the River Liffey embankment at the boundary of Heuston Yard will be introduced into this LLCA along with temporary lighting where required. Wooded vegetation losses on the south bank of the River Liffey at the boundary of Heuston Yard will arise.

The construction activities associated with the OHLE will be clearly apparent over the river corridor and adjacent residential areas in the vicinity of Liffey Bridge (UBO1). The construction activities associated with the proposed retaining wall will be apparent over the River Liffey landscape, in particular, south of Liffey Bridge (UBO1). Existing retained wooded vegetation along the banks of the River Liffey will provide some screening of the construction activities from the River Liffey LLCA. Construction activities associated with the proposed Project in Heuston Yard may be partially visible.

Modifications to the parapets of Conyngham Road Bridge (OBO2) will have very limited influence on the surrounding landscape.

A negligible - small magnitude of impact is considered to arise to LLCA 6 of very high sensitivity resulting in a minor - moderate and not significant adverse effect. This takes account of the short term duration and reversible nature of many of the construction activities along with their diminishing size and scale with increasing distance from the Project.

15.5.1.1.8. LLCA 7 Phoenix Park - Construction Impacts and Effects

The Project will extend through the existing Phoenix Park Tunnel (PPT) and construction activities will be largely located within the tunnel. The construction works within the tunnel are not expected to result in impacts and effects on the landscape of the Phoenix Park.

A small area in the southern part of the Phoenix Park will be affected by construction activities at Liffey Bridge (UBO1) including installation of the OHLE especially during wintertime along with construction activities in Heuston Yard. Construction activities associated with the parapet modifications at Conyngham Road Bridge (OBO2) may be apparent with Conyngham Road and traffic in the foreground. These effects will arise in the context of an existing railway line, built up areas and the busy Conyngham Road. Wooded vegetation within the park will limit the extent of these effects.

A negligible magnitude of impact is considered to arise to LLCA 7 of very high sensitivity resulting in a minor and not significant adverse effect. This takes account of the short term duration and reversible nature of many of the construction activities along with their diminishing size and scale with increasing distance from the Project.

15.5.1.1.9. LLCA 8 Cabra and Glasnevin - Construction Impacts and Effects

The construction activities associated with the Project including railway track works, retaining walls adjacent to the tracks, introduction of OHLE, lighting and temporary construction compounds will be introduced into this LLCA and will result in effects on the character of the surrounding landscape. These activities will be partially apparent from the surrounding landscape overlooking the railway line which is generally in cutting. Wooded vegetation will be removed from some of the cut slopes within the railway. The built up residential areas overlooking the railway line will be partially affected, in particular where wooded vegetation will be removed. In addition, construction activities associated

with specific elements will also be introduced into this LLCA resulting in effects on the character of the surrounding landscape including the following:

- Construction activities associated with Glasnevin Cemetery Road Bridge (OBO10) along with parapets, walls and partial resurfacing of the car park and temporary bridge will be apparent from a part of the Glasnevin Cemetery and nearby residential areas overlooking the railway line;
- Construction activities associated with modifications to the parapets of McKee Barracks Bridge (OBO3), Blackhorse Avenue Bridge (OBO4), Old Cabra Road Bridge (OBO5), Cabra Road Bridge (OBO6) and Faussagh Road Bridge (OBO7), comprised of replacement railings, will result in very localised and short term effects on the streetscapes surrounding these bridges;
- Construction activities associated with the modifications to the existing pumping station between Twin Arches Bridges (OBO8 and OBO9) will be temporarily present in the landscape: and
- Construction activities associated with the installation of a combined sewer pump station adjacent to Blackhorse Avenue Bridge (OBO4) including small compound/ lay down area will result in very localised and short term effects.

A negligible magnitude of impact is considered to arise to LLCA 8 of high sensitivity resulting in a minor and not significant adverse effect. This takes account of the short term duration and reversible nature of many of the construction activities along with the screening afforded by built structures within this built up urban landscape and the location of the railway line generally within an existing cutting. It is acknowledged however that some construction activities will bring about short term intense changes of considerable size and scale to localised areas within this LLCA.

15.5.1.1.10. Summary of Construction Effects on Local Landscape Character Areas (LLCAs)

Table 15.24 below presents a summary of the construction effects on the Local landscape character areas.

Table 15.24: Summary of Construction Effects on LLCAs

Receptor	Sensitivity	Magnitude of Impact	Significance of Effect
LLCA 1 Hazelhatch to Adamstown	Medium	Negligible	Negligible, not significant adverse.
LLCA 2 Adamstown to Clondalkin	Medium	Negligible	Negligible, not significant adverse.
LLCA 3A Clondalkin to Inchicore Residential Area	Low	Small	Minor, not significant adverse.
LLCA 3B Clondalkin to Inchicore Industrial and Commercial Area	Negligible	Negligible	Negligible, not significant adverse.
LLCA 4 Kilmainham	High	Small	Minor, not significant adverse.
LLCA 5 Heuston Yard	Negligible	Negligible	Negligible, not significant adverse.

Receptor	Sensitivity	Magnitude of Impact	Significance of Effect
LLCA 6 River Liffey	Very High	Negligible - Small	Minor - Moderate, not significant adverse.
LLCA 7 Phoenix Park	Very High	Negligible	Minor, not significant adverse.
LLCA 8 Cabra and Glasnevin	High	Negligible	Minor, not significant adverse.

15.5.1.2. Construction Effects on Designated Landscapes

Construction effects on designated landscapes, all of which are considered to be of very high sensitivity, are tabulated below. These take account of the short term duration and reversible nature of many of the construction activities along with their diminishing size and scale with increasing distance from the Project.

Table 15.25: Construction Effects on Designated Landscapes

Receptor	Description of Construction Effects	Magnitude	Significance
Designated Areas of High Amenity in Kildare County			
Grand Canal	The Grand Canal Corridor Area of High Amenity at Balscott will not be affected by the construction activities associated with the Project.	No Change.	None
Designated Areas of Significant Amenity Value in South Dublin County			
Grand Canal	Construction activities on the R136 Road associated with the grid connection for Kishoge Substation may be apparent on a very short term basis from a small part of the Grand Canal resulting in very limited and localised effects.	Negligible/ No Change	None
Griffen River Corridor	The Griffen Valley Corridor will not be affected by the construction activities associated with the project.	No Change.	None
Designated Landscape Conservation Area in Dublin City			
The Grand Canal	The Grand Canal at Ballyfermot will not be affected by the construction activities associated with the Project.	No change	None.
The Camac River and adjacent Richmond Park	The Camac River and adjacent Richmond Park will not be affected by the construction activities associated with the Project.	No change	None.
The National War Memorial Gardens at Islandbridge	The entrance to the War Memorial Gardens will be partly affected by a range of construction activities along the Chapelizod Bypass/ Con Colbert Road and the introduction of the new Memorial Road Bridge (OBC3). Most of this landscape will be unaffected due to screening by mature wooded vegetation within this site.	Negligible	Minor and Not Significant Adverse
Kilmainham Gaol	Kilmainham Gaol will not be affected by the construction activities associated with the Project.	No change	None.
The Royal Hospital Kilmainham	The grounds of The Royal Hospital Kilmainham may be partially affected on an intermittent basis by the presence of tall plant and machinery in the distance at the South Circular Road Junction and within Heuston Yard. The	Negligible	Minor and Not Significant

Receptor	Description of Construction Effects	Magnitude	Significance
	construction activities may be barely visible in the distance filtered through existing wooded vegetation and against the backdrop of multi storey buildings.		Adverse
The River Liffey	<p>The construction activities associated with the Project in particular the OHLE at Liffey Bridge (UBO1) and a retaining wall at the top of the River Liffey embankment at the boundary of Heuston Yard will be introduced into this LLCA. Wooded vegetation losses on the south bank of the River Liffey at the boundary of Heuston Yard will arise.</p> <p>The construction activities associated with the OHLE will be clearly apparent over a small part of the river corridor and adjacent residential areas. The construction activities associated with the proposed retaining wall will be apparent over the River Liffey landscape south of Liffey Bridge (UBO1). Existing retained wooded vegetation along the banks of the River Liffey will provide some screening of the construction activities from the River Liffey LLCA.</p>	Negligible - Small	Minor – Moderate and Not Significant Adverse
The Phoenix Park	<p>The Project will extend through the existing Phoenix Park Tunnel (PPT) and construction activities will be largely located within the tunnel. The construction works within the tunnel will not affect the landscape of the Phoenix Park.</p> <p>A small area in the southern part of the Phoenix Park will be affected by construction activities associated with the installation of the OHLE at Liffey Bridge (UBO1) and activities within Heuston Yard especially during wintertime. Construction activities associated with the parapet modifications at Conyngham Road Bridge (OBO2) may be scarcely apparent with Conyngham Road and traffic in the foreground. These effects will arise in the context of an existing railway line, built up areas and the busy Conyngham Road and will be substantially screened by wooded vegetation within the park.</p>	Negligible	Minor and Not Significant Adverse
McKee Barracks	The eastern edge of McKee Barracks will be affected by the construction activities associated with the installation of the OHLE within the cutting of the existing railway line and the installation underground of a combined sewer pumpstation adjacent to Blackhorse Avenue Bridge (OBO4) including small compound/ lay down area. Limited short term effects will result from the installation of the replacement railing on Blackhorse Avenue Bridge (OBO4) and McKee Barracks Bridge (OBO3).	Negligible	Minor and Not Significant Adverse
The Royal Canal	Effects on the Royal Canal may arise from construction activities including that associated with the OHLE and trackside retaining walls. These effects are expected to be very limited due to screening by existing wooded vegetation.	Negligible	Minor and Not Significant Adverse

15.5.1.3. Construction Effects on Visual Amenity

Construction effects on visual amenity are described below.

15.5.1.3.1. Construction Effects on Designated Protected Views and Prospects

Viewers experiencing The View North towards The Phoenix Park from the grounds of The Royal Hospital Kilmainham will barely see any of the construction activities. Viewers may see tall plant and machinery as very small elements on an intermittent basis at the South Circular Road Junction and within Heuston Yard, filtered through mature wooded vegetation in wintertime. These views will be attained against the backdrop of multi storey buildings.

Due to the short term nature of the construction works and their distance, a negligible magnitude of impact will arise to viewers at this protected view of very high sensitivity resulting in a minor and not significant adverse effect.

15.5.1.3.2. Construction Effects on General Visual Amenity

Effects on viewers generally in close proximity to the Project will arise. In many cases, views will be attained on an intermittent basis of a range of activities and temporary elements, the visible size and scale of which will vary throughout the construction process. In some cases these effects will be associated with works within the existing railway line, in particular the introduction of the retaining walls, electrification infrastructure (OHLE) and the substations.

In some cases, these effects will be associated with construction activities along the railway line and adjacent areas of the public realm. These include construction of substations, bridge reconstructions and works to approach roads along with temporary use of public open spaces as construction compounds together with construction of retaining walls and boundary walls along the railway boundary. Viewers located close to the Project are likely to see a varying sequence of construction activities of varying scale during the construction period.

15.5.2. Potential Operational Impacts

The operational impacts and effects of the Project on landscape and visual amenity are outlined below. These take account of measures integrated into the design of the Project for the purpose of mitigating adverse effects. These include the choice of materials and finishes used for various structures e.g. bridges, walls, parapets, selected to fit with the character of the receiving landscape along with the restoration of public open spaces formerly in use as construction compounds. In addition, planting mitigation is proposed as illustrated in Drawings DP-04-23-DWG-EV-TTA-23838 through to DP-04-23-DWG-EV-TTA-23855, presented in Volume 4, Appendix 15.1 of this EIAR. The main elements which will result in landscape and visual effects during operation are listed below:

- Proposed railway track works;
- Proposed replacement bridges and associated works including road works;
- Modifications to existing bridge structures including replacement parapets;
- Retaining walls, noise barriers, boundary walls and boundary fences along the railway line boundary;
- Permanent earthworks associated with specific project components, for example, the approach roads at Le Fanu Road;
- Overhead line equipment (OHLE);

- Six traction electrical substations including boundary treatment and access routes; and
- Heuston West Station.

15.5.2.1. Impacts and Effects on Landscape and Landscape Character at Year 1 of Operation

Direct impacts on the receiving landscape are expected to arise due to the introduction of proposed structures associated with the Project into each LLCA. These direct changes will occur within an existing railway corridor or on adjacent lands. Effects on the character of each LLCA will also arise as a result of the visibility of the Project components, many of which will be apparent in the context of an existing railway corridor. These effects are outlined in further detail below for each LLCA.

15.5.2.1.1. LLCA 1 Hazelhatch to Adamstown - Impacts and Effects

Direct impacts on LLCA 1 Hazelhatch to Adamstown will arise as a result of the Project including the following:

- Modifications to the existing permanent way;
- Overhead Line Equipment (OHLE);
- Minor modifications to bridge parapets at New Hazelhatch Footbridge (OBC24A);
- Substations at Hazelhatch and Adamstown; and
- Noise barriers.

Effects on the character of LLCA 1 Hazelhatch to Adamstown will result from the visibility of elements of the Project, in particular the proposed noise barriers and OHLE. The two substations at Hazelhatch and Adamstown will result in some localised effects on the surrounding landscape although these will be limited by existing wooded vegetation screens. Effects on the settlement of Hazelhatch and areas in the vicinity of Hillcrest (Stacumny) will arise in particular as a result of the proposed noise barriers along with the OHLE. Effects on the wider farmed landscape will be relatively limited due to the extent of mature hedgerow and wooded vegetation and buildings within and around this settlement. Effects on the farmed landscape east of Stacumny will arise due to the OHLE and may be more extensive due to the large scale field sizes and relative scarcity of wooded vegetation close to the railway line compared with that at Hazelhatch. The OHLE will be apparent from areas within the surrounding rural landscape, albeit filtered through hedgerows and wooded vegetation. The Project, in particular the OHLE will be apparent from residential areas on the western edge of Adamstown.

The magnitude of impact is considered to be small. A minor alteration to the character of the receiving landscape is considered to arise due mainly to the OHLE. The extent of the effects over the wider landscape will be limited due to the available wooded vegetation screens and the context for the project, located within an existing railway corridor. The effects will diminish with increasing distance from the Project. The elements which will be introduced into the existing railway corridor will not be entirely uncharacteristic with the surrounding landscape which features other overhead powerline infrastructure along with the railway.

A small magnitude of impact is considered to arise to LLCA 1 of medium sensitivity resulting in a minor and not significant adverse effect.

15.5.2.1.2. LLCA 2 Adamstown to Clondalkin - Impacts and Effects

Direct impacts on LLCA 2 Adamstown to Clondalkin will arise as a result of the Project including the following:

- Modifications to the existing permanent way;
- Overhead Line Equipment (OHLE);
- Minor modifications to the parapets of the Finnstown R120 Road Bridge (OBC19) and modifications to station structures at Adamstown, Kishoge and Clondalkin/ Fonthill;
- Substation at Kishoge; and
- Noise barriers.

Effects on the character of LLCA 2 Adamstown to Clondalkin will result from the visibility of elements of the project, in particular the proposed OHLE. Effects arising from the proposed substation at Kishoge will be limited to the built up area (road junction) immediately surrounding this facility with screening afforded by existing wooded vegetation. Effects on the suburban areas of Adamstown and Clondalkin on the northern side of the railway line will arise due mainly to the OHLE however these will be limited to the immediate vicinity of the railway due to the built up nature of these areas. Localised effects will arise from the presence of proposed noise barriers in the vicinity of the R136 Regional Road. On the southern side of the railway line, effects on the surrounding rural landscape will be relatively limited due to the screening afforded by mature hedgerow and wooded vegetation along with built up industrialised areas and a quarry.

The magnitude of impact is considered to be small. A minor alteration to the character of the receiving landscape is considered to arise due mainly to the OHLE. The elements which will be introduced into the existing railway corridor will not be entirely uncharacteristic with the surrounding landscape which features other overhead powerline infrastructure west of Kishoge along with the railway. The effects will diminish with increasing distance from the project.

A small magnitude of impact is considered to arise to LLCA 2 of medium sensitivity resulting in a minor and not significant adverse effect.

15.5.2.1.3. LLCA 3A Clondalkin to Inchicore Residential Area - Impacts and Effects

Direct impacts on LLCA 3A Clondalkin to Inchicore Residential Area will arise as a result of the Project including the following:

- Modifications to the existing permanent way;
- Overhead Line Equipment (OHLE);
- Retaining walls and boundary walls and fences extending along the railway line from Cherry Orchard eastward to Inchicore;
- Le Fanu Road Bridge (OBC7) and associated road works (including footpath and cycle facilities). The northern approach road will be raised requiring new retaining walls. Restoration

of the existing public open spaces on the northern side of the bridge, formerly in use as construction compounds will arise;

- Kylemore Road Bridge (OBC5A) and associated road works (including footpath and cycle facilities). The northern approach road will be raised requiring new retaining walls will be introduced. The small open space (hardstanding) on the north side of the bridge will be restored and feature new planting;
- Khyber Pass Footbridge (OBC5);
- Permanent absence of existing structures adjacent to the track, removed during construction;
- Substation at Park West;
- Modifications to existing parapets at the M50 Motorway Bridge (OBC10A) and minor modifications to structures at the Park West Station Building Bridge (OBC9D); and
- Noise barriers.

Effects on the character of LLCA 3A Clondalkin to Inchicore Residential Area will result from the visibility of elements of the project along with the absence of wooded vegetation, removed during construction. The changes to the character of LLCA 3A will be derived from the proposed OHLE, proposed noise barriers, retaining walls, new bridges and associated road works, earthworks, restored public open spaces at Le Fanu and the Substation at Kylemore (Inchicore Depot) located within LLCA 3B. The scale of the permanent changes in close proximity to the railway line will be considerable, attributed to the proposed noise barriers, retaining walls, bridge reconstructions, approach roads and OHLE. The noise barriers will extend along the majority of the northern side of the railway line. These adverse effects will, however, be limited to the residential built up areas located closest to and overlooking the existing railway line. Effects further afield to the north will be limited, if any, due to the screening afforded by intervening built up areas and wooded vegetation.

The magnitude of impact is considered to be small and this reflects the small extent of the urban landscape that will be affected by the Project. Although the scale of the changes close to the railway line will be considerable, these changes will diminish rapidly with increasing distance from the Project. An overall minor alteration to the character (elements, features and patterns) of the receiving landscape is considered to arise. Some of the elements which will be introduced into the existing railway corridor will not be entirely uncharacteristic with the surrounding landscape due to their context within an existing railway line.

A small magnitude of impact is considered to arise to LLCA 3A of low sensitivity resulting in a minor and not significant adverse effect.

15.5.2.1.1. LLCA 3B Clondalkin to Inchicore Industrial and Commercial Area - Impacts and Effects

Direct impacts on LLCA 3B Clondalkin to Inchicore Industrial and Commercial Area will arise as a result of the Project including the following:

- Modifications to the existing permanent way;
- Overhead Line Equipment (OHLE);

- Retaining walls and boundary walls and fences extending from Cherry Orchard eastward to Inchicore;
- Substation at Kylemore (Inchicore Depot);
- Minor modifications to the parapets of the M50 Motorway Bridge comprised of GRP parapet extension; and
- Noise barrier extending east from Park West Station.

The effects associated with the Project, outlined above for LLCA 3A, will also affect the industrial and commercial landscape in LLCA 3B on the southern side of the railway line. In addition, elements will be introduced into the landscape as listed above resulting in effects. The extent of the effects on this landscape will be limited due to the built up nature and scale of the industrial and commercial buildings within this landscape which will provide almost complete screening of the Project from the wider landscape

The changes to the character of LLCA 3B will be very limited. This is due to the scale of the industrial built up areas which will substantially screen the Project. Additionally, the project components will not be entirely uncharacteristic with their surroundings.

A negligible magnitude of impact is considered to arise to LLCA 3B of negligible sensitivity resulting in a negligible and not significant adverse effect.

15.5.2.1.2. LLCA 4 Kilmainham - Impacts and Effects

Direct impacts on LLCA 4 Kilmainham will arise as a result of the Project including the following:

- Modifications to the existing permanent way;
- Overhead Line Equipment (OHLE);
- New boundary wall and paladin fence on the northern side of the railway line extending along the Chapelizod Bypass/ Con Colbert Road. The wall will be faced in stone and the existing streetscape (footpath and roads) will be refurbished. Planters, featuring climbers will be incorporated;
- Sarsfield Road Under-Bridge (UBC4) and associated retaining walls (faced in stone to match existing) on either side of the existing railway line on approaches to the bridge along with the restored public open space, previously in use as a construction compound;
- Memorial Road Bridge (OBC3) and associated road works (including footpath and cycle facilities) along with new boundary walls (faced in stone). The bridge will be designed to be sympathetic to the character of the area and a Conservation Architect will inform the final finishes of the bridge. A semi mature tree will replace that lost during construction;
- Cut and cover structure (buried portal) structure (OBC1A), with green roof under the South Circular Road Bridge (OBC1); and
- Absence of the boundary wall to the existing railway southern boundary from Inchicore to Sarsfield, removed during construction along with the introduction of new boundary walls faced in stone.

Effects on the character of LLCA 4 Kilmainham will result from the visibility of elements of the project along with the absence of wooded vegetation, removed during construction.

The effects will result from the new bridges and associated road works, cut and cover portal structure, new boundary walls and the OHLE. The changes will be clearly apparent in close proximity to the existing railway line within this urban landscape and especially in the vicinity of the new bridge locations. The new boundary wall and fence on the north side of the railway line which will extend along the Chapelizod Bypass/ Con Colbert Road will replace that existing which is in a run down condition comprising a mix of concrete block, stone and palisade fence. The new boundary wall will be faced in stone and the public footpath and road will be refurbished. The palisade fence will be replaced with a paladin fence. Containerised planting will feature climbers. This wall will provide some screening of the OHLE.

The proposed bridge at Memorial will replace an existing limestone structure of historic and cultural heritage value and will be designed to fit the character of the surrounding local landscape and with input from a Conservation Architect. The existing stone is expected to be reused where feasible.

At South Circular Road, the road works along with the proposed cut and cover portal structure, located under this junction will be mostly below street level beneath an existing road junction. The OHLE will be screened from view where this is located within the cut and cover portal structure. Adverse effects on the surrounding local landscape will be limited.

The replacement avenue tree will, at year 1 of operation, only partly offset the adverse change associated with the loss of the existing avenue tree. Over time however, this tree will mature to eventually restore the avenue to be similar to that existing.

Parts of this landscape will be affected by Project components within the adjacent Heuston Yard (LLCA 5), in particular, the built up residential area of Clancy Quay and potentially areas in the vicinity of St John's Road, Military Road. Effects will result primarily from the larger scale elements of the Project, in particular the Heuston West Station and footbridge.

Although the scale of the changes close to the railway line will be considerable, these changes will diminish rapidly with increasing distance from the Project and due to the screening provided by the built up areas. An overall small magnitude of impact is considered to arise to LLCA 4 of high sensitivity resulting in a minor and not significant adverse effect. This takes account of the mitigation measures integrated into the design to reduce adverse effects.

15.5.2.1.3. LLCA 5 Heuston Yard - Impacts and Effects

Direct impacts on LLCA 5 Heuston Yard will arise as a result of the Project including the following:

- Modifications to the existing permanent way;
- Heuston West Station including proposed footbridge, shelters, street furniture, road access and footpath works;
- Substation at Islandbridge along with retaining walls adjacent to the existing boundary wall along St John's Road;
- Overhead Line Equipment (OHLE); and

- Noise barriers.

Effects on the character of LLCA 5 will result from the visibility of elements of the project. Many of the proposed changes, being located within the existing railway yard will not be perceived to be uncharacteristic with the landscape in which they are located. The footbridge associated with the new Heuston West Station will be a noticeable change but will not be entirely at variance with the existing landscape character of the railway yard.

Taking into account the scale and nature of the existing railway landscape, an overall negligible magnitude of impact is considered to arise to LLCA 5 of negligible sensitivity resulting in a negligible and not significant adverse effect.

15.5.2.1.4. LLCA 6 River Liffey - Impacts and Effects

Direct impacts on LLCA 6 River Liffey will arise as a result of the Project including the following:

- Modifications to the existing permanent way on the Liffey Bridge (UBO1);
- The overhead Line Equipment (OHLE) at Liffey Bridge;
- A retaining wall at the top of the River Liffey embankment at the boundary of Heuston Yard; and
- Minor modifications to bridge parapets at Conyngham Road Bridge (OBO2). Black painted railings will be fitted to the existing masonry parapet and IP2X mesh will be incorporated into the new railing design.

Effects on the character of LLCA 6 River Liffey will result from the visibility of elements of the Project in particular the OHLE on the Liffey Bridge. The absence of wooded vegetation on the south bank of the River Liffey at the boundary of Heuston Yard, removed during construction, along with elements of the Project in Heuston Yard, in particular Heuston West Station and part of the retaining wall will be partially apparent along a small part of the river landscape.

Modifications to the parapets of the Conyngham Road Bridge (OBO2) will have very limited influence on the surrounding landscape.

A small magnitude of impact is considered to arise to LLCA 6 of very high sensitivity resulting in a moderate and not significant adverse effect. This takes account of the diminishing size and scale of the proposed change with increasing distance from the Project.

15.5.2.1.5. LLCA 7 Phoenix Park - Impacts and Effects

Direct impacts to LLCA 7 Phoenix Park are not considered to arise due to the location of the project components underground within an existing tunnel.

Changes to the character of LLCA 7 Phoenix Park will be derived primarily from the visibility of the (OHLE) at the Liffey Bridge (UBO1) and part of the Heuston West Station footbridge, in particular in wintertime. The parapet modifications to Conyngham Road Bridge (OBO2) will be scarcely apparent. Very small areas of the Phoenix Park, close to the boundary at Conyngham Road will be affected by the Project. The scale of the effects will be limited due to existing wooded vegetation screens.

The scale of the change will be small and will arise in the context of an existing railway line. A very small part of this LLCA will be affected.

A negligible magnitude of impact is considered to arise to LLCA 7 of very high sensitivity resulting in a minor and not significant adverse effect.

15.5.2.1.6. LLCA 8 Cabra and Glasnevin - Impacts and Effects

Direct impacts on LLCA 8 Cabra and Glasnevin will arise as a result of the Project including the following:

- Modifications to the existing permanent way;
- Overhead Line Equipment (OHLE);
- Proposed retaining walls located adjacent to the tracks within the existing railway corridor;
- Bridge deck replacement with new parapets at Glasnevin Cemetery Road Bridge (OBO10) along with railway boundary walls and fences, approach ramp and resurfaced car park. A standard tree will be introduced to either side of the access from the car park and the boundary wall of the railway line will feature climbers;
- Modifications to parapets of existing bridges that cross the railway line. The railings on the existing masonry parapets of each bridge will be replaced with black painted railings with IP2X mesh which will be incorporated into the new railing design. The modifications will apply to Blackhorse Avenue Bridge (OBO4), Old Cabra Road Bridge (OBO5), Cabra Road Bridge (OBO6) and Faussagh Road Bridge (OBO7);
- Proposed black painted railings with IP2X mesh to the parapets of McKee Barracks Bridge (OBO3); and
- A combined sewer pump station adjacent to Blackhorse Avenue Bridge.

Effects on the character of LLCA 8 Cabra and Glasnevin will result from the visibility of elements of the Project along with the absence of wooded vegetation along part of the railway corridor, removed during construction. A limited extent of the overall LLCA will be affected by these changes due to their location within a railway corridor, generally in cutting. Additionally, the screening afforded by the built up areas is such that effects further afield will be limited.

Localised adverse effects will result from specific elements of the Project, for example, the proposed IP2X railings on the existing parapets at McKee Bridge (OBO3). Localised effects will also arise from the proposed black painted parapet railings with IP2X mesh which will replace existing taller railings and palisade fence at Blackhorse Avenue Bridge (OBO4), Old Cabra Road Bridge (OBO5), Cabra Road Bridge (OBO6) and Faussagh Road Bridge (OBO7). These parapet railings have been selected from a range of design options in order to fit with the character of the receiving landscape. The overall height of the stone parapet wall and proposed railing combined (meet the minimum height requirement of 1.8m for safety protection) and will be less than the existing railings thereby resulting in some beneficial effects.

The scale of the changes overall are relatively small within this LLCA. The proposed change is generally not uncharacteristic with the surrounding landscape, and this is because of the location of the proposals, within an existing railway line in a cutting.

An overall small magnitude of impact is considered to arise to LLCA 8 of high sensitivity resulting in a minor and not significant adverse effect. This takes account of the mitigation measures integrated into the design to reduce adverse effects.

15.5.2.1.7. Summary of Operational Effects on Local Landscape Character Areas (LLCAs)

The table below presents a summary of the operational effects on Local landscape character areas at year 1 of operation.

Table 15.26: Summary of Operational Effects on LLCAs at Year 1 of Operation

Receptor	Sensitivity	Magnitude of Impact	Significance of Effect
LLCA 1 Hazelhatch to Adamstown	Medium	Small	Minor, not significant adverse.
LLCA 2 Adamstown to Clondalkin	Medium	Small	Minor, not significant adverse.
LLCA 3A Clondalkin to Inchicore Residential Area	Low	Small	Minor, not significant adverse.
LLCA 3B Clondalkin to Inchicore Industrial and Commercial Area	Negligible	Negligible	Negligible, not significant adverse.
LLCA 4 Kilmainham	High	Small	Minor, not, significant adverse.
LLCA 5 Heuston Yard	Negligible	Negligible	Negligible, not significant adverse.
LLCA 6 River Liffey	Very High	Small	Moderate, not significant adverse
LLCA 7 Phoenix Park	Very High	Negligible	Minor, not significant adverse.
LLCA 8 Cabra and Glasnevin	High	Small	Minor, not significant adverse.

15.5.2.1.8. Effects on Designated Landscapes

Effects on designated landscapes at year 1 of operation are tabulated below in sequence extending from west to east. All of these are considered to be of very high sensitivity as documented in the baseline.

Table 15.27: Effects on designated Landscapes at Year 1 of Operation

Receptor	Effect	Magnitude	Significance
Designated Areas of High Amenity in Kildare County			
Grand Canal	The Grand Canal Corridor Area of High Amenity at Balscott will not be affected by the Project. The extent of screening afforded by intervening wooded vegetation and built structures will result in no effect on this designated landscape.	No Change.	None
Designated Areas of Significant Amenity Value in South Dublin County			
Grand Canal	The Grand Canal will not be affected by the Project due to screening by intervening wooded vegetation.	No Change.	None

Receptor	Effect	Magnitude	Significance
Griffen River Corridor	The Griffen River Corridor Area of Significant Amenity Value will not be affected by the Project due to screening by existing mature wooded vegetation.	No Change.	None
Designated Landscape Conservation Area in Dublin City			
The Grand Canal	The Grand Canal will not be affected by the Project due to screening afforded by intervening built structures including industrial and commercial buildings.	No change	None
The Camac River and adjacent Richmond Park	The Camac River and adjacent Richmond Park will not be affected by the Project due to screening afforded by intervening dwellings, built structures and wooded vegetation.	No change	None
The National War Memorial Gardens at Islandbridge	A small part of The War Memorial Gardens, specifically the entrance at Chapelizod Bypass/ Con Colbert Road will be affected by the Project, specifically the new boundary wall and fence and bridge at Memorial. At the entrance to the gardens, the proposed bridge and boundary wall and fence will be clearly apparent albeit with the busy dual carriageway in the foreground. The loss of a mature street tree from the avenue on Memorial Road which is aligned on this entrance will be apparent. The replacement tree at year 1 of operation in its juvenile state will only partly offset this adverse effect. The replacement boundary walls, bridge faced in stone and the introduction of planters featuring climbers will mitigate adverse effects. The majority of the gardens will be unaffected by the Project due to screening by wooded vegetation.	Small	Moderate and not significant adverse.
Kilmainham Gaol	Kilmainham Gaol will not be affected by the Project due to screening afforded by intervening built structures.	No change	None
The Royal Hospital Kilmainham	The grounds of The Royal Hospital Kilmainham will not be affected by the Project. Part of the formal gardens close to the Royal Hospital Building is elevated however the proposed Project in Heuston Yard and at the South Circular Road Junction will be screened by intervening wooded vegetation and undulating topography within the gardens generally.	No change	None
The River Liffey	The River Liffey will be directly affected by the Project, specifically the OHLE which will cross Liffey Bridge (UBO1) and a retaining wall at the top of the River Liffey embankment at the boundary of Heuston Yard. Effects on the character of The River Liffey will result from the visibility of these elements of the Project along with the absence of wooded vegetation on the south bank of the river at the boundary of Heuston Yard, removed during construction. These elements will be partially apparent along a small part of the river landscape with partial screening afforded by existing wooded vegetation and built structures.	Small	Moderate and not significant adverse
The Phoenix Park	The Project will extend through the existing Phoenix Park Tunnel (PPT). The Project within the tunnel will not affect the landscape of the Phoenix Park. A small area in the southern part of the Phoenix Park will be affected by the Project, in particular the OHLE and part of the footbridge at Heuston West Station. These effects will arise in	Negligible	Minor and not significant adverse

Receptor	Effect	Magnitude	Significance
	the context of an existing railway line, built up areas and the busy Conyngham Road and will be very limited due to screening by wooded vegetation within the park.		
McKee Barracks	The eastern edge of McKee Barracks will be affected by the Project, in particular the OHLE located within the cutting of the existing railway line. The replacement railings to the stone parapet walls on Blackhorse Avenue Bridge (OBO4) and new railings on the parapet walls of McKee Barracks Bridge (OBO3) will result in some limited long term effects. The boundary hedgerow at year 1 of operation in its juvenile state will afford limited if any screening to offset the adverse effects associated primarily with the OHLE.	Small	Moderate and not significant adverse
The Royal Canal	Effects on the Royal Canal will arise from the OHLE and trackside retaining walls. These effects are expected to be extremely limited due to screening by existing wooded vegetation.	Negligible	Minor and not significant adverse

15.5.2.2. Effects on Visual Amenity at Year 1 of Operation

Effects on visual amenity at year 1 of operation are presented below.

15.5.2.2.1. Effects on Designated Protected Views and Prospects

Viewers experiencing The View North towards The Phoenix Park from the grounds of The Royal Hospital Kilmainham will not see the Project. A no change magnitude of impact will arise to viewers at this protected view of very high sensitivity resulting in a none and not significant adverse effect.

15.5.2.2.2. Effects on Viewers at Selected Viewpoint Locations

Effects on viewers at the viewpoint locations documented in the baseline are tabulated below. A description of the proposed view is presented along with the assessment of visual impacts. The visual impact assessment is supported by a series of photomontages from 12 of the viewpoint locations below. For each photomontage, the existing view is depicted along with the proposed view at year 1 of operation. For some of the viewpoints, the proposed view during year 15 of operation is depicted to indicate the maturing mitigation planting. The photomontages are presented in Volume 3B of this EIAR.

Table 15.28: Assessment of Effects at Selected Viewpoint Locations during Year 1 of Operation

ID	Location/ Photomontage	Viewer Types	Description of proposed view during year 1 of operation	Sensitivity	Magnitude of Impact	Visual effect
1	Loughlinstown Road, Hazelhatch	Pedestrians, Road users	Views will be attained of part of the proposed Hazelhatch Substation, including the gate entry and part of the substation building, with the existing retained wooded vegetation and some of the proposed planting (in a juvenile state) in the foreground. The absence of some wooded vegetation and built structures (3 no. derelict dwellings) removed during construction will be partially visible. These views will be attained with Loughlinstown Road and traffic in the foreground.	Low	Medium	Minor and not significant adverse
2	Straleek/ Hazelhatch	Residents of dwellings. Road users.	Views will be attained of proposed noise barriers with existing dwellings in the foreground. The noise barriers will partially obstruct existing views across the railway line.	Medium	Medium	Moderate and not significant adverse
3	Straleek Footbridge, Hazelhatch	Pedestrians	Views will be attained of the proposed OHLE and noise barriers. The views will be attained in the context of the existing railway line. These will partly screen existing views towards the dwellings at Hazelhatch and the wider rural landscape. The Hazelhatch Substation is expected to be screened from view by wooded vegetation in the foreground. Changes in the type and frequency of trains may be noticeable to the viewer.	Medium	Medium	Moderate and not significant adverse
4	Backweston/ Aderrig	Road users Pedestrians on a rural road	The Project, in particular the proposed OHLE will be barely visible as small elements in the distance to the right of the church ruins. These structures may be partially visible above the line of existing hedgerow vegetation especially in wintertime and in the context of the existing overhead powerline. Changes in the type and frequency of trains may be noticeable to the viewer.	Medium	Negligible	Negligible and not significant adverse
5	Castlegate Place, Adamstown	Residents of dwellings Road users	Views will be attained of the Project, including the proposed OHLE with the existing road and traffic in the foreground. These views will be attained in the context of the existing railway line. The modifications to the parapets on Finnstown R120 Road Bridge (OBC19) will be visible to the left of the viewer. Changes in the type and frequency of trains may be noticeable to the viewer.	Medium	Small	Minor and not significant adverse
6	Cherry Orchard	Residents of dwellings	The proposed OHLE will be partially visible above the line of the existing boundary wall and through existing wooded vegetation in	Medium	Negligible - Small	Negligible - Minor

ID	Location/ Photomontage	Viewer Types	Description of proposed view during year 1 of operation	Sensitivity	Magnitude of Impact	Visual effect
			particular in wintertime. The proposed noise barrier is expected to be screened from view by the boundary wall. The absence of the overhead powerline, undergrounded during construction, will be visible. These changes, along with the noise barrier will be more visible from second storey windows along with changes in the type and frequency of trains.			and not significant adverse
7	Le Fanu Road (Photomontage)	Residents of dwellings	Views will be attained of the proposed Project including the boundary wall and paladin fence along the railway line, the Le Fanu Road Bridge (OBC7) and the stone boundary wall to Le Fanu Road with the restored public open space (formerly in use as a construction compound) in the foreground. The absence of wooded vegetation, removed during construction, will be visible and will open up views to the nearby industrial estate. The proposed mitigation planting will, at year 1 of operation, provide limited visual screening of the Project due to its juvenile state. The absence of the pylon and overhead powerline, removed during construction, will be visible. The Project will partially screen views beyond of houses on Le Fanu Road although buildings and structures in the nearby industrial estate will be visible.	High	Large	Major and significant adverse.
8	Le Fanu Drive	Residents of dwellings	Views will be attained of the proposed project components including approach roads, walls, fences and Le Fanu Road Bridge (OBC7) with the restored public open space (formerly in use as a construction compound) in the foreground. The proposed tree planting will, at year 1 of operation, provide limited visual screening of the Project due to the juvenile state of the planting. The absence of the pylon and overhead powerline, removed during construction, will be visible. The Project will partially screen views beyond of the rooftops of nearby industrial buildings.	Medium	Large	Moderate and not significant adverse.
9	Kylemore Road	Residents of dwellings	Views will be attained of the proposed Project components including retaining walls, fences and part of the proposed new Kylemore Road Bridge (OBC5A). The absence of the electronic sign board, removed during construction, will be visible. The proposed mitigation tree planting will, at year 1 of operation, provide limited visual softening of the Project due to the juvenile state of the planting. The Project will	Medium	Large	Moderate and not significant adverse.

ID	Location/ Photomontage	Viewer Types	Description of proposed view during year 1 of operation	Sensitivity	Magnitude of Impact	Visual effect
			screen the partial view of the Dublin Mountain Skyline.			
10	Landen Road	Residents of dwellings Road users	Views will be attained of part of the proposed replacement Khyber Pass Footbridge (OBC5) and part of the proposed boundary wall in between existing dwellings. The new footbridge will be similar in scale and appearance to existing.	High	Small	Minor and not significant neutral
11	Corner of Sarsfield Road and St Marys Avenue West	Pedestrians. Recreational users of East Timor Public Park	Views will be attained of part of the proposed replacement Khyber Pass Footbridge (OBC5). The proposed OHLE, and absence of wooded vegetation, removed during construction may be visible with existing wooded vegetation in the foreground. The refurbished pedestrian access will be visible in the foreground.	Medium	Small	Minor and not significant adverse
12	Sarsfield Road	Pedestrians	Views will be attained of the reconstructed Sarsfield Road Under-Bridge (UBC4) together with railway boundary walls, fences, and bridge parapets. The modifications to the existing road and footpaths will be visible along with the OHLE crossing the bridge. Some wooded vegetation losses close to the bridge may be noticeable. The existing retained mature trees and wooded vegetation adjacent to the restored construction compound in the left part of the view will provide some visual screening of project components in particular in summertime. These views will be attained with Sarsfield Road in the foreground and passing traffic. Changes in the type and frequency of trains may be noticeable to the viewer.	Medium	Small	Minor and not significant adverse
13	Inchicore	Residents of dwellings	The proposed stone boundary wall and fence which will replace that existing will be clearly visible along with the absence of wooded vegetation removed during construction. The upper part of the OHLE will be partially visible above the line of the proposed wall and fence. The restored and reseeded public open space, formerly in use as a site compound during construction will be visible in the foreground. Changes in the type and frequency of trains may be noticeable to the viewer.	High	Medium	Moderate and not significant adverse.
14	War Memorial Gardens, Islandbridge (Photomontage)	Recreational Visitors to the War Memorial	Views will be attained of the proposed replacement Memorial Road Bridge (OBC3) and modifications to existing roads. The new stone bridge parapets, boundary walls and fences will be clearly visible against the backdrop of Memorial Road and avenue of existing trees.	Very High	Small	Moderate and not significant adverse

ID	Location/ Photomontage	Viewer Types	Description of proposed view during year 1 of operation	Sensitivity	Magnitude of Impact	Visual effect
		Gardens, Islandbridge	<p>The absence of wooded vegetation within the railway corridor, removed during construction, will be visible. The loss of a mature street tree from the avenue on Memorial Road which is aligned on this entrance will be clearly visible along with the replacement tree in its juvenile state in the left part of the view. Planters featuring climbers in a juvenile state will be visible on the boundary wall. These views will be attained with the existing busy Chapelizod Bypass in the foreground.</p> <p>The proposed view, illustrated as photomontage, is indicative of some of the potential measures that will be implemented as advised by a Conservation Architect, for example, the use of high quality stone materials. A Conservation Architect will inform the final finishes of the bridge. This will be determined at detailed design stage. The magnitude of impact is considered overall to be small and this reflects the mitigation measures integrated into the design to reduce adverse visual effects.</p>			
15	Memorial Road (Photomontage)	Residents of dwellings	Views will be attained of Memorial Road and traffic framed on either side by the existing avenue of trees. In the background, the stone faced parapets and walls of the proposed new Memorial Road Bridge (OBC3) will be partially visible in the distance. The replacement standard tree within the avenue, to the right of the viewer will be visible in the distance albeit in a juvenile state.	Very High	Small	Moderate and not significant adverse.
16	South Circular Road/ Liffey Crossing (Photomontage)	Pedestrians	The proposed OHLE on the Liffey Bridge (UBO1) will be visible as a small element in the distance. Structures associated with the proposed Heuston West Station, including footbridge and retaining wall will be partially visible and partially screened from view by existing retained wooded vegetation on the river bank in particular in wintertime. The absence of woodland removed during construction will be visible. Changes in the type and frequency of trains may be noticeable to the viewer.	Very High	Small	Moderate and not significant adverse.
17	South Circular Road (Photomontage)	Residents of dwellings	Views will be attained of the modifications to the South Circular Road Junction, in particular a replacement bridge parapet wall which will be finished in stone to match adjacent existing stone walls. Some limited wooded vegetation losses may be noticed by the viewer. These	High	Negligible	Minor and not significant adverse

ID	Location/ Photomontage	Viewer Types	Description of proposed view during year 1 of operation	Sensitivity	Magnitude of Impact	Visual effect
			views will be attained alongside part of the boundary to the Royal Hospital Kilmainham which features to the right of the viewer along with mature wooded vegetation within.			
18	Entrance – Royal Hospital Kilmainham (Photomontage)	Recreational visitors to the Royal Hospital Kilmainham	The proposed changes to the South Circular Road Junction, in particular the replacement bridge parapet which will be finished in stone will be barely visible. A very small part of the boundary wall and paladin fence along The Chapelizod Bypass/ Con Colbert Road will be visible. These changes will be barely distinguishable from the surroundings.	Very High	Negligible	Minor and not significant adverse.
19	Phoenix Park (Photomontage)	Pedestrians	The proposed OHLE will be partially visible on the existing Liffey Bridge (UBO1). A very small part of the Heuston West Station will be visible. These will be seen as very small changes in the distance in between existing trees and wooded vegetation in the Phoenix Park and with built structures and the busy Conyngham Road in the foreground. Changes in the type and frequency of trains may be noticeable to the viewer.	Very High	Negligible	Minor and not significant adverse
20	Conyngham Road (Photomontage)	Residents of dwellings	<p>The proposed black painted railing with IP2X mesh on top of the existing stone parapet wall of Conyngham Road Bridge (OBO2) will be clearly visible and partially obstruct the view beyond. Partial views will be attained through the mesh and railings of the OHLE in the foreground and the proposed wall to the car park at the Riverpark Residential Apartments in the left part of the view. Part of the Heuston West Station, in particular the proposed footbridge, will be visible through the mesh in the distance along with some wooded vegetation losses. Changes in the type and frequency of trains may be noticeable to the viewer. These views will be attained in the context of the existing railway line.</p> <p>The proposed view through the replacement parapet railing, illustrated as photomontage, is indicative of the type of railing provided here. The vertical members are intended to be rounded or burnished in order to soften the angular edges depicted in the photomontage.</p>	High	Medium	Moderate and not significant adverse
21	Royal Hospital Kilmainham	Recreational visitors to the	The proposed Project in Heuston Yard and at the South Circular Road Junction will be screened by intervening wooded vegetation	Very High	No	None

ID	Location/ Photomontage	Viewer Types	Description of proposed view during year 1 of operation	Sensitivity	Magnitude of Impact	Visual effect
	(Photomontage)	gardens at Royal Hospital Kilmainham	and undulating topography within the gardens and the stone boundary wall.		Change	
22	Blackhorse Avenue Bridge (OBO4) (Photomontage)		<p>The proposed replacement parapet railing, with IP2X mesh will be clearly visible on top of the existing stone parapet wall. As the proposed railing is shorter than the existing palisade fence, features in the existing view will be more clearly visible, including McKee Barracks. McKee Barracks Bridge will be partially visible through the replacement parapet railing.</p> <p>Views through the replacement parapet railing and mesh will partially reveal the existing railway line and proposed structures including the OHLE and the proposed parapet railing on McKee Bridge in the distance. Some limited wooded vegetation losses may be visible. Changes in the type and frequency of trains may be noticeable to the viewer.</p> <p>The proposed view through the replacement parapet railing, illustrated as photomontage, is indicative of the type of railing provided here. The vertical members are intended to be rounded or burnished in order to soften the angular edges depicted in the photomontage.</p>	High	Medium	Moderate and not significant adverse
23	Blackhorse Avenue	Residents of dwellings	The proposed replacement parapet railing, fitted with IP2X mesh will be visible on top of the existing stone parapet walls of Blackhorse Avenue Bridge (OBO4). These views will be attained against the backdrop of the wider streetscape and McKee Barracks. As the proposed railing is shorter than the existing palisade fence, features in the existing view will be more clearly visible, in particular McKee Barracks.	Very High	Small	Moderate and not significant beneficial
24	Old Cabra Road (OBO5) (Photomontage)	Pedestrians	The proposed replacement parapet railing with IP2X mesh will be clearly visible on top of the existing stone parapet wall. As the proposed railing is shorter than that existing, features in the existing view will be more clearly visible, including the skyline of The Dublin Mountains. Some wooded vegetation losses will reveal part of a	High	Medium	Moderate and not significant adverse

ID	Location/ Photomontage	Viewer Types	Description of proposed view during year 1 of operation	Sensitivity	Magnitude of Impact	Visual effect
			<p>dwelling in the right hand part of the view.</p> <p>Views through the replacement parapet railing and mesh will partially reveal the existing railway line and proposed structures including the OHLE and the proposed parapet railing on Blackhorse Avenue Bridge (OBO4) in the distance. Wooded vegetation losses may be visible. Changes in the type and frequency of trains may be noticeable to the viewer. These views will be attained against the backdrop of some buildings in the distance and the skyline of the Dublin Mountains.</p> <p>The proposed view through the replacement parapet railing, illustrated as photomontage, is indicative of the type of railing provided here. The vertical members are intended to be rounded or burnished in order to soften the angular edges depicted in the photomontage.</p>			
25	Old Cabra Road	Residents of dwellings	The proposed replacement parapet railing, fitted with IP2X mesh will be visible on top of the existing stone parapet walls of Old Cabra Road Bridge (OBO5). The proposed railing will be shorter than that existing. These views will be attained against the backdrop of the wider streetscape. Some wooded vegetation losses will be visible.	Medium	Small	Minor and not significant beneficial
26	Cabra Road	Residents of dwellings	The proposed replacement parapet railing, fitted with IP2X mesh will be visible on top of the existing stone parapet walls of Cabra Road Bridge (OBO6). The proposed railing will be shorter than that existing. Wooded vegetation losses, including taller specimens, within the railway corridor will be visible behind the parapet on the right hand side of the road. These views will be attained against the backdrop of the wider streetscape.	High	Medium	Moderate and not significant adverse
27	Faussagh Avenue	Residents of dwellings	The proposed replacement parapet railing, fitted with IP2X mesh will be visible on top of the existing parapet walls of Faussagh Road Bridge (OBO7). The proposed railing will be shorter than the existing palisade fence. These views will be attained against the backdrop of the wider streetscape.	Medium	Small	Minor and not significant beneficial

ID	Location/ Photomontage	Viewer Types	Description of proposed view during year 1 of operation	Sensitivity	Magnitude of Impact	Visual effect
28	Glasnevin Cemetery (Photomontage)	Pedestrians	Views will be attained of the proposed reconstructed Glasnevin Cemetery Road Bridge (OBO10) and associated boundary walls. The modified ramp access with railings will be clearly visible. Two proposed standard trees on either side of the bridge access will be visible. The proposed climbers on the boundary wall will be scarcely visible in their juvenile state. Some wooded vegetation losses within the railway corridor will be visible. These views will be attained with the resurfaced car park in the foreground. The proposed access and bridge will be at higher elevation than that currently existing and this combined with the boundary walls (which will replace the existing railing) will have the effect of screening some of the wooded vegetation and trees (in the cemetery) in the distance.	High	Medium	Moderate and not significant adverse

15.5.2.2.3. Effects on Visual Amenity of Residents of Groups of Dwellings located adjacent to the Existing Railway Line at Year 1 of Operation

Residents of groups of dwellings located adjacent to the existing railway line are estimated to attain views of the proposed Project as tabulated below.

Table 15.29: Effects on Visual Amenity of Residents of Groups of Dwellings adjacent to the Existing Railway Line at Year 1 of Operation

Receptor Location	Estimated views during year 1 of operation	Sensitivity	Magnitude	Significance
Hazelhatch	Residents of dwellings are estimated to attain short range views of the Project in particular from second storey windows. Views will be attained of the proposed noise barriers in particular along with other elements such as the OHLE and Hazelhatch Substation along with the absence of wooded vegetation removed during construction. In some cases, the noise barriers will be visible at very short range and will obstruct existing views across the railway.	Medium	Large	Major significant adverse.
Cherry Orchard to Khyber Pass Footbridge	Residents of dwellings are estimated to attain short range views of the Project, in particular from second storey windows. In some cases, these views will be attained in the context of an existing railway line. In some cases, the absence of wooded vegetation, removed during construction, is estimated to reveal short range views of the existing railway line along with the proposed OHLE and with proposed noise barriers in the foreground. In some cases, additional elements such as reconstructed or modified bridges may be visible. Some residents of individual dwellings will be directly affected and may experience profound significant adverse visual effects.	Medium	Large	Major significant adverse.
Seven Oaks Apartments	Residents of dwellings are estimated to attain views of the Project, in particular the replacement Khyber Pass Footbridge and the OHLE in the context of the existing railway line with modified tracks and new structures such as retaining walls and boundary walls. Many of the proposed elements will not be entirely out of scale or at odds with the existing view. The OHLE will be a noticeable change but not entirely out of character with an existing railway line.	High	Small	Moderate and not significant adverse.
Inchicore to Kilmainham	Residents of dwellings are estimated to attain short range views of the Project, in particular from second storey windows. Views will be attained of the proposed OHLE, retaining walls and replacement boundary wall along the Chapelizod Bypass/ Con Colbert Road in the context of an existing railway line and against the backdrop of woodland at The War Memorial Gardens. The absence of wooded vegetation, removed during construction will be visible. In some cases, additional elements such as reconstructed or	High	Large	Major-significant adverse.

Receptor Location	Estimated views during year 1 of operation	Sensitivity	Magnitude	Significance
	modified bridges may be visible. Some residents of individual dwellings will be directly affected and may experience profound significant adverse visual effects.			
The Old Chocolate Factory, Kilmainham Square Apartments	Residents of dwellings are estimated to attain views of the Project, in particular the cut and cover structure (buried portal) with green roof along with retaining walls, OHLE and modified South Circular Road Junction against the wooded backdrop of The War Memorial Gardens. Many of the proposed elements will not be noticeably out of scale or at odds with the existing view. The cut and cover structure and the OHLE will bring about clearly noticeable changes to existing views but will not be entirely out of character with an existing railway line.	High	Medium	Major significant adverse.
Clancy Quay	Residents of dwellings are estimated to attain views of the Project including Heuston West Station, the OHLE, retaining walls, noise barriers, Islandbridge/ Heuston Substation and the absence of wooded vegetation removed during construction. These views will be attained in the context of the existing railway yard and, as a consequence, many of the proposed elements will not necessarily be at odds with the existing view. The Heuston West Station and OHLE will bring about clearly noticeable changes to existing views of the yard. The Islandbridge/ Heuston Substation will be visible as a new structure in views in a south easterly direction. Some viewers may attain views of the OHLE as a small change at the Liffey Bridge Crossing.	High	Medium	Moderate not significant adverse.
Cabra and Glasnevin	Residents of dwellings are estimated to attain short range views of the Project, in particular from second storey windows. In some cases, the loss of existing wooded vegetation is estimated to reveal views of the existing railway line and the Project, including the OHLE and retaining walls within a cutting. Mitigation planting at year 1 will be in a juvenile state and will not yet provide visual screening. In some cases, residents of dwellings are estimated to attain views of the Project including OHLE and retaining walls in the context of an existing railway line in a shallow cutting. Some viewers at Glasnevin will attain views of the reconstructed bridge.	High	Large	Major significant adverse.

15.6. Mitigation Measures

15.6.1. Introduction

This section describes the mitigation measures which are proposed to ameliorate, remediate or reduce significant landscape and visual impacts from the construction and operational phases of the proposed Project.

15.6.2. Construction Phase

The following mitigation measures are proposed to avoid, reduce or remediate, wherever practicable significant negative landscape and visual effects of the construction phase of the proposed Project.

Measures in regard to existing trees and wooded vegetation are set out for the purpose of minimising wooded vegetation losses as follows:

- All trees and wooded vegetation to be retained within and adjoining the works area will be protected in accordance with the British Standard Institution (BSI) British Standard (BS) 5837:2012 'Trees in relation to design, demolition, and construction - Recommendations' (BSI 2012). Works required within the root protection area (RPA) of existing trees to be retained will follow a project specific method statement for such works, which will be prepared by a professional qualified arborist;
- Wherever possible, trees and wooded vegetation will be retained within the proposed Project. Trees and wooded vegetation identified for removal will be removed in accordance with 'BS 3998:2010 Tree Work – Recommendations' (BSI 2010) and best arboriculture practices as detailed and monitored by a professional qualified arborist;
- An arboriculture survey, impact assessment and tree constraints plan will be prepared and made available for the proposed Project in advance of construction. This will be fully updated at the end of the construction phase, with any recommendations for on-going monitoring of retained trees during the operational phase;

Where properties are subject to permanent and/ or temporary acquisition (as listed in Chapter 17 Material Assets: Non-Agricultural Properties of this EIAR), an inventory of boundary details and accesses, planting, paving, and other features that may be disturbed or removed will be prepared prior to commencement of construction in order that these can be protected or replaced. Appropriate measures will be put in place to provide for protection of features, trees and wooded vegetation to be retained, and for continued access during construction, for adequate security and screening of construction works. All temporary acquisition areas will be fully decommissioned and reinstated at the end of the construction phase

In addition to the above measures, construction works will be managed by the preparation of a Construction Environmental Management Plan (CEMP) by the appointed contractor - refer to Volume 4, Appendix 5.1 of this EIAR. This provides the environmental management framework to be adhered during construction of the proposed Project.

15.6.3. Operational Phase

Mitigation measures are proposed to avoid, reduce or remediate adverse landscape and visual effects of the operation phase of the proposed Project. These include measures which are an integral part of the proposed engineering design associated with DART+ South West along with proposed planting. The mitigation measures are listed below. Mitigation measures in the form of proposed planting is illustrated in drawings DP-04-23-DWG-EV-TTA-23838 through to DP-04-23-DWG-EV-TTA-23855 presented in Volume 4, Appendix 15.1 of this EIAR. These drawings also show the estimated wooded vegetation losses.

- GRP Parapet extensions to existing bridge parapets will match that existing in terms of colour, materials and finish;
- Modifications to station structures, including parapets, will use materials similar to that existing in order to minimise visual change;
- The railing and IP2X panel, introduced on top of existing retained masonry bridge parapets on the Phoenix Park Tunnel Branch Line will use parapet example 6² of the IP2X options illustrated below.

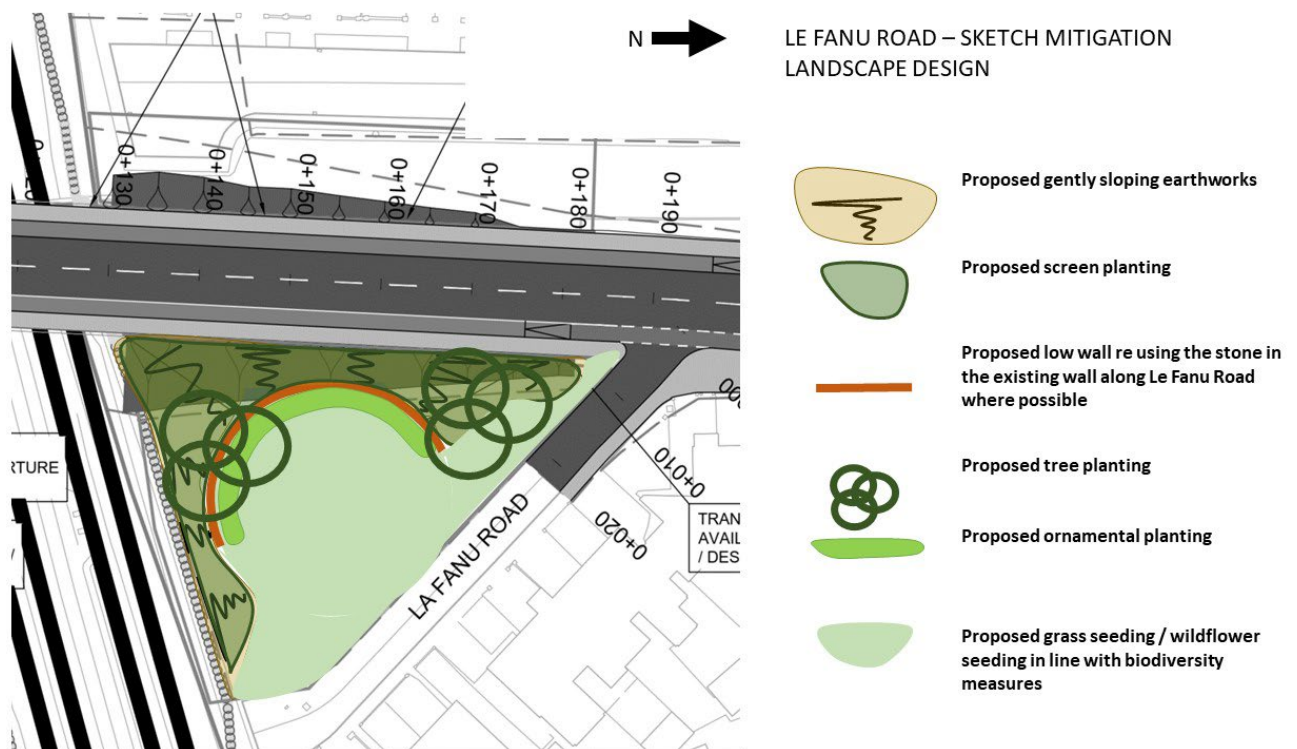


Plate 15-1 Parapet Example 6

- Replacement bridge structures will be aesthetically finished to a high standard which will be informed by a Conservation Architect, particularly at sensitive locations including but not limited to Memorial Road Bridge and Glasnevin Cemetery Road Bridge. The structures will have regard for and be sympathetic to the existing landscape and visual amenity. The photomontage of Memorial Road Bridge from viewpoint 14 is indicative in this regard. Stone from the existing bridges will be reused where possible. At Memorial Road, the standard tree, removed at construction will be replaced;
- Existing wooded vegetation at the boundaries of the electrical substations will be retained, where possible, to provide visual screening of these facilities. The grid connection to facilitate these substations will be routed to avoid wooded vegetation losses. Existing retained wooded vegetation will be protected as outlined above for construction;
- A standard tree will be planted on either side of the northern approach to the Glasnevin Cemetery Road Bridge (OBO10). Climbers will be planted to screen the proposed boundary wall at the car park;

² Parapet Example 6 presented in TTAJV Prelim Design Report – Parapets (Reference: DP-04-23-REP-ST-TTA-26904-v01-S3.PDR Parapets)

- Replacement masonry walls will be finished using materials of a high design standard that will be sympathetic to the surrounding landscape and often featuring a stone finish. Where stone masonry walls need to be demolished, every effort will be made to reclaim the stone for repurposing elsewhere on the Project (i.e. stone masonry walls replaced with original stone);
- Areas in use as site compounds during construction will be restored and where feasible, the restoration will facilitate biodiversity measures;
- Existing wooded vegetation will be retained as far as is feasible. Proposed planting will be introduced to mitigate adverse landscape and visual effects where feasible and having regard for engineering and safety requirements. These measures are presented in DP-04-23-DWG-EV-TTA-23838 - DP-04-23-DWG-EV-TTA-23855 in Volume 4, Appendix 15.1 of this EIAR;
- Proposed planting will feature native species in order to match that existing in the landscape or alternatively match species lost, for example, street tree planting in urban areas;
- Proposals for the treatment of the public realm within the streetscape affected by the proposed Project will have regard to the existing character of the street or location, to emerging policies, objectives and proposals for the public realm and to opportunities for enhancement of the public realm and the streetscape. Proposals will have regard to historic details and features, to the quality of existing and proposed materials, to the reduction of clutter, ease of legibility, and management and maintenance requirements;
- The two public open spaces on the northern side of Le Fanu Road Bridge (OBC7), formerly in use as construction compounds, will be restored. Planting will be introduced to screen project components. The larger open space on the north east side may be the subject of a redesign. Concept plans indicating the possible approach to the redesign of these open spaces is presented below and incorporates the necessary mitigation;



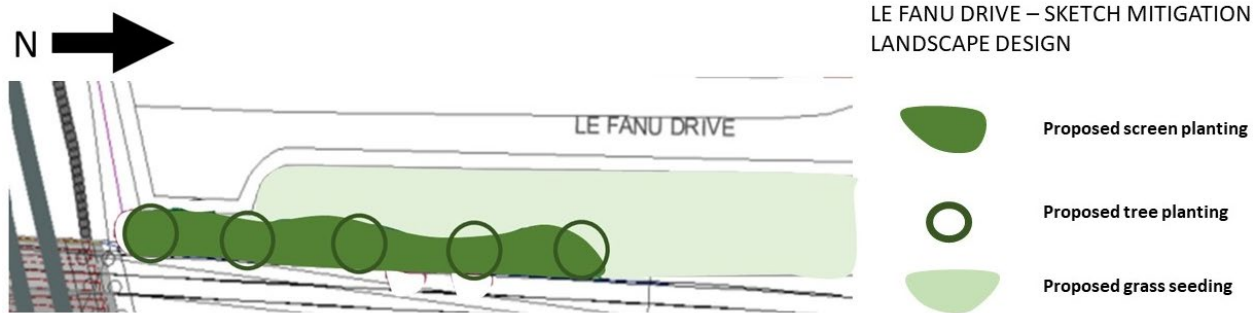


Figure 15-11 Le Fanu Drive Mitigation Landscape Design.

- Restoration of footpath and public open space at Kylemore Road Bridge (OBC5A) including replacement planting will be implemented;
- The pedestrian access to the Khyber Pass Footbridge (OBC5) will be refurbished;
- The boundary wall along the Chapelizod Bypass and Con Colbert Road will be faced in stone in order to present one uniform stone façade. The wall will have containerised planting featuring climbers which, over time, will grow down along the wall on the railway side and upwards along the boundary fence on top of the wall. The streetscape will be refurbished following use as site compound during construction;
- A green roof will be installed on the proposed cut and cover structure at South Circular Road Bridge (OBC1A);
- The entry and exit gates to the Islandbridge/ Heuston Substation on St John's Road will be designed to a high standard aesthetically in order to fit with the surrounding area;
- The supporting posts for the OHLE will be located at either end of Liffey Bridge (UBO1) near the bank of the River Liffey to minimise intrusion upon river views from the surrounding area;
- Effort will be made to retain existing wooded vegetation at and along noise barrier locations. The selection of final materials and finishes for proposed noise barriers will be carried out at detailed design stage. Where possible, noise barriers in rural areas will have a timber finish; and
- Landscape mitigation will have regard to the recommendations of Chapter 8 Biodiversity.

15.7. Monitoring

Monitoring of implemented specific landscape mitigation measures shall be carried out and informed by good practice guidance. The monitoring is required to ensure that the proposed mitigation measures become well established and aid the integration of new elements associated with the proposed Project into the surrounding landscape and mitigate visual effects at residential properties.

15.8. Residual Effects

The maturing mitigation planting along the alignment will, at year 15 contribute towards increased screening of project components thereby reducing adverse effects compared with year 1 of

operation. At year 15, no landscape receptors are assessed as experiencing significant (major or higher) adverse residual effects.

At year 15, residents of groups of dwellings located adjacent to the existing railway line are estimated to experience residual significant (major or higher) adverse visual effects as follows:

- Hazelhatch;
- Cherry Orchard to Khyber Pass Footbridge;
- Inchicore to Kilmainham; and
- The Old Chocolate Factory, Kilmainham Square Apartments.

15.9. Cumulative effects

The cumulative assessment of relevant plans and projects is undertaken separately in Chapter 26 of this EIAR.

15.10. References

Landscape Institute and Institute of Environmental management and Assessment (2013) Guidelines for Landscape and Visual Impact Assessment, 3rd Edition

TII (2020), Landscape character assessment (LCA) and landscape and visual impact assessment (LVIA) of Specified Infrastructure Projects - Overarching Technical Document, PE-ENV-01101, December 2020.

TII (2020), Landscape character assessment (LCA) and landscape and visual impact assessment (LVIA) of Proposed National Roads - Standard, PE-ENV-01102, December 2020

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