

Chapter 6:

Landscape and Visual Impact

6.0 LANDSCAPE AND VISUAL IMPACT ASSESSMENT

6.1 INTRODUCTION

This section has been prepared by Doyle + O'Troithigh Landscape Architecture. The purpose of this study is to appraise the existing landscape settings of the site and to assess the likely impacts arising from the proposed development and describe the proposed mitigation measures.

This assessment should be read in conjunction with Chapter 2 Project Description and Alternatives Examined. Photomontages have been prepared for the scheme (refer to the proposed views for photomontages in Section 6.7 and the accompanying Appendix 6.1 for the photomontage brochure, including Artistic Impression CGI's for information purposes only).

The study was prepared by David O'Sullivan, Master of Agricultural Science & Master of Landscape Architecture University College Dublin. A member of the Irish Landscape Institute – MILI.

Relevant experience includes: -

- Landscape Architect in the village character assessment of the Fingal Area Housing Guidelines Study
- Stepside Commercial & Residential scheme project leader from planning, EIS preparation to site commissioning.
- Preparation of Landscape & Visual chapters for EIS studies for large mixed developments in Arklow, Balbriggan and Mulhuddart.
- Rathborne residential and commercial Development for Ballymore Properties and Castlethorn Construction, including design proposals for adjoining Royal Canal. Design team member and site liaison for project.
- Adamstown SDZ –Design team member and team leader for private and public facilities.
- Preparation of LVIA studies for 25 solar farm projects across the country.

6.2 STUDY METHODOLOGY

This assessment has been based on the following guidelines:

- *'Guidelines on the Information to be contained in Environmental Impact Statements'*, Environmental Protection Agency, 2002.
- *Revised Guidelines on the information to be contained in environmental impact statements' - Draft September 2015*
- *'Advice Notes on Current Practice in the preparation of Environmental Impact Statements'*, Environmental Protection Agency, 2015.
- *Draft 2017 EPA Guidelines on Environmental Impact Assessment*
- *'Guidelines for Landscape and Visual Assessment'*, 3rdEd., Landscape Institute and Institute of Environmental Management and Assessment, 2013.

This assessment has involved:

- Undertaking a desk-top study of the site; including reviewing ordnance survey mapping and aerial photography;
- Reviewing the plans, sections and elevations of the proposed scheme;
- A review of statutory planning and other documentation in order to ascertain the local and wider; significance; and

- Visiting the site and surrounding area during the winter of 2017 and preparing a photographic record of views and landscape features.

6.3 EXISTING RECEIVING ENVIRONMENT

6.3.1 Site Context

The site is located on the eastern development boundary of Dunshaughlin in the townland of Dunshaughlin. The subject lands, some 28.3 Ha, are currently under both grazing and tillage farmland, and lie to the east of Dunshaughlin Town. The site is accessed off the R147 which would have originally been the main road between Dublin and Cavan and which is now replaced by the M3 Motorway to the south west of the site. The local Lagore / Dunshaughlin Road runs to the north of the site. Dunshaughlin Business Park adjoins the site on the western boundary and the Maelduin, Coldrick's Pass and Kellet's Grove housing developments adjoin the north-western corner of the site. An earlier phase of the current Willows development lies to the south of the Strategic Housing Development (SHD) Lands. Mature tree lined boundary hedgerows surround the site to the west north and east with no definitive existing physical boundary between the site and the earlier development phase to the south. A wooden fence defines the eastern boundary to the lands. The subject lands are low lying and generally rise in a northerly direction. The northwest corner of the site is 105M OD and south-eastern corner is at approximately 97.00M OD.

6.3.2 Relevant Planning Policy

The subject SHD site lies within the Dunshaughlin Local Area Plan (LAP) as defined in the Meath Co. Co. County Development Plan 2013 – 2019 (CDP) and is zoned as A2 for Residential and Community use with pedestrian cycle access requirements through the site into the wider landscape.

The CDP also specifies that the SHD site lies within the Lowland Landscape Character Area (LCA) in Zone 11 South East Lowland LCA where the consolidation of urban fringes of settlements and where appropriate landscape treatments along edges of development to soften the urban fringe are recommended.

The Dunshaughlin LAP also contains several landscape related objectives such as: -

LAP Policy - OS – 2

To create a hierarchy of open space as mapped in order to achieve a choice of open space facilities, thus enabling greater accessibility to a variety of open space types. New parks will be developed comprehensively and may occupy slightly different boundaries than the zone but must; match the area zoned, include the required play provision, be designed to a high standard and connect as shown to the pedestrian and cycleway network.

The LAP shows a section along the western boundary of the site adjoining the Dunshaughlin Business Park as F1 .. *to provide for open spaces for active and passive recreational facilities.*



Figure 6.3.1: Dunshaughlin SHD Lands and surrounds

6.3.3 Character and Visibility

The site is agricultural in nature, currently used as tillage and pasturelands. The fields are large in size and are edged with traditional mature hedges and associated drainage-runs.

The subject lands are partially open to the south where the Willows residential development is under construction. The roadside hedgerow bounding the R147 has frequent openings allowing views towards the southern parts of the subject lands. Intervening hedgerows currently screen views into the main section of the site. There are glimpse views into the site through the mature boundary hedgerow from the Dunshaughlin Business Park to the west of the subject lands. Similarly, there are open views into the site from the housing in the Maelduin and Coldricks Pass / Kelllets Grove estates. The lands to the north and east of the subject lands are primarily agricultural in nature with mature tree lined hedgerows with no obvious adjoining housing or roads.

6.3.4 Site Photoviews



Fig. 6.3.2 – Site Views (Direction and position of views within site in red)



Fig. 6.3.3 - Site Image 01 Dunshaughlin SHD – View from south east boundary looking north west



Fig. 6.3.4 - Site Image 02 Dunshaughlin SHD – View from near north east of site looking south west



Fig. 6.3.5 - Site Image 03 Dunshaughlin SHD – View from north west of site towards Coldricks Pass estate



Sit Fig. 6.3.6 - Site Image 04 Dunshaughlin SHD – View from south west of site towards the north east.

6.3.4 Site Hedgerows

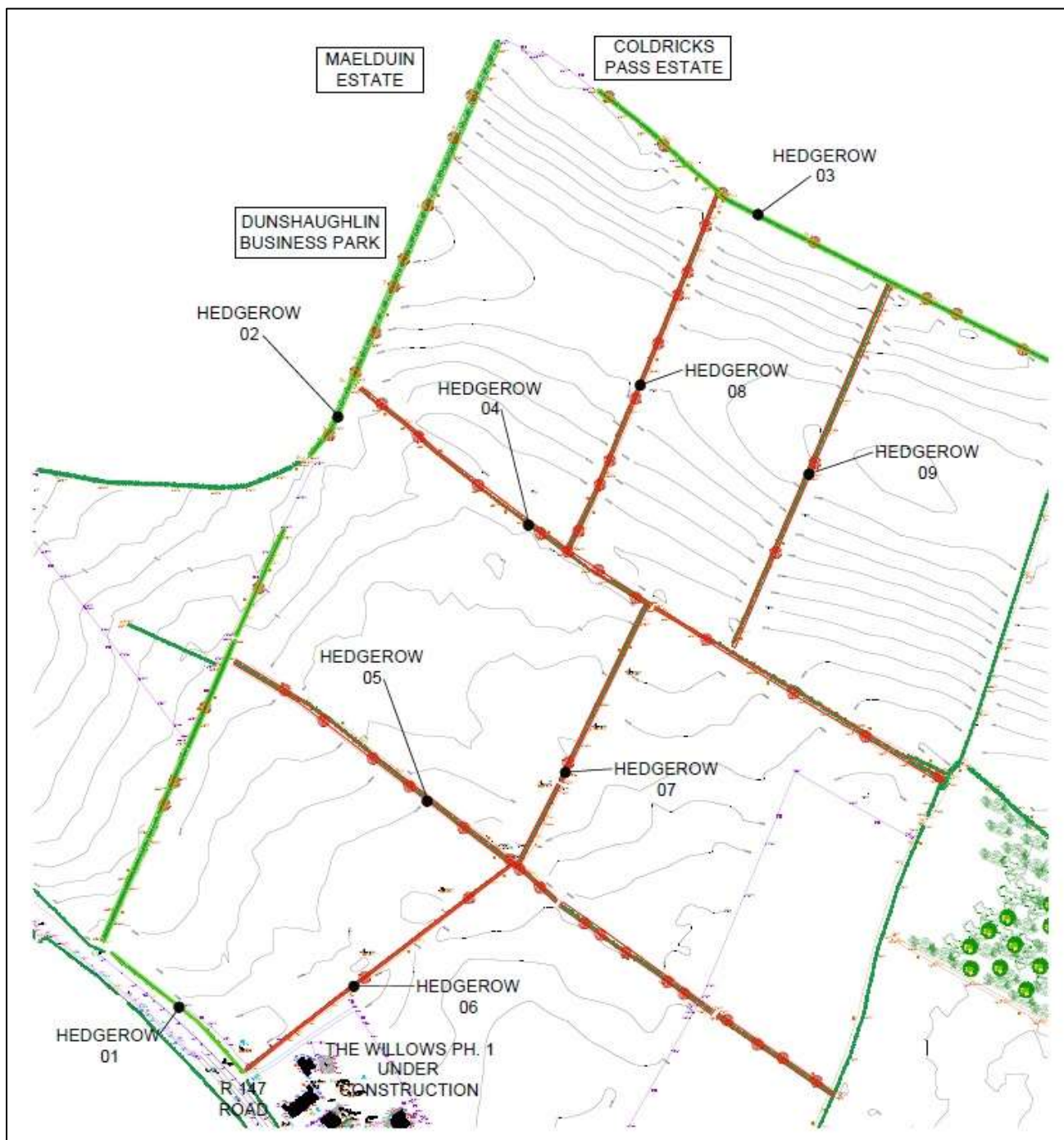


Fig. 6.3.7 – Site hedgerows – Retained (Green) and to be removed (Red)

The hedgerows associated with the site are mature composed mainly of Ash (*Fraxinus excelsior*) up to 15M in height and occasional Beech (*Fagus sylvatica*), Sycamore (*Acer pseudoplatanus*) and Crab Apple (*Malus sylvestris*). The main understorey species is Hawthorn (*Crataegus monogyna*) typically around 4M in height with Ivy (*Hedera helix*) and Bramble (*Rubus spp.*) prominent throughout the hedgerows. The hedgerows provide strong visual boundaries between the field units and provide screening between the adjoining housing and Dunshaughlin Business Park. It is proposed to retain hedgerows 1, 2 & 3 to the south, west and north of the site and remove the internal hedgerows which would be impacted by development proposals.

PRIMARY SCREENING BOUNDARY HEDGEROWS

HEDGEROW 01

This roadside hedgerow composed of low growing Ash and Hawthorn and runs along the front of the site. There are long gaps where it was grubbed out to create site access and sightlines for the Willows development which is under construction and therefore there are glimpse views into the subject lands from the R147 Road. NOTE: The existing granted Willows development proposals include the removal of this hedgerow as development proceeds.



HEDGEROW 02

Hedgerow 02 forms the western boundary between the business park and housing and the subject lands. Contains mature Ash specimens up to 15M in height and a Hawthorn understorey of 4M in height. There are some gaps along its length allowing views into the site.

HEDGEROW 03

This hedgerow runs along the northern boundary of the site and has been partially removed during construction of the nearby Coldricks Pass Estate. The remaining sections contain occasional Ash up to 7M in height with Hawthorn at 4M.



NOTE: - A full and complete arboricultural survey and associated arboriculture impact assessment has been carried out to support the application and is included as part of the application submission.

6.4 CHARACTERISTICS OF THE PROPOSED DEVELOPMENT

The proposed development consists of a residential development comprising of 913 no. residential units, a neighbourhood centre, including 2 no. retail units, a café / restaurant unit, a primary healthcare / gym, a community facility and a childcare facility, all associated open space, a section of the Dunshaughlin Outer Relief Road, internal roads, cycle and pedestrian infrastructure, services and all other associated development on a site of c. 28.3 hectares.

The 913 no. residential units proposed consist of 505 no. houses (single, two, and three storey), 186 no. duplex units (three storey), and 222 no. apartments (four and five storey).

The 505 no. houses proposed consist of the following:

- 45 no. 2-bedroom houses
- 382 no. 3-bedroom houses (including 4 no. bungalows)
- 50 no. 4-bedroom houses (including 5 no. bungalows)
- 28 no. 4/5-bedroom houses (three storey)

The 186 no. duplex units consist of the following:

- 20 no. 1-bedroom duplex units
- 84 no. 2-bedroom duplex units
- 73 no. 3-bedroom duplex units
- 9 no. 4-bedroom duplex units

The 222 no. apartments consist of the following:

- 50 no. 1-bedroom apartments
- 151 no. 2-bedroom apartments
- 21 no. 3-bedroom apartments

The development includes the delivery of a section of the Dunshaughlin Outer Relief Road from the Phase 1 site boundary to the northern site boundary, including connections to adjacent lands, improvements to a section of the Outer Relief Road delivered with the Phase 1 development to the south, a bus bay and toucan crossing on the Dublin Road, all associated open space, boundary treatment, internal roads, cycle and pedestrian infrastructure, foul and surface water drainage, a pumping station, attenuation tanks, car and cycle parking, ESB substations, other services and all other associated development.

The proposed residential scheme will be divided into two key zones with mainly housing to the south and west and apartments and neighbourhood centre on the eastern side of the site. A linear park along the western boundary will provide a buffer zone between the proposed housing and the existing Dunshaughlin Business Park and Maelduin housing estate. A selection of open spaces and pocket parks will be provided throughout the site with passive supervision from overlooking residences and which will be accessible to all of the residents of the proposed development. It is envisaged that the open space will accommodate attenuation. The existing site vegetation consisting of field defining hedgerows has been evaluated from a landscape and ecological basis and the hedgerows along the southern, western and northern boundaries are marked for retention and incorporation into the proposed scheme based on their long term arboricultural and ecological value and will be supplemented with additional native tree and hedgerow planting (See Doyle O'Troithigh Landscape Masterplan Drawings LP-01-PP to LP-05-PP & McCrossan O'Rourke Manning SHD Masterplan Drawing)).

Vehicular access will be from the R147 and with a potential future link road (Dunshaughlin Outer Relief Road) from the development to the Lagore Road to the north of the site. There will be a main pedestrian / cycle route

though the centre of the site, following the route of a services wayleave from the R147 to the Coldrick's Pass / Kellet's Grove Estate with green link routes to the east and west as per the SHD Masterplan.



Fig. 6.4.1– SHD Site Layout Plan prepared by MCORM Architects

6.5 POTENTIAL IMPACT OF THE PROPOSED DEVELOPMENT

The change from a primarily agricultural landscape to that of a mixed housing development will result in a material change in the landscape character of the site. The creation of new housing and ancillary facilities are the most visually negative in the early stages of development but as the project completes and the planting establishes and develops the negative visual impacts are lessened. The landscape around the site area is classified as being of moderate sensitivity in the Meath Development Plan but is zoned for residential and active and passive recreation therefore the change from agriculture to residential has been expected for some time.

The presence of the existing Dunshaughlin Business Park and Maelduin/ Coldrick's Pass / Kellet's Grove housing developments adjoining the site to the west and north will mean the proposed development will be visually linked to existing built environment and will be seen as a natural extension of the existing built form reducing the negative visual impact of the change from an agricultural landscape to a mixed housing development.

The existing hedgerows on the boundaries provide screening to receptors around the site. Where appropriate and sustainable in the long-term, the existing hedgerows on the southern, western and northern boundaries will be retained on the development lands. Hedgerows within the site will be removed to facilitate development but significant native tree and hedgerow planting as part of the landscape design strategy (See Doyle O'Troithigh Landscape Masterplan Drawings LP-01-PP to LP-05-PP and Planting Plans PP-01-PP to PP-04-PP) will enhance the development and assist the integration of the site into the landscape of the wider area. The existing hedgerow No. 1 bounding the earlier Willows development phase from the R147 will be removed as the granted development proceeds. The granted phase of the Willows development is likely to proceed before the SHD lands are developed and therefore the proposed SHD development will be screened by the new development (See Photomontage No. 3).

6.6 CUMULATIVE IMPACT

The construction proposals for this development comply with the Meath Co. Co. Development Plan 2013 -2019 and the Local Area Plan 2009 – 2015 with an A2 Zoning 'to provide for new residential communities and community facilities'. Given the lack of housing construction during the economic downturn and the amount of zoned land available for development around the town, residential development will be a notable feature of the town in the years to come. Dunshaughlin has already seen a number of residential developments on the main access roads commence construction in 2018. This SHD development, if granted, will increase the level of development close to the town. Therefore, there will be a visually perceived cumulative level of development associated with the town of Dunshaughlin. However, this majority of this SHD development stretches out behind the existing recently constructed housing development bounding the R147 and will also be partially screened by retained hedgerows particularly on the western boundary. The cumulative impact of the proposed development on the town and main arterial routes would therefore be slight in this case.

6.7 DO NOTHING IMPACT

The lands are currently being farmed and should the development not proceed the lands would remain as farmland in the short term. However, the fact that the lands are adjoining the town and are zoned for development and the as there is currently a shortage of available housing it is likely that the lands would be developed for residential use in the near future.

6.8 AVOIDANCE, REMEDIAL AND MITIGATION MEASURES

Design Phase

L&V Des 1

The development lands slope down from north to south and there would be potential visual impacts from the R147 and from the residents of early phases of the Willows development to the south. The taller elements of the scheme have been restricted to the lowest site elevations to reduce their visual impact on the surrounding landscape.

L&V Des 2

There are glimpse views through the existing mature hedgerow into the site from the Dunshaughlin Business Park to the west. There are also views of the site from the Maelduin Estate particularly from the rear second floor windows. A landscape strip of up to 16M width along this boundary has been included in the Landscape

Masterplan with a visually strong landscape strip (See Doyle O'Troithigh Drawing LP-01-PP to LP-05-PP) which will include the retention of the existing boundary hedgerow with mature trees and the planting of a significant number native species trees and hedgerows in this area to provide screening for affected receptors to the west of the site (See Photomontage 5).

L&V Des 3

The northern part of the site is partially open to views from the Coldrick's Pass / Kellet's Grove Estates (See Photomontages 6, 7 & 8). It is proposed to provide separation between this estate boundary and the development and create a landscaped area with suitable tree, native species hedgerow and shrub planting (See Doyle O'Troithigh Landscape Layout Proposals Fig. 6.4.1). It is also proposed to create a pedestrian / cycleway link between the development and Kellet's Grove Estate.

L&V Des 4

There is no visible housing to the east of the site and the nearest housing is separated from the site by intervening mature hedgerows and open farmland. The taller elements of the development are located on the eastern side which will reduce the visual impact to the existing residential areas associated with Dunshaughlin to the west and southwest and minimal visual impact to views from the east. (See Photomontage No. 10). Landscape proposals for the eastern section of the site bounding the proposed Outer Relief Road include a separation between the development and the roadway which will contain landscaped open space with extensive tree, shrub and hedgerow planting (See Doyle O'Troithigh Masterplan No. LP-01-PP and CGI No. 14).

Views towards the site from the Lagore Road (Photomontage No. 9) are closed by existing hedgerows in farmland to the north of the site and therefore there would be no visual impact from the development proposals on views from this location.



FIG. 6.8.1 – LANDSCAPE MASTERPLAN (LP-01-PP)

6.9 PREDICTED EFFECTS OF THE PROPOSED DEVELOPMENT

6.9.1 Visual Impact: Photomontages

Ten photomontages (Refer to Digital Dimensions brochure included as Appendix 6.1) have been prepared to illustrate the physical and visual character of this residential development and its effects on its surrounds. For information purposes Appendix 6.1 includes the artistic impression CGI's prepared for the scheme. In each instance the existing view is illustrated together with the proposed development as seen from the same viewpoint. A description of the visual impact from each viewpoint is illustrated in Table 6.9.1 below.

6.9.1 Visual Impact: Photomontage Locations

View	Description	Location in relation to site:
View 01	View north west into site from R147	South
View 02	View north east into site from edge of current Willows development	South
View 03	View north east from R147	South West
View 04	View north east from adjoining lands	South West
View 05	View east from Dunshaughlin Business Park	West
View 06	View south from Coldrick's Pass estate	North
View 07	View south from Coldrick's Pass estate	North
View 08	View south west from Kellet's Grove estate	North East
View 09	View South West from Lagore Road	North East
View 10	View West from Lagore Big Road	East

PROPOSED PHOTOVIEWS OF DUNSHAUGHLIN EAST SHD

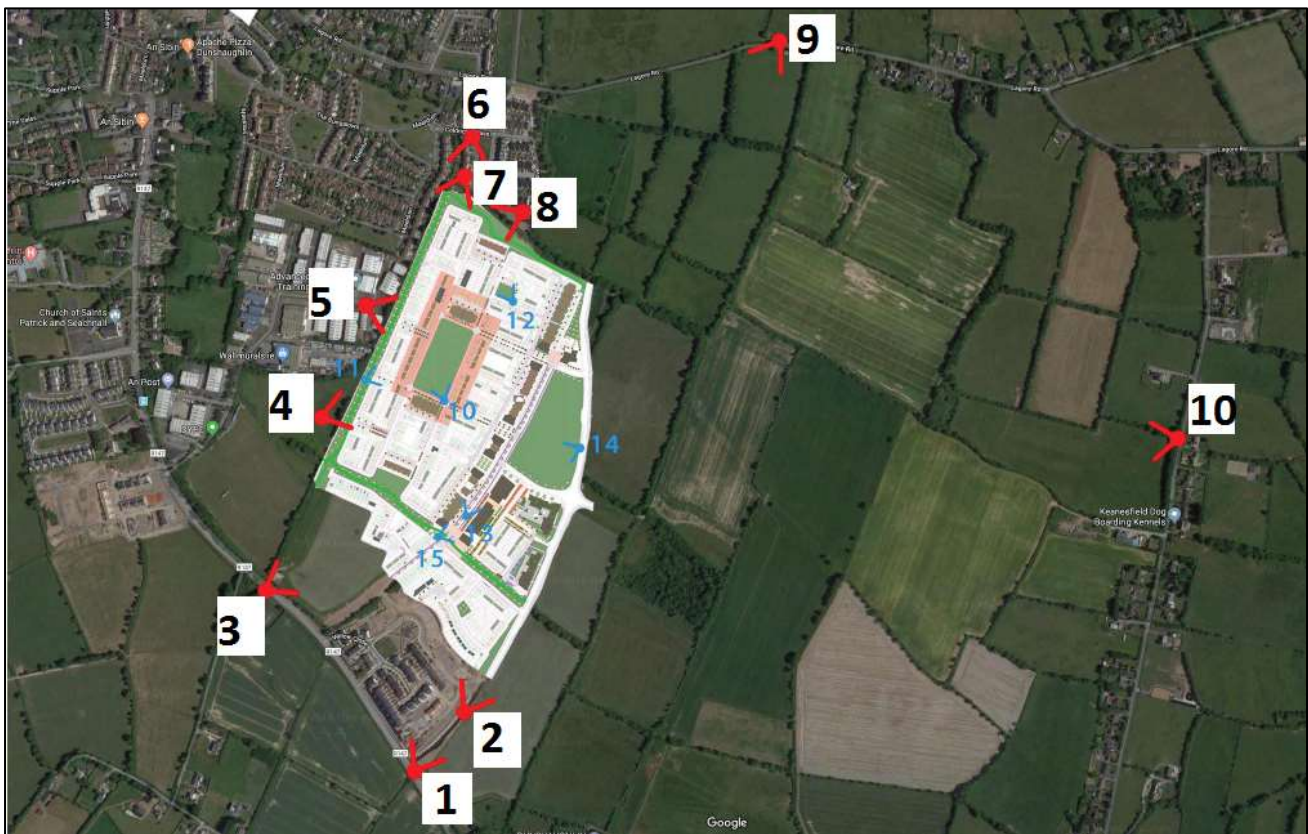


Fig 6.9.2 -Positions of Views relative to Dunshaughlin SHD Site

Photomontage View 01 View north west into site from R147	
Existing View	The roadside hedgerow has been removed from this section where the Phase 1 of the Willows development is under construction. The view is of a residential construction site with pasture fields and hedgerows in the background.
Proposed View	The proposed view will be of the newly constructed Willows development which will screen the planned SHD development to the rear. There will be some distant glimpse views of the new development from this viewpoint which will be slightly visually negative during the construction phase but will visually merge with the Willows development at completion of construction.
Impact (Construction Stage)	Slightly visually negative short term
Impact (Operation Stage)	Slight to imperceptible long term

Photomontage View 02 View north into site from the Willows Development	
Existing View	The houses under construction are part of the existing Willows development and the roadway is part of the Dunshaughlin Outer Relief Road with associated cycleway. The view northwards is closed by a tree lined hedgerow and construction site hoarding in the distance.
Proposed View	The proposed view shows the road and cycleway continuing northwards and the SHD housing and apartment buildings bound the roadway to the west. The proposed SHD development appears as a natural visual continuation of the Willows development.
Impact (Construction Stage)	Slightly visually negative short term
Impact (Operation Stage)	Slight to imperceptible long term

Photomontage View 03 View north east into site from R147	
Existing View	View 03 is taken from near the existing farm entrance off the R147 at the western boundary of the site. The view is of roadside hedgerows with a cattle handling pen and pastureland and tree lined hedgerows in the background.
Proposed View	The proposed granted western phase of the Willows development is shown bounding the R147 roadway. This development will effectively screen views of the SHD proposals from the R147. There may be some distant glimpse views of the SHD construction activity but these will be minimal in nature.
Impact (Construction Stage)	Slightly visually negative short term
Impact (Operation Stage)	Slight to imperceptible long term

Photomontage View 04 View north east towards site from adjoining lands	
Existing View	This view is taken from the proposed future education campus lands adjoining the site to the west. The mature western hedgerow boundary screens views into the site and the hedgerow to the north bounding the lands of the Dunshaughlin Office Park screens views of the commercial buildings.
Proposed View	The proposed view shows that the development (outlined in red) is screened by the western boundary hedgerow with only filtered glimpse views of the proposed SHD development.
Impact (Construction Stage)	Slightly visually negative short term
Impact (Operation Stage)	Slight to imperceptible long term

Photomontage View 05 View east from Dunshaughlin Business Park	
Existing View	The large commercial units of the Dunshaughlin Business Park line this east facing roadway and the western boundary hedgerow trees of the site close the view with filtered glimpse views into the development lands behind.
Proposed View	The proposed image shows the planned housing development partially visible behind the boundary hedgerow. A buffer area of landscaped open space with tree and hedgerow planting between the boundary hedgerow and the proposed development will create a visual separation between the Business Park and the proposed development reducing the visual impact of the proposed development.
Impact (Construction Stage)	Slightly visually negative short term
Impact (Operation Stage)	Slight to imperceptible long term

Photomontage View 06 View south into site from Coldrick's Pass Estate	
Existing View	The view is from a relatively recently constructed residential estate and the current view is slightly rising agricultural land with mature trees along the boundary and this is framed between the Coldrick's Pass houses in the background of the image.
Proposed View	The proposed view will be of a terrace of the proposed housing set back behind intervening landscaped open space with a native species hedgerow along the site boundary. The visual impact of the development is reduced as the proposed housing appears as an extension of the existing Coldricks Pass development.
Impact (Construction Stage)	Moderately visually negative impact short term
Impact (Operation Stage)	Slightly visually negative to imperceptible visual impact long term

Photomontage View 07 View south into site from Coldrick's Pass Estate	
Existing View	The view is of slightly rising agricultural tillage land with a tree lined boundary screening oblique views of the Maelduin Estate to the right. A recently planted hedgerow separates the site from the estate.
Proposed View	The visual impact of the proposals will be moderately visually negative during the construction phase but will be slight to imperceptible in the long term as the tree and hedge planting matures.
Impact (Construction Stage)	Moderately visually negative impact short term
Impact (Operation Stage)	Slightly visually negative to imperceptible visual impact long term

Photomontage View 08 View southwest into site from Kellet's Grove Estate	
Existing View	The existing view is of slightly rising agricultural land in the background with a poor-quality intermittent hedge line with trees in the mid ground. The existing Maelduin Estate is visible in the distance with a recently completed section of Kellet's Grove estate is nearing completion at this viewpoint.
Proposed View	The proposed view will be that of a terrace of housing set behind the existing hedgerow with proposed supplemental hedgerow planting and tree planting, connecting pathways and cycle paths creating an attractive area of open space for all the neighbouring houses.
Impact (Construction Stage)	Moderately visually negative visual impact short term
Impact (Operation Stage)	Imperceptible long term

Photomontage View 09 View south west towards site from Lagore Road	
Existing View	The Lagore Road passes approximately 300M to the north of the site. The view is across agricultural pasture land with mature tree lined hedgerows closing views to the south.
Proposed View	Intervening vegetation screens views of the proposed development from this viewpoint.
Impact (Construction Stage)	Imperceptible short term
Impact (Operation Stage)	Imperceptible long term

Photomontage View 10 View West from Lagore Big Road	
Existing View	There are a number of houses on the western side of this roadway which would have views towards the site approximately 1Km to the west. The view is of pasturelands with mature tree lined hedgerows closing views to the west.
Proposed View	This glimpse view through a farm gateway shows the outline of the proposed development in the distance. Distance from the site and the intervening hedgerows and landform would mean a very slight to imperceptible negative visual impact.
Impact (Construction Stage)	Slight to Imperceptible short term
Impact (Operation Stage)	Imperceptible long term

6.10 MONITORING

The retained hedgerows will be monitored by the project arborist for the duration of the construction period and will advise on maintenance and management over this period. Similarly with the landscape, construction and subsequent planting will be monitored by the consultant Landscape Architect during the landscape defects period. Ongoing landscape maintenance of all the site's planting as part of the development plans will ensure the planting will provide screening into the future.

6.11 REINSTATEMENT

All public areas impacted by construction operations will be finished to a Taking in Charge level and to the satisfaction of the local authority.

6.12 INTERACTIONS

The main interactions of relevance to landscape and visual are with biodiversity, water (particularly SuDs) and cultural heritage / archaeology. The landscape design for the proposed development and the surface water management proposals have been developed in an iterative manner, taking into account the requirements to minimise adverse effects on biodiversity and mature trees and to provide opportunity for enhanced biodiversity, and to positively work with the surface water environment.

6.13 DIFFICULTIES ENCOUNTERED IN COMPILING

There were no particular difficulties encountered during the compilation of this section of the EIAR Report.

6.14 REFERENCES

- *'Guidelines on the Information to be contained in Environmental Impact Statements'*, Environmental Protection Agency, 2002.
- *Revised Guidelines on the information to be contained in environmental impact statements' - Draft September 2015*
- *'Advice Notes on Current Practice in the preparation of Environmental Impact Statements'*, Environmental Protection Agency, 2015.
- *Draft 2017 EPA Guidelines on Environmental Impact Assessment*
- *'Guidelines for Landscape and Visual Assessment'*, 3rdEd., Landscape Institute and Institute of Environmental Management and Assessment, 2013.
- *Meath County Development Plan 2013 -2019*
- *Dunshaughlin LAP 2009-2015*

Appendix 6.1- Photomontage and CGI Brochure