

Kellystown Road – Route Selection Option Stage

Preliminary Review of Screening for Environmental Impact
Assessment (EIA)

Strategic Assessment **Built Environment**

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Client:

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1 Introduction

Fingal County Council (FCC) is developing the Kellystown Road Scheme (“the Project”) from the Diswellstown Road Extension to the proposed Ongar Barnhill Distributor Road. The Project (Kellystown Road) is an identified Road Scheme in Table 7.1 under Objective MT42 of the Fingal Development Plan 2017-2023.

Clifton Scannell Emerson Associates (CSEA), have been commissioned by FCC to identify the preferred routes for the proposed Project, and if required, to subsequently design the Project deliver the appropriate Statutory Approvals.

The Project is currently at Route Selection Report Stage and will go on public display / consultation in September 2020.

As the Project is at an early stage and has not yet progressed to design and environmental examination, Brady Shipman Martin has been appointed by Fingal County Council to prepare a Preliminary Review of the Route Selection Stage of the Project in relation to Screening for the Requirement for Environmental Impact Assessment (EIA).

Full screening for the requirement for EIA will be carried out as part of the future design and statutory approvals process.

This Preliminary Report has been prepared for Fingal County Council by Thomas Burns, (B.Agr.Sc. (Landscape); Dip. E.I.A. Mgmt., Ad.Dip. Plan. & En. Law) Partner with Brady Shipman Martin, environmental, landscape and planning consultants.

The Route Selection Report for the Proposed Development is also accompanied by a Preliminary Review of Screening of the Requirement for Appropriate Assessment (AA) prepared by Brady Shipman Martin.

The Study Area for the Kellystown Road is located to the southwest of currently developed areas of Clonsilla, Diswellstown/Carpenterstown and Blanchardstown. The area is bordered to the north by the Royal Canal and the Dublin-Maynooth rail line (and the Sligo line), to the south by the R121 Luttrellstown Road, and to the east by the Porterstown Road/Porterstown Link Road. The area is bisected by the R121 Clonsilla Road which runs south to north across the centre of the Study Area. To the west the Study Area extends beyond the Royal Canal rail line corridor to the proposed Ongar Barnhill Distributor Road (approved 2007). Refer to Figure 1.

[illegible]

3 Environmental Impact Assessment (EIA)

EIA requirements derive from Council Directive 85/337/EEC on the assessment of the effects of certain public and private projects on the environment, as amended by Directive 97/11/EC, 2003/35/EC and 2009/31/EC. The Directive and its amendments were subsequently codified and replaced by Directive 2001/92/EU, as amended in turn by Directive 2014/52/EU. This amending Directive was transposed into national planning consent procedures in September 2018 through the European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018 (S.I. No. 296 of 2018).

The objective of the EIA Directive is to ensure a high level of protection of the environment and human health, through the establishment of minimum requirements for environmental impact assessment prior to development consent being given, of public and private developments that are likely to have significant effects on the environment.

EIA is mandatory for certain projects and for other projects that meet or exceed a stated threshold as set out in Annexes I and II of the Directive (and Part 1 and Part 2 of Schedule 5 of the Planning and Development Regulations 2001, as amended). Projects that do not meet or exceed a stated threshold are subject to an assessment for the requirement, or not, for ‘sub-threshold’ EIA.

3.1 Mandatory Requirement for EIA

3.1.1 Planning and Development Act 2001, as amended

The Planning and Development Act 2000, as amended, provides the legislative basis for mandatory EIA under the planning and development acts.

Section 172 states:

“An environmental impact assessment shall be carried out by a planning authority or the Board, as the case may be, in respect of an application for consent for proposed development where either:

(a) the proposed development would be of a class specified in –

(i) Part 1 of Schedule 5 of the Planning and Development Regulations 2001, and either –

I. such development would exceed any relevant quantity, area or other limit specified in that Part, or

II. no quantity, area or other limit is specified in that Part in respect of the development concerned,

or

(ii) Part 2 of Schedule 5 of the Planning and Development Regulations 2001 and either –

I. such development would exceed any relevant quantity, area or other limit specified in that Part, or

II. no quantity, area or other limit is specified in that Part in respect of the development concerned,

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Projects listed for the purposes of EIA in Part 1 of Schedule 5 typically include major industrial, chemical, energy, waste, infrastructure and intensive agricultural developments. The proposed Project does not correspond to a class of development set out under Part 1 of Schedule 5 and therefore, EIA will not be a mandatory requirement under this provision.

Likewise, the proposed Project does not correspond to a class of development set out under Part 2 of Schedule 5 and therefore, EIA will not be a mandatory requirement under this provision.

3.1.2 Roads Act 1993, as amended

As a road project the requirement for EIA under the Roads Act 1993, as amended, is also a relevant consideration.

The statutory procedures followed by Transport Infrastructure Ireland (TII) and local authorities/National Road Regional Design Offices (NRRDOs) in the planning, design and implementation of national road schemes are specified in the Roads Act, 1993, as amended. In this regard, ‘screening’ is the term used to describe the process of ascertaining whether a road scheme requires an EIA and is determined by reference to mandatory and discretionary provisions set out in the Road Act 1993 (as amended).

Ireland has implemented the EU EIA Directive(s) by requiring the preparation and submission of an Environmental Impact Assessment Report (EIAR) for road projects falling within classes of development prescribed in Section 50 of the Directive.

Section 50 (1) of The European Union (Roads Act 1993) Environmental Impact Assessment (Amendment) Regulations 2019 identifies the following road developments that are subject to an environmental impact assessment:

- i. The construction of a motorway;*
- ii. The construction of a busway;*
- iii. The construction of a service area; and*
- iv. Any prescribed type of road development consisting of construction of a proposed public road or the improvement of an existing public.*

The prescribed types of proposed road development for the purpose of subsection (1)(a)(iv) of section 50 of the act shall be –

- a) The construction of a new road of four or more lanes, or the realignment or widening of an existing road so as to provide four or more lanes, where such new, realigned or widened road would be eight kilometres or more in length in a rural area, or 500m or more in length in an urban area; and*
- b) the construction of a new bridge or tunnel which would be 100 metres or more in length.*

The Project does not correspond to a type of road development listed under Section 50(1)(i), 50(1)(ii) and 50(1)(iii) of the Roads Act and therefore, EIA will not be a mandatory requirement under this provision.

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Likewise the Project does not correspond to a type of road development listed under Section 50(1)(iv)(a) of the Roads Act and therefore, EIA will not be a mandatory requirement under this provision.

The Project provides for bridge crossings of the Royal Canal and Railway and depending on the length of bridge structures (i.e. if 100m or greater) could correspond to a type of road development listed under Section 50(1)(iv)(b) of the Roads Act for which EIA would be a mandatory requirement under this provision.

3.2 Sub-threshold Requirement for EIA

Where there is no mandatory requirement for EIA, the Project will be subject to an examination / screening for the requirement for ‘sub-threshold’ EIA. This screening is based on likely significant effects on the environment and will have regard to the criteria set out in Schedule 7 and 7A of the Planning and Development Regulations 2001, as amended.

Should the Project give rise to significant effects on the environment, it will be subject to EIA and the preparation of an Environmental Impact Assessment report (EIAIR).

At Project design and statutory approvals stage the examination / screening for the requirement for EIA will consider the following aspects (from Schedule 7 and 7A of the Regulations):

1 Description of the Proposed Development

- a. The Size and Design of the whole of the Proposed Development;
- b. The Cumulation with other Existing Development and/or Development the Subject of a Consent for Proposed Development;
- c. The Nature of Any Associated Demolition Works;
- d. The Use of Natural Resources in Particular Land, Soil, Water and Biodiversity;
- e. The Production of Waste;
- f. The Risk of Major Accidents and/or Disasters including those caused by Climate Change;
- g. Risks to Human Health; and
- h. Pollution and Nuisances

2 Location of the Proposed Development

- a. Existing and Approved Land Use
- b. Relative Abundance, Availability, Quality and Regenerative Capacity of the Natural Resources (including soil, land, water and biodiversity) in the Area and its Underground
- c. Absorptive Capacity of the Natural Environment

3 Type and Characteristics of the Potential Impacts

- a. Population and Human Health;
- b. Biodiversity;

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- c. Land, Soil, Water, Air and Climate;
- d. Material Assets, Cultural Heritage;
- e. Landscape and Visual Amenity;
- f. Vulnerability of the Proposed Development to the Risk of Major Accidents and Disasters;
- g. Available Results from other Environmental Assessments;
- h. Mitigation Measures;
- i. Cumulative Impacts;
- j. Transboundary Impacts;

4 Preliminary Review of the Key Environment Factors

4.1 Natural Environment

The Study Area is generally flat and low lying. The lands typically range in elevation from approximately 58m OD to the west of the Barberstown Level Crossing, to a low of approximately 52m OD on Luttrellstown Road, 58m OD on Clonsilla Road, and reach a maximum level of 63m at the tie-in to the Porterstown Link Road at the eastern extent of the Study Area.

The Study Area is dominated by grassland throughout its extent. The agricultural land use is dominated by pasture grassland grazed by cattle. Areas of cultivated land in the form of allotments and amenity grassland in the form of playing fields and landscaped gardens of private dwellings also occur. Land boundaries within the Study Area are dominated by hedgerows and treelines. The Royal Canal and Sligo/Maynooth to Dublin railway corridor forms the northern boundary of the Study Area, while the R121 Luttrellstown Road forms the southern boundary.

The Study Area includes freshwater habitats (Barnhill Stream), grassland, woodland, cultivated land and built land and artificial surfaces. The Study Area is likely to include a wide range of common flora and fauna, including common birds. Six bat species have previously been recorded in the wider area – with the Royal Canal an important corridor. Otters are also known along the Royal Canal. Badger, Irish stoat, Irish hare and hedgerow have all been recorded in the Study Area. Common frog and smooth newt occur throughout the Study Area and given the presence of extensive areas of grassland within the study area it is possible that common lizard also occurs. The Kingfisher is known to occur along the Royal Canal and the Yellowhammer has been recorded as breeding in the wider Study Area.

A total of four European Sites have been identified within 15km of the Study Area. The Study Area is located within the River Liffey catchment and surface watercourses draining the Study Area discharge to the River Liffey. The River Liffey, in turn discharges to the Dublin Bay at the Liffey Estuary. The majority of the water runoff generated at the Study Area flows via drains to a series of ponds at Luttrellstown Estate and Golf Club before discharging to the River Liffey. The River Liffey in turn drains to Dublin Bay and the South Dublin Bay SAC and the South Dublin Bay River Tolka Estuary SPA.

The finding of the Preliminary Review of Screening for Appropriate Assessment is that the Project will not have a significant impact on European Sites, either on its own or in combination with other projects.

No Natural Heritage Areas (NHA) are located within the Study Area or within the wider surrounding area. A total of eleven proposed NHAs (pNHA) occur within a 15km radius of the project site, with the Royal Canal pNHA immediately to the north and the northern extent of the Liffey pNHA less than 300m to the south of the Study Area at Luttrellstown Demesne.

The key sensitive ecological receptors occurring within the Study Area are:

1. The Royal Canal pNHA and the Liffey Valley pNHA and the range of species that these semi-natural corridors protect.

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2. The presence of mature and historical field boundaries that have the potential to function as important commuting corridors for fauna and important foraging resources for a range of species including ground dwelling mammals such as badgers, breeding birds, bats and invertebrates.
3. A range of terrestrial mammal species protected under the Wildlife Act.
4. Breeding Kingfisher and breeding Yellowhammer, a red-listed species.

4.2 Landscape Aspects

The Fingal Landscape Character Assessment identifies the Preserved View along the Strawberry Beds Road (Lower Road) c.1 -1.5km south of the Study Area. There are no preserved views within the Study Area.

Fingal Development Plan identifies a number of trees and hedgerows within the Study Area for protection/preservation. These are around Beech Park and Shackleton Gardens, with some in proximity to the Luttrellstown Road (refer to Figure 2).

Lands at the centre of the Study Area are zoned 'HA – High Amenity', while residential and open space lands in the east of the Study Area are subject to the preparation of Kellystown LAP (in progress) in accordance with the requirement of the Development Plan.

The entirety of the Study Area located east and south of the Royal Canal is a 'Highly Sensitive Landscape' (refer to Sheet 14 of the Fingal Development Plan).

Mapped Objective GIM2 seeks to Protect the natural and built heritage of the following (which include important historic sites, landscapes and gardens, while providing significant public amenities): Beechpark (Clonsilla) (refer to Sheet 14 of the Fingal Development Plan).

The central section of the Study Area is identified as a 'Nature Development Area' (refer to Sheet 15 of Fingal Development Plan).

Shackleton's Gardens and House are located within the Study Area, as are the lands of Beech Park, and Westmanstown Gaels sports pitches. Extensive allotments are located to the northeast of the Study Area.

Luttrellstown Castle Golf and Country Club is directly to the south of the Study Area, and Westmanstown Sports Centre is to the southwest.

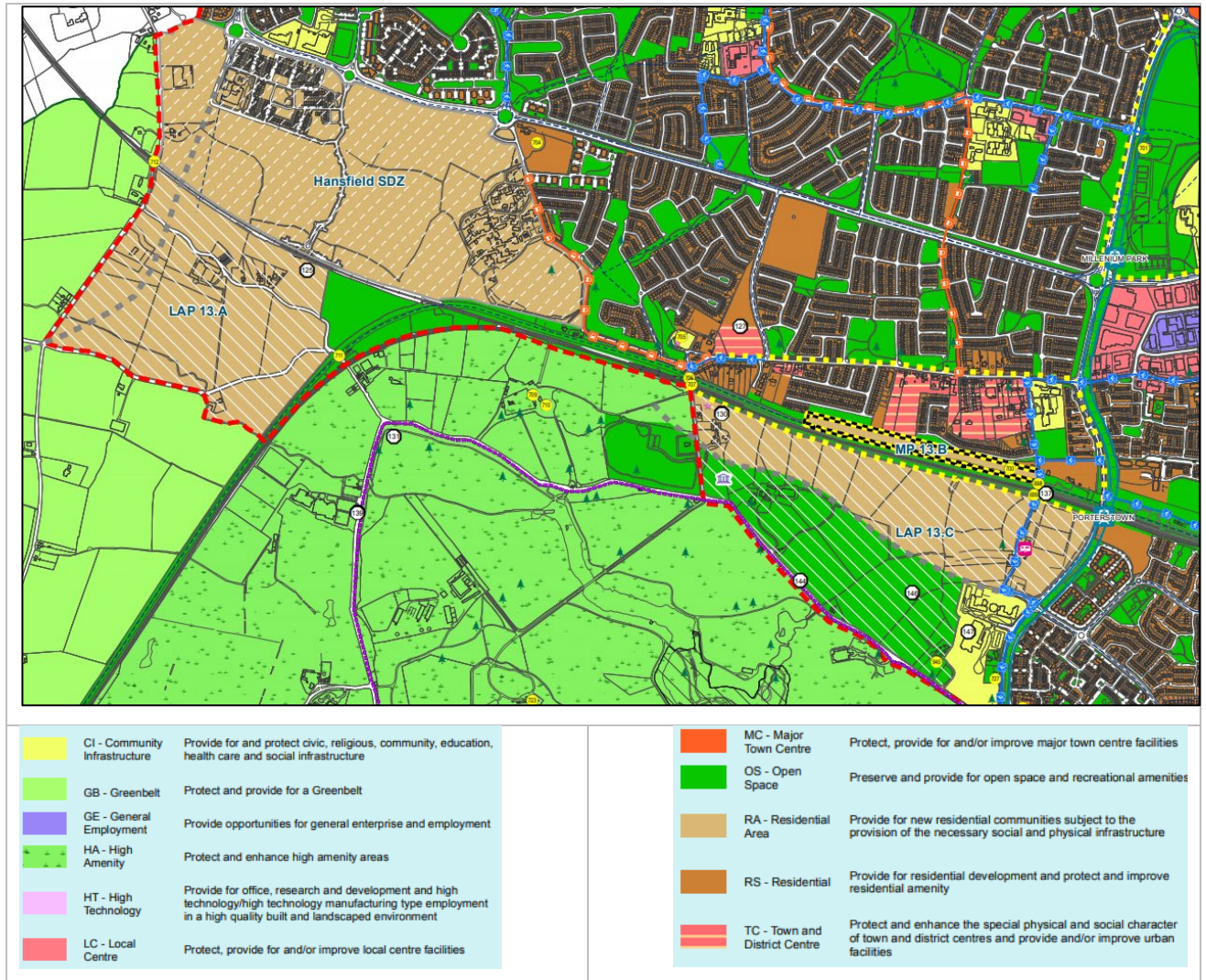


Figure 2 : Fingal Development Plan 2017 - 2023 – Extract from Sheet No. 13 Blanchardstown South

4.3 Hydrology and Flooding

4.3.1 Fluvial Flooding

An unnamed stream (referred to as Barnhill Stream in the 'Barnhill Strategic Flood Risk Assessment' report carried out for the Barnhill LAP) enters the Study Area from the west, runs in an open channel in a south-easterly direction through the Study Area before entering a long culvert under Royal Canal and the Maynooth Dublin railway line. Downstream of the railway, the stream continues to flow in a south-easterly directions towards the River Liffey.

The unnamed stream enters the western (Barnhill) portion of the Study Area (outlined in red on Figure 3) from the west through three culverts; a 1.2m wide arch culvert and twin 600mm pipes located at a slightly higher level. The open channel of the stream in this area is about 3m wide and 2m deep. The stream enters a 1.2m diameter culvert and then a 1.7m wide arch culvert under the local road close to the southern boundary of the Study Area. Further downstream, it enters a long culvert under the canal and railway. The size of the culvert is believed to be 1m in diameter.

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Downstream of the railway, the stream enters an arch culvert under local access road.

Flood modelling carried out for the ‘Barnhill Strategic Flood Risk Assessment’ shows that there are areas of low-lying lands located to the north and south of the existing stream that are liable to flooding. The flooding is largely caused by the limited capacity of the culvert under the canal and railway. Analysis was undertaken of the proposed Ongar Barnhill Road scheme to determine the effect on the flood plain. The analysis indicates that the road embankment will displace some flood water during events in excess of the 1 in 25 year return period and is suggested that compensatory storage be provided for.

This stream is the only known waterway with potential for fluvial flooding in the Study Area.

4.3.2 Pluvial Flooding

Pluvial flooding is usually caused by intense rainfall that may only last a few hours. The resulting water follows natural valley lines, creating flow paths along roads and through and around developments and ponding in low spots, which often coincide with fluvial floodplains in low lying areas. Any areas at risk from fluvial flooding will almost certainly be at risk from pluvial flooding.

4.3.3 Groundwater Flooding

Groundwater flooding can be due to high water tables and increased recharge following long periods of wet weather. Groundwater flooding typically occurs in areas underlain by limestone and where underlying geology is highly permeable with high capacity to receive and store rainfall. The Study Area is not affected by groundwater flooding, according to the Groundwater Data Viewer available at dcenr.maps.arcgis.com.

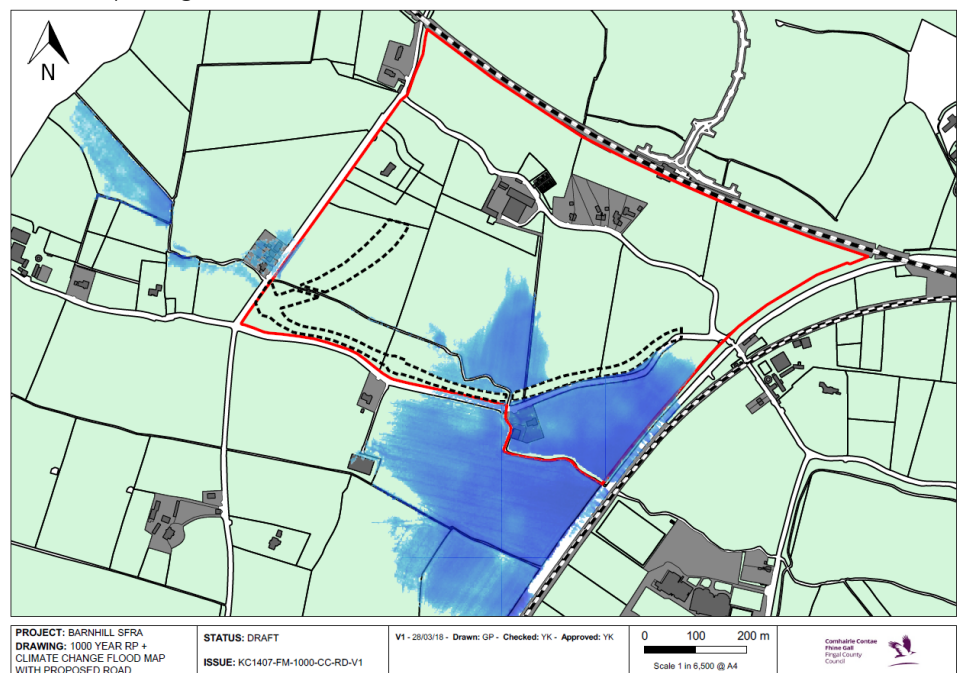


Figure 3 : 1000 Year RP + Climate Change Flood Map with proposed Ongar Barnhill Road in Place

4.4 Soils, Geology and Hydrogeology

A significant portion of the Study Area is currently used for agricultural use. The Study Area is underlain by moderately drained and moderate fertility soils.

The Study Area is underlain by fine loamy drift with limestones. Based on a review of the GSI aquifer vulnerability maps for the area, it is assessed that the subsoil is generally not greater than 10 metres in thickness, with exposed rock in places. The bedrock geology of the area consists predominately of limestones and shale.

The Ballysteen Formation underlies the majority of the Study Area and comprises of dark-grey bioclastic limestone and subsidiary shale from the same era.

The Kellystown area is underlain by Tober Colleen Formation of Calcareous shale, limestone conglomerate.

The Carrighill Formation underlies the south-eastern portion of the Study Area. The Carrighill Formation is made up of deep marine turbidite sequence; mudstone, greywacke & conglomerate.

There are no quarries or recorded geological heritage sites within the Study Area. The closest geological heritage site is Mulhuddart Well which is 3.5km from the Study Area.

In the Kellystown area, the aquifer is classified as 'Pl' 'Poor Aquifer - Bedrock which is Generally Unproductive except for Local Zones'. In the remainder of the Study Area the aquifer is 'Ll' "locally important aquifer" which is 'moderately productive only in local zones'.

A review of the subsoil thickness indicates depth to bedrock is generally not greater than 10 metres below land surface with exposed rock/near surface rock in places. The vulnerability of the aquifer ranges from "moderate to high to extreme" across the Study Area. The extreme area is located along the Royal Canal corridor in the north of the Study Area, with the high area through the centre and the moderate area to the south.

The groundwater body in the Kellystown area has been assigned 'Good' status. There are no regional groundwater supplies, SPA or wells identified within the Study Area.

4.5 Cultural Heritage

The Study Area extends through predominantly greenfield lands, to the north of Luttrellstown demesne. The nearest recorded archaeological sites to the Study Area include the ring barrow at Kellystown (DU013:018), and the ecclesiastical remains at Clonsilla (DU013:014). These sites are located within and less than 500 metres from the Study Area.

There is one recorded archaeological site located within the Study Area. This is DU013:018 possible ring barrows at Kellystown.

RMP No.:	DU013-018
Townland:	Kellystown
Parish:	Clonsilla
Barony:	Castleknock

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Classification:	Possible Ring Barrows
Description:	Three conjoined barrows, which comprise of an external bank and internal ditch enclosing slightly raised interiors. Average internal diam. 11m. Bank width 2.5m, height 0.6m. Ditch 2m wide and 0.25m deep. All three monuments are very clearly defined within the aerial photographs taken of the area.
Ref.:	SMR file

The results of the cartographic analysis revealed that the footprint of the estates and demesnes of Kellystown, Green Mount House, Luttrellstown, Beech Park House and Barberstown remain on the whole intact. No additional features of potential archaeological significance were noted in the constraints Study Area, through cartographic analysis.

Inspection of the aerial photographic coverage of the Study Area revealed that the footprint of the demesnes of Kellystown, Green Mount House, Luttrellstown, Beech Park House and Barberstown remain on the whole intact. The Study Area consists of demesne lands/greenfield areas, and as with all greenfield areas, there is the potential to reveal previously unrecorded archaeological remains through ground disturbance associated with construction activity. No features of potential archaeological significance were noted in the Study Area, through aerial photographic analysis.

The Study Area includes Beech Park House which has the Protected Structure Nos.709 and 710 comprising the ‘former outbuildings of Beech Park house’ and the ‘house, lodge and gates’.

The walls of the Luttrellstown Estate form the southern boundary of a significant portion of the Study Area.

4.6 Noise and Vibration

The existing environment of the Study Area is predominately rural in nature but is on the boundary of the sub-urban areas of wider Blanchardstown area. The land use within the Study Area is predominately a mixture of greenfield lands used for farming, residential properties, some Fingal County Council parkland and existing school. Review of Ordnance Survey, aerial and digital mapping noted that the main contributors to the noise environment are likely to be from road traffic along the existing regional and minor local roads, the rail line, farm yard activities and general environmental sources including bird song and rustling foliage.

Fingal County Council (FCC) have produced a draft Noise Action Plan for Fingal County 2019 - 2023 to provide an overview of the regulations, to review the results of the latest strategic noise maps for the FCC administrative area within the Dublin Agglomeration, to set out an approach to the strategic management and control of environmental noise for the period 2018 – 2023, and to help inform the overall Dublin Agglomeration Noise Action Plan. In the vicinity of the Study Area, sections of the M50, N3, R121 Clonsilla Road and Luttrellstown Road, and the R149 from Lucan to Clonee have been mapped.

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Mapping indicates that the contribution from road traffic noise during night-time periods is typically below 40dB L_{night} in the Study Area and the L_{den} noise level associated with road traffic noise is typically below 55dB in the Study Area and all are below the onset threshold for noise management, i.e. 70dB L_{den} .

4.7 Air Quality

It is likely that the major source of air pollution within the Study Area is road traffic, with some air pollution also resulting from agricultural. This are the only current known sources of air pollution within the Study Area. Air quality is variable and subject to significant spatial variation, with concentrations generally falling significantly with distance from major road sources (UK DEFRA, 2007). The highest levels of existing air pollution is experienced at the junction of Porterstown Link Road with Diswellstown Road, with the remainder of the Study Area generally experiencing rural background concentrations of pollutants.

Air Quality monitoring at Blanchardstown shows NO_2 and PM_{10} concentrations that are lower than the limit value, with this monitoring taking place directly adjacent the N3 Dublin to Navan national road, and within 500m of the M50 (the orbital motorway around Dublin City). As there are no national routes within the Study Area it is assumed that the prevailing NO_2 concentrations within the Study Area are also below the limit value.

5 Preliminary Review of Proposed Project and Environment

5.1 The Proposed Development

The proposed Kellystown Road Scheme will:

- provide an important arterial link in the context of the road network within the wider Blanchardstown area for all road users, and facilitating residential, open space and high amenity development in the Kellystown lands, in particular;
- provide connectivity to the Ongar, Barnhill and Hansfield LAP lands, and an alternative crossing of the Maynooth rail line and Royal Canal;
- Support Smarter Travel objectives by providing a safe new road link for pedestrians, cyclists and buses, open residential development lands adjacent a railway station, and provide connectivity to proposed greenways and secondary cycle networks;
- Provide arterial road with a 50kph speed limit and in accordance with the Design Manual for Urban Roads and Streets (DMURS) and the National Cycle Manual (NCM) to ensure it provides for all road users and is appropriate in its urban context.

The Project is currently at Route Selection Report stage, which details the following stages:

- Identify a suitable Study Area;
- Identify key constraints within that Study Area;

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- Develop of feasible Route Options;
- Carry out a systematic assessment of these options;
- Review stakeholder consultation; and
- Determine a Preferred Route Corridor.

The Study Area for the Project as set out on Figure 1 above, is located between the Royal Canal and Dublin-Maynooth rail line corridor to the north and the R121 Luttrellstown Road to the south. The area extends from Porterstown Road/Porterstown Link Road in the east to the proposed (approved) Ongar Barnhill Distributor Road in the west.

A number of Key Project Objectives were identified in selecting the Study Area and (Stage 1 and Stage 2) feasible route options, as follows:

- Obj01:** To open up the Kellystown LAP lands for residential development.
- Obj02:** To support Smarter Travel objectives by providing a safe new road link for pedestrians, cyclists and buses within the existing and proposed road network.
- Obj03:** To provide improved road safety by delivering a road to current road design standards, including accesses to new developments from this proposed road.
- Obj04:** To facilitate the future closing of level crossings on the Maynooth Dublin rail line in consultation with other stakeholders and as part of wider ND/NPF/NTA strategies.
- Obj05:** To provide increased opportunity for the local population to engage in physical activity.
- Obj06:** That the road route and design will minimise impact on the existing environment.
- Obj07:** To improve road based transport at a local level.
- Obj08:** To address the objectives of the Fingal County Development Plan, National Spatial Strategy and the Transport Strategy for the Greater Dublin Area 2016 - 2035 to generally improve quality of life and improve accessibility to work, education and other activities for both motorised and non-motorised modes of travel.
- Obj09:** To integrate with the surrounding National Secondary Road network and Regional Road network to minimise delays and journey times on these neighbouring routes (Obj09).
- Obj10:** To facilitate housing development potential in the Kellystown area, which can be integrated, not just with the surrounding road network, but also with the existing public transport including rail and bus.
- Obj11:** To integrate with existing and proposed pedestrian and cycling networks including the proposed Royal Canal Greenway.

5.2 Stage 1 Route Options

The Stage 1 Route Options phase identified a ‘do-nothing option’ together with 9 alternative route options within this Study Area (refer to Figure 2).

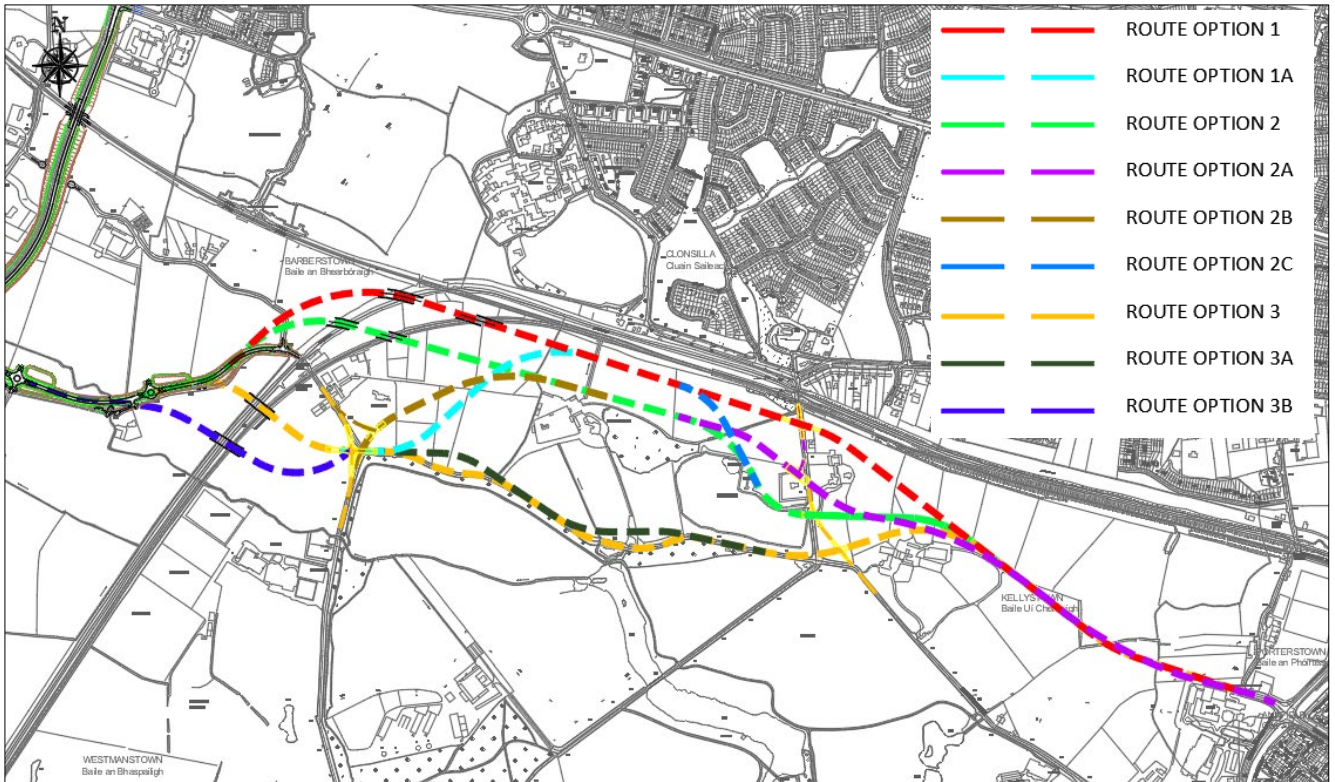


Figure 4 : Stage 1 Route Options

In relation to environmental aspects, and noting that Project Objective Obj06 seeks ‘to minimise impacts on the existing environment’, the feasible route options have been examined as summarised in the following.

5.2.1 Compatibility with Development Policy

The Do-Nothing option does not allow for development of the Kellystown lands, or for connectivity to the Ongar Barnhill lands, or for removal significant deficiencies on the Luttrellstown Road between both these proposed development areas.

All of the other Route Options allow for the development of the Kellystown lands meeting objective Obj01. In addition, they all allow connectivity between the Ongar Barnhill residential development lands and the significant open space proposals within the Kellystown LAP. All options comply with the Fingal Development Plan objective to provide Kellystown Road between Diswellstown Road Extension and Clonsilla Road. A route through the lands to the west of Clonsilla Road and crossing the railway and canal is not defined in the Development Plan. All routes provide for walking and cycling, but Options 3, 3A and 3B specifically provide for cycling and walking on Luttrellstown Road as per the objectives of the Development Plan.

For these reasons:

- Do-Nothing option is of Low Preference.

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- Options 1, 1A, 2, 2A, 2B, 2C are of Medium Preference.
- Options 3, 3A, 3B are of High Preference.

5.2.2 Landscape & Visual Aspects

The Do Nothing option is of High Preference as there would be no change to the existing landscape or visual environment.

Route Options 1, 2, 2A and 2C are of Low Preference as they have a significant long-term effect on landscape character. These options have the most significant structures with extensive visual impact, including on the Ongar Barnhill development lands, and on the proposed open space to the west of the canal. In addition, these routes run through the high amenity zoned lands to the north of Beech Park and Shackleton's Gardens. The road would be on embankment and visible from the parklands.

Route Options 1A and 2B are of Medium Preference as while the embankment through the parklands might be visually intrusive, these routes take a shorter crossing over the rail line and canal.

Route Option 3A is of Medium Preference as this option requires the road to divert from the alignment of the existing Luttrellstown Road in order to improve the alignment. This route would require the removal of mature trees and significant native hedgerow.

Route Options 3 and 3B are of High Preference as these routes follow the alignment of the existing Luttrellstown Road, while providing footpath and cycleway along the route corridor but behind and retaining the existing line of trees and hedgerow.

5.2.3 Hydrology

Notwithstanding the existing road infrastructure does not include SuDS or treatment measures, the Do Nothing option is of High Preference as it would reduce hard-standing in current greenfield areas and would not introduce any new impacts on hydrology or surface water.

All other route options will be designed to discharge to local surface water features but via appropriate attenuation and treatment measures, therefore:

- Route Options 3 and 3A are of Medium Preference as they do not significantly increase the hard-standing between Clonsilla Road and Barberstown Lane South. However, they have some impact on the floodplain to the southwest of the Study Area.
- Option 3B is of Low Preference as it runs through a floodplain for approximately 800m and would therefore have a more significant impact than either Options 3 or 3A.
- Options 1, 1A, 2, 2A, 2B and 2C are of Low Preference as they significantly increase hard-standing areas, with added drainage requirements through this area.

5.2.4 Soils, Geology & Hydrogeology

The Do Nothing option is of High Preference as it would not introduce any new impacts on vulnerable rocks and soils, aquifers and wells.

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No significant cutting or dewatering is envisaged and as such no likely significant adverse impact arises for the underlying aquifer or the Royal Canal NHA from any of the Route Options. All routes are considered to result in minimal impact on soils and geology. However, an extremely vulnerable aquifer lies beneath the northern and eastern extents of the Study Area – accordingly:

- Options 1, 1A, 2, 2A, 2B, and 2C are all of Low Preference due to the extent of route crossing the extremely vulnerable aquifer.
- Route Options 3, 3A and 3C are of Medium Preference as they are limited in the extent of route crossing the extremely vulnerable aquifer.

5.2.5 Air Quality

Despite a predicted increase in traffic and congestion and therefore air pollution on existing roads, the Do-Nothing option is of High Preference as without the Kellystown Road there will be reduced development in the area with reduced additional traffic and air pollution.

All other route options are also of High Preference due to the requirement for the road to avoid future traffic congestion thereby avoiding increased air pollution.

5.2.6 Noise & Vibration

Despite a predicted increase in traffic and congestion on existing roads, the Do-Nothing option is of High Preference as without the Kellystown Road there will be reduced development in the area and reduced additional traffic.

All other route options have been assigned a High Preference as none of the proposed routes impact significantly on a large number of existing properties, and some have the scope to improve the existing noise and vibration levels with improvements to existing roads.

5.2.7 Archaeology & Cultural Heritage

The assessment criteria in relation to Archaeology and Cultural Heritage involved identification and recording of the location, nature and dimensions of any archaeological or cultural heritage features, fabric or artefacts that may be impacted by the proposed works.

Little or no impacts arise in the Do-Nothing option and it is of High Preference.

Route Option 3 has the least potential impact on cultural heritage and has been assigned a High Preference.

Route Options 2, 2B, 2C, 3A and 3B are of Medium Preference due to a comparatively higher level of impact on cultural heritage features relating to The Courtyard, Beech Park House (RPS:709) and Beech Park House (RPS:710), and its gate lodge.

Route Option 1 and 1A are of Low Preference as they directly impact an archaeological feature (Ring Barrows RPS:708).

5.2.8 Ecology

The Do Nothing option does not introduce any new impacts on ecology, and is of High Preference under biodiversity/ecology.

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Route Option 3 follows the existing line of Luttrellstown Road for more than 1km in length and has the least potential for impacts on biodiversity/ecology of the alternative route options. The route is assigned a High Preference.

All other options will result in minor negative impacts through the loss and severance of a small number of hedgerows/tree lines. This has the potential to result in minor impact on bats and birds. All of these options have been assigned a Medium Preference. The impacts are considered minor as the existing landscape is intensively farmed with losses occurring along the hedgerows and tree lines between larger areas of farmland.

5.2.9 Agriculture (incl. other Agri-business).

The Do Nothing option does not introduce any severance or impacts on agriculture, and is of High Preference.

Route Options 3, 3A and 3B have minor impacts on agricultural land that is not zoned for residential development and are of High Preference.

Remaining Route Options 1, 1A, 2, 2A, 2B and 2C would result in significant severance on agriculture. These Route Options are of Low Preference.

5.2.10 Summary

The ‘do-nothing option’ and 6 of the alternative route options have not been carried forward to the Stage 2 route option assessment as they do not meet the Project Objectives as summarised in the following.

Do-nothing Option

The Do-Nothing option fails to address the need for a road scheme that allows for development of the Kellystown lands to allow for expansion of the Blanchardstown area to meet projected needs. It does not provide a safe link between Clonsilla Road and Barberstown for all road users, including pedestrians and cyclists. It does not provide for a high quality link over the railway and canal for the large residential development zones of Ongar, Barnhill and Hansfield to access the open space and recreational facilities to be provided in the Kellystown LAP.

Route Options 1 and 1A

Route Options 1 and 1A do not provide connectivity to the surrounding road network with the same benefits as other options. It requires a junction directly adjacent the Clonsilla Level Crossing which may cause congestion, and would create a safety issue. Both schemes would have a visual impact on the Beech Park lands, and the two large bridges are required for Option 1 with significant visual impact on the Beech Park lands and Barnhill. These schemes include increased area of hard-standing over alternative options, which would require additional drainage to the surrounding waterways. Both route options, but in particular Option 1, cross an extremely vulnerable aquifer for much of their length. Both options impact directly on an archaeological feature, and cause significant severance of land.

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Route Option 2, 2A, 2B and 2C;

Route Options 2, 2A, 2B and 2C would have a significant visual impact on the Beech Park lands as they run close to the houses and Shackleton's Gardens, where the route would be on embankment. In addition the two bridges required for options 2, 2A and 2C would have significant visual impact on both the Beech Park lands and Barnhill. These schemes include increased area of hard-standing over alternative options, which would require additional drainage to the surrounding waterways. All routes, but in particular Route 2C, cross an extremely vulnerable aquifer for much of their length. These options cause significant severance of land. For Option 2A the junction with Clonsilla Road has significant impacts on a number of private properties.

Following the Stage 1 assessment, it is considered that 3 Route Options (3, 3A and 3B) meet the Project Objectives and are carried forward to the Stage 2 route option assessment.

5.3 Stage 2 Route Options

The Stage 2 Route Options considers 3 options, 3, 3A and 3B (refer to Figure 2).

Option 3 is preferred in terms of landscape and visual aspects, hydrology, ecology, heritage and land use.

No preference is identified between route options in terms of soils and geology, hydrogeology, noise and vibration and air quality.

Option 3A has an intermediate preference in terms of hydrology, ecology and land use.

Route Option 3 has been selected as the Preferred Route Option.

6 Preliminary Conclusion on the Requirement for EIA

It is anticipated that given the nature and scale of the Project that EIA will not be a mandatory requirement. Likewise given the location, the characteristics of the Project and the nature of environmental impacts it is anticipated that the Project will not require sub-threshold EIA and as such will screen out for EIA.

However, the final decision on the requirement for EIA and for the preparation of an EIAR will be concluded in the final Screening for the Requirement for EIA to be undertaken as part of the future design and statutory approvals process for the Project. This decision will depend on the final design, detail and likely environmental impact of the Project.

Key considerations in relation to the decision will be:

- Length of proposed bridging structures (e.g. bridge over 100m);
- Potential impact on biodiversity and protected species;
- Potential impact on hydrology and flooding, and

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- Potential impact on landscape and visual aspects (including on the Royal Canal, demesnes structures and properties, and in general within this highly sensitive landscape).

7 Key References

Directive 2011/92/EU of the European Parliament and of the Council of 13 December 2011 on the assessment of the effects of certain public and private projects on the environment.

Directive 2014/52/EU of the European Parliament and of the Council of 16 April 2014 amending Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment.

Draft Guidelines on the information to be contained in Environmental Impact Assessment Reports, Environmental Protection Agency, 2017.

Draft Noise Action Plan for Fingal County 2019-2023. Fingal County Council, September 2018.

Environmental Impact Assessment (EIA) Guidance for Consent Authorities regarding Sub-threshold Development, Department of Environment, Heritage and Local Government, 2003.

Environmental Impact Assessment of Projects: Guidance on Screening, European Commission, 2017.

Fingal Development Plan 2017-2023. Fingal County Council, 2017.

Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment, Department of Housing, Planning and Local Government, 2018.

Planning and Development Act 2000, as amended.

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Roads Act 1993, as amended.

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