Clifton Scannell Emerson Associates

Dodder Road Lower Upgrade
Part 8 Preliminary Design Report

Comhairle Contae Átha Cliath Theas
South Dublin County Council

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1 Introduction and Background

1.1 Background

South Dublin County Council (SDCC) have appointed Clifton Scannell Emerson Associates (CSEA) to provide Technical Consultancy Services for the planning process for the proposed Dodder Road Lower Upgrade.

The objective of the proposed Dodder Road Lower Upgrade Scheme is to upgrade the conditions of the existing Dodder Road Lower. The proposal contains approximately 730m of a 5m wide shared path that will link and supplement the existing Dodder Greenway route on Springfield Ave – traversing through Rathfarnham Rd–Springfield Ave junction – and the continuation of the Dodder Greenway Route located within Dublin City Council (DCC) administrative boundaries.

The proposed scheme is considered to be an "on road" section of the Dodder Greenway with the inclusion of a decisive proposal to convert Dodder Road Lower, currently a two-way system road, into a one-way system road to accommodate the proposed 5m wide shared path. The proposed one-way system layout has been designed to take account of recent traffic counts and predicted traffic increase for all existing and adjacent junctions that service the surrounding area of the proposed scheme.

The proposed scheme has been designed to current standards including the Design Manual for Urban Roads and Streets (DMURS), TII DMRB, the National Cycle Manual (NCM) and in accordance with Smarter Travel objectives.

1.2 South Dublin County Council Development Plan 2016 - 2022

The development of greenway routes is in line with South Dublin's County Council Development Plan (2016 – 2022) document under Theme 4.3 'Landscape, Natural Heritage and Amenities' which states the Local Authority's aim as:

> *"To create a well-defined and linked green structure in rural and urban areas where biodiversity, heritage, amenities and landscape are afforded protection, management and enhancement. The green setting will be enhanced by encouraging elements of the rural landscape into urban areas through greenways, linear parks and wildlife corridors...."*

South Dublin County Council (SDCC) Development Plan 2016-2022 identifies the need to protect, strengthen and improve the biodiversity linkages within the County by formulating a Green Network Plan, creating linkages between open space, sensitive habitats, river systems and incorporating walking routes and greenways. The SDCC Development Plan identifies a cycle network strategy which incorporates 'Green Routes' for providing "tourist, recreational and leisure routes through amenity areas and along water courses".

As the proposed scheme is a section of the Dodder Greenway, it complies with the policies and objectives of the Local Authority as set out in the South Dublin County Council Development Plan (2016-2022).

1.3 The Proposed Scheme

The coverage offered under the proposed scheme extends from Ely's Arch on Dodder Park Road to Dodder Park Dr as per Figure 1.3.1 below.

For a better understanding of the scheme please refer to the complementary drawings displaying the layouts to which this report refers to, and the overall scheme layout located in Appendix A of this report.

Figure 1.3.1 – Extent of proposed scheme.

The proposed Dodder Road Lower Upgrade scheme comprises of the following:

- 730 meters of a 5 meters wide shared path.
- 730 meters of road upgrade and realignment.
- Minor upgrade works to existing storm water drainage system.
- Road marking and road sign upgrade.
- 730 meter of concrete footpath upgrade.
- Public Lighting upgrade where deemed necessary.
- All associated ancillary works and integrated landscape plans.

1.4 Need for the Scheme

Over the last decade, the Greater Dublin area has experienced significant traffic management changes that has raised people's awareness to the benefits of the use of public transport and other sustainable transport modes, such as cycling.

The Design Manual for Urban Roads & Streets (DMURS) states that to encourage more sustainable travel patterns and safer streets, designers must place pedestrians and cyclists at the top of the user hierarchy. It also notes that the movement of pedestrians and cyclists shall be prioritised in line with national, regional, and local policies. Therefore, the proposed scheme is imperative to encourage a modal shift to cycling and walking.

The demand for good and safer cycle facilities within the Greater Dublin Area is clear and the proposed scheme intends to address that by delivering accessibility, permeability, and connectivity for the Dodder Greenway route and the surrounding areas. It will also provide enhanced and safer connectivity with other areas and routes, such as, Rathfarnham, Terenure and, Rathgar. Ultimately,

the route should be delivered to improve safety, reduce journey times, and contribute towards increasing numbers of trips being made by bicycle and by foot in the local catchments.

Considering that the proposed scheme is a section of the Dodder Greenway, the proposal is essential to build a well-defined and safer link between two sections of the Dodder Greenway route. Although the existing pedestrians and cyclists' facilities on Dodder Road Lower are in good conditions, they require improvements in order to be classified as a greenways and to encourage more people on choosing a more sustainable travel option such as cycling and walking.

Figure 1.4.1 below presents the essential link that the scheme will create, if delivered, for the Dodder Greenway. The yellow represents future Dodder Greenway Routes (under construction and/or being designed) and the magenta represents the area of the proposed scheme which is the subject of this report.

Figure 1.4.1 – Propose scheme (in magenta) that will link the Dodder Greenway Routes (in yellow).

Furthermore, the existing two-way system of Dodder Road Lower, having an irregular carriageway width varying from 5m to 8.90m, is not wide enough to comfortably accommodate two lanes of traffic and allow parking at the same time. The proposal also intends to address these issues and create a safer road with lay-by areas for residents, where possible, and reduce the number of non-residents currently commuting through the Dodder Road Lower.

1.5 Objectives of the Scheme

The following is a non-exhaustive list of objectives for the route taken into account by the project team in developing the Greenway to date:

I. To be a Greenway of international status - the scheme must avoid compromises and be on a par with the best greenways in the world.
II. To improve the pedestrian and cycling offer and encourage modal shift to walking and cycling as a safe and convenient means of making local trips. The route should aim to serve a number of different trip types, both recreational and utilitarian.
III. To Improve junction crossing facilities for pedestrian and cyclists.
IV. To Improve infrastructure for pedestrians and cyclists.

V. To connect areas of parkland - the route should provide clear and coherent connectivity, both ecological and physical, between existing parks along the river corridor - such as Bushy Park, Herbert Park, Dodder Valley Park and Dodder Linear Park etc.

VI. To enhance the ecological corridor - the scheme should have a neutral to positive impact on local ecology. This can be achieved by inclusion of complementary planting and features for flora and fauna, providing ecological linkages and wildlife corridors.

VII. To cater for local amenity - the route should benefit local communities through enhancing existing amenity paths and providing new linkages to adjacent communities and village centres.

VIII. To benefit local business - the scheme will increase accessibility to local businesses and village centres along the river corridor.

IX. To cater for tourist amenity - it is envisaged that the route will attract walking and cycle tourists undertaking trails and circuits through the Dublin and Wicklow Mountains.

X. To cater for commuting – where commuting currently exists along the existing routes the scheme will either; ensure it is facilitated in a pedestrian priority environment or by provision of an alternative route for commuting cyclists if required.

XI. To achieve a Quality of Service[1] (QOS)1 A or A+ on all off-road sections in accordance with the National Cycle Manual (NCM).

XII. To achieve a Quality of Service (QOS) B or more on any on road sections in accordance with the National Cycle Manual (NCM)

1.6 Layout Options Considered

To assist in yielding the final proposed layout for the scheme, several options were discussed, assessed and analysed during the preliminary design stage. The final and preferred proposed scheme layout was deemed optimum taking into consideration the objectives of the overall Dodder Greenway and the potential impact on residents residing along Dodder Road Lower due to the modifications to the existing carriageway proposed under the scheme.

The options assessed for the final layout of the proposed Dodder Road Lower Upgrade Scheme will not be thoroughly discussed under this report as it is not deemed to be within the intention of the report. However, some elements of different layout options will be briefly discussed to indicate how other options did not satisfy the objectives of the Dodder Greenway and/or were deemed not feasible and/or not viable.

As a requirement from the NTA and to achieve a high quality of service on all off road sections, an overall width of 5m of shared pathway is essential for the proposed scheme as it provides sufficient width to facilitate evasive action, if needed, and/or avoidance of potential conflict in accordance with the National Cycles Manual (NCM). With the above in mind, it was determined that a 5m wide shared pathway would be proposed for the scheme. To accommodate a 5m wide shared pathway that is proposed to run in parallel to Dodder Road Lower, only two viable options were brought forward for assessment/consideration: to reduce the existing carriageway width or to extend the existing path to the river side.

To extend the existing path to the river side was considered unfeasible, financially unviable and, environmentally impractical as it would require the extension of the existing path edge over the

[1] Quality of Service is a measurement of the degree to which the attributes and needs of the cyclist are met. In other words, it describes the quality of the cycling environment – a high Quality of Service will better meet the 5 Needs of the Cyclist.

existing Dodder River footprint. Additionally, it was envisaged that the introduction of retaining structures would be required to sustain the additional width of the proposed path extending over the existing Dodder River footprint which was not considered to be economically or ecologically viable.

It was also anticipated that to reduce the existing carriageway width would likely generate some resistance from the residents residing along Dodder Road Lower. However, to support said option and to provide engineering solutions into the design, a traffic analysis was carried out taking account of recent traffic counts and predicted traffic increase for all existing and adjacent junctions that service the surrounding area of the proposed scheme. The traffic analysis was conducted considering a 'do nothing' scenario and a 'do something' scenario, where the 'do something' scenarios is considered to be the option to reduce the existing carriageway width and to transform it into a one-way system carriageway.

During the traffic survey it was discovered that there is an excessive number of non-residents that use Dodder Road Lower as a commuting option from west to east and east to west. It is clear that transforming Dodder Road Lower into a one-way system road, from east to west, will potentially eliminate traffic from west to east on the road and that there will be a significant reduction in the volume of traffic on Dodder Road Lower. The proposal to reroute traffic from Dodder Road Lower onto adjacent roads was also assessed with regards to its impact on surrounding junctions, results of which are as detailed in Chapter 5 of this report.

In conclusion, a proposed one-way system for Dodder Road Lower will reduce the traffic on the road, will transform it into a safer environment for the 'on-road' section of the Greenway and will have minor impacts on existing traffic patterns and travel times.

2 Environmental Considerations

2.1 Environmental Impact Assessment Screening

This Environmental Impact Assessment (EIA) Screening Report has determined that the proposed development does not exceed the thresholds that trigger the mandatory requirement for EIA and subsequently the proposed development is deemed to be a sub-threshold development. Accordingly, a Screening Assessment has been carried out in respect of this sub-threshold development in accordance with Schedule 7 of the Planning and Development Regulations 2001 – 2019. This EIA Screening assessment found that the proposed development is not likely to result in significant negative environmental effects. It is therefore recommended to South Dublin County Council that the proposed development would not be likely to have significant effects on the environment by virtue of its characteristics, location, size or potential impacts and does not require an Environmental Impact Assessment Report to be undertaken.

2.2 Screening for Appropriate Assessment

A Screening for Appropriate Assessment (AA) Report has been prepared for the proposed development in accordance with Article 6(3) of the Habitats Directive, Part XAB of the Planning and Development Act, the relevant case law, established best practice and the Precautionary Principle. The AA Screening Report concluded that the proposed development, either individually or in combination with other plans or projects, is not likely to have significant effects on the South Dublin Bay and River Tolka Estuary SPA, South Dublin Bay SAC, North Bull Island SPA or any other European site in view of best scientific knowledge and the Conservation Objectives of the site concerned.

2.3 Biodiversity

The site of the proposed development is of limited value – considering the totally artificial, built-up nature of the site and the lack of significant vegetation. The vast majority of the site corresponds with Fossitt habitat classification categories, 'Buildings and artificial surfaces' (BL3). The site also contains a small area of scrub between the existing road and the riverside path, which corresponds to 'Scrub' (WS1). The site itself does not support rare or protected species.

While the site itself is of little ecological value, it is adjacent to the River Dodder and there are a number of designated sites, both upstream and downstream.

The River Dodder itself is an important wildlife corridor and contains rare and protected species including Otter, Kingfisher, Daubenton's Bat, Atlantic Salmon and Badger. Invasive species including Japanese Knotweed, Himalayan Balsam, Giant Rhubarb, Himalayan Honeysuckle and Cherry Laurel are also widespread in the Dodder catchment. Japanese Knotweed and Himalayan Balsam have been recorded on the opposite bank of the river to the proposed development.

An Ecological Impact Assessment was prepared for the entire Dodder Greenway in 2019, and this is available as a standalone Report. Owing to the location and scale of the proposed development, the fact that it will take place entirely on the existing road and the fact that routine construction best practice will be used for the duration of the construction phase, it can be concluded that there will be no impact on biodiversity during the construction phase. During the operational phase, the upgrading of the public lighting will reduce light spill onto the river which will improve this area of the river for nocturnal wildlife including bats.

It is proposed that industry standard pollution prevention measures are adhered to during construction and therefore it is considered that the proposed Scheme can be provided without any negative impact on the River Dodder. The following measures will be implemented during the construction and operation of the proposed development to prevent or reduce impacts on biodiversity.

- During the construction phase, measures will be provided to ensure that run-off from the works is contained and sediment removed prior to discharging into the nearest watercourse. The works will be carried out in accordance with Guidelines for Crossing Watercourses during the Construction of National Road Schemes (TII, 2008); Inland Fisheries Ireland document Guidelines On Protection Of Fisheries During Construction Works In And Adjacent To Waters (IFI, 2016) and the CIRIA – Guideline Document C532 Control of Water Pollution from Construction Sites (CIRIA, 2001).

- The Contractor will be required to prepare a Construction and Environmental Management Plan (CEMP) which will be signed off by South Dublin County Council prior to construction.

- Additionally, the contractor will be required to comply with the noise and vibration levels as stipulated in the TII/NRA's Guidelines for the Treatment of Noise and Vibration in National Road Schemes.

- The proposed development will include for the upgrade of the existing public lighting along the Dodder Road Lower. The proposed lighting will be directed away from river edge so as to minimise impacts on Fauna. The final design of lighting proposed as part of this development development will be approved by both the NPWS and SDCC parks department. This approach aims to ensure that there will be a negligible impact on Fauna arising from the proposed lighting design.

In addition to the four Natura 2000 sites identified in the AA Screening Report, there are two Proposed Natural Heritage Areas (pNHA) in the Zone of Influence of the proposed development. Dublin Bay is also designated as a United Nations Educational, Scientific and Cultural Organisation (UNESCO) Biosphere Reserve. Taking account of the location, nature and scale of the proposed development, there will be no impact whatsoever on any designated site.

Table 1.1 presents a summary of the designated sites which occur within the Zone of Influence, as such, are susceptible to significant ecological effects.

Designated site [site code]	Description
South Dublin Bay and River Tolka Estuary SPA [004024]	This site comprises a substantial part of Dublin Bay. It includes the intertidal area between the River Liffey and Dún Laoghaire and the estuary of the River Tolka to the north of the River Liffey, as well as Booterstown Marsh. A portion of the shallow marine waters of the bay is also included. The site is of ornithological importance as it supports an internationally important population of Light-bellied Brent Goose and nationally important populations of a further nine wintering species. Furthermore, the site supports a nationally important colony of breeding Common Tern and is an internationally important passage/staging site for three tern species. Notably, four of the species that regularly occur at this site are listed on Annex I of the Birds Directive, namely Bar-tailed Godwit, Common Tern, Arctic Tern and Roseate Tern. Parts of the site are also designated as the Ramsar Convention site "Sandymount Strand/Tolka Estuary".
North Bull Island SPA [004006]	This site covers all of the inner part of north Dublin Bay, with the seaward boundary extending from the Bull Wall lighthouse across to Drumleck Point at Howth Head. The North Bull Island SPA is of international importance for waterfowl on the basis that it regularly supports in excess of 20,000 waterfowl. The site supports internationally important populations of three species, Light-bellied Brent Goose (1,548), Black-tailed Godwit (367) and Bar-tailed Godwit (1,529). The site is one of the most important in the country for Light-bellied Brent Goose. A further 14 species have populations of national importance. The populations of Pintail and Knot are of particular note as they comprise 14% and 10% respectively of the all-Ireland population totals. While some of the birds also frequent South Dublin Bay and the River Tolka Estuary for feeding and/or roosting purposes, the majority remain within the site for much of the winter.

Designated site [site code]	Description
North Dublin Bay SAC [000206]	This site covers the inner part of north Dublin Bay, the seaward boundary extending from the Bull Wall lighthouse across to the Martello Tower at Howth Head. The North Bull Island is the focal point of this site. Saltmarsh extends along the length of the landward side of the island. The edge of the marsh is marked by an eroding edge which varies from 20 cm to 60 cm high. The marsh can be zoned into different levels according to the vegetation types present. Towards the tip of the island, the saltmarsh grades naturally into fixed dune vegetation. The habitat 'annual vegetation of drift lines' is found in places, along the length of Dollymount Strand, with species such as Sea Rocket (*Cakile maritima*), Oraches (*Atriplex* spp.) and Prickly Saltwort (*Salsola kali*). The island shelters two intertidal lagoons which are divided by a solid causeway. The sediments of the lagoons are mainly sands with a small and varying mixture of silt and clay. The north lagoon has an area known as the "*Salicornia* flat", which is dominated by *Salicornia dolichostachya*, a pioneer glasswort species, and covers about 25 ha. The sediments on the seaward side of North Bull Island are mostly sands. The site extends below the low spring tide mark to include an area of the sublittoral zone.
South Dublin Bay SAC [000210]	This site lies south of the River Liffey in Co. Dublin, and extends from the South Wall to the west pier at Dun Laoghaire. It is an intertidal site with extensive areas of sand and mudflats. The sediments are predominantly sands but grade to sandy muds near the shore at Merrion Gates. The main channel which drains the area is Cockle Lake. The bed of Dwarf Eelgrass (*Zostera noltii*) found below Merrion Gates is the largest stand on the east coast. Green algae (*Enteromorpha* spp. and *Ulva lactuca*) are distributed throughout the area at a low density. Fucoid algae occur on the rocky shore in the Maretimo to Dún Laoghaire area. Species include *Fucus spiralis, F. vesiculosus, F. serratus, Ascophyllum nodosum and Pelvetia canaliculata*. This site is a fine example of a coastal system, with extensive sand and mudflats, and incipient dune formations. South Dublin Bay is also an internationally important bird site.

Designated site [site code]	Description
Dodder Valley pNHA [000991]	This stretch of the River Dodder extends for about 2km between Firhouse Bridge and Oldbawn Bridge in the south-west of Dublin City. The vegetation consists of woodland scrub mainly of willows (Salix spp.), but up to thirteen species of tree have been recorded. The understorey vegetation contains a food variety of plant species, including Early-purple Orchid (*Orchis mascula*) and a diversity of plant species. There is also a pond in the riverbed at Firville which has flourished greatly since the floods of 1986.m Forty-eight species have been recorded recently in the area including Little Grebe, Kingfisher, Dipper and Grey Wagtail. Part of the riverbank supports a Sand Martin colony of up to 100 pairs. The site represents the last remaining stretch of natural riverbank vegetation on the River Dodder in the built-up Greater Dublin Area (NPWS, 2009)
Dolphin, Dublin Docks pNHA [000201]	Both Common Tern and Arctic Tern breed in Dublin Docks, on a man-made mooring structure known as the E.S.B. dolphin. Small numbers of Common Tern and Arctic Tern were recorded nesting on this dolphin in the 1980s. A survey in 1995 recorded nationally important numbers of Common Tern nesting here (52 pairs). The breeding population of Common Tern at this site has increased, with 216 pairs recorded in 2000. This increase was largely due to the ongoing management of the site for breeding terns. More recent data highlights this site as one of the most important Common Tern sites in the country with over 400 pairs recorded here in 2007. South Dublin Bay is an important staging/passage site for a number of tern species in the autumn (mostly late July to September). The origin of many of the birds is likely to be the Dublin breeding sites (Rockabill and the Dublin Docks) though numbers suggest that the site is also used by birds from other sites, perhaps outside the state. This site is selected for designation for its autumn tern populations: Roseate Tern (2,000 in 1999), Common Tern (5,000 in 1999) and Arctic Tern (20,000 in 1996).

Table 3.3.1 - Designated Sites in the Zone of influence

2.4 Flooding

Flood alleviation works are ongoing on the Lower Dodder with bunds and flood walls currently being constructed. The proposed development involves the reconfiguration of an existing area of hardstanding and therefore it is not anticipated that the proposed development will not contribute to flooding along the Dodder.

2.5 Population and Human Health

During the 4-month construction phase of proposed development, there is likely to be localised slight temporary negative effects due to noise, dust, visual and traffic impacts from construction works. Closure of short sections of existing footpaths will also be required during construction phase and is likely to cause temporary nuisance for the existing users. However, due to the linear nature of proposed development it is envisaged that the construction impacts will be temporary in nature and not significant.

There will be minor changes to traffic flow patterns as a result of the operation phase of proposed development. The improved walking and cycling facility will provide greatly improved and safer conditions for cyclists, road users and pedestrians. Therefore, the proposed development has the potential to make a significant positive impact on human health in the area. The proposed development supports a modal shift to more sustainable modes of transport (walking and cycling) which has the potential to improve health and help reduce the rise in sedentary lifestyles. A modal shift away from the use of the private car also has the potential to reduce air and noise emissions in the area. The increase in environmental quality will have an impact in terms of quality of life and feeling of wellbeing and increased mental health of people able to access the proposed Greenway. The proposed development will have a positive effect on landscape permeability by increasing local communities access to amenities and commercial premises. It is not expected that there will be any permanent severance as a result of the proposed works. The proposed development will therefore have a positive effect in meeting the travel and access needs of those living, working, and visiting in the wider area.

The proposed one-way system layout on the Dodder Road Lower has been designed considering recent traffic counts and predicted traffic increase for all junctions surrounding the area of the proposed scheme. The one-way system will increase the journey times for some of the residents on the Dodder Road Lower, however, as the total length of new one-way street is 730m, this impact is considered to be negligible.

2.6 Landscape and sites of Historical, Cultural or Archaeological Significance

The route of the proposed Dodder Greenway is rich in archaeological, architectural and cultural heritage features. The River Dodder itself has been identified as being rich in archaeological significance due to settlement activities tending to occur adjacent to watercourses.

The following recorded protected structures (RPS) are within 100m of the Dodder Road Lower Upgrade works:

- Pearse Bridge, Rathfarnham Road (RPS no. 193)
- Weir, Dodder Road Lower (RPS no. 194)
- Roman Arch/ Ely Arch, Dodder Road Lower (RPS no. 201)

St. Agnes Terrace Cottages, Rathfarnham Road are listed on the National Inventory of Architectural Heritage (NIAH Ref. 11211020-11211026).

Rathfarnham Village/Willbrook, 300m south of the proposed development is designated as an Architectural Conservation Areas (ACA) in the South Dublin County Council Development Plan.

None of these historical or architectural features will be impacted by the proposed development.

During the construction stage, it is inevitable that the temporary presence of plant and machinery along the river corridor will detract from certain views and amenity. However, this is considered to be only a slight temporary effect which is easily offset by the benefits accrued at the operational stage.

During the operation phase, is anticipated that there will be negligible impacts on the existing landscape as a result of the proposed development. The proposed development design has been visually integrated into the existing landscape through careful design and the retention of the existing trees and vegetation along the Dodder Road Lower. Grass verges are proposed on the south side of the road between the trees and property access points. There are no protected views in the vicinity of the proposed development, and the proposed development will not detract from the existing views of the river or views to or from any natural and built heritage features present, particularly given that the proposed development will only involve alternations to the existing footpath, cycle track and carriageway.

3 Preliminary Design

3.1 The Scheme

The proposed Dodder Road Lower Upgrade will modify the conditions of the existing road and pedestrian and cyclists' facilities. The existing pedestrian and cyclist's infrastructure are proposed to be widened to 5 metres while the existing carriageway is proposed to be narrowed down to 3.5 metres and transformed into a one-way system road. The existing undesignated parking spaces on the road will be removed and layby spaces will be introduced, where possible.

The intent of the proposed scheme is to be in line with the greenway strategy and achieve a high quality of service for all the proposed routes with a general width of 5m proposed throughout. The proposed width of the shared path for the scheme also follows the recommendation of the National Transportations Authority's National Cycle Manual where it suggests a minimum width of 2.5 metres for 2 cyclists cycling abreast with another overtaking. Given the need to also accommodate pedestrians on the route a general width of 5.0 metres is proposed.

The coverage offered under the proposed scheme extends from Ely's Arch on Dodder Park Road to Dodder Park Dr as per Figure 1.3.1. The proposed scheme will link and supplement the existing Dodder Greenway route on Springfield Ave – traversing through Rathfarnham Rd–Springfield Ave junction – and the continuation of the Dodder Greenway Route located within Dublin City Council (DCC) administrative boundaries.

All proposed works for the project will include a fully integrated landscape plan and will accommodate all the required services or all required services diversion, if any.

For a better understanding of the scheme please refer to the complementary drawings displaying the layouts to which this report refers to, and the overall scheme layout located in Appendix A of this report.

The proposed Dodder Road Lower Upgrade scheme comprises of the following:

- 730 meters of a 5 meters wide shared path.
- 730 meters of road upgrade and realignment.
- Minor upgrade works to existing storm water drainage system.
- Road marking and road sign upgrade.
- 730 meter of concrete footpath upgrade.
- Public Lighting upgrade where deemed necessary.
- All associated ancillary works and integrated landscape plans.

3.2 Proposed Road Cross Section

Along the overall extension of the scheme the proposed road cross sections are consistent. The existing carriageway is proposed to be reduced to 3.50 metres to accommodate a 5.00 metres wide shared path.

The proposed kerb realignment will occur mostly on the north side of the road, except for a section of approximately 200m where kerb realignment will occur on both sides of the road. Figure 4.2.1 below

shows the existing road cross section and the proposed road cross section located where the kerb is proposed to be realigned on both sides of the Dodder Road Lower.

The following figures are existing and proposed road cross sections on Dodder Road Lower and the table below each figure details the existing and proposed condition of each road cross section. For road cross section locations please refer to proposed Part 8 drawings.

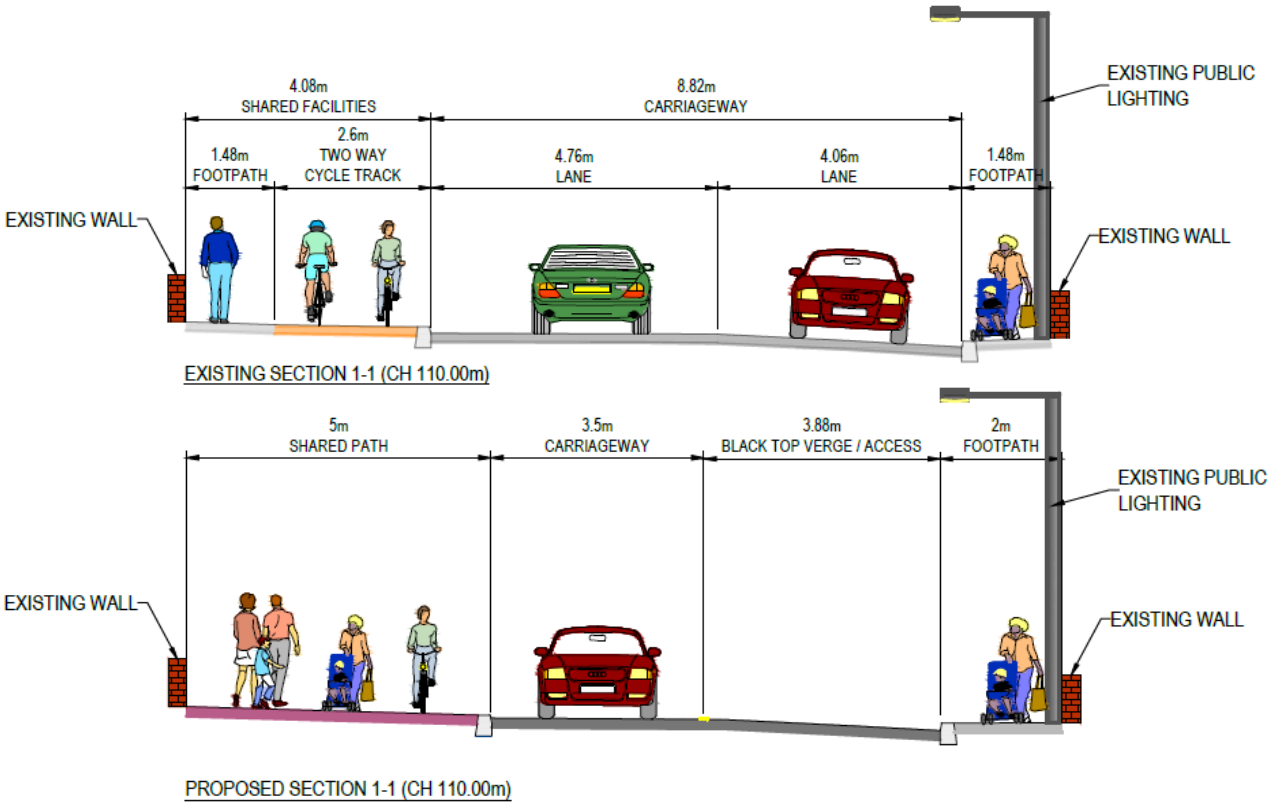

Figure 4.2.1 – Proposed and existing road cross section No. 1 on Dodder Road Lower.

Road Cross Section No. 1	Details
Existing	On the south side of the road (right hand side of existing road cross section on figure 4.2.1) the existing road cross section includes a 1.48m wide footpath. The existing 2 lanes carriageway is 8.82m wide (kerb to kerb distance). On the north side of the road (left hand side of existing road cross section on figure 4.2.1) the existing road cross section includes a 4.08m wide shared facility (road markings define pedestrians and cyclists' lanes).
Proposed	On the south side of the road (right hand side of existing road cross section on figure 4.2.1) the proposed road cross section includes a 2.00m wide footpath separated from the road by a 3.88m wide verge. The proposed road cross section includes a single 3.50m wide carriageway. On the north side of the road (left hand side of existing road cross section on figure 4.2.1) the proposed road cross section includes a 5.00m wide shared path.

Table 4.2.1 – Propose and existing Road Cross Section No. 1 Details.

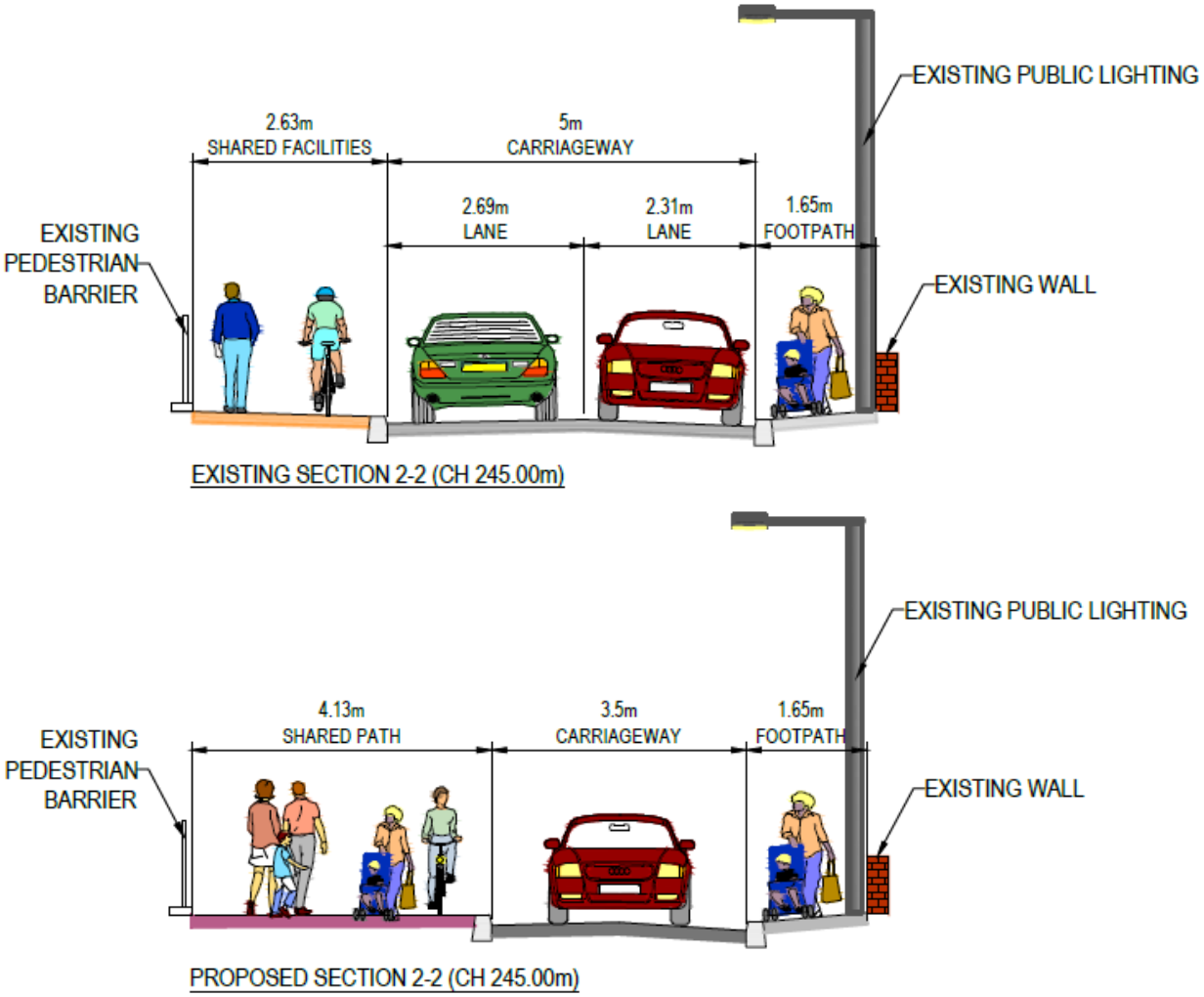

Figure 4.2.2 – Proposed and existing road cross section No. 2 on Dodder Road Lower.

Road Cross Section No. 1	Details
Existing	On the south side of the road (right hand side of existing road cross section on figure 4.2.2) the existing road cross section includes a 1.65m wide footpath. The existing 2 lanes carriageway on its narrowest section is 5m wide (kerb to kerb distance). On the north side of the road (left hand side of existing road cross section on figure 4.2.2) the existing road cross section includes a 2.63m wide shared facility.
Proposed	On the south side of the road (right hand side of existing road cross section on figure 4.2.2) the proposed road cross section includes a 1.65m wide footpath. The proposed road cross section includes a single 3.50m wide carriageway. On the north side of the road (left hand side of existing road cross section on figure 4.2.2) the proposed road cross section includes a 4.13m wide shared path.

Table 4.2.2 – Propose and existing Road Cross Section No. 2 Details.

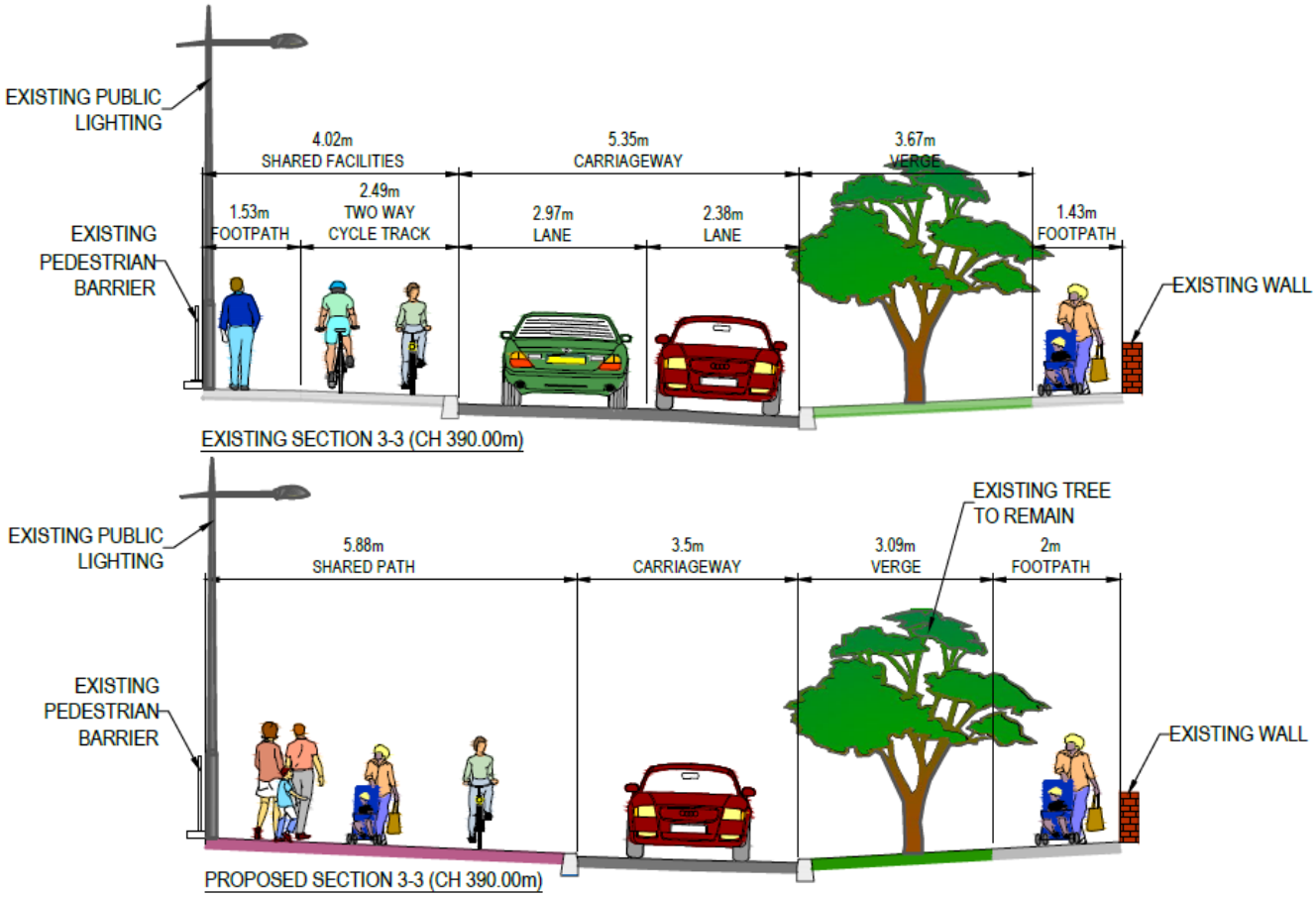

Figure 4.2.3 – Propose and existing road cross section No 3 on Dodder Road Lower.

Road Cross Section No. 3	Details
Existing	On the south side of the road (right hand side of existing road cross section on figure 4.2.3) the existing road cross section includes a 1.43m wide footpath. The existing 2 lanes carriageway is 5.35m wide (kerb to kerb distance). On the north side of the road (left hand side of existing road cross section on figure 4.2.3) the existing road cross section includes a 4.02m wide shared facility (road markings define pedestrians and cyclists lanes).
Proposed	On the south side of the road (right hand side of existing road cross section on figure 4.2.3) the proposed road cross section includes a 2.00m wide footpath separated from the road by a 3.09m wide verge. The proposed road cross section includes a single 3.50m wide carriageway. On the north side of the road (left hand side of existing road cross section on figure 4.2.3) the proposed road cross section includes a 5.88m wide shared path.

Table 4.2.3 – Propose and existing Road Cross Section No. 3 Details.

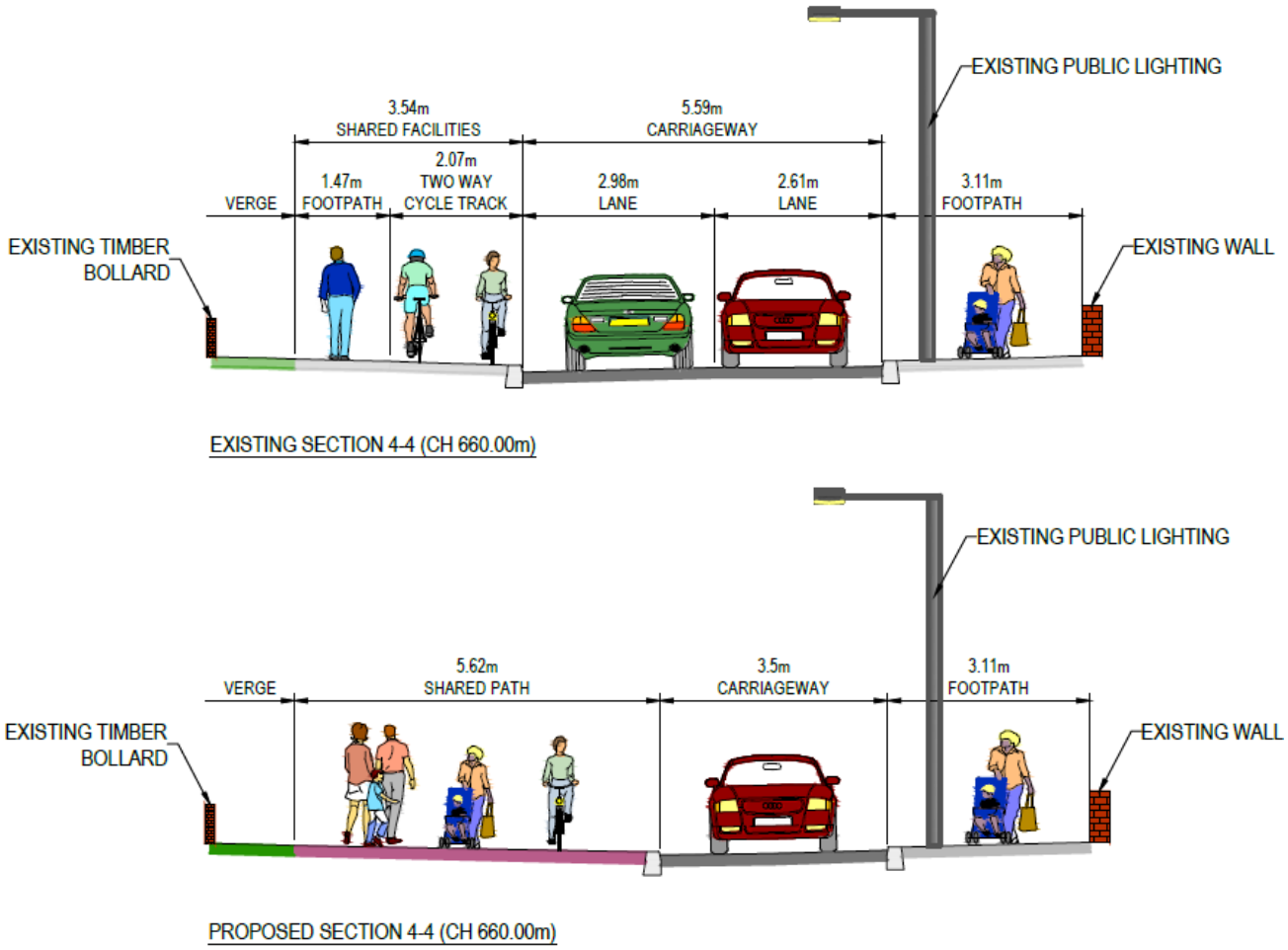

Figure 4.2.4 – Propose and existing road cross section No. 4 on Dodder Road Lower.

Road Cross Section No. 4	Details
Existing	On the south side of the road (right hand side of existing road cross section on figure 4.2.4) the existing road cross section includes a 3.11m wide footpath. The existing 2 lanes carriageway is 5.59m wide (kerb to kerb distance). On the north side of the road (left hand side of existing road cross section on figure 4.2.4) the existing road cross section includes a 3.54 wide shared facility (road markings define pedestrians and cyclists lanes).
Proposed	On the south side of the road (right hand side of existing road cross section on figure 4.2.4) the proposed road cross section includes the same 3.11 wide footpath. The proposed road cross section includes a single 3.50m wide carriageway. On the north side of the road (left hand side of existing road cross section on figure 4.2.4) the proposed road cross section includes a 5.62m wide shared path.

Table 4.2.4 – Propose and existing Road Cross Section No. 3 Details.

3.3 Horizontal & Vertical Alignment

The vertical alignment for the proposed Dodder Road Lower Upgrade has been designed to have minimum impact on the existing road. The existing longitudinal road profile will be retained, except locally where speed bumps are proposed.
The horizontal alignment of the road will be realigned considering the proposed 3.5m (kerb to kerb distance) wide carriageway.

3.4 Sustainable Transport & Smarter Travel

One of the main objectives of the Dodder Greenway is to encourage modal shift to walking and cycling as a safe and convenient means of making local trips. By been part of the Dodder Greenway, the proposed scheme also has the same objective, and it will contribute to reduce the effects of climate change by reducing the carbon emission into the atmosphere.

The World Health Organization stated that approximately 92% of people around the world breathe air that is considered under the recommended quality. The overall intention of the scheme, apart from the physical upgrade on the existing urban infrastructure, is to contribute to a better and more sustainable planet. The proposal intends to work with the National Transport Authority's (NTA) Smarter Travel Programme, supporting people to choose more sustainable travel options such as cycling and walking in this case.

The aim of Smarter Travel Programme is to raise people's awareness on how and why we make travel choices for all the trips we make. It is about considering the impact our travel decisions have on others and on ourselves. According to the NTA, between workers and students, approximately 400,000 people travel 4 kilometres or less to work or school or college by car every day – distances that could easily be cycled or walked. It has been conjectured that if this number of people changed to walking or cycling, urban traffic congestion would reduce significantly, goods movements efficiency would improve considerably, and travel times would reduce greatly.

As declared, the proposed scheme is part of the Dodder Greenway and it has the intention to encourage modal shift to walking and cycling, which successfully falls in line with the European Greenways Association's (EGA) definition of Greenways. According to the EGA greenways are communication routes reserved exclusively for nonmotorized journeys, developed in an integrated manner which enhances both the environment and quality of life of the surrounding area. These routes should meet satisfactory standards of width, gradient and surface condition to ensure that they are both user-friendly and low risk for users of all abilities.

3.5 Road Lighting

The proposal will have no impact on the existing public lighting system on the road. The existing public lighting poles and lanterns will be retained.

3.6 Surface Water Drainage

It is the schemes objective to introduce additional surface water drainage to accommodate and cater for all runoff generated by the revised schemes footprint. The new surface water drainage system will be connected to existing surface water drainage system that transverse the Dodder Road Lower on a south-north direction and discharges into the River Dodder.

Its envisaged that a petrol interceptor will be installed immediately upstream to any discharging points within the proposed surface water drainage system.

Additionally, a surface water attenuation system is envisaged to be designed in line with the Great Dublin Strategic Drainage Study and installed at locations to be confirmed and detailed at detail design stage.

Adequate provision shall be made for the proposed surface water drainage system of the Dodder Road Lower Upgrade scheme to give satisfactory performance throughout its design life. The principal functions of a road drainage system are:

- To prevent flooding of the carriageway by direct rainfall or by water flowing onto the road from adjoining footways, cycle tracks and/or properties;
- To avoid weakening of the sub-grade or pavement layers due to the presence of groundwater;
- To avoid erosion of side slopes on embankments and cut slopes;
- To facilitate the passage of watercourses through a scheme by constructing culverts or carrying out localised diversions.
- To provide safe driving conditions for all vehicles.

The proposed surface water drainage system will ensure that surface water drains quickly from the carriageway (including footway and/or cycle track Infrastructure) and is collected and conveyed to the nearest outfall in order to avoid localised flooding or ponding on the roads surface. The proposed drainage system will also ensure that groundwater is not permitted to infiltrate the sub-grade and pavement layers to the extent where it could cause a build-up of excess pore water pressure capable of undermining or weakening the proposed roads foundation. The water table must be maintained at an adequate level below the pavement at all times of the year. The proposed drainage system will also ensure that flooding of the proposed road by water from adjoining properties/lands is prevented by intercepting it with suitable drains and conveying it to a suitable outfall.

The proposed drainage system for the scheme shall be designed through the aid of XP Microdrainage software in accordance with the Modified Rational Method. XP Microdrainage is supported by both FSR and FEH rainfall data in the UK and Ireland. Pipe capacities are calculated by using the Colebrook-White equations. XP Microdrainage employs a full hydrograph method to design, size and test storage/attenuation systems in accordance with BRE 365, Sewers for Adoption, CIRIA guidance and the Building Regulations. The analysis of each storm network, including attenuation/storage, is analysed using automatic storm generation of both FSR and FEH rainfall from 15 minutes (summer/winter) to 7 days duration and return periods of up to 1000 years in the UK and Ireland.

All the above is designed in parallel and in accordance with the Greater Dublin Strategic Drainage Study (GDSDS), the 2010 Building Regulation - Technical Guidance Document H, the SuDS Manual, the TII Design of ‘earthworks drainage, network drainage, attenuation and pollution control’ DN-DNG-03066 and all other relevant drainage standards and guidance documents available at the time of design.

3.7 Combined Drainage

Its envisaged that existing chamber covers, and frames will be removed and reinstalled at new finished level. However, the proposed scheme will not affect the existing Combined Drainage System and will not require any upgrade works under the scheme’s proposed scope of works.

3.8 Foul Water Drainage

Its envisaged that existing chamber covers, and frame will be removed and reinstalled at new finished level. However, the proposed scheme will not affect the existing Foul Water Drainage System and will not require any upgrade works under the scheme's proposed scope of works.

3.9 Water Main

Its envisaged that existing chamber covers, and frame will be removed and reinstalled at new finished level. However, the scheme will not disturb the existing underground water main system and will not require the introduction of any new or additional watermain infrastructure.

3.10 Telecommunications

Its envisaged that existing chamber covers, and frame will be removed and reinstalled at new finished level. However, the scheme will not disturb the existing underground telecommunication system.

As the scheme's intention is to provide and ultimately accommodate the continuation of the existing Dodder Greenway closed-circuit television (CCTV) system for the overall Dodder Greenway, an additional telecom and power supply system is proposed to accommodate same.

3.11 Gas

The scheme will not disturb the existing underground gas system and will not introduce any additional gas distribution mains under the scheme's proposed scope of works.

3.12 Power

Its envisaged that existing chamber covers, and frame will be removed and reinstalled at new finished level. However, the scheme will not disturb the existing underground power service.

As the schemes intention is to provide and ultimately accommodate the continuation of the existing Dodder Greenway continue closed-circuit television (CCTV), an additional telecom and power supply system is proposed to accommodate same.. Additionally, connection applications will be made to connect and supply power to the proposed CCTV system.

3.13 Security

A proposed CCTV video surveillance system is earmarked to be installed along the overall Dodder Greenway covering the entire extension of the shared paths and cycle tracks. It is envisaged that to supply connectivity and power for all CCTV Poles installed throughout the proposed scheme a new telecom and power ducting system will be introduced. Additionally, connection applications will be made to connect and supply power to the proposed CCTV system.

3.14 Landscape

This section of the greenway runs along Dodder Road Lower from Rathfarnham Rd Bridge to Orwell park in the east to the junction with Dodder Park Drive in the west. The river Dodder runs along the northern side of the road. A footpath runs along the banks of the river at a lower level than the road,

from Orwell park bridge to opposite house number 37. There is a sloping bank between the road and the footpath. Twenty-four mature and semi mature trees and nine young trees were noted along the bank. Species include mainly Acer pseudoplatanus and Fraxinus excelsior. Individual Hesperocyparis macrocarpa, Cedrus atlantica and Eucalyptus globulus are also present. The bank is overgrown with briar. From opposite house number 88 to Orwell park bridge the greenway runs adjacent to an open green space with two mature Acer globosum in the eastern corner by the bridge. A row of semi-detached homes run along the southern side of the road. Tree planting along this side is minimal. One mature Acer globosum is located at the eastern corner near house number 89. A row of 9 Acer globosum are noted mid-way along the road between house number 51 and 70.

The landscape proposal seeks to preserve and enhance the natural environment along the greenway. Existing trees along the greenway in this section are preserved. Additional tree planting is proposed in suitable locations. This includes a row of five Betula pendula along the northern side of the green space by the bridge. Additional native tree and shrub planting is proposed along bank between the road and footpath to enhance biodiversity. Proposed species include Betula pendula, Prunus avium, Viburnum opulus, Euonymus europeaus, Cornus sanguinea, Sambucus nigra and Corylus avellana. Planting in this area is proposed in two metre squared pockets, cleared in the existing briar.

Along the southern side of the road additional tree planting is proposed. New verges created at the western end of the road are to be planted with Acer Globosum to tie in with the existing avenue of trees. Wildflower meadow mix is proposed for these verges and in a 1m wide strip along the greenspaces next to the greenway to promote biodiversity.

Powder coated galvanised steel posts finished in a red colour are proposed at the western side of the greenspace and at the junction of the footpath and greenway opposite house number 37. This feature is proposed to tie this section in with other parts of the Dodder greenway, where this design element is used as a design motif on the route.

4 Traffic Assessment

4.1 Introduction

This section of the Report sets out the traffic impacts of the proposed road changes to key junctions within the local area. The industry standard LinSig traffic modelling software has been used for predicting capacities, queues, and delays. The contents within this section also present a description of the junctions under study, as well as the existing traffic conditions in the network.

4.2 Junctions Under Study

As noted in Chapter 4 of this Report, the infrastructural changes to be delivered propose the implementation of a one-way system to allow 'westbound' traffic only along L8157 Dodder Road Lower. These changes will modify the existing traffic pattern in the local area re-routing additional traffic to other junctions in the vicinity of the subject site. It has been deemed relevant to undertake a capacity analysis of the following junctions:

- J1: 4-arm signal controlled L8159 Dodder Road Lower/ R112 Dodder Park Road/ Woodside/ R112 Braemor Road junction;
- J2: 3-arm priority-controlled Dodder Park Drive/ R112 Dodder Park Road Junction; and.
- J3: 4-arm signal controlled R114 Rathfarnham Road/ R112 Dodder Park Road/ R112 Dodder View Road junction.

Figures 5.1 below illustrates the location of these junctions within the network under study.

Figure 5.1 - Junctions under Study

4.3 Existing Conditions

4.3.1 Road Network Characteristics

L8159 Dodder Road Lower/ R112 Dodder Park Road/ Woodside/ R112 Braemor Road junction

R112 Dodder Park Road intersects with L8159 Dodder Road Lower, Woodside, and R112 Braemor Road via a 4-arm signal-controlled junction. The following junction layout is currently in place:

- L8159 Dodder Road Lower comprises the northern arm of the junction accommodating 2 no. entry lanes, one to allow straight-through and right turn movements and another to allow left turns only, in addition to 1 no. exit lane. A Signalised pedestrian crossing is provided across this arm.
- R112 Dodder Park Road and R112 Braemor Road comprise the western and eastern arms, respectively. These arms accommodate 2 no. entry lanes, one to allow straight-through and left turn manoeuvres, and another to allow right turns only. 1 no. exit lane is provided on each arm. A signalised pedestrian crossing is available across R112 Braemor Road.
- Woodside comprises the southern arm of the junction and it counts with 1 no. entry lane and 1 no. exit lane. A signalised pedestrian crossing is provided across this arm.

In addition to the facilities described above, 2.0 metres wide on-street cycle lanes are provided on each direction. Footpaths are also available in all arms. All lanes on this junction measure ca. 3.0 metres wide.

Dodder Park Drive/ R112 Dodder Park Road Junction

R112 Dodder Park Road intersects with Dodder Park Drive via a 3-arm priority-controlled junction. The following junction layout is currently in place:

- Dodder Park Drive comprises the northern arm of this junction. It accommodates 1 no. entry lane and 1 no. exit lanes, both measuring ca. 3.5 metres wide. A refuge island divides the traffic movements and footpaths are available on both sides.
- R112 Dodder Park Road comprises the main road of the junction. The eastern arm accommodates 2 no. entry lanes 1 no. exit lane. The western arm accommodates 1 no. entry lane and 3 no. exit lanes. Footpaths are provided in both sides of the junction, in addition to on-street cycle lanes in both directions.

R114 Rathfarnham Road/ R112 Dodder Park Road/ R112 Dodder View Road junction

R114 Rathfarnham Road intersects with R112 Dodder Park Road and R112 Dodder View Road via a 4-arm signal-controlled junction. The following junction layout is currently in place:

- R114 Rathfarnham Road comprises the northern and southern arms of the junction. At present, 3 no. of entry lanes are provided in both arms for left turns, straight through, and right turns, respectively. Exit movements are accommodated in 1 no. lanes. All entry lanes measure ca. 3.0 metres wide, while all exit lanes measure ca. 4.0 metres wide. Signalised crossings are available across both arms, as well as footpaths.
- R112 Dodder Park Road comprises the eastern arm of the junction. It accommodated 3 no. entry lanes, straight through/left turns, straight through only, and right turns only. 1 no. exit lane is provided on this arm. Entry lanes measure ca. 3.0 metres wide and exit lane measures ca. 5.0 metres wide. A signalised crossing and footpaths are available on this arm of the junction.
- R112 Dodder View Road comprises the wester arm of the junction. Similar to Dodder park Road, it accommodated 3 no. entry lanes, straight through/left turns, straight through only,

and right turns only. 1 no. exit lane is provided on this arm. Entry lanes measure ca. 3.0 metres wide and exit lane measures ca. 5.0 metres wide. A Signalised crossing and footpaths/cycle tracks are available on both sides.

4.3.2 Existing Traffic Volumes

Data Collection

In order to establish the existing traffic conditions within the study area, 12-hours classified junction turning counts were undertaken at 5 no. junctions. The surveys were carried out on Thursday 1st October 2020 over a period of 12-hours (07:00-19:00hrs). The surveys were undertaken by IDASO, on behalf of CSEA. Figure 5.2, (overleaf), illustrates the location of the surveyed junctions.

As shown on Figure 5.2 (overleaf), the following junctions have been surveyed:

- J1: 4-arm signal controlled L8159 Dodder Road Lower/ R112 Dodder Park Road/ Woodside/ R112 Braemor Road junction.
- J2: 3-arm priority-controlled Dodder Park Drive/ R112 Dodder Park Road Junction; and.
- J3: 4-arm signal controlled R114 Rathfarnham Road/ R112 Dodder Park Road/ R112 Dodder View Road junction.
- J4: 3-arm priority-controlled Dodder Park Drive/ L8159 Dodder Road Lower.
- J5: 3-arm priority-controlled L8157 Dodder Road Lower/L8159 Dodder Road Lower

Figure 5.2 - Traffic Survey Locations

A noted on section 4.2, the capacity analysis undertaken as part of this assessment has taken into consideration Junctions 1-3, however, it was deemed relevant to survey junctions 4 and 5 to establish the existing traffic volumes along L8157 Dodder Road Lower.

In addition to the traffic surveys specified above, an Origin-Destination (OD) Survey was carried out identifying all traffic movement along L8157 Dodder Road Lower using Automatic Number Plate

Recognition (ANPR) technology. The purpose of this O-D survey was to provide input about the total number of trips associated with the residents along this stretch of road and the total number of trips associated with 'Rat-Runner' avoiding traffic queues on R112 Dodder Park Road.

Traffic Survey Results

Following the analysis of the traffic surveys, network peak hours were determined to occur between 08:00-09:00hrs for the AM peak, and 16:00-17:00hrs for the PM peak. Table 5.1 below, summaries the total approach flows recorded to transit through the junctions during the critical periods described above. Traffic figures presented in the following table are in Passenger Car Units (PCUs) with the following factors assumed: *medium goods vehicles 1.5, bus 2.0, and HGV 2.3. Source: TII, Project Appraisal Guidelines for National Roads Unit 5.2 (October 2016).*

Junction No.	Approach Flows		
	AM Peak (08:00-09:00hrs)	PM Peak (16:00-17:00hrs)	Total 12-Hours (07:00-19:00hrs)
J1	1,240	1,404	14,083
J2	1,394	1,483	14,611
J3	2,302	2,457	24,990
J4	236	176	1,342
J5	632	583	5,368

Table 5.1 - Traffic Survey Results

As shown on Table 5.1 above, R114 Rathfarnham Road/ R112 Dodder Park Road/ R112 Dodder View Road junction (Junction 3) carries the highest volume of traffic when compare to the other junctions. Figure 5.3 and Figure 5.4, below, presents the turning PCUs volumes at each junction.

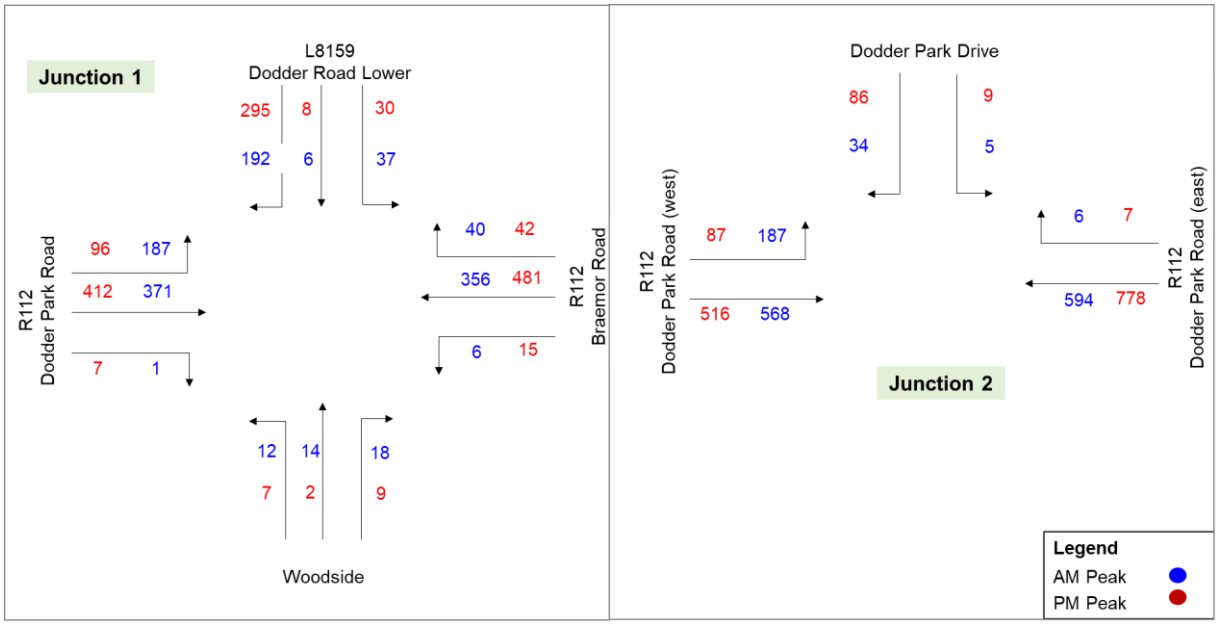

Figure 5.3 - Turning Volumes at Junction no. 1 and Junction no. 2

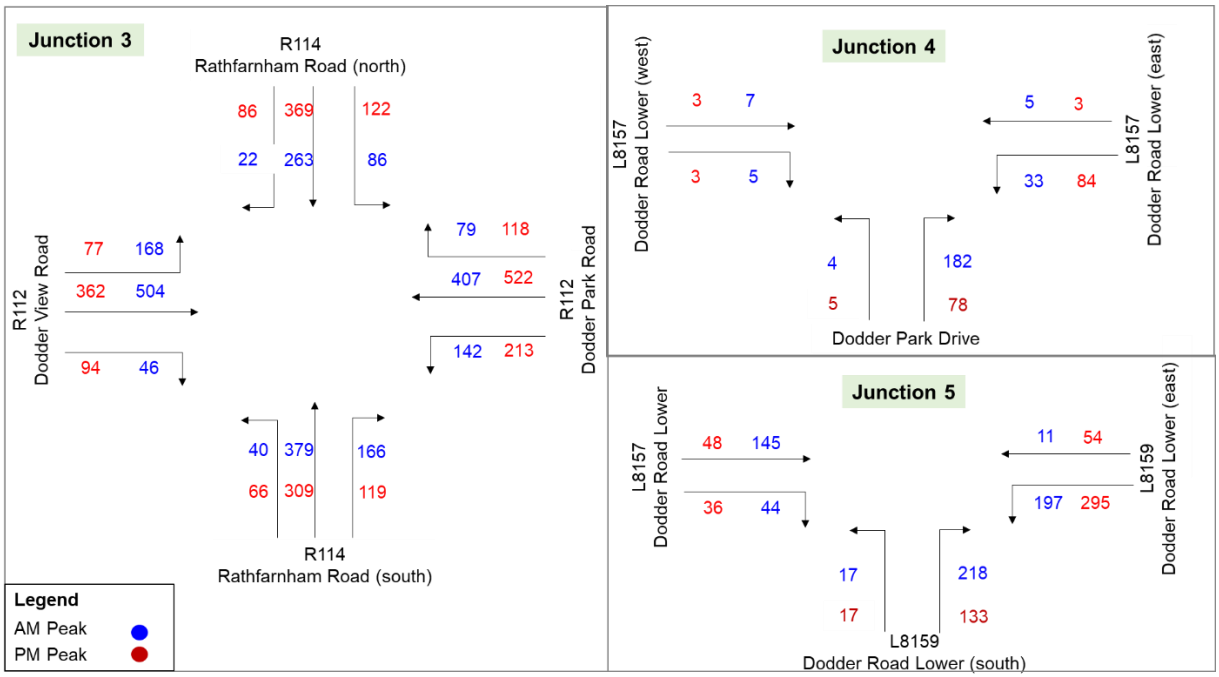

Figure 5.4 - Turning Volumes at Junction no. 3, Junction no.4 and Junction no.5

Origin-Destination Survey Results

The Origin-Destination survey conducted on L8157 Dodder Road Lower allowed the separate the trips associated with residents and 'Rat-Runner' on this stretch of road. Table 5.2 sets out the results of this survey per approach i.e. Eastbound and Westbound.

Time Period	Eastbound		Westbound		Total Two-Ways
	Trips Associated with Rat-Runners	Trips Associated with Residents	Trips Associated with Rat-Runners	Trips Associated with Residents	
AM PEAK (08:00-09:00hrs)	157	51	8	41	257
PM PEAK (16:00-17:00hrs)	51	56	56	38	201
12-hours (07:00-19:00hrs)	610	402	174	313	1,499

Table 5.2 - Origin-Destination Survey Results

As shown on Table 5.2, a total of 257 no. trips were recorded to transit through this road during AM peak and 201 no. trips were recorded during the PM Peak. A total of 1,499 no. vehicles utilised this road over the 12-hour survey period. From the O-D survey results it was possible to established that a large proportion of the trips transiting through L8157 Dodder Road Lower are associated with 'Rat-Runner' attempting to avoid the queues and signalised junctions along R112 Dodder Park Road.

Furthermore, it was also possible to observed that the majority of traffic circulating through this road heads Eastbound. These observations have provided inputs into the design proposal presented within section 4 of this Report, recommending the one-way system to allow Westbound traffic only.

4.3.3 Existing Public Transport Services

Several bus routes currently serve the study area with stops located in the vicinity of R114 Rathfarnham Road/ R112 Dodder Park Road/ R112 Dodder View Road junction (Junction no. 3). Stops for Dublin Bus services no. 15b,16, 17/17d can be found on both sides of R114 Rathfarnham Road. Table 5.3 below, sets out the routes and frequency of these services.

Bus No.	Provider	Route	Peak Frequency
15b	Dublin Bus	Woodstown Village to Dublin City Centre	15-20 minutes
16	Dublin Bus	Dublin Airport to Ballinteer (Kingston)	10-15 Minutes
17/17d	Go Ahead	Rialto to Dundrum	15-20 minutes

Table 5.3 - Existing Bus Services in Local Area

4.3.4 Road Safety

Data from the Road Safety Authority (RSA) collision database was used to assess the safety performance characteristics of the local road network. The database contains information on all reported collisions by severity of injury incurred (i.e. fatal, serious, or minor) and by year the collision occurred. The following Figure 5.5 illustrates all collisions recorded on the road network surrounding the site during the 12-year period from 2005 to 2016 inclusive.

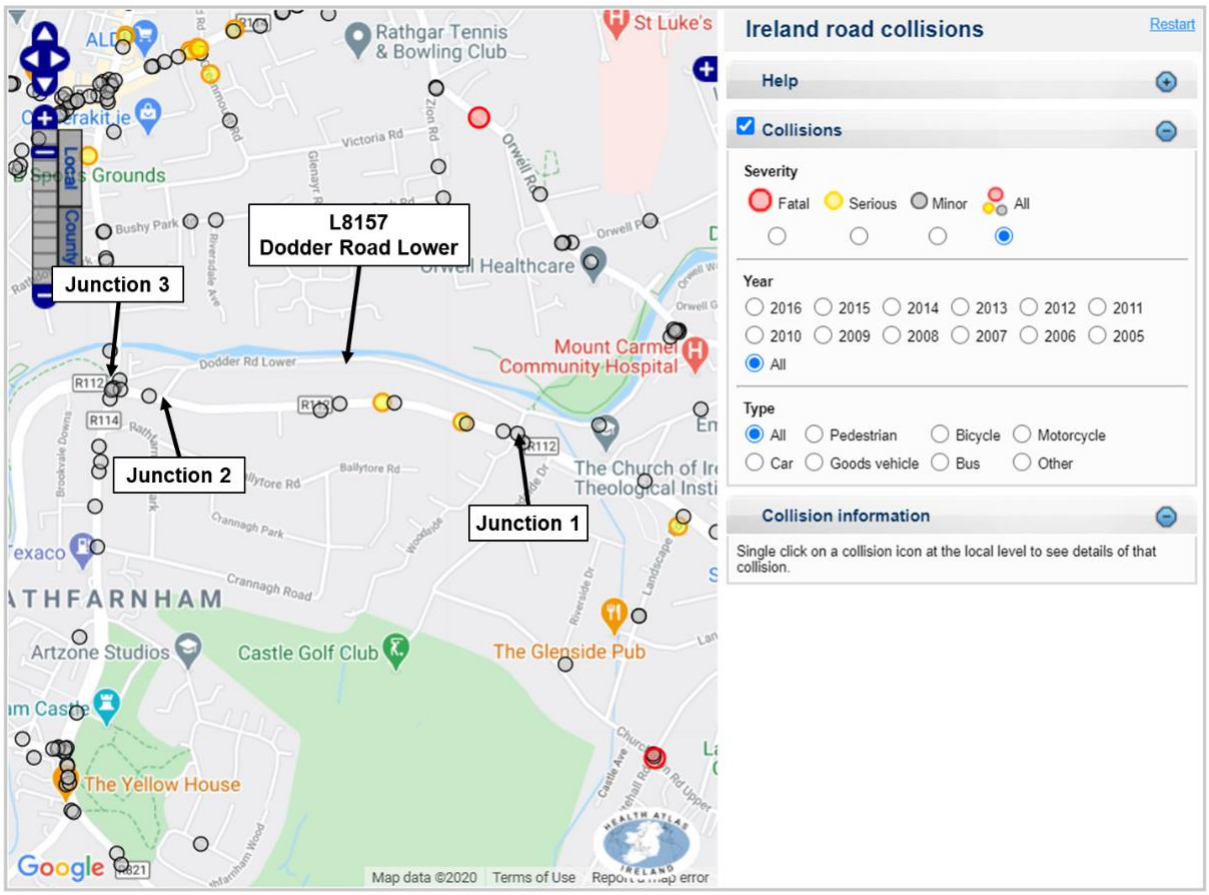

Figure 5.5 - RSA Collision Statistics

As shown on Figure 5.5, several minor and serious collisions have been recorded within the area under study during the 12-year assessment period. The available data indicates that there are no location-

specific road safety concerns of relevance within the local area, and such number of collisions are related to the high volumes of traffic transiting through the network. No collisions have been recorded along L8157 Dodder Road Lower.

4.4 Estimated Changes to Traffic Patterns in Local Area

As noted on Chapter 4 of this Report, the road changes to be implemented with the scheme propose a one-way system along L8157 Dodder Road Lower to allow 'Westbound' traffic only. This will indicate the re-routing of all 'Eastbound' traffic currently transiting through L8157 Dodder Road Lower towards Junction no. 1 and Junction no. 2 (See Figure 5.1).

The total traffic estimated to be re-routed towards this junction has been obtained from the traffic counts and Origin-Destination survey results discussed within section 4.3.2 of this Report, and is presented within Table 5.4, below. This traffic comprises all vehicles currently accessing through Junction no. 5 and immediately exiting at Junction no. 2 (Rat-Runners), as per Figure 5.2. In addition, this traffic also takes into account all trips generated within the L8157 Dodder Road Lower residential area.

	AM Peak (08:00-09:00hrs)	PM peak (16:00-17:00)	Total 12-hours (07:00-19:00hrs)
No. Vehicles	208	107	1,012

Table 5.4 - Estimated Additional Vehicles to Transit Through Junction no.1 and Junction no.2

As shown on Table 4.4 above, 208 no. additional vehicles are estimated to transit through junction no. 1 during the AM peak and 107 no. additional vehicles are estimated during the PM peak. A total of 1,012 no. additional vehicles are estimated for the 12-hour period (07:00-19:00hrs).

The traffic volumes presented above has served as input for the capacity analysis on the 'do-something' scenario (see Section 4.5).

4.5 Traffic Impact Analysis

4.5.1 Traffic Modelling Approach and Inputs

Assessment Scenarios and Time Period

The assessment focuses on estimating the traffic impact of the proposed road changes to the junctions presented within section 4.2 of this Report. As recommended by TII's TTA Guidelines, critical time periods are considered as established by the traffic survey, i.e. the AM peak hour (08:00-09:00hrs) and the PM peak hour (16:00-17:00hrs). The 2020 traffic survey results, discussed in section 4.3.2 of this report, have been utilised as input to the capacity analysis.

The following scenarios have been developed in assessing the traffic impacts:

- **Do-Nothing Scenario**: To assess the traffic impact of the proposal on the local road network, first, the existing junction performance was established. This scenario is referred as the 'do-nothing' scenario and it is based on the existing traffic conditions.
- **Do-Something Scenario:** This scenario assesses the junction performance with the proposed 'westbound-only' system along L8157 Dodder Road Lower. The traffic inputs utilised in the 'do-something' scenario take into consideration the re-routing patterns discussed within section 4.4 of this Report.

Traffic Modelling Software

The industry standard LinSig traffic modelling software has been used for predicting capacities, queues, and delays at the relevant junctions. LinSig is a modelling software dedicated for analysing isolated signal-controlled junctions and small junction networks. Key functions of this software include delay-based traffic assignment across the roads and lanes forming the modelled network, traffic signal timing optimisation, and forecasting of performance parameters for the entire network, individual junctions, and individual lanes. The models analyse the junctions in relation to their geometry and traffic flows and calculate the Practical Reserve Capacity (PRC).

Traffic Signal Inputs

The traffic signal inputs utilised for the assessment of the R114 Rathfarnham Road/ R112 Dodder Park Road/ R112 Dodder View Road junction have been provided by the Client (South Dublin County Council). Information about the traffic signal timings currently operating at the L8159 Dodder Road Lower/ R112 Dodder Park Road/ Woodside/ R112 Braemor Road junction were not available at the time of the assessment, therefore such inputs have been estimated from the video footage obtained the day the traffic surveys were undertaken. The inputs provided information about the Traffic Signal Phases, Stages, and Intergreens. Figure 5.6 and Figure 5.7 below illustrates the existing Traffic Signal phases and stages operating at the junctions under study. Dodder Park Drive/ R112 Dodder Park Road Junction currently operates as a priority-controlled junction and signal inputs were not required on its assessment.

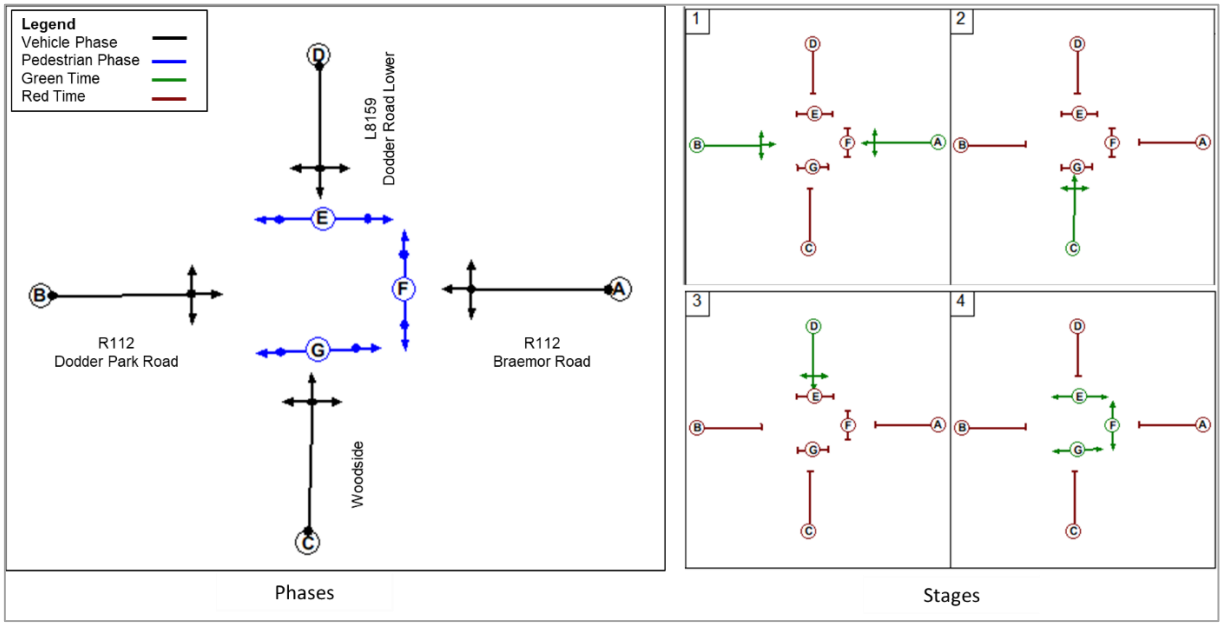

Figure 5.6 - L8159 Dodder Road Lower/ R112 Dodder Park Road/ Woodside/ R112 Braemor Road junction Traffic Signal Inputs

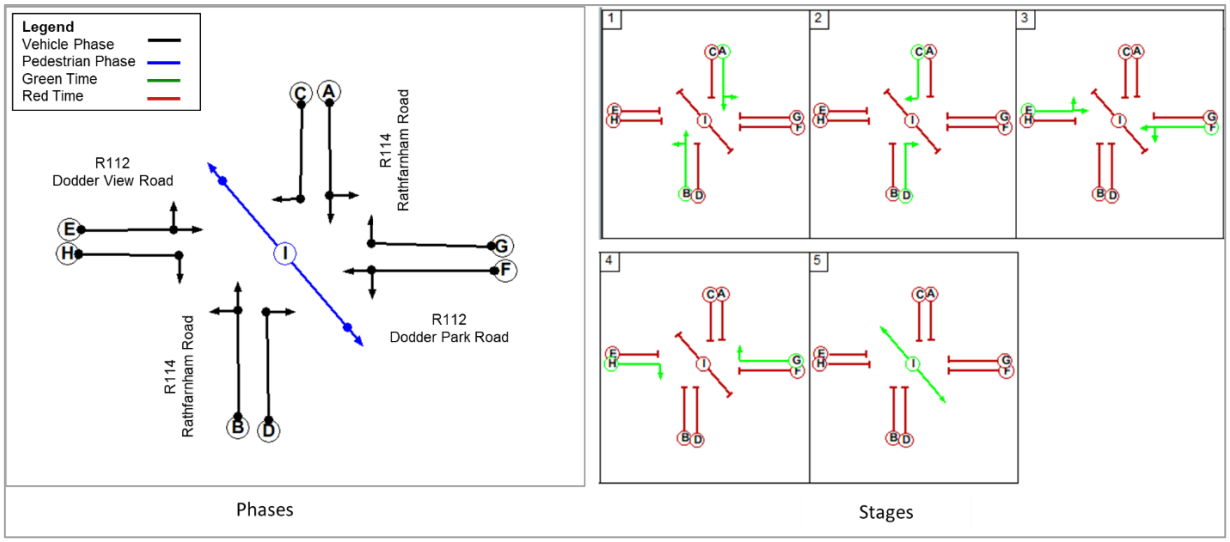

Figure 5.7 - R114 Rathfarnham Road/ R112 Dodder Park Road/ R112 Dodder View Road Junction Traffic Signal Inputs

Based on the information obtained from the Client and the observations made on the survey video footage, a cycle time of 90 seconds has been used for the assessment of this junctions. Minimum green times vary for the different arms between 6 and 9 seconds.

Traffic Modelling Outputs

The following outputs were obtained from the LinSig model:

- *Degree of Saturation*: this output presents the ratio of demand flow to the maximum flow which can be passed through an junction from a particular approach i.e. number of vehicles that could cross the stop line in an hour on a particular lane. A lane with a degree of Saturation greater than 90% is considered to be approaching its theoretical capacity.
- *Maximum Queue Length*: queue lengths at junctions are measured in Passenger Car Units (PCU), which represents a standard vehicle length including a buffer length to the front and back. For the purposes of this assessment, a PCU length of 5.75 metres has been assumed.
- *Delay*: the delay is based on the estimated average delay per vehicle among all traffic passing through the junction. The delay per vehicle provides an insight into operational conditions within a traffic stream, generally in terms of such factors as speed and travel time, freedom to manoeuvre, traffic interruptions, comfort and convenience, and safety. Average delays greater than 80 seconds per vehicle is considered generally considered to be excessive for signalised intersections, while average delays greater than 50 seconds per vehicle would be considered to be excessive for unsignalised intersections.
- *Practical Reserve Capacity (PRC)*: is the amount by which traffic demand can grow before Practical Capacity is reached. A PRC close to 0% suggest that the junction is operating relatively close to capacity. A negative PRC indicates the junction is operating over its practical capacity.

4.5.2 Do-Nothing Analysis Results

AM Peak

The modelling results obtained for the existing conditions or 'do-nothing' scenario during the AM peak are presented within Table 5.5, which follows. The degree of saturation and maximum queues are presented per approach lane, while the delays and Practical Reserve Capacity is provided per junction.

Junction No.	Do-Nothing AM Peak (08:00-09:00hrs)				
	Arm	Degree of Saturation (%)	Maximum Queue (PCU)	Average Delay (Seconds)	Practical Reserve Capacity (PRC)
1	**L8159 Dodder Road Lower**	63.8%	5.4	12.4	24.1%
	R112 Braemor Road	45.8%	7		
	Woodside	29.6%	1.3		
	R112 Dodder Park Road	72.5%	15.6		
2	**Dodder Park Drive**	0.9%	0.1	0.9	134.1%
	R112 Dodder Park Road (East)	29.3%	5.8		
	R112 Dodder Park Road (West)	38.4%	15.7		
3	**R114 Rathfarnham Road (North)**	69.4%	7.2	56.2	-11.2%
	R112 Dodder Park Road	73.4%	5.8		
	R114 Rathfarnham Road South)	99.0%	18.7		
	R112 Dodder View Road	100.1%	18.6		

Table 5.5 - Do-nothing AM Peak Capacity Analysis Results

As seen in Table 5.5 above, junction no. 1 counts with a PRC of 24.1% during the AM peak suggesting that the junction is operating well within capacity under existing conditions. The recorded degree of saturation on the different arms vary between 29.6% and 72.5%, with R112 Dodder Park Road being the worst performing arm. The maximum queue obtained for this junction was 15.3 PCU as well as an average delay of 25.7 seconds.

Junction no. 2 is the best performing junction in the network currently operating with a PRC of 134.1%. The degree of saturation on the different arms vary between 0.9% and 38.4%, with R112 Dodder Park Road (West) comprising the worst performing arm. A maximum queue of 15.7 was recorded, as well as average delay of 0.9 seconds.

Junction no.3 comprises the worst performing junction in the network under studying obtaining a PRC of -11.2%. The degree of saturation on the different arms vary between 69.4% and 100.1%, with R112 Dodder View Road being the worst performing arm. The maximum queue obtained for this junction was 18.7 PCU and the average delay resulted in 56.2 seconds.

PM Peak

The modelling results obtained for the existing conditions or 'do-nothing' scenario during the PM peak are presented within Table 5.6, which follows.

Junction No.	Do-Nothing PM Peak (16:00-17:00hrs)				
	Arm	Degree of Saturation (%)	Maximum Queue (PCU)	Average Delay (Seconds)	Practical Reserve Capacity (PRC)
1	**L8159 Dodder Road Lower**	77.6%	8.9	14.3	16.0%
	R112 Braemor Road	68.1%	11.7		

Junction No.	Do-Nothing PM Peak (16:00-17:00hrs)				
	Arm	Degree of Saturation (%)	Maximum Queue (PCU)	Average Delay (Seconds)	Practical Reserve Capacity (PRC)
	Woodside	13.7%	0.5		
	R112 Dodder Park Road	72.8%	12.4		
2	**Dodder Park Drive**	1.8%	0	0.5	119.5%
	R112 Dodder Park Road (East)	41.0%	8.6		
	R112 Dodder Park Road (West)	30.4%	0.2		
3	**R114 Rathfarnham Road (North)**	93.6%	14.8	49.5	-6.0%
	R112 Dodder Park Road	95.4%	14.5		
	R114 Rathfarnham Road South)	85.6%	8.8		
	R112 Dodder View Road	66.8%	6.6		

Table 5.6 - Do-nothing PM Peak Capacity Analysis Results

As seen in Table 5.6 above, junction no. 1 counts with a PRC of 16.0% during the PM peak suggesting that the junction is operating well within capacity under existing conditions. The recorded degree of saturation on the different arms vary between 13.7% and 77.6%, with L8159 Dodder Road Lower being the worst performing arm. The maximum queue obtained for this junction was 12.4 PCU as well as an average delay of 14.3 seconds. When compared to the AM peak results, it can be concluded that the performance of this junction is worse during the PM peak.

Similar to the AM peak, during the PM peak junction no. 2 is also the best performing junction in the network currently operating with a PRC of 119.5%. The degree of saturation on the different arms vary between 1.8% and 41.0%, with R112 Dodder Park Road (East) comprising the worst performing arm. A maximum queue of 8.6 was recorded, as well as average delay of 0.5 seconds.

Furthermore, during the PM peak Junction no.3 also comprises the worst performing junction in the network obtaining a PRC of -6.0%. The degree of saturation on the different arms vary between 66.8% and 95.4%, with R112 Dodder Park Road being the worst performing arm. The maximum queue obtained for this junction was 14.8 PCU and the average delay resulted in 49.5 seconds. When compared to the AM peak, performance indicators suggest that this junction operates within better capacity during the PM peak, however, both periods under assessment show overall negative results.

4.5.3 Do-Something Analysis Results

AM Peak

The modelling results obtained for the proposed conditions or 'do-something' scenario during the AM peak are presented within Table 5.7, below. As noted on section 4.5.1, the capacity analysis in the 'do-something' scenario takes into account the re-routing of all eastbound traffic currently transiting through L8157 Dodder Road Lower to junction no. 1, as a westbound one-way system is proposed with the road changes.

Junction No.	Do-Something AM Peak (08:00-09:00hrs)				
	Arm	Degree of Saturation (%)	Maximum Queue (PCU)	Average Delay (Seconds)	Practical Reserve Capacity (PRC)
1	**L8159 Dodder Road Lower**	80.3%	6.7	18.8	-1.70%
	R112 Braemor Road	41.7%	6.3		
	Woodside	29.6%	1.3		
	R112 Dodder Park Road	91.6%	24.4		
2	**Dodder Park Drive**	2.7%	0.2	0.8	120.2%
	R112 Dodder Park Road (East)	29.3%	11.2		
	R112 Dodder Park Road (West)	37.6%	15.6		
3	**R114 Rathfarnham Road (North)**	69.4%	7.2	56.2	-11.2%
	R112 Dodder Park Road	73.4%	5.8		
	R114 Rathfarnham Road South)	99.0%	18.7		
	R112 Dodder View Road	100.1%	18.6		

Table 5.7 - Do-something AM Peak Capacity Analysis Results

The results obtained in the do-something scenario indicate that Junction no.1 will experience the biggest traffic impact if the scheme is implemented. Under this scenario, a PRC of -1.70% was obtained, which compares to 24.4% in the 'do-nothing scenario'. The additional traffic expected to transit through the junction is expected to occupy all spare capacity available at the moment. In the 'do-something', degree of saturation varies between 29.6% and 91.6%, with R112 Dodder Park Road remaining as the worst performing arm. The additional traffic is expected to increase the degree of saturation in R112 Dodder Park Road from 72.5% to 91.6%. The second biggest change in degree of saturation is observed on L8159 Dodder Road Lower increasing from 63.8% to 80.3%, and the remaining arms shall stay within existing ranges. Maximum queue length will increase from 15.6 PCUs in the 'do-nothing scenario' to 24.4 PCUs. Average delay is expected to increase from 12.4 seconds to 18.8 seconds.

Minor changes in the performance indicators of Junction no. 2 are also expected with the implementation of the scheme. PRC will reduce from 134.1% to 120.2%. During this assessment period, the degree of saturation of the arms is estimated to be between 2.7% and 37.6%, with R112 Dodder Park Road (West) remaining as the worst performing arm. Maximum queue lengths will be 15.6 PCUs and overall junction delays is estimated to be 0.8 seconds.

The proposed scheme will not have any impacts in the existing traffic patterns currently observed in junction no. 3. Therefore, the performance indicators estimated for this junction in the 'do-something' scenario will remain identical to the ones estimated in the 'do-nothing' scenario.

PM Peak

The modelling results obtained for the proposed conditions or 'do-something' scenario during the PM peak are presented within Table 5.8, which follows.

Junction No.	Do-Something PM Peak (16:00-17:00hrs)				
	Arm	Degree of Saturation (%)	Maximum Queue (PCU)	Average Delay (Seconds)	Practical Reserve Capacity (PRC)
1	**L8159 Dodder Road Lower**	85.1%	10.1	18.5	5.8%
	R112 Braemor Road	64.6%	11.2		
	Woodside	13.7%	0.5		
	R112 Dodder Park Road	84.1%	18.3		
2	**Dodder Park Drive**	3.4%	0.3	0.7	119.5%
	R112 Dodder Park Road (East)	41.0%	15.5		
	R112 Dodder Park Road (West)	29.9%	11.3		
3	**R114 Rathfarnham Road (North)**	93.6%	14.8	49.5	-6.0%
	R112 Dodder Park Road	95.4%	14.5		
	R114 Rathfarnham Road South)	85.6%	8.8		
	R112 Dodder View Road	66.8%	6.6		

Table 5.8 - Do-something PM Peak Capacity Analysis Results

Similar to the AM peak, the results obtained in the do-something scenario indicate that Junction no.1 will experience the biggest traffic impact if the scheme is implemented. Under this scenario, a PRC of 5.8% was obtained, which compares to 16.0% in the 'do-nothing scenario'. The additional traffic expected to transit through the junction is expected to reduce the spare capacity available at the moment, however it will remain above the 0%. In the 'do-something', degree of saturation varies between 13.7% and 85.1%, with L8159 Dodder Road Lower remaining as the worst performing arm. The additional traffic is expected to increase the degree of saturation in L8159 Dodder Road Lower from 77.6% to 85.1%. The second biggest change in degree of saturation is observed on R112 Dodder Park Road increasing from 72.8% to 84.1%, and the remaining arms will stay within existing ranges. Maximum queue length will increase from 8.9 PCUs in the 'do-nothing scenario' to 10.1 PCUs. Average delay is expected to increase from 14.3 seconds to 18.5 seconds.

The changes in performance estimated for junction no. 2 are minimum. All degrees of saturation, queue lengths, and delays are expected to remain within the same ranges in both scenarios tested.

The proposed scheme will not have any impacts in the existing traffic patterns currently observed in junction no. 3. Therefore, the performance indicators estimated for this junction in the 'do-something' scenario will remain identical to the ones estimated in the 'do-nothing' scenario.

Overall, it is estimated that the proposed changes to the road network will have a higher impact during the AM peak than the PM peak. This is due to the higher volume of vehicles re-routed towards Junction no. 1 during this period.

5 Cost of Scheme

5.1 Budget Construction Cost

The budget cost of the overall scheme is estimated at € 2,300,000.00 (excluding V.A.T.), excluding land costs. This figure is estimated based on current construction rates per meter of road of projects of similar size and scope. The estimation for the overall scheme also takes into account a contingency cost of 20% and preliminary works of 20%.

Appendix A – Overall Layout

Údarás Náisiúnta Iompair
National Transport Authority

Comhairle Contae Átha Cliath Theas
South Dublin County Council

DODDER GREENWAY
DODDER ROAD LOWER

Clifton Scannell Emerson Associates

DRAWING IS PRODUCED USING THE IRISH TRANSVERSE MERCATOR (ITM) GEOGRAPHIC COORDINATE SYSTEM

A1

LEGEND:

- PROPOSED CARRIAGEWAY REALIGNMENT
- PROPOSED SHARED AREA
- PROPOSED CONCRETE FOOTPATH
- PROPOSED RAMP
- PROPOSED GRASS VERGE
- PROPOSED PROPERTY ACCESS
- PROPOSED TACTILE PAVING (RED)
- PROPOSED TACTILE PAVING (BUFF)
- EXISTING FOOTPATH

Rev	Description	Drawn	Checked	Date
P01	PART 8 PLANNING	KT	DRL	03/12/20

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Client: SOUTH DUBLIN COUNTY COUNCIL

Project: DODDER GREENWAY PHASE 5

Dwg. Title: DODDER ROAD LOWER UPGRADE - OVERALL

Drawn By	Date	CSEA Job No.
KT	DEC. 2020	18_123C
Checked By	Scale	
DRL	1:1250 @ A1	

Project Code	Originator	Zone/ Phase	Level	Type	Role	Dwg. No.
18_123C	CSE	GEN	XX	DR	C	1430

Status Code: S2 — SUITABLE FOR INFORMATION

Revision: P01 — Project Status: PART 8 PLANNING

Appendix B – Appropriate Assessment Screening Report

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Dodder Road Lower Upgrade

Appropriate Assessment Screening Report

November 2020

Client:
South Dublin County Council
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ROD
ROUGHAN & O'DONOVAN

Dodder Road Lower Upgrade

Screening for Appropriate Assessment

TABLE OF CONTENTS

1. INTRODUCTION

1.1 Introduction

Roughan & O'Donovan (ROD) was appointed by South Dublin County Council, to produce, on its behalf, an Appropriate Assessment (AA) Screening Report in respect of the proposed Dodder Road Lower Upgrade ("the Project"). The AA Screening Report is intended to determine whether or not the Project, either individually or in combination with other plans or projects, is likely to have a significant effect on areas designated as being of European importance for nature conservation ("European sites"), thereby enabling South Dublin County Council, as the competent authority in this case, to fulfil its obligations under Article 6(3) of Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora ("the Habitats Directive").

This document comprises the AA Screening Report in respect of the Project and was prepared by ROD on behalf of the South Dublin County Council and in accordance with the requirements of the Habitats Directive, as transposed into Irish law by Part XAB of the Planning and Development Act, 2000 (as amended) ("the Planning and Development Act"). The aim of this AA Screening Report is to inform and assist the competent authority in carrying out its AA Screening by determining whether or not the Project, either individually or in combination with other plans and projects, has the potential to significantly affect one or more European sites, in view of their Conservation Objectives.

It is the considered opinion of ROD, as the author of this AA Screening Report, that the Project, either individually or in combination with other plans or projects, in view of best scientific knowledge, does not have the potential to significantly affect the South Dublin Bay and River Tolka Estuary SPA, the North Bull Island SPA or the North Dublin Bay SAC or any other European site, in view of their Conservation Objectives, and, therefore, that AA is not required in respect of the Project.

1.2 Legislative Context

The Habitats Directive and Directive 2009/147/EC of the European Parliament and of the Council of 30th November 2009 on the conservation of wild birds ("the Birds Directive") list habitats and species which are, in a European context, important for conservation and in need of protection. This protection is afforded in part through the designation of sites that, in a European context, support significant examples of habitats or populations of species. These sites are generally referred to as "European sites". Specifically, sites designated for wild birds are termed "Special Protection Areas" (SPAs) and sites designated for natural habitat types or other species are termed "Special Areas of Conservation" (SACs). The complete network of European sites is referred to as "Natura 2000".

In order to ensure the protection of European sites in the context of land use planning and development, Article 6(3) of the Habitats Directive requires that:

"

."

The Court of Justice of the European Union (CJEU) has interpreted this requirement as follows[1]:

"

the site's conservation objectives if it cannot be excluded, on the

."

In accordance with the Precautionary Principle, the CJEU interpreted the word "likely" as meaning that as long as it cannot be conclusively demonstrated that a given effect will not occur, that effect is considered "likely" to occur. A likely effect considered to be "significant" only if it interrupts or causes delays in progress towards achieving the Conservation Objectives[2] of the relevant European site(s).

Article 6(3) of the Habitats Directive requires that AA be carried out in respect of plans and projects that are likely to have significant effects on European sites, "either individually or in combination with other plans or projects". Therefore, regardless of whether or not the likely effects of a plan or project are significant when considered on their own, the significance of the combined effects of the plan or project under assessment and other past, present or foreseeable future plans or projects must also be evaluated.

In Ireland, this requirement is transposed into national law by Part 5 of the Habitats Regulations and Part XAB of the Planning and Development Act, and the process is termed "Appropriate Assessment" (AA). Stage 1 of the process, i.e. determining whether or not a plan or project meets the above criteria for requiring AA, is referred to as "AA Screening".

In its judgment in People Over Wind[3], the CJEU concluded that AA Screening must be undertaken without consideration of "

". This judgment informed the High Court's conclusion in Kelly (Aldi Laytown)[4] that certain measures which formed part of a Project were not required to be excluded from consideration at the screening stage because the policy requiring their inclusion as part of the Project was "

potentially be affected by a particular development" and also *"having regard to the fact*

[such measures]

".

Article 6(3) of the Habitats Directive specifies that AA must be undertaken by the "competent national authorities". In Ireland, the "competent authority" is the relevant planning authority for each plan or project, e.g. the local authority or An Bord Pleanála. Consequently, the responsibility for carrying out AA Screening lies solely with the competent authority. In that respect, the AA Screening Report is not in itself an AA Screening, but provides the competent authority with the information it needs in order to carry out its AA Screening.

[1] Landelijke Vereniging tot Behoud van de Waddenzee, Nederlandse vereniging tot Bescherming van Vogels . Staatssecretaris van Landbouw, Naturbeheer en Visserij (Waddenzee) [2004] C-127/02 ECR I-7405.

[2] Conservation Objectives are referred to, but not defined, in the Habitats Directive. In Ireland, Conservation Objectives are set for Qualifying Interests (the birds, habitats or other species for which a given European site is selected) and represent the overall target that must be met for that Qualifying Interest to reach or maintain favourable conservation condition in that site and contribute to its favourable conservation status nationally.

[3] People Over Wind and Peter Sweetman . Coillte Teoranta (People Over Wind) [2018] C-323/17.

[4] Eoin Kelly . An Bord Pleanála [2019] IEHC 84.

1.3 Screening Methodology

At this stage of the process, the AA Screening Report assesses the potential impacts from the plan or project on the European sites within the likely zone of impact and evaluates them in view of the sites' Conservation Objectives.

Best practice in undertaking AA Screening involves five steps as follows:

1. The first step involves gathering the information and data necessary to carry out a screening assessment. These include, but are not limited to, the details of all phases of the plan or project, environmental data pertaining to the area in which the plan or project is located, e.g. rare or protected habitats and species present or likely to be present, and the details of the European sites within the likely zone of impact.
2. The second step involves examining the information gathered in the first step and a scientific analysis of the potential impacts of the plan or project on the receiving environment, particularly European sites in the likely zone of impact.
3. The third step evaluates the impacts analysed in the second step against the Conservation Objectives of the relevant European sites, thereby determining whether or not those impacts constitute "likely significant effects", within the meaning of Article 6(3) of the Habitats Directive.
4. The fourth step involves considering the potential for likely significant effects to arise from the combination of the impacts from the plan or project with those of other plans or projects. If it is determined that Stage 2 (AA) is required, the consideration of in-combination impacts may be deferred to that stage.
5. The last step involves the issuing of a statement of the determination of the AA Screening. Notwithstanding the recommendation made in the AA Screening Report, the responsibility for completing this step lies solely with the competent authority.

The following guidance documents informed the assessment methodology:

- EC (2001) *2000* *6 3 4* *92 43* . Environment Directorate-General of the European Commission.
- DEHLG (2010) – . Department of the Environment, Heritage and Local Government, Dublin.
- NPWS (2010) *6* . Circular Letter NPWS 1/10 & PSSP 2/10. National Parks & Wildlife Service, Department of the Environment, Heritage and Local Government, Dublin.
- EC (2018) *2000* *6* *92 43* . European Commission, Brussels.

1.4 Ecological Assessment

Desk Studies

During the desk study, the statutory consultee, the National Parks & Wildlife Service (NPWS), provided data on designations of sites, habitats and species of conservation interest. This included reporting pursuant to Article 17 of the Habitats Directive[5] (NPWS, 2019a, b, c) and Article 12 of the Birds Directive[6] (Eionet, 2018), as well as the Site Synopses and Conservation Objectives for the relevant European sites. Where no Conservation Objectives have been developed for a Qualifying Interests within a site, Conservation Objectives from European Sites with the same Qualifying Interests in similar conditions have been used, as recommended by the NPWS.

The desk study involved a thorough review of existing information relating to ecology in the vicinity of the Project and in the surrounding area. A number of web-based geographic information systems (GISs) were used to obtain information relating to the natural environment surrounding the Project. These included the NPWS (NPWS, 2020), which provided information on the locations of protected sites, the National Biodiversity Data Centre's (NBDC, 2020), which provided recent and historic records of rare and protected species in the area.

Field Surveys

Multidisciplinary ecological surveys were conducted within the study area by suitably qualified ecologists from Roughan & O'Donovan between March and July 2016 and were updated in August and September 2019. The surveys aimed to identify "protected species and natural habitats", as defined in the Environmental Liability Directive (2004/35/EC) and European Communities (Environmental Liability) Regulations, 2008, including: bird species listed on Annex I to the Birds Directive and other regularly occurring migratory species and their habitats; natural habitat types listed on Annex I to the Habitats Directive; species listed on Annex I to the Habitats Directive and their habitats; and, species listed on Annex IV to the Habitats Directive and their breeding and resting places. The surveys also aimed to identify any potential bat roosts, other rare or protected species, particularly those listed in the Irish Red Lists, and invasive alien species (IAS), particularly plant species listed on Part 1 of the Third Schedule to the Habitats Regulations.

The surveys for protected habitats and species, and invasive species, adhered to the methodology outlined in the Heritage Council's (Smith et al., 2011) and (TII, 2009).

Habitats present were classified in accordance with (Fossitt, 2000) and conformity to Annex I-type habitats was evaluated using the – *28* (EC, 2013).

Assessment

The ecological baseline which was established by the desk studies and field surveys described above was used to inform the assessment of the potential ecological effects arising from the Project, particularly with regard to European sites. Any assumptions that were made in view of gaps in the ecological data were made in accordance with the Precautionary Principle..

[5] Under Article 17, to report to the European Commission every six years on their status and on the implementation of the measures taken under the Directive.

[6] Every three years, Member States of the European Union are required by Article 12 of the Birds Directive to report on implementation of the Directive. The most recent reporting available is for the period 2008-2012.

2. DESCRIPTION OF THE PROJECT

2.1 Overview

South Dublin County Council granted planning permission for the South Dublin section of the Dodder Greenway in October 2017. Upon revision of the overall Dodder Greenway Route, the existing pedestrian and cyclist facilities on the Dodder Road Lower were considered as non-compliant with the objectives of a Greenway.

The Dodder Road Lower Upgrade scheme is being developed by South Dublin County Council and aims to upgrade the existing condition of the Dodder Road Lower. It is proposed that 730 m of a 5 m shard path will be constructed in order to link the Dodder greenway route on Springfield Avenue, through Rathfarnham Road and Springfield Avenue, to the continuation of the Dodder Greenway Route within Dublin City Council boundaries.

The scheme is considered to be an "on road" section of the Dodder Greenway and its major proposed adjustment is to convert the Dodder Road Lower, currently a two-way system road, into a one-way adjustment road to accommodate he proposed 5 m wide shared path. The proposed one-way system layout has been designed considering recent traffic counts and predicted traffic increase for all junction surrounding the area of the proposed scheme.

2.2 Location

The Project is located alongside the River Dodder from Dodder Park Drive to Ely's Arch in Rathfarnham, Co. Dublin. The Dodder flows from Kippure Ridge in the Dublin/Wicklow Mountains to Glenasmole Valley where the Bohernabreena Reservoirs are located. The Dodder then flows north-east through Tallaght and then Firhouse. From Firhouse the Dodder travels through Rathfarnham, Templeogue, Rathgar, Milltown, Clonskeagh, Donnybrook, and finally Ballsbridge before it enters the Liffey near Ringsend. There is a weir located upstream from Ballsbridge and the river becomes tidal from approximately this location. The location of the Project is shown in Figure 2.1.

The footprint of the Project is entirely along the Dodder Road Lower including a small area of amenity grassland and the vegetated area between the road and the riverside path. The existing land use along the route is primarily residential housing to the south and the river Dodder bounds the Project to the north.

2.3 General Description of the Proposed Greenway

The proposed Dodder Road Lower Upgrade scheme comprises of the following:

- 730 meters of a 5 meters wide shared path.
- 730 meters of road upgrade and realignment.
- Road marking and road sign upgrade
- 730 meter of concrete footpath upgrade
- Public Lighting upgrade
- All associated ancillary works and integrated landscape plans.

2.4 Likely Effects on the Natural Environment

A number of elements of the Project are considered likely to give rise to environmental and ecological impacts.

Construction Phase Impacts

Noise, vibration, lighting and visual disturbance will cause impacts during the construction phase and have the potential to impede the movement of species, including mammals and birds, in and around the area of the proposed development.

During construction works there is potential for pollutants and sediment to discharge to the Dodder, continue downstream into Dublin Bay and its associated European sites, and negatively affect water quality.

Operational Phase Impacts

Aspects of the operation of the Project with the potential to cause environmental and ecological effects include the increase in artificial light spill and increased human presence.

A small amount of habitat will be lost or damaged as a result of the Project. The habitats which will be affected include buildings and artificial surfaces, scattered trees and amenity grasslands. These habitats do not represent rare or protected vegetative communities/associations and do not support important populations of rare or protected species at the local level or higher. Therefore, the loss or damage of these habitats is not considered to be significant.

Figure 2.1 Location of the Project

3. LIKEL SIGNIFICANT EFFECTS

3.1 Esta lishing the Likely Zone of Impact

Section 3.2.3 of DEHLG (2010) outlines the procedure for selecting the European sites to be considered in AA. It states that European sites potentially affected should be identified and listed, bearing in mind the potential for direct, indirect and cumulative effects. It also states that the specific approach in each case is likely to differ depending on the scale and likely effects of the plan or project. However, it advises that the following sites should generally be included:

- All European sites within or immediately adjacent to the plan or project area;
- All European sites within the likely zone of impact of the plan or project; and
- In accordance with the Precautionary Principle, all European sites for which there is doubt as to whether or not they might be significantly affected.

The "likely zone of impact" of a plan or project is the geographic extent over which significant ecological effects are likely to occur. In the case of plans, this zone should extend to a distance of 15km in all directions from the boundary of the plan area. In the case of projects, however, the guidance recognises that the likely zone of impact must be established on a case-by-case basis, with reference to the following key variables:

- The nature, size and location of the project;
- The sensitivities of the ecological receptors; and,
- The potential for cumulative effects.

For example, in the case of a project that could affect a watercourse, it may be necessary to include the entire upstream and/or downstream catchment in order to capture all European sites with water-dependent features of interest.

Having regard to the above key variables, the likely zone of impact was defined as the Project plus a 1 km buffer and the entire river downstream of the Project including the transitional waters of Dublin Bay. This was based on the maximum potential extent of impacts associated with the Project.

A geographical representation of the likely zone of impact was produced in ArcGIS 10.5.1 using the Project boundary and publicly available Ordnance Survey Ireland maps. This was used in combination with NPWS shapefiles to identify the boundaries of European sites in relation to the likely zone of impact (Figure 3.1).

It was determined that four European sites occur within or adjacent to the likely zone of impact. Table 3.1 assesses if and how these sites are connected to the Project. Detailed descriptions of these sites are given in Section 3.2.

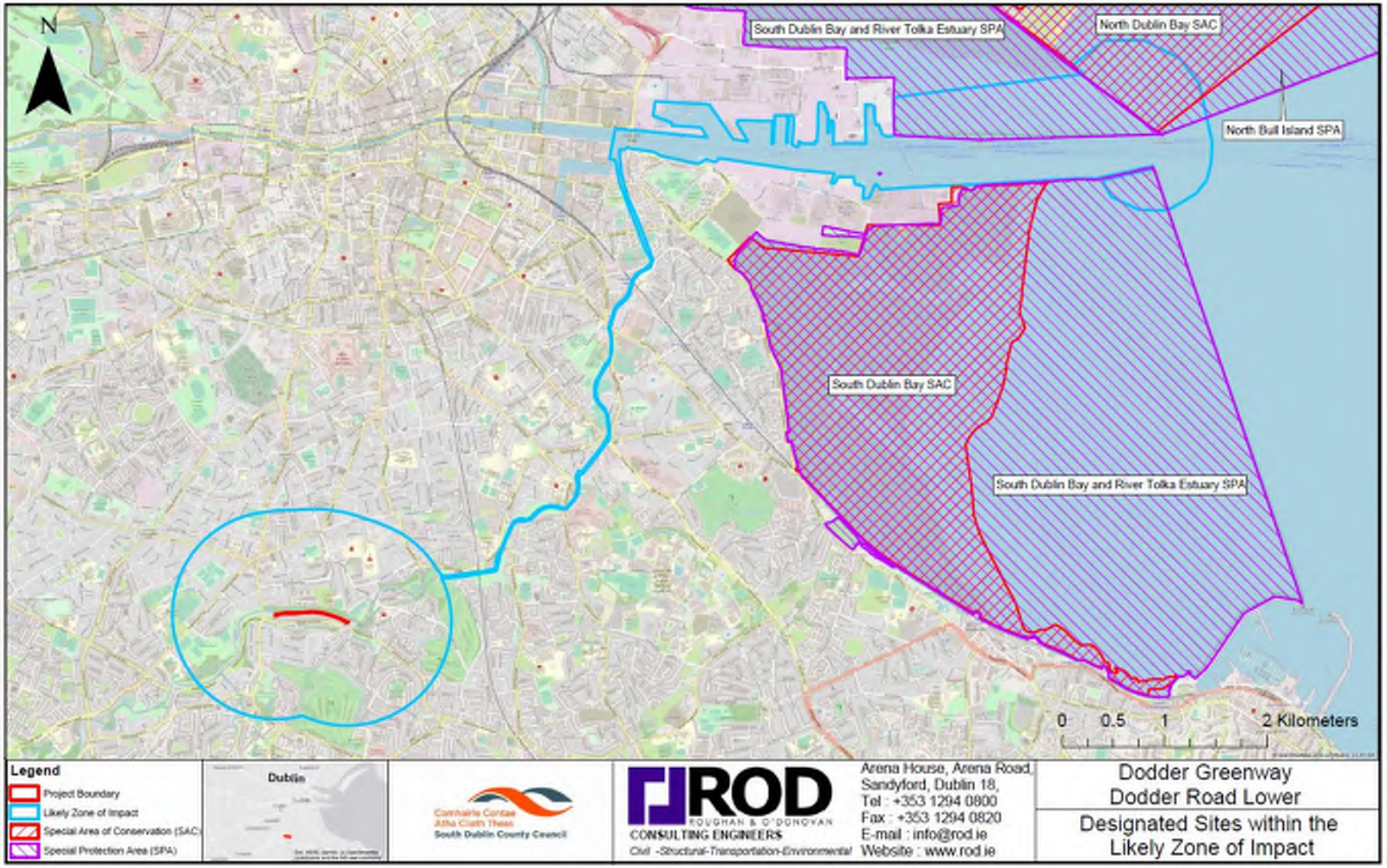

Figure 3.1 Location of European sites in the likely one of impact

Ta le 3.1 European sites located within and adjacent to the likely one of impact

European site site code	Are there potential pathways for impacts from the Project to this site Explain.
South Du lin Bay and River Tolka Estuary SPA 004024	**es.** The shortest absolute distances from the Project to this site is c. 4.6 km north east to Sandymount. This distance is over land and this location is outside of the likely zone of impact. The shortest distance from the Project to the site via a hydrological connection is 9.6 km north east (through the River Liffey) to the ESB Dolphin in Dublin Port, which is within the likely zone of impact. Therefore, the effective distance to the site is considered to be 9.6 km.
North Bull Island SPA 004006	**es.** The shortest absolute distance from the Project to this site is c. 8.6 km north east to the North Bull Lighthouse. This distance is over land and the River Liffey at this location is within the likely zone of impact. The shortest distance from the Project to the site via a hydrological connection is 12.3 km north east (through the River Liffey) to the North Bull Lighthouse, which is within the likely zone of impact. Therefore, the effective distance to the site is considered to be 12.3 km.
North Du lin Bay SAC 000206	**es.** The shortest absolute distance from the Project to this site is c. 8.6 km north east to the North Bull Lighthouse. This distance is over land and the River Liffey and this location is within the likely zone of impact. The shortest distance from the Project to the site via a hydrological connection is 12.3 km north east (through the River Liffey) to the North Bull Lighthouse, which is within the likely zone of impact. Therefore, the effective distance to the site is considered to be 12.3 km.
South Du lin Bay SAC 000210	**No.** The shortest absolute distance from the Project to this site is c. 4.6 km north east to Sandymount. This distance is over land and this location is outside of the likely zone of impact. The shortest distance from the Project to the site via a hydrological connection is 13.3 km north east (through the River Liffey and Dublin Bay) to the southern side of the Great South Wall. Therefore, the effective distance to the site is considered to be 13.3 km. This site is not located within the likely zone of impact as it is sheltered from the Liffey and its transitional waters by the Great South Wall. Therefore, there are no potential pathways for impact on this site.

3.2 Site Descriptions

South Du lin Bay and River Tolka Estuary SPA

The description of the South Dublin Bay and River Tolka Estuary SPA provided here is based on the Site Synopsis (NPWS, 2015c), Conservation Objectives (NPWS, 2015b) and Natura 2000 Standard Data Form (NPWS, 2018c) for the site, as well as the Conservation Objectives Supporting Document (NPWS, 2014a).

[A046] Light-bellied Brent Goose ( )

[A130] Oystercatcher ( )

[A137] Ringed Plover ( )

[A141] Grey Plover ( )

[A143] Knot ( )

[A144] Sanderling ( )

[A149] Dunlin ( )

[A157] Bar-tailed Godwit ( )

[A162] Redshank ( )

[A179] Black-headed Gull ( )

[A192] Roseate Tern ( )

[A193] Common Tern ( )

[A194] Arctic Tern ( )

[A999] Wetlands

This site comprises a substantial part of Dublin Bay. It includes the intertidal area between the River Liffey and Dún Laoghaire and the estuary of the River Tolka to the north of the River Liffey, as well as Booterstown Marsh. A portion of the shallow marine waters of the bay is also included.

The site is of ornithological importance as it supports an internationally important population of Light-bellied Brent Goose and nationally important populations of a further nine wintering species. Furthermore, the site supports a nationally important colony of breeding Common Tern and is an internationally important passage/staging site for three tern species. Notably, four of the species that regularly occur at this site are listed on Annex I of the Birds Directive, namely Bar-tailed Godwit, Common Tern, Arctic Tern and Roseate Tern. Parts of the site are also designated as the Ramsar Convention site "Sandymount Strand/Tolka Estuary".

Being an integral part of the internationally important Dublin Bay complex, the site is important for wintering waterfowl. Although birds regularly commute between the south bay and the north bay, recent studies have shown that certain populations which occur in the south bay spend most of their time there.

An internationally important population of Light-bellied Brent Goose (368) occurs regularly and newly arrived birds in the autumn feed on the Eelgrass bed at the Merrion Gates. At the time of designation, the site supported nationally important numbers of a further nine species: Oystercatcher (1,145), Ringed Plover (161), Grey Plover (45), Knot (548), Sanderling (321), Dunlin (1,923), Bar-tailed Godwit (766), Redshank (260) and Black-headed Gull (3,040). Other species occurring in smaller numbers include Great Crested Grebe (21), Curlew (127) and Turnstone (52). Little Egret, a species which has recently colonised Ireland, also occurs at this site.

South Dublin Bay is a significant site for wintering gulls, with a nationally important population of Black-headed Gull, but also Common Gull (330) and Herring Gull (348). Mediterranean Gull is also recorded from here, occurring through much of the year, but especially in late winter/spring and again in late summer into winter.

Both Common Tern and Arctic Tern breed in Dublin Docks, on a man-made mooring structure known as the ESB Dolphin – this is included within the site. Small numbers of Common Tern and Arctic Tern were recorded nesting on this dolphin in the 1980s. A survey in 1995 recorded nationally important numbers of Common Tern nesting here (52 pairs). The breeding population of Common Tern at this site has increased, with 216 pairs recorded in 2000. This increase was largely due to the ongoing management of the site for breeding terns. More recent data highlights this site as one of the most important Common Tern sites in the country with over 400 pairs recorded here in 2007.

South Dublin Bay is an important staging/passage site for a number of tern species in the autumn (mostly late July to September). The origin of many of the birds is likely to be the Dublin breeding sites (Rockabill and the Dublin Docks) though numbers suggest that the site is also used by birds from other sites, perhaps outside the state. This site is selected for designation for its autumn tern populations: Roseate Tern (2,000 in 1999), Common Tern (5,000 in 1999) and Arctic Tern (20,000 in 1996).

As this site is mostly comprised of coastal wetlands and is located directly adjacent to a major city and port, expansion of the city and port poses the greatest threat to its integrity. Reclamation of land from the sea, estuary or marsh represents a direct loss of key Qualifying Interests of the site. Roads, urbanisation, human habitation, industrial and commercial activities and discharges present pressures on the site in terms of disturbance and pollution.

Watersports, walkers, horse riding and non-motorised vehicles also cause persistent disturbance to the birds within the site. Angling, particularly bait collection, causes both disturbance to birds and reduces food availability. The site is also subject to some natural eutrophication pressures.

North Bull Island SPA

The description of the South Dublin Bay and River Tolka Estuary SPA provided here is based on the Site Synopsis (NPWS, 2014b), Conservation Objectives (NPWS, 2015a) and Natura 2000 Standard Data Form (NPWS, 2018b) for the site, as well as the Conservation Objectives Supporting Document (NPWS, 2014a).

[A046] Light-bellied Brent Goose ( )

[A048] Shelduck ( )

[A052] Teal ( )

[A054] Pintail ( )

[A056] Shoveler (

[A130] Oystercatcher ostralegus)

[A140] Golden Plover ( )

[A141] Grey Plover ( )

[A143] Knot ( )

[A144] Sanderling ( )

[A149] Dunlin ( )

[A156] Black-tailed Godwit ( )

[A157] Bar-tailed Godwit ( )

[A160] Curlew ( )

[A162] Redshank ( )

[A169] Turnstone ( )

[A179] Black-headed Gull (Chroicocephalus ridibundus)

[A999] Wetland and Waterbirds

This site covers all of the inner part of north Dublin Bay, with the seaward boundary extending from the Bull Wall lighthouse across to Drumleck Point at Howth Head. The North Bull Island sand spit is a relatively recent depositional feature, formed as a result of improvements to Dublin Port during the 18th and 19th Centuries. It is almost 5 km long and 1 km wide and runs parallel to the coast between Clontarf and Sutton. Part of the interior of the island has been converted to golf courses. Saltmarsh extends along the length of the landward side of the island and provides the main roost site for wintering birds in Dublin Bay. The island shelters two intertidal lagoons which are divided by a solid causeway. These lagoons provide the main feeding grounds for the wintering waterfowl. The sediments of the lagoons are mainly sands with a small and varying mixture of silt and clay.

The North Bull Island SPA is of international importance for waterfowl on the basis that it regularly supports in excess of 20,000 waterfowl. The site supports internationally important populations of three species, Light-bellied Brent Goose (1,548), Black-tailed Godwit (367) and Bar-tailed Godwit (1,529). The site is one of the most important in the country for Light-bellied Brent Goose. A further 14 species have populations of national importance. The populations of Pintail and Knot are of particular note as they comprise 14% and 10% respectively of the all-Ireland population totals. While some of the birds also frequent South Dublin Bay and the River Tolka Estuary for feeding and/or roosting purposes, the majority remain within the site for much of the winter.

The North Bull Island SPA is an excellent example of an estuarine complex and is one of the top sites in Ireland for wintering waterfowl. It is of international importance on account of both the total number of waterfowl and the individual populations of Light-bellied Brent Goose, Black-tailed Godwit and Bar-tailed Godwit that use it. Also of significance is the regular presence of several species that are listed on Annex I of the E.U. Birds Directive, notably Golden Plover and Bar-tailed Godwit, but also Ruff and Short-eared Owl. North Bull Island is a Ramsar Convention site, and part of the North Bull Island SPA is a Statutory Nature Reserve and a Wildfowl Sanctuary.

As this site is located directly adjacent to a major city and port, expansion of the city and port poses the greatest threat to its integrity. Reclamation of land from the sea, estuary or marsh represents a direct loss of key Qualifying Interests of the site. Roads, urbanisation, human habitation, industrial and commercial activities and accumulation of organic material present pressures on the site in terms of disturbance and pollution. Walkers, horse riding and non-motorised vehicles also cause persistent disturbance to the birds within the site.

North Du lin Bay SAC

The description of the North Dublin Bay SAC provided here is based on the Site Synopsis (NPWS, 2013b), Conservation Objectives (NPWS, 2013a) and Natura 2000 Standard Data Form (NPWS, 2018a) for the site, as well as the Conservation Objectives Supporting Documents (NPWS, 2013d).

[1140] Tidal mudflats and sandflats not covered by seawater at low tide

[1210] Annual vegetation of drift lines

[1310] Salicornia and other annuals colonising mud and sand

[1330] Atlantic salt meadows (Glauco-Puccinellietalia maritimae)

[1410] Mediterranean salt meadows (Juncetalia maritimi)

[2110] Embryonic shifting dunes

[2120] Shifting dunes along the shoreline with (white dunes)

[2130] Fixed coastal dunes with herbaceous vegetation (grey dunes)

[2190] Humid dune slacks

[1395] Petalwort ( )

This site covers the inner part of north Dublin Bay, the seaward boundary extending from the Bull Wall lighthouse across to the Martello Tower at Howth Head. The North Bull Island is the focal point of this site.

North Bull Island is a sandy spit which formed after the building of the South Wall and Bull Wall in the 18th and 19th centuries. It now extends for about 5 km in length and is up to 1 km wide in places. A well-developed and dynamic dune system stretches along the seaward side of the island. Various types of dunes occur, from fixed dune grassland to pioneer communities on foredunes.

About 1 km from the tip of the island, a large dune slack with a rich flora occurs, usually referred to as the 'Alder Marsh' because of the presence of Alder trees ( ). The water table is very near the surface and is only slightly brackish.

Saltmarsh extends along the length of the landward side of the island. The edge of the marsh is marked by an eroding edge which varies from 20 cm to 60 cm high. The marsh can be zoned into different levels according to the vegetation types present. Towards the tip of the island, the saltmarsh grades naturally into fixed dune vegetation.

The habitat 'annual vegetation of drift lines' is found in places, along the length of Dollymount Strand, with species such as Sea Rocket ( ), Oraches (spp.) and Prickly Saltwort ( ).

The island shelters two intertidal lagoons which are divided by a solid causeway. The sediments of the lagoons are mainly sands with a small and varying mixture of silt and clay. The north lagoon has an area known as the " flat", which is dominated by , a pioneer glasswort species, and covers about 25 ha. The sediments on the seaward side of North Bull Island are mostly sands. The site extends below the low spring tide mark to include an area of the sublittoral zone.

Three rare plant species which are legally protected under the Flora (Protection) Order, 2015 have been recorded on the North Bull Island. These are Lesser Centaury ( ), Red Hemp-nettle ( ) and Meadow Saxifrage ( ). Two further species listed as threatened in the Red Data Book, Wild Clary/Sage ( ) and Spring Vetch ( ), have also been recorded. A rare liverwort, , was first recorded from the North Bull Island in 1874 and has recently been confirmed as still present. This species is of high conservation value as it is listed on Annex II of the E.U. Habitats Directive. The North Bull is the only known extant site for the species in Ireland away from the western seaboard.

North Dublin Bay is of international importance for waterfowl Some of these species frequent South Dublin Bay and the River Tolka Estuary for feeding and/or roosting purposes (mostly Brent Goose, Oystercatcher, Ringed Plover, Sanderling and Dunlin). The tip of the North Bull Island is a traditional nesting site for Little Tern. A high total of 88 pairs nested in 1987. However, nesting attempts have not been successful since the early 1990s. A well-known population of Irish Hare is resident on the island.

The invertebrates of the North Bull Island have been studied and the island has been shown to contain at least seven species of regional or national importance in Ireland.

The main land uses of this site are amenity activities and nature conservation. The North Bull Island is the main recreational beach in Co. Dublin and is used throughout the year. Much of the land surface of the island is taken up by two golf courses. Two separate Statutory Nature Reserves cover much of the island east of the Bull Wall and the surrounding intertidal flats. The site is used regularly for educational purposes. North Bull Island has been designated a Special Protection Area under the E.U. Birds Directive and it is also a statutory Wildfowl Sanctuary, a Ramsar Convention site, a Biogenetic Reserve, a Biosphere Reserve and a Special Area Amenity Order site.

This site is an excellent example of a coastal site with all the main habitats represented. The site holds good examples of nine habitats that are listed on Annex I of the E.U. Habitats Directive; one of these is listed with priority status. Several of the wintering bird species have populations of international importance, while some of the invertebrates are of national importance. The site contains a number of rare and scarce plants including some which are legally protected. Its proximity to the capital city makes North Dublin Bay an excellent site for educational studies and research.

As this site is located directly adjacent to a major city and port, expansion of the city and port poses the greatest threat to its integrity. Reclamation of land from the sea, estuary or marsh represents a direct loss of key Qualifying Interests of the site. Roads, urbanisation, human habitation, industrial and commercial activities and accumulation of organic material present pressures on the site in terms of disturbance and pollution. Walkers, horse riding and non-motorised vehicles also cause persistent disturbance to the birds within the site.

3.3 Evaluation against Conservation O jectives

Table 3.2, 3.3 and 3.4 below detail the evaluation of the likely effects of the Project in view of the Conservation Objectives of the sites identified in Section 3.1 and described in Section 3.2. As explained in Sections 1.2 and 1.3, AA Screening is carried out in view of the Conservation Objectives of the relevant European sites, which are in turn defined by detailed Attributes and corresponding Targets. Therefore, the evaluation of whether or not a likely effect is significant (in view of the Conservation Objective in question) is made with regard to these Attributes and Targets.

Where site-specific Conservation Objectives have not been set for a particular site, the definition of "favourable conservation status" provided in the Habitats Directive is used to define the "favourable conservation condition" of the Qualifying Interests of that site. In such cases, likely effects are considered to be significant if they delay or interrupt the restoration or maintenance of the favourable conservation condition of any of the site's Qualifying Interests.

Ta le 3.2 Evaluation of the likely effects of the Project in view of the Conservation O jectives of the South Du lin Bay and River Tolka Estuary SPA 004024

Qualifying Interest	Conservation O jective as per NPWS (2015)	Does the Project provide for any potential delay or interruption in the achievement of this Conservation O jective as defined y its Attri utes and Targets	Likely Significant Effect
Light- ellied Brent Goose (*Branta bernicla hrota*) A046	*"To maintain the favourable* *Tolka Estuary SPA"*	The Attributes of these Conservation Objectives focus on " " and " ". The main impacts arising from the Project on these Attributes relate to spillages of contaminants which could affect habitats downstream and potentially deter species from certain areas. The North Bull Island SPA is hydrologically connected to the Project which is located c. 9.6 km upstream. This provides a pathway for contaminants such as concrete and sediments that may be spilled during construction to be transported to the site. However, the quantities of concrete and sediment that will be used and produced during construction will be small and the level of impact these spillages may have on water quality within the site will be negligible considering the volume of water and the dilution capacity of the River Dodder and River Liffey. There are no water quality impacts associated with the operational phase of the Project. Considering the temporary nature and small scale of the works, and location of the Project in relation to the roosting and foraging locations for these Qualifying Interests as well as the assimilative capacity of the River Dodder and River Liffey, it can be concluded beyond reasonable scientific doubt that the Project will not significantly affect these Qualifying Interests.	No
Oystercatcher (*Haematopus ostralegus*) A130	*"To maintain the favourable* *Estuary SPA"*		No
Ringed Plover (*Charadrius hiaticula*) A137	*"To* *Estuary SPA"*		No
Grey Plover (*Pluvialis squatarola*) A141	*"Grey Plover is proposed* . *for this species."*		No
Knot (*Calidris canutus*) A143	*"To maintain the favourable* *SPA"*		No

Qualifying Interest	Conservation O jective as per NPWS (2015)	Does the Project provide for any potential delay or interruption in the achievement of this Conservation O jective as defined y its Attri utes and Targets	Likely Significant Effect
Sanderling (*Calidris alba*) A144	*"To maintain the favourable Estuary SPA"*	As above.	No
Dunlin (*Calidris alpina alpina*) A149	*"To maintain the favourable SPA"*		No
Bar-tailed Godwit (*Limosa lapponica*) A157	*"To maintain the favourable Estuary SPA"*		No
Redshank (*Tringa totanus*) A162	*"To maintain the favourable Estuary SPA"*		No
Black-headed Gull (*Chroicocephalus ridibundus*) A179	*"To maintain the favourable Estuary SPA"*		No
Roseate Tern (*Sterna dougallii*) A192	*"To maintain the favourable Estuary SPA"*	The closest hydrologically connected nesting site of these Qualifying Interests to the Project is at the lock gates at Grand Canal Dock (6.9 km downstream of the Project) for Common Tern and the Electricity Supply Board dolphin on the River Liffey between Poolbeg power station and the Pigeon House (. 9.5 km downstream of the Project) for Roseate Tern and Arctic Tern. The occurrence of both nesting and roosting sites are of	No

Qualifying Interest	Conservation O jective as per NPWS (2015)	Does the Project provide for any potential delay or interruption in the achievement of this Conservation O jective as defined y its Attri utes and Targets	Likely Significant Effect
Common Tern (*Sterna hirundo*) A193	*"To maintain the* *Estuary SPA"*	sufficient distance from the Project to ensure that the Project does not provide for any effect on the passage population, number of nests, productivity rate, distribution of roosting and breeding sites, prey biomass available, barriers to connectivity or disturbance of Roseate Tern within the site. Therefore, the Project does not have the potential to significantly affect this Qualifying Interest, in view of its Conservation Objective.	No
Arctic Tern (*Sterna paradisaea*) A194	*"To* *Estuary SPA"*		No
Wetlands A999	*"To maintain the favourable* *utilise it"*	The sole Attribute of this Conservation Objective is " ". The Project will not result in the loss of any areas of this habitat within this North Bull Island SPA. The only potential impact that the Project may have on this Qualifying Interest is an impact on water quality. The hydrological connection provides a pathway for contaminants such as concrete and sediments that may be spilled during construction to be transported to the site. However, the quantities of concrete and sediment that will be used and produced during construction will be small and the level of impact these spillages may have on water quality within the site will be negligible considering the volume of water and the dilution capacity of the River Dodder and River Liffey. There are no water quality impacts associated with the operational phase of the Project. Thus, it can be concluded beyond reasonable scientific doubt that the Project will not significantly affect this Qualifying Interest.	No

Ta le 3.3 Evaluation of the likely effects of the Project in view of the Conservation O jectives of the North Bull Island SPA 004006

Qualifying Interest	Conservation O jective as per NPWS (2015a)	Does the Project provide for any potential delay or interruption in the achievement of this Conservation O jective as defined y its Attri utes and Targets	Likely Significant Effect
Light- ellied Brent Goose (*Branta bernicla hrota*) A046	*"To mainta North Bull Island SPA"*	The Attributes of these Conservation Objectives focus on " " and " ". The main impacts arising from the Project on these Attributes relate to spillages of contaminants, altering suitable habitats for these species which could deter species away from certain areas. The North Bull Island SPA is hydrologically connected to the Project which is located c. 12.3 km upstream. This provides a pathway for contaminants such as concrete and sediments that may be spilled during construction to be transported to the site. However, the quantities of concrete and sediment that will be used and produced during construction will be small and the level of impact these spillages may have on water quality within the site will be negligible considering the volume of water and the dilution capacity of the River Dodder and River Liffey. There are no water quality impacts associated with the operational phase of the Project. Considering the temporary nature and small scale of the works, and location of the Project in relation to the roosting and foraging locations for these Qualifying Interests as well as the assimilative capacity of the River Dodder and River Liffey, it can be concluded beyond reasonable scientific doubt that the Project will not significantly affect these Qualifying Interests.	No
Shelduck (*Tadorna tadorna*) A048	*"To maintain the favourable nd SPA"*		No
Teal (*Anas crecca*) A052	*"To maintain the SPA"*		No
Pintail (*Anas acuta*) A054	*"To maintain the favourable SPA"*		No
Shoveler (*Anas clypeata*) A056	*"To maintain the Island SPA"*		No
Oystercatcher (*Haematopus ostralegus*) A130	*"To maintain the favourable A"*		No
Golden Plover (*Pluvialis apricaria*) A130	*"To maintain the favourable Island SPA"*		No

Qualifying Interest	Conservation O jective as per NPWS (2015a)	Does the Project provide for any potential delay or interruption in the achievement of this Conservation O jective as defined y its Attri utes and Targets	Likely Significant Effect
Grey Plover (*Pluvialis squatarola*) A141	*"To maintain the favourable* *Island SPA"*	As above.	No
Knot (*Calidris canutus*) A143	*"To maintain the favourable* *SPA"*		No
Sanderling (*Calidris alba)* A144	*"To maintain the favourable* *Island SPA"*		No
Dunlin (*Calidris alpine*) A149	*"To maintain the favourable* *SPA"*		No
Black-tailed Godwit (*Limosa limosa*) A156	*"To maintain the favourable* *Bull Island SPA"*		No
Bar-tailed Godwit (*Limosa lapponica*) A157	*"To maintain the favourable* *Bull Island SPA"*		No
Curlew (*Numenius arquata*) A160	*"To maintain the* *SPA"*		No

Qualifying Interest	Conservation O jective as per NPWS (2015a)	Does the Project provide for any potential delay or interruption in the achievement of this Conservation O jective as defined y its Attri utes and Targets	Likely Significant Effect
Redshank (*Tringa tetanus*) A162	*"To maintain the favourable* *Island SPA"*	As above.	No
Turnstone (*Arenaria interpres*) A169	*"To* *Island SPA"*		No
Black-headed Gull (*chricocephalus ridibundus*) A179	*"To maintain the favourable* *Bull Island SPA"*		No
Wetlands A999	*"* *waterbirds that utilise it"*	The sole Attribute of this Conservation Objective is " ". The Project will not result in the loss of any areas of this habitat within this North Bull Island SPA. The only potential impact that the Project may have on this Qualifying Interest is an impact on water quality. The hydrological connection provides a pathway for contaminants such as concrete and sediments that may be spilled during construction to be transported to the site. However, the quantities of concrete and sediment that will be used and produced during construction will be small and the level of impact these spillages may have on water quality within the site will be negligible considering the volume of water and the dilution capacity of the River Dodder and River Liffey. There are no water quality impacts associated with the operational phase of the Project. Thus, it can be concluded beyond reasonable scientific doubt that the Project will not significantly affect this Qualifying Interest.	No

Ta le 3.4 Evaluation of the likely effects of the Project in view of the Conservation O jectives of the North Du lin Bay SAC 000206

Qualifying Interest	Conservation O jective as per NPWS (2013a)	Does the Project provide for any potential delay or interruption in the achievement of this Conservation O jective as defined y its Attri utes and Targets	Likely Significant Effect
Mudflats and sandflats not covered y seawater at low tide 1140	*"* *SAC"*	Mudflats and sandflats not covered by seawater at low tide are located within the likely zone of impact at the southernmost point of North bull Island. This habitat is sensitive to the types of impacts that could potentially arise from the Project (i.e. water quality impacts). The habitat is hydrologically connected to the Project which is located c. 14 km upstream. This provides a pathway for contaminants such as concrete and sediments that may be spilled during construction to be transported to the site. However, the quantities of concrete and sediment that will be used and produced during construction will be small and the level of impact these spillages may have on water quality within the site will be negligible considering the volume of water and the dilution capacity of the River Dodder and the River Liffey. There are no water quality impacts associated with the operational phase of the Project. Thus, it can be concluded beyond reasonable scientific doubt that the Project will not significantly affect this Qualifying Interest.	No
Annual vegetation of drift lines 1210	*"To restore the favourable* *SAC"*	These terrestrial coastal habitats do not occur within the likely zone of impact and are not sensitive to the types of impacts that could potentially arise from either construction or operational phases of the Project (i.e. water quality impacts) as there is no hydrological connection or other pathway for impacts. Therefore, it can be concluded beyond reasonable scientific doubt that the Project will not significantly affect this Qualifying Interest.	No
Salicornia and other annuals colonising mud and sand 1310	*"To restore the favourable* *Dublin Bay SAC"*		No
Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) 1330	*"To maintain the favourable* *Bay SAC"*		No

Qualifying Interest	Conservation O jective as per NPWS (2013a)	Does the Project provide for any potential delay or interruption in the achievement of this Conservation O jective as defined y its Attri utes and Targets	Likely Significant Effect
Mediterranean salt meadows (Juncetalia maritime*) [1410]*	*"To maintain the favourable* Juncetalia maritime *Dublin Bay SAC"*	As above.	No
Em ryonic shifting dunes 2110	*"* *Dublin Bay SAC"*		No
Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes) 2120	*"To restore the favourable* Ammophila arenaria *('white dunes') in North Dublin Bay SAC"*		No
Fixed coastal dunes with her aceous vegetation (grey dune) 2130	*"To restore the favourable* *('grey dunes') in North Dublin Bay SAC"*		No
Humid dune slacks 2190	*"To restore the favourable* *Dublin Bay SAC"*		No
Petalwort *Petalophyllum ralfsii [1395]*	*"To maintain the favourable* *SAC"*	Petalwort does not occur within the likely zone of impact of the Project. Petalwort is a terrestrial species, therefore there is no hydrological connection from the Project and this species. Thus, it can be concluded beyond reasonable scientific doubt that the proposed works will not significantly affect the Conservation Objective for this Qualifying Interest.	No

3.4 Summary of Likely Significant Effects

In Section 3.1, it was established that three European sites, namely the South Dublin Bay and River Tolka Estuary SPA, The North Bull Island SPA and the North Dublin Bay SAC, occur within the likely zone of impact of the Project. It was determined that potential pathways for effects exist between the Project and these sites. There are no pathways for effects between the Project and any other European sites. The SAC and SPAs were described in detail in Section 3.2.

In Section 3.3, it was established, in light of best scientific knowledge, that the Project will not give rise to ecological impacts which would constitute significant effects on the SAC or SPAs, in view of the sites' Conservation Objectives. This finding had regard to the nature, size and location of the Project, the assimilative capacity of the River Dodder and the River Liffey,the existing levels of noise and visual disturbance in the area and the sensitivities of the Qualifying Interest of the sites concerned.

4. IN-COMBINATION ASSESSMENT

4.1 Introduction

Article 6(3) of the Habitats Directive requires that AA be carried out in respect of plans and projects that are likely to have significant effects on European sites, " ". Therefore, regardless of whether or not the likely effects of a plan or project are significant when considered on their own, the significance of the combined effects of the plan or project under assessment and other plans and projects must also be evaluated.

4.2 Methodology

Plans and projects with potential for interactions with the Project were selected for assessment. For the purposes of the assessment, small scale and domestic developments were not considered given the nature of the Project and the fact that these developments would be subject to stringent planning controls.

The ePlanning websites for South Dublin County Council, Dun Laoghaire Rathdown County Council and Dublin City Council as well as the EIA Portal was used to search for planning applications.

4.3 Outcome

Table 4.1 below details the assessment of the likelihood of significant effects arising from the Project in combination with other plans or projects. This assessment was undertaken in view of the Conservation Objectives of the relevant European site and found that the Project does not have the potential to significantly affect any European site in combination with other plans or projects.

Ta le 4.1 Assessment of the likelihood of significant effects on ecology arising from the com ination of the Project with other plans and projects.

Plan or Project	Description of Plan or Project	In-com ination effect(s)
Dodder Greenway (SDCC Section)	The Dodder Greenway (SDCC Section) is a c. 12km 3-4m wide cycling and pedestrian path between Orwell Park and Fort Bridge near Bohernabreena. The project will include a number of new cycling/ pedestrian bridges, bat friendly public lighting and toucan crossings. This project will link up with the DCC section (the subject of this AA Screening) on the Dodder Road Lower, forming a contiguous 17km Greenway between Dublin City and the Dublin Mountains. The SDCC Section received planning in 2017.	There are no likely significant effects predicted to arise from the combination of this development with the proposed development.
Dodder Greenway (DCC Section)	The Dodder Greenway (DCC Section) is a c. 5km 3-4m wide cycling and pedestrian path between Orwell Park and Sir John Rogerson's Quay. The project will include bat friendly public lighting and toucan crossings. This project will link up with the SDCC section on the Dodder Road Lower, forming a contiguous 17km Greenway between Dublin City and the Dublin Mountains. The DCC has not received planning consent to date.	There are no likely significant effects predicted to arise from the combination of this development with the proposed development.
Dodder Greenway-Springfield Avenue Upgrade	The proposed Springfield Avenue Upgrade scheme is an upgrade on 1.5km of carriageway, footpaths,and cycle tracks. The scheme is part of the Dodder Greenway overall scheme, and it will link two phases of the Dodder Greenway. The scheme, considered to be an "on road" section of the Dodder Greenway, and it is also described as an extension and a supplement to the Dodder Greenway scheme. The project proposes to upgrade two junctions and rearrange and upgrade the existing cycle facilities on the road. It also intends to upgrade existing pedestrian crossings and create a continuously 5 m wide shared path along Springfield Avenue.	There are no likely significant effects predicted to arise from the combination of this development with the proposed development.
Dodder Greenway-Firhouse Road and Wellington Lane Links	The proposed Firhouse Road and Wellington Lane Links scheme is a road upgrade scheme and contains approximately 1.53km of a 4m wide shared path that will link and complement two sections of Dodder Greenway. The scheme, considered to be an "on road" section of the Dodder Greenway, is also described as an extension and a supplement to the Dodder Greenway scheme. The project proposes to relocate 2 no. bus stops and rearrange the existing cycle facilities on the road. It also intends to upgrade existing pedestrian crossings on Firhouse Road and redesign the Old Bridge Road–Firhouse Road junction making it safer for pedestrian and cyclists. Along the 1.53km of proposed shared path of the Firhouse Road and Wellington Lane Links scheme, a Plaza Entrance is proposed at the Firhouse Road-Knocklyon Road Junction to aesthetically harmonize with the Dodder Greenway routes. All proposed works for the project will include a fully integrated landscape plan and will accommodate all the required services or all required services diversion, if any.	There are no likely significant effects predicted to arise from the combination of this development with the proposed development.

Plan or Project	Description of Plan or Project	In-com ination effect(s)
Proposed Royal Canal Greenway	The Royal Canal Greenway will involve the construction of a Premium Cycle and Pedestrian Route along the Royal Canal from North Wall Quay to Ashtown. The overall length of the scheme is 7.1 km from Sheriff Street Upper to Ashtown. The scheme has been broken into four phases: • Phase 1: Guild Street (North Wall Quay) to Sheriff Street Upper (completed); • Phase 2: Sheriff Street Upper to North Strand (work started March 2019); • Phase 3: North Strand to Phibsborough; • Phase 4: Phibsborough to Ashtown. An AA Screening has been undertaken at planning stage and it was concluded that there will be no likely significant effects on any Natura 2000 site(s) either alone or in-combination with other plans or projects.	There are no likely significant effects predicted to arise from the combination of this development with the proposed development.
Dodder Flood Alleviation Works-Planning Amendment to the previously approved Planning Application 2504/13 at Donny rook RFC	Dublin City Council is currently engaged in River Dodder Flood Alleviation Works, Phases 2c/2d/2e under a Part 8 planning permission issued in 2013. Part of this project includes works to the western bank of the river Dodder between Herbert Park and Anglesea Bridge (Donnybrook). Separately, Dublin City Council with the support of the National Transport Authority (NTA) has been developing proposals for a high-quality walking and cycling route along the river Dodder. The Dodder Greenway project is a proposed 29km walking and cycling route from Sir John Rogerson's Quay through Grand Canal Dock, Ringsend, Lansdowne, Ballsbridge, Donnybrook, Clonskeagh, Milltown, Rathfarnham, Tallaght and into the Dublin Mountains. The preferred option for the Dodder Greenway through the Donnybrook area has been identified as a route along the western bank of the River Dodder between Anglesea Bridge (Donnybrook) and Herbert Park. The current proposals for the flood alleviation works in this area would require major alteration in the future to allow for the Dodder Greenway to be provided along this preferred route. Dublin City Council therefore proposes to amend the current proposals for the flood alleviation works between Herbert Park and Anglesea Bridge so that the greenway can be constructed as part of the current on-going flood defences in this area. As part of the amended works it is proposed: • To widen a 120m section of the originally planned flood embankment to allow for the construction of a 4m wide walking and cycling route along its length. • To alter the line of approx.140m, and cantilever over the riverbank approximately 130m, of the originally planned flood wall in order that the walking and cycling route can be constructed between the flood wall and the neighbouring pitches and tennis courts. • To remove some existing low value trees and provide a new tree planting scheme	There are no likely significant effects predicted to arise from the combination of this development with the proposed development.

Plan or Project	Description of Plan or Project	In-com ination effect(s)
	• To install a new boundary fence between the walking and cycling route and the neighbouring property belonging to the Leinster Branch of the IRFU. To provide beech hedging or similar as screening on the Leinster Branch side of the boundary fence.	
Dodder Flood Alleviation Scheme (Phase 3)	The purpose of the River Dodder Flood Alleviation Scheme Phase 3 is to assess and develop a viable, cost effective and sustainable Flood Alleviation Scheme in order to alleviate flooding along the River Dodder between Clonskeagh Road Bridge to Orwell Road Bridge including Little Dargle Stream at Braemor Road-Woodside Drive south-eastern junction. This project is being developed between Dún Laoghaire- Rathdown County Council and the Office of Public Works is currently at preliminary discussion stage. In the absence of any design or even design options, an assessment of in-combination effects with this project cannot be undertaken at this stage. Once developed, this project will be required to undertake the appropriate assessments including EIA Screening and AA Screening and consider the cumulative effects resulting from all other projects, as appropriate.	There is no design available for this project and therefore an assessment of in-combination effects cannot be undertaken at this time. The Dodder Flood Alleviation Scheme (Phase 3) will be assessed for in-combination effects when the design is completed.
Proposed Dodder Pu lic Transportation Opening Bridge	Dublin City Council has commenced the planning and design of the Dodder Public Transportation Opening Bridge. The scheme comprises a new public transportation opening bridge over the River Dodder at its confluence with the River Liffey along with the construction of approach roads associated with the bridge; the construction of a new control building; the provision of a new club house and facilities for St Patrick's Boat Club; the reclamation of land to the west of Tom Clarke Bridge to facilitate the build; the landscaping of the area between York Road/Thorncastle street and the R131 over the extents of the project. An EIAR and Natura Impact Statement will be prepared in support of the project.	There are no likely significant effects predicted to arise from the combination of this development with the proposed development.
Proposed Bloodstoney Foot ridge	Dublin City Council has commenced the planning and design of the Bloodstoney Footbridge. The proposed bridge will cross the River Liffey upstream of the confluence with its tributary, River Dodder in central the Docklands area of Dublin. The Blood Stoney Bridge will connect the two river banks at the projection of the Blood Stoney Road and New Wapping Street, at Sir John Rogerson's Quay (in the South) and North Wall Quay (in the North), respectively (Figure 2.1). In this area the river channel is c.125m wide. The bridge will carry pedestrians and cyclists in both directions with the cycle path segregated from the footpaths. The bridge must	There are no likely significant effects predicted to arise from the combination of this development

Plan or Project	Description of Plan or Project	In-com ination effect(s)
	move to allow for passing river traffic, maintaining unlimited head clearance across the full width of the navigation channel (31.5m) in the open position. An EIAR and Natura Impact Statement will be prepared in support of the project.	with the proposed development.
Liffey Cycle Route	The Liffey Cycle Route is a Primary Route in the Greater Dublin Area Cycle Network Plan published by the National Transport Authority (NTA) in December 2013, and as such is a key objective of the NTA and Dublin City Council (DCC). It is one of a number of routes being developed by DCC as part of its overall 470km of safer cycling routes suitable for cyclists of all ages and abilities. The scheme will deliver pedestrian improvements, a high-quality cycle route that will meet the requirements of cyclists of varied experience and will provide an optimal balance of provision between the various road users along the route. The design will have particular regard to any engineering, architectural and environmental constraints along the route. In 2017 DCC and the NTA agreed that the NTA would undertake a review of all design options considered to date and identify any new design options. In March 2019 the NTA presented an Emerging Preferred Design to DCC. This Emerging Preferred Design includes the following • The existing road layout will be reconfigured to provide a one-way segregated cycle track on the north and south quays, located on the building side from the Phoenix Park to O Donovan Rossa Bridge where it then crosses to the river side of the road to Matt Talbot Memorial Bridge, • Provision of boardwalks at various locations, • Upgrade of junctions to provide pedestrian and cyclist improvements, • Public realm improvements and • Improvements to existing traffic signal operational infrastructure. Dublin City Council carried out a non-statutory public consultation from 2nd May 2019 to 6th June 2019. Comments and observations received will be considered as the scheme design progresses. Following extensive internal DCC consultation, key areas which require scoping prior to the engagement of an engineering service provider have been identified, DCC is currently progressing these scoping exercises. This information along with the comments received as part of the non-statutory public consultation will help in fully defining the scope of the scheme. This will form the basis for appointing a design team in Q2 2020.	An assessment of cumulative effects with this project without detail on location, scale and design is not feasible at this stage and is not included as part of this assessment.
City Quay to Ringsend Core Bus Corridor (Route 16)	The Ringsend to City Centre Core Bus Corridor (CBC) commences at Talbot Memorial Bridge. The scheme encompasses bus lane and cycle infrastructure on both north and south quays linking the city centre with the	An assessment of cumulative effects with this project

Plan or Project	Description of Plan or Project	In-com ination effect(s)
	Docklands and onto Ringsend and Irishtown. The scheme will involve works on existing streets and new road links. The second round of public consultation for the Core Bus Corridor (the "bus lanes and cycle lanes/tracks") will commence in 2020. This will be a further interim step in the planning process - it will take another 12 months of technical, environmental, and transport impact assessment work before any final plans are complete for presentation to An Bord Pleanála for statutory approval in 2020.	without detail on location, scale and design is not feasible at this stage and is not included as part of this assessment.
Du lin Eastern Bypass / Southern Port Access Route (SPAR)	Link between north Dublin Port and the Southern Cross / South Eastern Motorway via an eastern bypass of the city. Preferred method is by means of a bored tunnel. Preferred route is under Sandymount Strand and Booterstown Marsh. Not likely to proceed until after 2030 at the earliest. Split into two schemes: (1) Port Tunnel to South Port and (2) South Port to M50. SPAR is the northern section.	An assessment of cumulative effects with this project without detail on location, scale and design is not feasible at this stage and is not included as part of this assessment.
DCC Planning Application No. DSDZ3197/16 DSDZ2577/17 DSDZ4134/17 DSDZ3647/08 DSDZ2572/19 (Granted)	Construction of a new residential and commercial development at Hanover Quay within a 7-8 storey building comprising 122 apartments, resident's gym, café, and restaurant. Single level basement will provide car and bicycle parking spaces and services and storage areas. Landscaping, boundary treatment, services provision and associated site development works are included.	There are no likely significant effects predicted to arise from the combination of this development with the proposed development.
DCC Planning Application No. DSDZ2546/15 DSDZ4345/15 DSDZ2663/16 DSDZ3796/16 DSDZ4102/16 DSDZ3572/17 DSDZ4135/17 DSDZ2145/18 (Granted)	Removal and reconfiguration of a 2-level basement and the construction of a mixed-use development ranging from 3 to 19 storeys at Sir John Rogerson's Quay. This will accommodate office and atrium space, residential areas including 204 apartments, retail, cultural and amenity uses/services, a creche and restaurant. Two basement levels will serve as space for bicycle and car parking and will also accommodate toilet, shower and storage facilities. Landscaping will also be involved.	There are no likely significant effects predicted to arise from the combination of this development with the proposed development.

Plan or Project	Description of Plan or Project	In-com ination effect(s)
DCC Planning Application No. 2268/14 (Granted)	Phased development at Marian College of sports hall, changing facilities, demountable seating, reception, ancillary accommodation and a gym. Car and bicycle parking space will also be provided. Lighting and landscaping will be included.	There are no likely significant effects predicted to arise from the combination of this development with the proposed development.
DCC Planning Application No. 2868/16 (Granted)	Demolition of a 5-storey commercial building on Shelbourne Road and the construction of a 4 to 6 story commercial building over basement level that will provide office space. Ground level will provide space for either retail or a café. Car and bicycle parking spaces will also be provided by the development.	There are no likely significant effects predicted to arise from the combination of this development with the proposed development.
DCC Planning Application No. 3726/09 2669/11 3810/11 2744/12 2427/13 3624/13 3012/14 2250/15 2259/15 4005/15 4216/15 2766/16 3187/17 (Granted)	Demolition of existing buildings at Orwell Park and the construction of 77 residential units mainly consisting of terraced, townhouse-style buildings. Car and bicycle parking spaces are also included alongside an ESB sub-station, communal gardens. Public open spaces, and all associated infrastructure and site development works including landscaping and boundary treatment.	There are no likely significant effects predicted to arise from the combination of this development with the proposed development.
DCC Planning Application N. 2219/15 (Granted)	Construction of a 2-storey building at the Leinster Branch IRFU Grounds on Donnybrook Road that will accommodate a gym, medical room, changing rooms and administration facilities.	There are no likely significant effects predicted to arise from the combination of this development with the proposed development.
DCC Planning Application No. 3947/17 (Granted)	Construction of 3 2-storey houses at Briarfield Grove. All associated site development works, service provision, access, car parking, landscaping and boundary treatment works are included.	There are no likely significant effects predicted to arise

Plan or Project	Description of Plan or Project	In-com ination effect(s)
		from the combination of this development with the proposed development.
DCC Planning Application No. 2212/13 (Granted)	Construction of 3 floors above ground floor slab, extension and change of building uses to provide 116 nursing home bedrooms at Orwell Nursing Home, dining and day rooms, ancillary accommodations, office and training rooms, and car parking spaces will also be included. A single storey concierge and sub-station building will also be constructed. Landscaping and boundary works are also included in the development.	There are no likely significant effects predicted to arise from the combination of this development with the proposed development.
DCC Planning Application No. 2659/13 2013/14 (Granted)	The development involves the construction on 8 apartments and 8 town houses at Orwell Park alongside associated site development and landscape works.	There are no likely significant effects predicted to arise from the combination of this development with the proposed development.
DCC Planning Application No. 2593/18 (Granted)	The development involves the construction of 4 single storey apartments over existing ground floor retail unit on Milltown Road.	There are no likely significant effects predicted to arise from the combination of this development with the proposed development.
DCC Planning Application No. 2709/19 (Granted)	The development involves the construction of 9 offices/consulting rooms, a waiting area and toilets in a single storey building at Glenmalure Day Hospital.	There are no likely significant effects predicted to arise from the combination of this development with the proposed development.

Plan or Project	Description of Plan or Project	In-com ination effect(s)
DCC Planning Application No. 2676/11 (Granted)	The development involves the demolition of an existing building at Clonskeagh House and the construction of a 4-storey multi-purpose building. Reconfiguration and resurfacing of an existing car park will be carried out, alterations to existing access and associated site development works are also included.	There are no likely significant effects predicted to arise from the combination of this development with the proposed development.
DCC Planning Application No 2620/14 (Granted)	The development involves the demolition of existing offices, factory buildings, yards, chimneys and ancillary accommodation and alterations to surrounding buildings will also be carried out on Clonskeagh Road. 92 apartments will be constructed in 4 apartment blocks ranging between 2 and 4 storeys and will also contain a creche. A river walk and landscaping will be carried out along the banks of the River Dodder. A new site entrance will be provided that will provide access to car and bicycle parking spaces. Improvements to existing boundary walls, landscaping and associated works will also be carried out.	There are no likely significant effects predicted to arise from the combination of this development with the proposed development.
DCC Planning Application No. 2749/19 (Granted)	Construction of an air dome over 2 existing tennis courts on Beech Hill Road, Clonskeagh.	There are no likely significant effects predicted to arise from the combination of this development with the proposed development.
DCC Planning Application No. 4144/09 (Granted)	Construction of an air dome over 3 existing tennis courts at Donnybrook Tennis Club.	There are no likely significant effects predicted to arise from the combination of this development with the proposed development.
DCC Planning Application No. 2963/09 (Granted)	Demolition of an existing gym at Old Belvedere Rugby Club and the construction of a single storey building that will host kit rooms, laundry rooms, meeting room and office.	There are no likely significant effects predicted to arise from the combination of this development

Plan or Project	Description of Plan or Project	In-com ination effect(s)
		with the proposed development.
DCC Planning Application No. 4049/09 (Granted)	Demolition of an existing 2-storey building and the construction of 29 apartments in 4 blocks between 4 and 6 storeys on Anglesea Road. Ancillary stores and office will be located at ground level, car and bicycle parking spaces will also be provided. Anglesea Road will be widened to 4.8m width.	There are no likely significant effects predicted to arise from the combination of this development with the proposed development.
DCC Planning Application No. 4219/10 (Granted)	Partial demolition of an existing boundary wall and the construction of 2 single storey buildings at St. Patrick's Church, Bridge Street that will accommodate a reception hall, kitchen, storerooms, toilets and an office.	There are no likely significant effects predicted to arise from the combination of this development with the proposed development.
DCC Planning Application No. DSDZ3475/15 (Granted)	Partial demolition of an existing double basement and reconfiguration of the basement as a car park at St. Patrick's Church, Bridge Street. This will also involve the addition of 10 shower cubicles, and relocation of plant, water storage tank, and ESB switch room. A floodwall will also be constructed.	There are no likely significant effects predicted to arise from the combination of this development with the proposed development.
SDCC Planning Application No. SD128/0003 (Pending)	The proposed development of the Tallaght to Ballyboden Cycle Route Scheme. This involves the construction of new off-road cycle tracks on Oldbawn Road, Knocklyon Road and Templeroan Road. The construction of shared facilities through Dodder Valley Park, Monlea Park and Knocklyon Road. Upgrade of existing off-road cycle tracks on the Firhouse Road and Scholarstown Road. The incorporation of cyclist facilities along Oldbawn Road and Tallaght Village. Cycle lanes will be provided through the N21, junction and road safety improvements are also included.	There are no likely significant effects predicted to arise from the combination of this development with the proposed development.
SDCC Planning Application No.	Construction of 3 play spaces and a play trail route in the Dodder Valley Park. The play spaces will require play equipment, surfacing, boundary treatments, seating areas, planting and paving. Play equipment, surfacing, boundary treatments, seating areas, and planting will also be involved in the development of the trail. All	There are no likely significant effects predicted to arise

Plan or Project	Description of Plan or Project	In-com ination effect(s)
SD198/0006 (Pending)	associated works will also be included. This development was subject to an Appropriate Assessment Screening and an Environmental Impact Assessment.	from the combination of this development with the proposed development.
SDCC Planning Application No. SD178/0004 (Granted)	Construction of a grass athletics track, a playing pitch, a BMX track, and a signed nature trail at Mt. Carmel Park. Shared changing room/club house facilities are also proposed. The development has been subject of an Appropriate Assessment Screening.	There are no likely significant effects predicted to arise from the combination of this development with the proposed development.
SDCC Planning Application No. SD11A/0144 (Granted)	Construction of 5 2-storey houses at Ladywell, Temepleogue Road. Landscaping, boundary treatment and site development works are all included.	There are no likely significant effects predicted to arise from the combination of this development with the proposed development.
SDCC Planning Application No. SD14A/0107 (Granted)	Demolition of an existing house and surrounding sheds and the construction of 18 3-storey houses at Ladywell, Templeogue. A new access road, landscaping, new boundary walls, and associated works will be involved. A portion of the site adjoining the River Dodder to be ceded to South Dublin County Council for a walkway.	There are no likely significant effects predicted to arise from the combination of this development with the proposed development.
SDCC Planning Application No. SD13A/0139 SD14A/0275 (Granted)	Demolition of the existing out-buildings at Riversdale House, Rathfarnham, and the construction of 10 detached houses ranging from 2 to 2.5 storeys. Associated works such as landscaping, foul and surface water drains and associated parking provision will also be included.	There are no likely significant effects predicted to arise from the combination of this development with the proposed development.

Plan or Project	Description of Plan or Project	In-com ination effect(s)
DLRCC Planning Application No. D16A/0082 (Granted)	Removal of the existing car wash, sheds, workshop and associated structures and the closure of 2 vehicular entrances at 149 Braemor Road, Churchtown. A 4-storey nursing home consisting of 101 bedrooms with associated ancillary/common facilities, office/administration areas, signage and green roof, and a new entrance will be constructed. Car and bicycle parking and bin storage will be provided, and all associated site development, landscaping and boundary treatments are also included.	There are no likely significant effects predicted to arise from the combination of this development with the proposed development.
DLRCC Planning Application No. D15A/0191 (Granted)	Construction of 54 residential units including 42 houses and 12 apartments at Bird Avenue, Clonskeagh. The development includes a new vehicular access, parking spaces, landscaping, drainage and boundary treatments.	There are no likely significant effects predicted to arise from the combination of this development with the proposed development.

5. CONCLUSION

In accordance with Article 6(3) of the Habitats Directive, Part XAB of the Planning and Development Acts, the relevant case law, established best practice and the Precautionary Principle, this AA Screening Report has examined the details of the Dodder Road Lower Upgrade and the relevant European sites and has concluded, on the basis of objective information, that the Project, either individually or in combination with other plans or projects, in view of best scientific knowledge, is not likely to give rise to impacts which would constitute significant effects in view of the Conservation Objectives of the South Dublin Bay and River Tolka Estuary SPA, the North Bull Island SPA, the North Dublin Bay SAC or any other European site.

In light of this conclusion, it is the considered opinion of ROD, as the author of this AA Screening Report, that South Dublin County Council, as the Competent Authority, may find in completing its AA Screening in respect of the Dodder Road Lower Upgrade, that the Project, either individually or in combination with other plans and projects, is not likely to have a significant effect on the South Dublin Bay and River Tolka Estuary SPA, the North Bull Island SPA, the North Dublin Bay SAC or any other European site, in view of best scientific knowledge and the Conservation Objectives of the site concerned. Therefore, it is the recommendation of the author of this AA Screening Report that the Competent Authority may determine that AA is not required in respect of the Project.

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APPENDI A

Project Drawings

Údarás Náisiúnta Iompair
National Transport Authority

Comhairle Contae Átha Cliath Theas
South Dublin County Council

DODDER GREENWAY
DODDER ROAD LOWER

Clifton Scannell Emerson Associates

DRAWING IS PRODUCED USING THE IRISH TRANSVERSE MERCATOR (ITM) GEOGRAPHIC COORDINATE SYSTEM

A1

LEGEND:

- PROPOSED CARRIAGEWAY REALIGNMENT
- PROPOSED SHARED AREA
- PROPOSED CONCRETE FOOTPATH
- PROPOSED RAMP
- PROPOSED GRASS VERGE
- PROPOSED PROPERTY ACCESS
- PROPOSED TACTILE PAVING (RED)
- PROPOSED TACTILE PAVING (BUFF)
- EXISTING FOOTPATH

Rev	Description	Drawn	Checked	Date
P01	PART 8 PLANNING	KT	DRL	03/12/20

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Client: SOUTH DUBLIN COUNTY COUNCIL

Project: DODDER GREENWAY PHASE 5

Dwg. Title: DODDER ROAD LOWER UPGRADE - OVERALL

Drawn By	Date	CSEA Job No.
KT	DEC. 2020	18_123C
Checked By	Scale	
DRL	1:1250 @ A1	

Project Code	Originator	Zone/ Phase	Level	Type	Role	Dwg. No.
18_123C	CSE	GEN	XX	DR	C	1430

Status Code: S2 — SUITABLE FOR INFORMATION

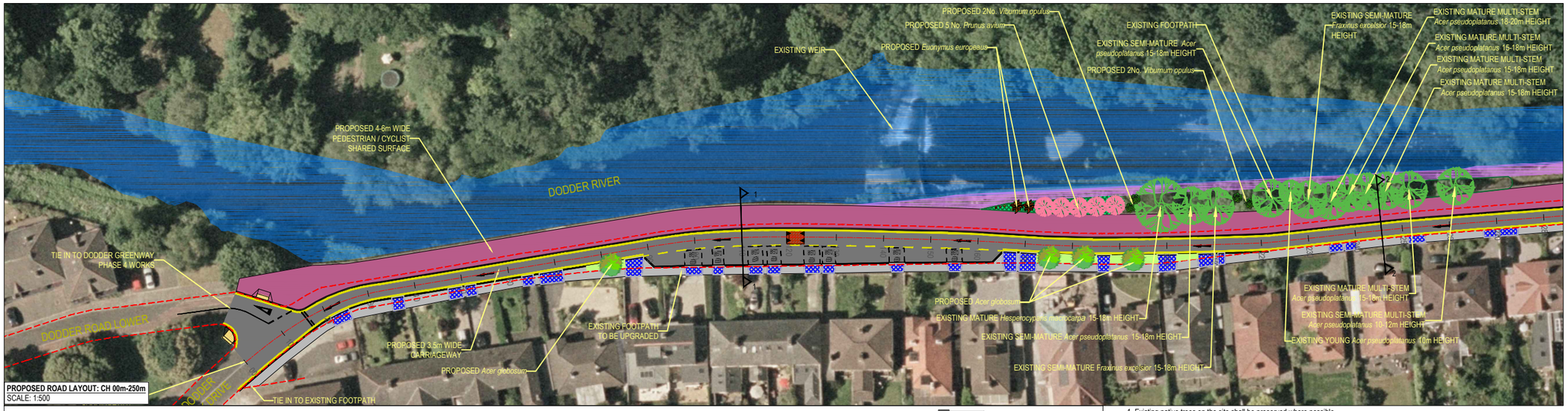
Revision: P01 — Project Status: PART 8 PLANNING

Údarás Náisiúnta Iompair
National Transport Authority

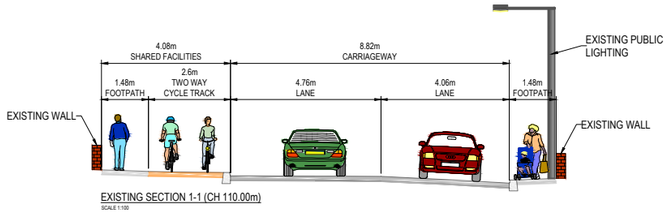
Comhairle Contae Átha Cliath Theas
South Dublin County Council

DODDER GREENWAY
DODDER ROAD LOWER

Clifton Scannell Emerson Associates



PROPOSED ROAD LAYOUT: CH 00m-250m
SCALE: 1:500



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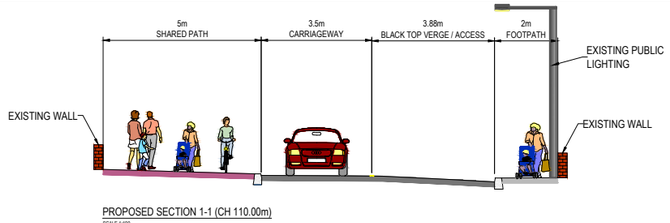

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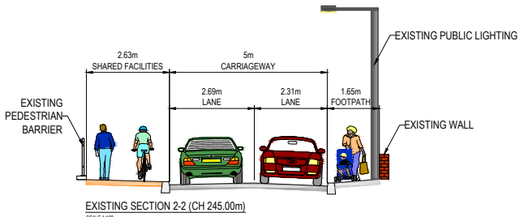

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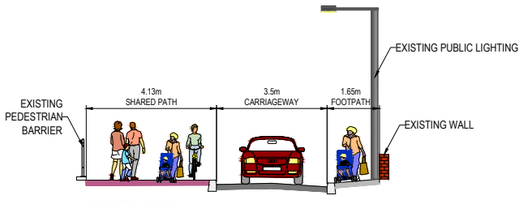

PROPOSED SECTION 2-2 (CH 245.00m)
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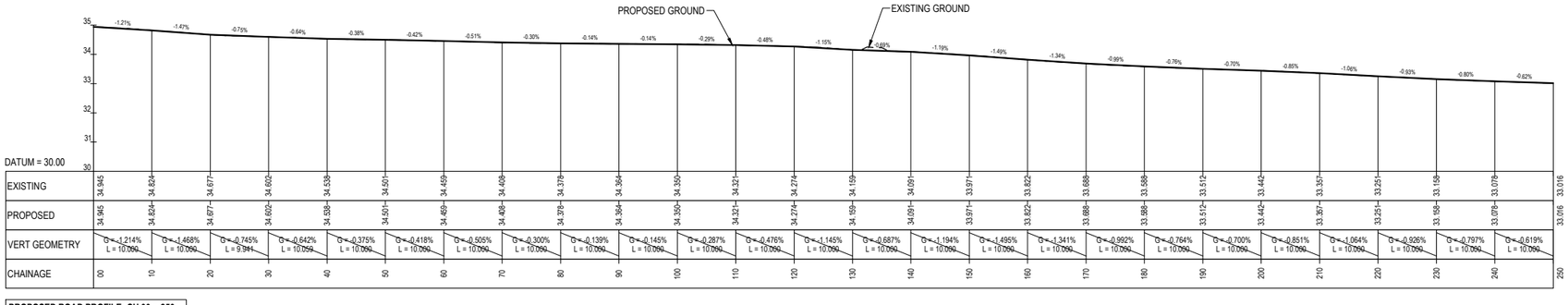

PROPOSED ROAD PROFILE: CH 00m-250m
SCALE: H 1:500,V 1:100

1. Existing native trees on the site shall be preserved where possible, as a part of the landscape design scheme. The Landscape Architect/Arborist shall be consulted at the time of vegetation clearance with regards to ascertaining which trees can viably and safely be preserved as a part of the Landscape construction works.

HARD LANDSCAPING

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- Galvanised steel post 100x100mm, powder coated RAL 3020 of 1700mm height fixed in position with individual concrete footings set below ground level with steel reinforcement bracing (Refer to Engineer's drawings for fixing details) — 2no.

SOFT LANDSCAPING

Trees

Betula pendula, rb, 20-25cmg	11no.
Prunus avium, rb, 20-25cmg	4no.
Acer globosum, rb, 30-35cmg	8no.
Retained existing trees	

Shrubs

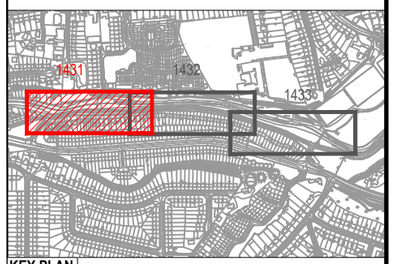
Viburnum opulus, br, 120-150cm	10no.
Euonymus europeaus, br, 120-150cm	7no.
Cornus sanguinea, br, 120-150cm	7no.
Cytisus scoparius, br, 120-150cm	2no.
Sambucus nigra, br, 120-150cm	6no.
Corylus avellana, br, 120-150cm	5no.

Native groundcover planting mix	
Rosa canina, CG 2L	3/m²
Calluna vulgaris, CG 2L	5/m²
Hypericum calycinum, CG 2L	6/m²
Hedera helix 'Hibernica', CG 2L	8/m²
Viburnum opulus 'Compactum', CG 2L	3/m²

Wildflower mix
NOTE: Allow minimum 1m band of wildflower mix seeding on either side of new paving construction in grass areas, sow at 2 gms/m²

DRAWING IS PRODUCED USING THE IRISH TRANSVERSE MERCATOR (ITM) GEOGRAPHIC COORDINATE SYSTEM

A1



KEY PLAN
NTS

LEGEND:

- PROPOSED CARRIAGEWAY REALIGNMENT
- PROPOSED SHARED AREA
- PROPOSED CONCRETE FOOTPATH
- PROPOSED RAMP
- PROPOSED GRASS VERGE
- PROPOSED PROPERTY ACCESS
- PROPOSED TACTILE PAVING (RED)
- PROPOSED TACTILE PAVING (BUFF)
- EXISTING FOOTPATH

Rev	Description	Drawn	Checked	Date
P01	PART 8 PLANNING	KT	DRL	03/12/20

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E. info@csea.ie
W. www.csea.ie

Client: SOUTH DUBLIN COUNTY COUNCIL

Project: DODDER GREENWAY PHASE 5

Dwg. Title: DODDER ROAD LOWER UPGRADE, SHEET 1 OF 3

Drawn By	KT	Date	DEC. 2020
Checked By	DRL	Scale	1:500 @ A1
		CSEA Job No.	18_123C

Project Code	Originator	Zone/ Phase	Level	Type	Role	Dwg. No.
18_123C	CSE	GEN	XX	DR	C	1431

Status Code: S2 — SUITABLE FOR INFORMATION

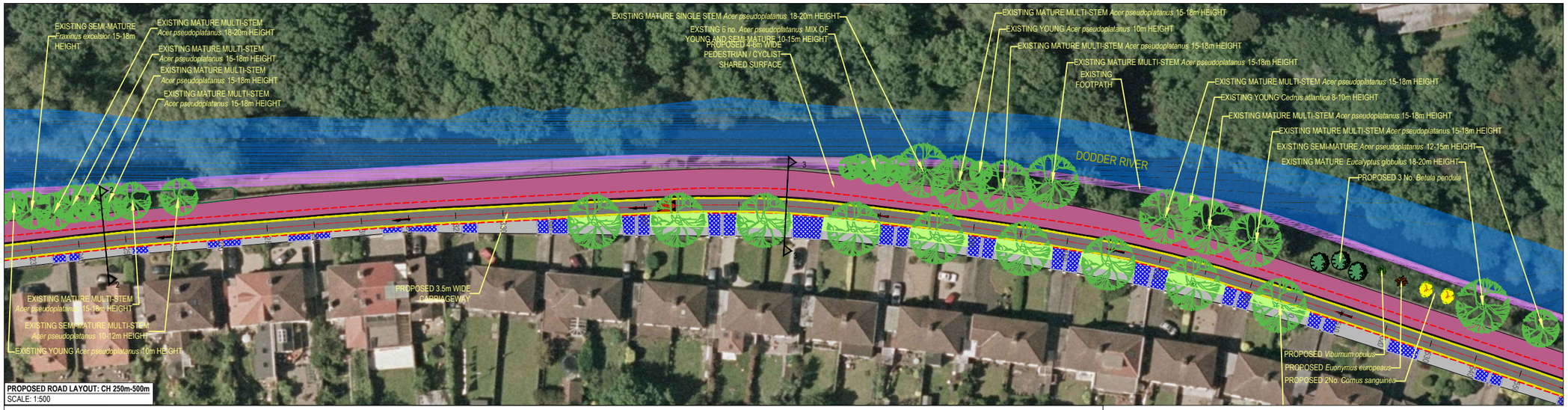
Revision: P01 — PART 8 PLANNING

DODDER GREENWAY
DODDER ROAD LOWER

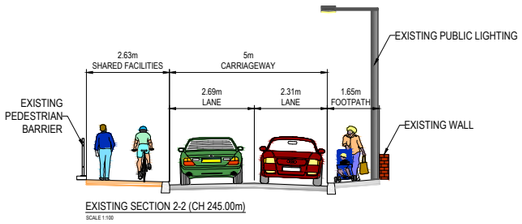
Údarás Náisiúnta Iompair
National Transport Authority

Comhairle Contae Átha Cliath Theas
South Dublin County Council

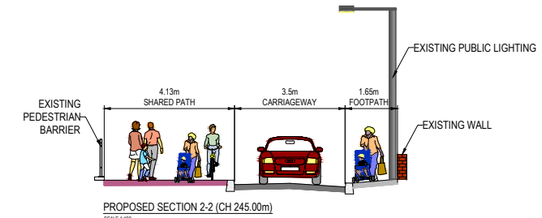
Clifton Scannell Emerson Associates



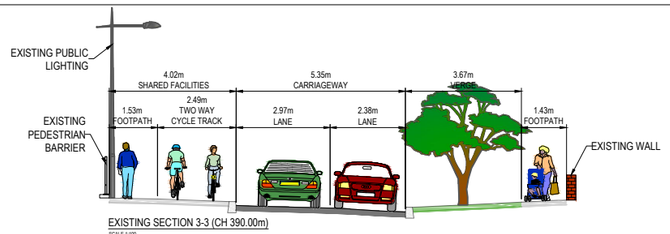
PROPOSED ROAD LAYOUT: CH 250m-500m
SCALE: 1:500



EXISTING SECTION 2-2 (CH 245.00m)
SCALE 1:100



PROPOSED SECTION 2-2 (CH 245.00m)
SCALE 1:100



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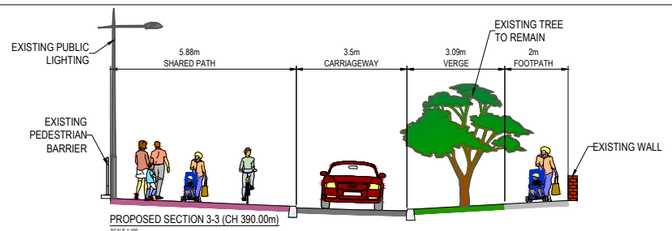

PROPOSED SECTION 3-3 (CH 390.00m)
SCALE 1:100

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SOFT LANDSCAPING

Trees

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Acer globosum, rb, 30-35cmg	8no.
Retained existing trees	

Shrubs

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Sambucus nigra, br, 120-150cm	6no.
Corylus avellana, br, 120-150cm	5no.

Native groundcover planting mix	
Rosa canina, CG 2L	3/m²
Calluna vulgaris, CG 2L	5/m²
Hypericum calycinum, CG 2L	6/m²
Hedera helix 'Hibernica', CG 2L	8/m²
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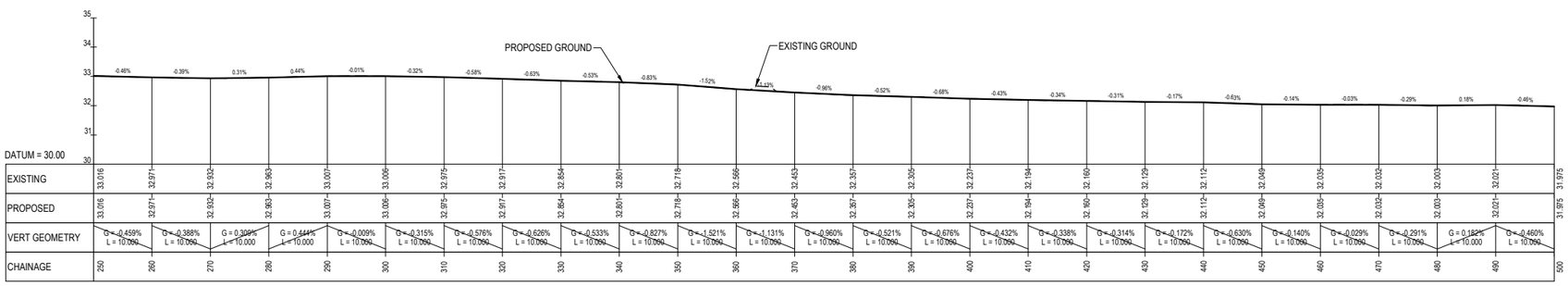
Wildflower mix	

NOTE: Allow minimum 1m band of wildflower mix seeding on either side of new paving construction in grass areas, sow at 2 gms/m²



PROPOSED ROAD PROFILE: CH 250m-500m
SCALE: H 1:500,V 1:100

DRAWING IS PRODUCED USING THE IRISH TRANSVERSE MERCATOR (ITM) GEOGRAPHIC COORDINATE SYSTEM

A1

KEY PLAN
NTS

LEGEND:

- PROPOSED CARRIAGEWAY REALIGNMENT
- PROPOSED SHARED AREA
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- PROPOSED GRASS VERGE
- PROPOSED PROPERTY ACCESS
- PROPOSED TACTILE PAVING (RED)
- PROPOSED TACTILE PAVING (BUFF)
- EXISTING FOOTPATH

Rev	Description	Drawn	Checked	Date
P01	PART 8 PLANNING	KT	DRL	03/12/20

Clifton Scannell Emerson Associates

Clifton Scannell Emerson Associates Limited
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Ireland, A96 K6P3

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F. +353 1 283 3466
E. info@csea.ie
W. www.csea.ie

Client: SOUTH DUBLIN COUNTY COUNCIL

Project: DODDER GREENWAY PHASE 5

Dwg. Title: DODDER ROAD LOWER UPGRADE, SHEET 2 OF 3

Drawn By: KT
Checked By: DRL
Date: DEC. 2020
Scale: 1:500 @ A1
CSEA Job No.: 18_123C

Project Code	Originator	Zone/ Phase	Level	Type	Role	Dwg. No.
18_123C	CSE	GEN	XX	DR	C	1432

18_123C - CSE - GEN - XX - DR - C - 1432

S2 — SUITABLE FOR INFORMATION
Status Code — Suitability Description

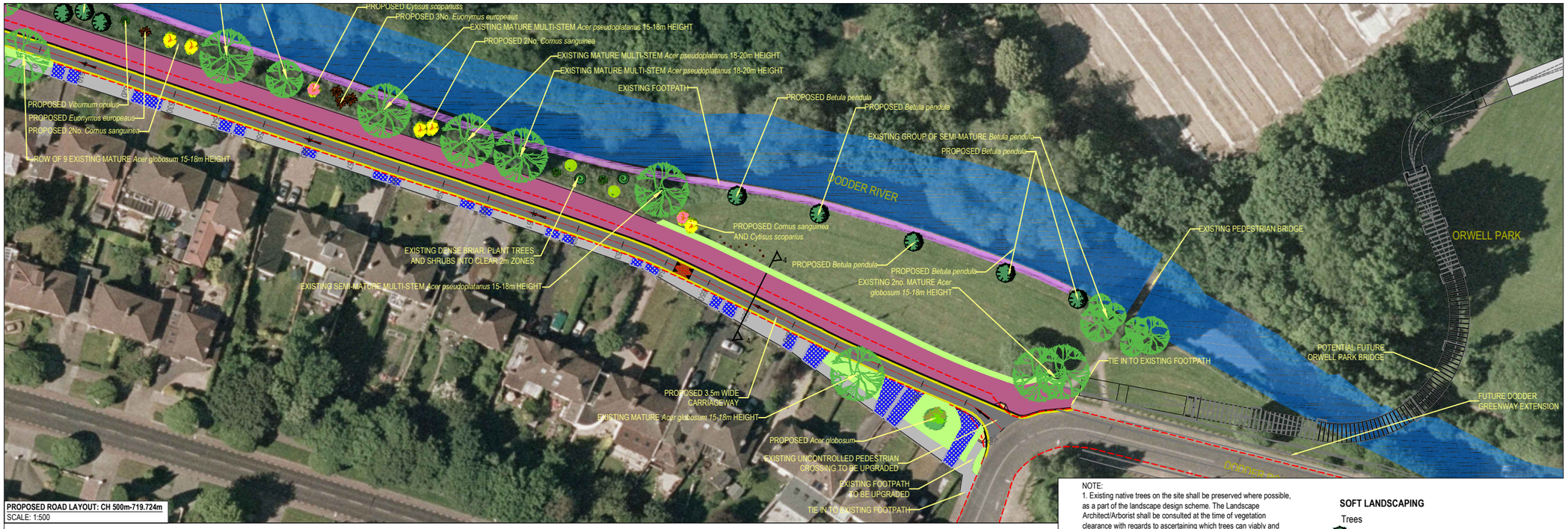
P01 — PART 8 PLANNING
Revision — Project Status

Údarás Náisiúnta Iompair
National Transport Authority

Comhairle Contae Átha Cliath Theas
South Dublin County Council

DODDER GREENWAY
DODDER ROAD LOWER

Clifton Scannell Emerson Associates



PROPOSED ROAD LAYOUT: CH 500m-719.724m
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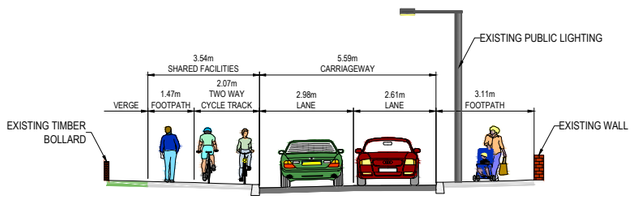

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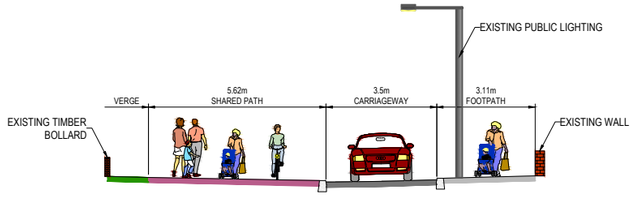

PROPOSED SECTION 4-4 (CH 660.00m)
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Rosa canina, CG 2L	3/m²	20%
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Wildflower mix
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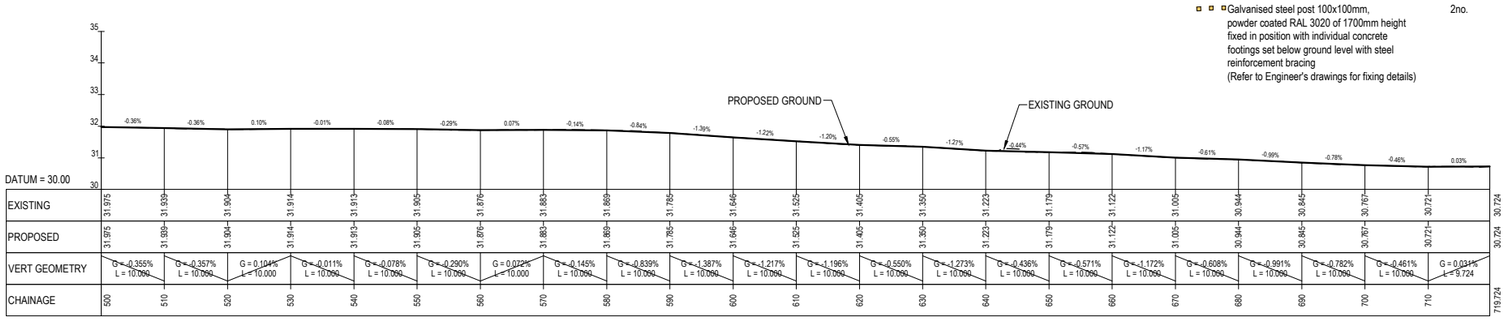

PROPOSED ROAD PROFILE: CH 500m-719.724m
SCALE: H 1:500,V 1:100

DRAWING IS PRODUCED USING THE IRISH TRANSVERSE MERCATOR (ITM) GEOGRAPHIC COORDINATE SYSTEM

A1

KEY PLAN
NTS

LEGEND:

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- PROPOSED TACTILE PAVING (RED)
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- EXISTING FOOTPATH

Rev	Description	Drawn	Checked	Date
P01	PART 8 PLANNING	KT	DRL	03/12/20

Clifton Scannell Emerson Associates

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Client: SOUTH DUBLIN COUNTY COUNCIL

Project: DODDER GREENWAY PHASE 5

Dwg. Title: DODDER ROAD LOWER UPGRADE, SHEET 3 OF 3

Drawn By	Date	
KT	DEC. 2020	18_123C
Checked By	Scale	CSEA Job No.
DRL	1:500 @ A1	

Project Code	Originator	Zone/ Phase	Level	Type	Role	Dwg. No.
18_123C	CSE	GEN	XX	DR	C	1433

18_123C - CSE - GEN - XX - DR - C - 1433

S2 — SUITABLE FOR INFORMATION
Status Code — Suitability Description

P01 — PART 8 PLANNING
Revision — Project Status

Appendix C – EIA Screening Report

Prepared by
Roughan & O'Donovan
Arena House, Arena Road, Sandyford, Dublin 18
Tel: +353 1 2940800 Fax: +353 1 2940820
Email: info@rod.ie www.rod.ie

Dodder Greenway
Dodder Road Lower Upgrade

EIA SCREENING REPORT | November 2020

Client:
South Dublin County Council
County Hall Tallaght
Dublin 24,
D24 A3XC

ROD
ROUGHAN & O'DONOVAN

Dodder Greenway

Dodder Road Lower Upgrade

EIA Screening Report

Document No: 19.141/EIAScr

Author:..... Patrick O'Shea (POS)

Checker: ..... Claire Ca le (CC)

Approver:..... Gemma Rothwell

Document No	Suita ility Code	Revision	Description	Made	Checked	Approved	Date
19.141/EIAScr		0.1		POS	CC	GR	03/11/2020

Dodder Road Lower Upgrade

EIA Screening Report

TABLE OF CONTENTS

1. INTRODUCTION

The purpose of this Environmental Impact Assessment (EIA) Screening Report is to inform the Competent Authority, in this case South Dublin County Council, as to whether the proposed Dodder Greenway - Dodder Road Lower Upgrade, referred hereafter as 'the 'proposed development', is subject to the requirements of the EIA Directive (as amended) and, therefore, whether an Environmental Impact Assessment Report (EIAR) is required for same.

This EIA Screening Report will provide the Competent Authority with the information required to form an opinion as to whether the proposed development is likely to have significant effects on the environment and, as such, whether an EIA should be completed in respect thereof.

This EIA Screening report is presented in accordance with the information required as per Schedule 7A of the Planning and Development Regulations 2001-2020. The information is presented in the following sections:

Section 3: Characteristics of the Proposed Development

Section 4: Location of the Proposed Development

Section 5: Types and Characteristics of Potential Impact

A separate Appropriate Assessment (AA) Screening Report has also been prepared by ROD for the proposed development.

1.1 Terms of Reference

Roughan & O'Donovan Consulting Engineers have been engaged by Clifton Scannell Emerson Associates to prepare an EIA Screening Report for the proposed development in accordance with legislation provisions and based on the required screening assessment and procedures to form an opinion as to whether EIA is required.

1.2 Introduction to the Proposed Development

South Dublin County Council granted planning permission for the South Dublin section of the Dodder Greenway in October 2017. Upon revision of the overall Dodder Greenway Route, the existing pedestrians and cyclists' facilities on the Dodder Road Lower were considered as non-compliant with the objectives of a Greenway.

The proposed Dodder Road Lower Upgrade comprises of the following:

- 730 meters of a 5 meters wide shared path.
- 730 meters of road upgrade and realignment.
- Road marking and road sign upgrade.
- 730 meter of concrete footpath upgrade.
- Public Lighting upgrade.
- All associated ancillary works and integrated landscape plans.

Approximately 90% of the cycling network in the greater Dublin area consists of on-road lanes which are not physically separated from motorised traffic. Research indicated that many people are discouraged from cycling in the greater Dublin area by a perception of risk and there is evidence for a demand for more off-road pedestrian and cycling facilities which are physically separated from motorised traffic. The

proposed Dodder Greenway aims to segregate cyclists and motorised traffic to create a more comfortable environment for both.

The proposed Dodder Greenway is being developed to be a Greenway of international renown and to be on a par with the best greenways in the world. Although developed as a combination of off road and on road, it utilises existing facilities within the Dodder corridor as much as possible to connect the linear parkland along the route.

The proposed Greenway will achieve the following objectives, and this evidences the need for the proposed development:

- Provision of an attractive Greenway and linear park;
- Delivery of a Greenway for pedestrians / cyclists in a low speed, pedestrian priority environment;
- Provision of linkages within the existing linear park system, particularly along roadways and existing road crossings;
- Provisions of a high-quality surface whilst minimising maintenance costs;
- Provision of an attractive, enhanced environment;
- Provision of a safe environment; and
- Enhancement of landscaped visual quality of the Greenway.

The proposed greenway route will be sympathetic to the existing landscape.

1.3 Need for the Proposed Development

The proposed Greenway will achieve the following objectives, and this evidences the need for the proposed development:

- Provision of an attractive Greenway and linear park;
- Delivery of a Greenway for pedestrians / cyclists in a low speed, pedestrian priority environment;
- Provision of linkages within the existing linear park system, particularly along roadways and existing road crossings;
- Provisions of a high-quality surface whilst minimising maintenance costs;
- Provision of an attractive, enhanced environment;
- Provision of a safe environment; and
- Enhancement of landscaped visual quality of the Greenway.

The proposed greenway route will be sympathetic to the existing landscape. According to the European Greenways Association greenways are communication routes reserved exclusively for nonmotorized journeys, developed in an integrated manner which enhances both the environment and quality of life of the surrounding area. These routes should meet satisfactory standards of width, gradient and surface condition to ensure that they are both user-friendly and low risk for users of all abilities.

Considering that the proposed development is a section of the Dodder Greenway, the proposal is essential to build a well define and a safer link between two sections of the Dodder Greenway route. Although the existing pedestrians and cyclists' facilities on Dodder Road Lower are in good condition, they require improvement in order to be considered and defined as part of a Greenway. The width of the shared facilities on the road of the proposed development are insufficient to safely accommodate pedestrian and cyclists simultaneously.

Part VIII consent was granted for the South Dublin section of the Dodder Greenway in 2017, and the development did not consider modifications on the existing pedestrians and cyclists' facilities on Dodder Road Lower. Upon revision of the overall Dodder Greenway Route, the existing pedestrians and cyclists' facilities were considered as non-compliant with the objectives of a Greenway. Therefore, it was concluded that a separate planning application would be made for this section to fulfil the objectives of the Dodder Greenway.

The following is a non-exhaustive list of objectives for the route taken into account by the project team in developing the Greenway to date:

I. To be a Greenway of international renown - the development must avoid compromises and be on a par with the best greenways in the world.

II. To improve the pedestrian and cycling offer and encourage modal shift to walking and cycling as a safe and convenient means of making local trips. The route should aim to serve a number of different trip types, both recreational and utilitarian.

III. To Improve junction crossing facilities for pedestrian and cyclists.

IV. To Improve infrastructure for pedestrians and cyclists.

V. To connect areas of parkland - the route should provide clear and coherent connectivity, both ecological and physical, between existing parks along the river corridor - such as Bushy Park, Herbert Park, Dodder Valley Park and Dodder Linear Park etc.

VI. To enhance the ecological corridor - the development should have a neutral to positive impact on local ecology. This can be achieved by inclusion of complementary planting and features for flora and fauna, providing ecological linkages and wildlife corridors.

VII. To cater for local amenity - the route should benefit local communities through enhancing existing amenity paths and providing new linkages to adjacent communities and village centres.

VIII. To benefit local business - the development will increase accessibility to local businesses and village centres along the river corridor.

IX. To cater for tourist amenity - it is envisaged that the route will attract walking and cycle tourists undertaking trails and circuits through the Dublin and Wicklow Mountains.

X. To cater for commuting – where commuting currently exists along the existing routes the development will either; ensure it is facilitated in a pedestrian priority environment or by provision of an alternative route for commuting cyclists if required.

The need for the proposed development is supported by the objectives of a number of European, national, regional and local planning and development policies, including:

- EU Cycling Strategy (2017 – 2030)
- National Planning Framework to 2040
- Smarter Travel: A Sustainable Transport Future (2009 – 2020)
- Eastern & Midland Regional Assembly Regional Economic and Spatial Strategy 2019-2031
- Greater Dublin Area (GDA) Cycle Network Plan 2013
- South Dublin County Council Development Plan (2016 – 2022)
- Dublin City Council (DCC) Development Plan (2016-2022)

1.3.1 Planning Context

1.3.1.1 National Planning Policy

EU Cycling Strategy (2017 – 2030*)*

The EU Cycling Strategy constitutes the first consolidation of a systematic review of all EU policies related to cycling. It reviews the current scenario and trends in cycling in the EU and identifies the benefits offered by greater uptake of cycling. It subsequently sets out its vision for cycling in the EU to 2030 through its four overall policy objectives, as follows:

1. *"Cycling should be an equal partner in the mobility system. Users pay for the full*

   .

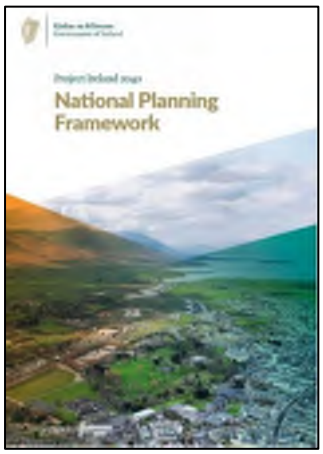
   motorised transport."
2. *"Cycle use in the EU will increase by 50% in* *2019 2020–2030.* *12* *0.48* *trips per person per day on average."*
3. *"The rates of fatalit* *2019 2020–2030."*
4. *"The EU should double its investments in cycle projects to EUR 3 billion during* *2021–2027* *1.5* *2014–* *2020* *6* *2028–2034* *period."*

In order to achieve these objectives, the Strategy sets out a suite of recommended policy changes for EU, national, regional and local levels, including to *"Develop and maintain regional and local cycle route networks"*, and to *"Adopt a*

cyclists and public transport users".

By providing enhanced cycling infrastructure along the Dodder Road Lower, to tie in with the existing and future wider cycle network in South Dublin, the proposed development will contribute to the achievement of the policy objectives of the EU Cycling Strategy.

National Planning Framework to 2040



2040 is the Government's overarching policy for spatial planning and development in Ireland to 2040. It is comprised of two major policy documents, the *2040* (NPF) and the *2018 – 2027* (NDP). The NPF presents a broad national-level policy to guide strategic planning and development across Ireland, while the NDP sets out the 10-year public capital investment strategy required to support its implementation.

The NPF sets out ten National Strategic Outcomes (NSOs), *"a shared set of goal* *country"* (p. 10). Among these are NSO No. 4, Sustainable

Mobility, and NSO No. 7, Enhanced Amenity and Heritage. As stated in respect of Sustainable Mobility:

"Dublin and other cities and major urban areas are too heavily

more sustainable alternative." (p. 143)

The NPF aims to deliver this sustainable alternative by directing investment towards a number of public transport and transport infrastructure projects, including development of *"a comprehensive network of safe cycling routes in metropolitan areas"* (p. 143). More specifically, *"Delivery of the metropolitan cycle network set out in the Greater Area Cycle Network Plan"* is identified as a 'key future growth enabler' for Dublin City (p. 37). The need for enhanced cycling and pedestrian infrastructure is further emphasised in National Policy Objective (NPO) No. 27, to *"Ensure the integration of*

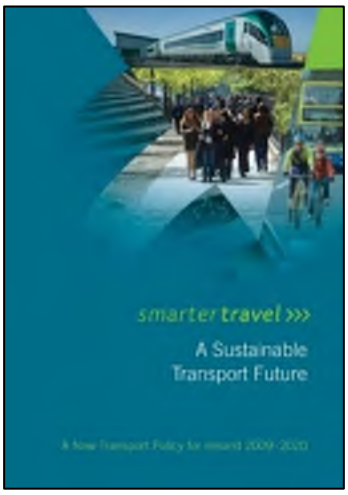
developments" (p. 82).

In respect of NSO No. 7, Enhanced Amenity and Heritage, it is stated that:

"This [NSO] will ensure that our cities, towns and villages are attractive and can offer

includes public spaces, parks and streets, as well as recreational infrastructure" (p. 15).

Smarter Travel: A Sustaina le Transport Future 2009 – 2020



presents a transport policy for Ireland to 2020. It presents a description of the baseline scenario in Ireland, in terms of transport and travel, at the time of publishing. It sets out a framework of goals, targets and actions with a view to achieving a more sustainable transport future. The document presents a stark picture of the 'business as usual' scenario:

"Transport and travel trends in Ireland are unsustainable […] if we continue with present policies, congestion will

decline." (p. 8)

In order to address these negative trends, the plan sets out five 'key goals' for the Irish transport sector:

1. Improve quality of life and accessibility to transport for all and, in particular, for people with reduced mobility and those who may experience isolation due to lack of transport.
2. Improve economic competitiveness through maximising the efficiency of the transport system and alleviating congestion and infrastructural bottlenecks.
3. Minimise the negative impacts of transport on the local and global environment through reducing localised air pollutants and greenhouse gas emissions.

4. Reduce overall travel demand and commuting distances travelled by the private car.
5. Improve security of energy supply by reducing dependency on imported fossil fuels.

In order to deliver on these goals, the plan sets out a number of 'key targets' to 2020, including that *"*
share of 65% to 45% …" and that *"Car drivers will be accommodated on other modes*

by these modes will rise to 55% by 2020)" (p. 28). Regarding the role of cycling, the policy documents states that:

"Our vision is to create a strong cycling culture in

.

.

ary and secondary school. […] A culture of
2020 *160 000*
35 000 *2006.*
2020 10

by bike." (p. 43)

Forty-nine specific actions are identified in the policy document. Those of greatest relevance to the proposed development are listed in Table 3.1.

By providing improved cycling infrastructure to tie in with the existing and future cycle network in Dublin City, the proposed development will facilitate and promote greater uptake of cycling as an alternative to less sustainable and healthy modes of personal mobility, thereby contributing to the achievement of the goals of the transport policy.

1.3.1.2 Regional Planning Policy

Eastern & Midland Regional Assem ly Regional Spatial & Economic Strategy (RSES) 2019-2031

The Regional Spatial and Economic Strategy is a strategic plan and investment framework to shape the future development of the Eastern and Midlands Region to 2031 and beyond. The vision of the plan is:

"To create a sustainable and competitive Region that

and employment opportunities for all."

The RSES promotes the development of green infrastructure including greenways, blueways and peatways noting that they can provide a number of important functions including ecological corridors, local amenity, climate change adaptation and mitigation, and mentally restorative environment. Table 7.1 of the strategy outlines Strategic Natural, Cultural and Green Infrastructure Assets in the Region and lists the Dodder Greenway as being under development.

The following are Regional Policy Objectives of the Strategy:

RPO 5.8: Support the promotion and development of greenway infrastructure and facilities in the Dublin metropolitan area and to support the expansion and connections between key strategic cycle routes and greenways as set out in the NTA Greater Dublin Area Cycle Network Plan.

RPO 7.22: Local authority development plan and local area plans, shall identify, protect, enhance, provide and manage Green Infrastructure in an integrated and coherent manner and should also have regard to the required targets in relation to the conservation of European sites, other nature conservation sites, ecological networks, and protected species.

RPO 7.23: Support the further development of Green Infrastructure policies and coordinate the mapping of strategic Green Infrastructure in the Region.

RPO 7.24: Promote the development of a sustainable Strategic Greenway Network of national and regional routes, with a number of high capacity flagship routes that can be extended and /or linked with local greenways and other cycling and walking infrastructure, notwithstanding that capacity of a greenway is limited to what is ecologically sustainable.

RPO 7.25: Support local authorities and state agencies in the delivery of sustainable strategic greenways, blueways, and peatways projects in the Region under the Strategy for the Future Development of National and Regional Greenways.

Sustainable transport options through enhanced development of the Blueway and Greenway networks will further enable strategic connections and heightened collaboration for the benefit of the tourism industry.

The Dodder Greenway will help achieve the above RPOs in developing green infrastructure that complements the natural environment and which will provide connectivity and opportunity for increased tourism and economic development in the area.

Greater Du lin Area (GDA) Cycle Network Plan 2013

The Greater Dublin Area (GDA) Cycle Network Plan identifies and determines the networks in the GDA, including the Urban Cycle Network, the Inter-Urban Cycle Network, and the Green Route Network to provide for a consistent network across the local authority boundaries. The Plan sets out certain proposals in respect of individual network links. The Plan identifies the Dodder Valley Way as one of the network corridors as the route has the potential to have recreational and commuter functions to significant employment districts.

1.3.1.3 Local Planning Policy

South Du lin County Council Development Plan (2016 - 2022)

The South Dublin County Council Development Plan (2016-2022) supports the development of the Dodder Greenway under the following objectives:

" *6 1*

"

"*HCL10 Objective 6: To recognise the key role the Dodder River plays in the County's*

of the Dodder Valley (Zoning Objective 'HA – DV') as a line

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The proposed development is a section of the Dodder Greenway and complies with the policies and objectives of the Local Authority as set out in the South Dublin County Council Development Plan (2016-2022).

Du lin City Council (DCC) Development Plan (2016-2022)

The Dublin City Council Development Plan (2016-2022) supports the development of greenway routes under the following objectives:

"SC3: To develop a sustainable network of safe, clean,

navigable."

"MTO9: To develop, within the lifetime of this plan, the Strategic Cycle Network for

national cycle network, and to implement the NTA's Greater Dublin Area Cycle Network Plan"

"MTO10: To improve existing cycleways and bicycle priority measures throughout asible"

"GIO4: To improve pedestrian and cycle access routes to strategic level amenities

compromised, and existing biodiversity and heritage is protected and enhanced."

"GIO18: To

recreational uses along them, having regard to environmental sensitivities."

The Dodder Greenway complies with the objectives of the Local Authority as set out in the Dublin City Council Development Plan (2016-2022) by improving the condition of the existing pedestrian and cycle lanes and creating a sustainable travel network within Dublin City.

1.4 Guidance and Methodology

This EIA Screening Report has been prepared with reference to the relevant legislation, EU and national guidance documents. The methodology devised for this EIA Screening is based on established best practice with particular reference to: -

- Schedules 7 and 7A of the Planning and Development Regulations 2001 – 2020;
- (DEHLG, 2003);
- *2017*

- *2018*
- *2017 .*

The following draft guidance document has also been consulted:

- , (EPA, 2017).

The screening exercise is divided into two separate but consecutive stages in order to determine if the project requires an EIA.

(i) The first stage is to determine if the proposed development requires a mandatory EIA i.e. if it is a development listed in Schedule 5 of the Planning and Development Regulations 2001 as amended.

(ii) If the proposed development is deemed not to require a mandatory EIA. The proposed sub-threshold development must be assessed on a case by case basis to determine whether or not the sub-threshold development requires a discretionary EIA based on considerations such as the nature, size or location of the development and if the proposed development is likely to have significant effects on the environment.

Section 3 of this report includes a screening matrix informed by the criteria detailed in Schedule 7 and 7A of the Planning and Development Regulations 2001- 2018 and assesses the proposed development's likely significant effects on environmental receptors. The rationale or basis for the Screening determination is provided in Table 1.1 below.

Ta le 1.1 Schedule 7A Information to e provided y the applicant or developer for the purposes of Screening su -threshold development for Environmental Impact Assessment

1. A description of the proposed development, including in particular—
   (a) a description of the physical characteristics of the whole proposed development and, where relevant, of demolition works, and
   (b) a description of the location of the proposed development, with particular regard to the environmental sensitivity of geographical areas likely to be affected.
2. A description of the aspects of the environment likely to be significantly affected by the proposed development.
3. A description of any likely significant effects, to the extent of the information available on such effects, of the proposed development on the environment resulting from—
   (a) the expected residues and emissions and the production of waste, where relevant, and
   (b) the use of natural resources, in particular soil, land, water and biodiversity.
4. The compilation of the information at paragraphs 1 to 3 shall take into account, where relevant, the criteria set out in Schedule 7.

2001

The assessment draws on the separate Appropriate Assessment Screening Report prepared by Roughan & O'Donovan [2020] on behalf of South Dublin County Council and desk-based information.

1.4.1 Description of Effects

A key document that has informed the methodology for assessing the effects of the proposed development is the

(August, 2017) produced by the Environmental Protection Agency (EPA). Section 3.7 of the Guidelines includes a standardised methodology for describing effects as recreated in Table 1.2 below and forms the basis for describing the impacts as part of this assessment. The consideration of impacts includes direct, indirect, secondary and cumulative impacts as appropriate.

Ta le 1.2 Description of Effects

Quality of Effects:	
Positive	A change which improves the quality of the environment.
Neutral	No effects, or effects that are imperceptible, within normal bounds of variation or within the margin of forecasting error.
Negative	A change which reduces the quality of the environment.
Descri ing Significance of effect:	
Imperceptible	An effect capable of measurement but without significant consequences.
Not Significant	An effect which causes noticeable changes in the character of the environment without affecting its sensitivities.
Slight effects	An effect which causes noticeable changes in the character of the environment without affecting its sensitivities.
Moderate effects	An effect that alters the character of the environment in a manner that is consistent with existing and emerging baseline trends.
Significant Effects	An effect which, by its character, magnitude, duration or intensity significantly alters a sensitive aspect of the environment.
Very significant Effects	An effect which, by its character, magnitude, duration or intensity significant alters most of a sensitive aspect of the environment.
Profound Effects	An effect which obliterates sensitive characteristics.
Descri ing the Extent and Context of Effects:	
Extent	Describe the size of the area, the number of sites, and the proportion of a population affected by an effect.
Context	Describe whether the extent, duration, or frequency will conform or contrast with established (baseline) conditions (is it the biggest, longest effect ever?)
Descri ing the Pro a ility of the Effects:	
Likely Effects	The effects that can reasonably be expected to occur because of the planned project if all mitigation measures are properly implemented.
Unlikely Effects	The effects that can reasonably be expected not to occur because of the planned project if all mitigation measure are properly implemented.
Descri ing the Duration and Frequency of Effects:	
Momentary Effects	Effects lasting from seconds to minutes
Brief Effects	Effects last less than a day

Temporary Effects	Effects lasting less than a year
Short-term Effects	Effects lasting one to seven years
Medium-term Effects	Effects lasting seven to fifteen years
Long-term Effects	Effects lasting fifteen to sixty years.
Permanent Effects	Effects lasting over sixty years
Reversible effects	Effects that can be undone, for example through remediation or restoration.
Frequency of Effects	Describe how often the effect will occur. (once, rarely, occasionally, frequently, constantly – or hour, daily, weekly, monthly, annually).
Source: *2017*	

2. LEGISLATION

Directive 2011/92/EU as amended by Directive 2014/52/EU (the EIA Directive) requires that all public and private projects that are likely to have significant effects on the environment shall be subject to an Environmental Impact Assessment (EIA) prior to the granting of development consent by the Competent Authority. Projects listed in Annex I of the EIA Directive require mandatory EIA while projects listed in Annex II require a Sub-threshold EIA Screening Assessment. As defined by the European Commission (2017, p.10), the EIA Screening process *"… ascertains whether the Project's e . .*
'Screened' to determine whether an EIA is necessary". Annex I and Annex II of the EIA Directive have been transposed into Irish Law in the Planning and Development Regulations 2001 to 2020 and in particular Schedule 5 (Part 1 and Part 2).

2.1 Screening for Mandatory EIA

All projects can be placed into one of the following two categories:

- Those that **exceed the thresholds** laid down in planning policy and therefore have a mandatory requirement to prepare an EIAR; and
- Those projects that are **su -threshold** and must be assessed on a case-by-case basis to determine whether or not they are likely to have significant effects on the environment.

This first part of the EIA Screening exercise is to determine if EIA is required as set out in the Annex I of the EIA Directive, and the mandatory and discretionary provisions of the Planning and Development Act, 2000 (as amended) (the Act) and Schedule 5 of the Planning and Development Regulations 2001- 2020 and in the case of road projects, Section 50 of the Roads Act 1993 (as amended) and Article 8 of the Roads Regulations 1994. Section 172 of the Act provides the legislative basis for mandatory EIA.

In this case the proposed development is not listed in Annex 1 (EIA Directive) or Schedule 5 (Part 1) of the Planning and Development Regulations and therefore **does not require mandatory EIA**. Section 50 of the Roads Act 1993 (as amended) is also required to be reviewed for this proposed development. Table 2.1 below provides an overview of the relevant road legislation and assesses if the proposed development meets or exceeds the mandatory thresholds contained therein.

Ta le 2.1 Screening Matrix for mandatory EIA

Mandatory Threshold	Regulatory Reference	Assessment
a) A road authority or the Authority shall prepare a statement of the likely effects on the environment ('environmental impact statement') [EIAR] of any proposed road development it proposes consisting of-		
(i) Construction of a Motorway	S. 50(1)(a) of the Roads Act, 1993, as amended by S. 9(1)(d)(i) of the Roads Act, 2007 (as amended)	The proposed development is **not** a Motorway. **Mandatory Threshold is not reached.**
(ii) Construction of a Busway	S. 50(1)(a) of the Roads Act, 1993, as amended by S. 9(1)(d)(i) of the Roads Act, 2007(as amended)	The proposed development is **not** a Busway. **Mandatory Threshold is not reached.**

Mandatory Threshold	Regulatory Reference	Assessment
(iii) Construction of a Service Area or	S. 50(1)(a) of the Roads Act, 1993, as amended by S. 9(1)(d)(i) of the Roads Act, 2007(as amended)	The proposed development is **not** a Service Area and does **not** incorporate a Service Area. **Mandatory Threshold is not reached.**
(iv) Any prescribed type of proposed road development consisting of the construction of a proposed public road or the improvement of an existing public road, namely: • 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 500 metres or more in length in an urban area • The construction of a new bridge or tunnel which would be 100 metres or more in length.	Article 8 of the Roads Regulations, 1994 (as amended) (prescribed type of road development for the purposes of S. 50(1)(a)(iii) (now replaced by S. 1(a)(iv) of Section 50 of the Act amended	The proposed development is a 700 m greenway for pedestrian and cyclist use only and will not include the construction of a new road of four or more lanes. **Mandatory Threshold is not reached.** The proposed development does not include a new bridge or tunnel **Mandatory Threshold is not reached.**
(b) Where An Bord Pleanála considers that any proposed road development (other than development to which paragraph (a) applies) consisting of the construction of a proposed public road or the improvement of an existing public road would be likely to have significant effects on the environment, they shall direct the road authority to prepare an environmental impact statement [EIAR] in respect of such a proposed road development and the authority shall comply with such direction.	S. 50(1)(b) of the Roads Act, 1993, as amended	An Bord Pleanála has not directed the road authority to prepare an EIAR. **Mandatory Threshold is not reached.**
(c) Where a road authority considers that any proposed road development (other than development to which paragraph a) applies) consisting of the construction of a proposed public road or the improvements of an existing public road **would e likely to have significant effects on the environment** it shall inform An Bord Pleanála in writing and where An Bord Pleanála concurs with the road authority they shall give direction to the road authority under paragraph (b).	S. 50(1)(c) of the Roads Act, 1993, as amended	**The Purpose of this EIA Screening Report** is to undertake an assessment to determine if the proposed development is likely to have significant effects on the environment. **See Section 6 of this Report.**
d) Where a proposed road development (other than development to which paragraph (a) applies consisting of construction of a proposed public road or the improvement of a public road or	S.50(1)(d) of the Roads Act, 1993, as amended by Reg.56(7) of the European Communities (Birds and Natural Habitats) Regulations 2011	The proposed development is not located on any of the criteria (i) – (v) and therefore there will be no likely significant effects on the environment.

Mandatory Threshold	Regulatory Reference	Assessment
the improvement of an existing public road would be located on: (i) a European Site, meaning (ii) a candidate site of Community importance, (iii) a site of Community importance, (iv) a candidate special area of conservation, (v) a special area of conservation, (vi) a candidate special protection area, or (vii) a special protection area (viii) land established or recognised as a nature reserve within the meaning of section 15 or 16 of the Wildlife Act, 1976 (No. 39 of 1976) the road authority concerned shall decide whether the proposed road development would or would not be likely to have significant effects on the environment, and if the authority decides that the proposed road development would be likely to have such effects, paragraph (c) shall apply accordingly.		A Habitats Directive Screening for Appropriate Assessment (AA) has been carried out for the proposed development. The AA Screening Report concluded that the proposed development is not likely to have significant effects on the South Dublin Bay and River Tolka Estuary SPA, South Dublin Bay SAC or any other European site in view of best scientific knowledge and the Conservation Objectives of the site concerned. **Mandatory Threshold is not reached.**

As can be seen from Table 2.1 the Roads legislation assessment found that the proposed development is not a motorway, busway or service area. The proposed development is located in an urban area however it does not comprise construction of four or more lanes greater than 500m in length and therefore does not require a mandatory EIA under these thresholds. The proposed road development does not exceed any of the thresholds and therefore **does not require a mandatory EIA.** It follows that the proposed development is a sub-threshold development.

The criteria set out in Annex III (which is the same as what is contained in Schedule 7 of the Planning and Development Regulations 2001 to 20208) Annex IIA of the EIA Directive (2014/52/EU) comprise the information to be provided by the applicant for the purposes of screening sub threshold development for an Environmental Impact Assessment. The Planning and Development Regulations equivalent of Annex IIA is Schedule 7A. Therefore, for the purposes of this EIA Screening Schedule 7A is used.

2.2 Screening Sub-threshold Development

Part 10 of the Planning and Development Regulations 2001-2020 defines "
" *as "development of a type set out in Part 2 of Schedule 5*

."

For projects that fall below a class or threshold specified in Schedule 5, it is the decision of the Competent Authority to determine if an EIA (and the associated EIAR) is required to be completed. This is determined by examining if the 'sub threshold' development is likely to result in significant environmental effects. Significant environmental effects may arise due to the characteristics of the potential effects based on the nature and extent of the proposed development, and/ or its location in relation to the characteristics of the receiving environment, particularly sensitive environments.

An examination of the relevant sections of Part 2 of Schedule 5 has been completed. Based on the nature and extent of the proposed development, it was determined that it does not fall under the project criteria described under Section 10 of Part 2.

The criteria set out in Schedule 7 of the Planning and Development Regulations 2001 – 2020 form the basis of the examination of likely significant effects on the environment. Schedule 7A of the Planning and Development Regulations 2001 – 2020 stipulates the information which the Applicant / Developer is required to provide regarding the proposed development to inform the sub-threshold EIA Screening Assessment. (Table 1.1). In developing Sections 3 and 4 of this report, which describe the proposed development and its receiving environment, respectively, efforts have been made to ensure all of the information listed in Schedules 7 and 7A has been disclosed and considered.

The assessment is undertaken under three main headings:

- Characteristics of the Proposed Development;
- Location of the Proposed Development; and,
- Types and Characteristics of the potential Impacts.

These three headings, together with the associated Schedule 7A criteria, are used as the basis for the examination of likely significant effects on the environment and are discussed in the following sections of this EIA Screening Report.

3. CHARACTERISTICS OF THE PROPOSED DEVELOPMENT

3.1 Description of the Proposed Development

South Dublin County Council granted planning permission for the South Dublin section of the Dodder Greenway in October 2017. Upon revision of the overall Dodder Greenway Route, the existing pedestrians and cyclists' facilities on the Dodder Road Lower were considered as non-compliant with the objectives of a Greenway.

The Dodder Road Lower Upgrade intends to upgrade the conditions of the existing Dodder Road Lower. The proposal contains approximately 730m of a 5m wide shared path that will link the Dodder Greenway route on Springfield Ave – passing through Rathfarnham Rd–Springfield Ave junction – and the continuation of the Dodder Greenway Route within Dublin City Council boundaries.

The proposed development is considered to be an "on road" section of the Dodder Greenway and its major proposed adjustment is to convert the Dodder Road Lower, currently a two-way system road, into a one-way system road to accommodate the proposed 5m wide shared path. The proposed one-way system layout has been designed considering recent traffic counts and predicted traffic increase for all junction surrounding the area of the proposed development.

The proposed Dodder Road Lower Upgrade comprises of the following:

- 730 meters of a 5 meters wide shared path.
- 730 meters of road upgrade and realignment.
- Road marking and road sign upgrade.
- 730 meter of concrete footpath upgrade.
- Public Lighting upgrade.
- All associated ancillary works and integrated landscape plans

The lighting design for the proposed development will be devised to avoid significant impacts on bats and other wildlife within the Dodder corridor while balancing the need for adequate lighting for Greenway users. The existing street trees and trees on the north side of the Dodder Road Lower will be retained and enhanced by the planting of native perennial shrubs. Grass verges incorporating a wildflower mix are proposed on the south side of the road between the trees and property access points. These areas are shown on the drawings in Appendix A to this report.

3.1.1 Cumulation with Other Existing Development

The cumulation with other existing development and/ or development that is subject to consent, for has been assessed alongside the proposed development as part of this Screening Exercise. The assessment of the likelihood of cumulative effects in cumulation with these projects is provided in Table 5.1 of this Report and Appendix B.

3.1.2 Nature of Any Associated Demolition Works

The proposed development will not require any demolition works.

3.1.3 The use of Natural Resources

Whilst exact quantities of materials required have not been determined at this stage, the amount of aggregates that will be required during the construction phase is likely to be relatively minor as the footprint of the proposed development is confined to the existing footpaths and carriageway along the Dodder Road Lower. Excavated

material, where appropriate, will be reused onsite as fill. There is no requirement to use water over and above a normal construction site or operational station requirements.

3.1.4 The Production of Waste

Small quantities of unsuitable material will be excavated and although every effort will be made to reuse this on site, it may have to be disposed of off-site. Whilst the exact amount of this unsuitable material has not been evaluated, the Contractor will be required to prepare an Construction and Environmental Management Plan (CEMP) and any waste produced as part of the proposed development will be dealt with in accordance with all relevant waste management legislation and guidance.

3.1.5 Pollution and Nuisance

Prior to construction, routine practice and procedures to prevent pollution of the environment and in particular the aquatic environment will apply. These measures will be put in place to reduce the risk of any accidental spillages of pollution into the River Dodder. Construction works will be subject to normal health and safety controls for construction sites, will be short-term in nature and will not result in significant effects on the environment.

During construction, polluting material has the potential to cause environmental effects, however the likelihood and severity of these effects will be minimised through compliance with best practice construction management practices. During the construction stage, temporary impacts will be experienced by those property owners adjacent to the proposed Greenway and road users on the existing network. It is anticipated however that these increases will be offset by the reduction in noise and air pollution from the long-term modal shift from cars to cycling and walking through provision of enhanced Greenway facilities.

Temporary closures of footpaths during construction may also cause nuisances to local road users. These effects will all be short term and not significant.

A Screening for Appropriate Assessment (AA) Report has been prepared for the proposed development. The AA Screening Report concluded that the proposed development is not likely to have significant effects on the South Dublin Bay and River Tolka Estuary SPA or any other European site in view of best scientific knowledge and the Conservation Objectives of the site concerned.

3.1.6 Risk of Major Accidents and/ or Disasters

During the construction phase, measures will be provided to ensure that run-off from the works is contained and sediment removed prior to discharge into the watercourses. The works will be carried out in accordance with

(TII, 2008);

(IFI, 2016) and the – *532*
(CIRIA, 2001).

Additionally, traffic management measures will be put in place to ensure that traffic is controlled during construction. It is expected that the risk of accidents would be low during the construction of the Greenway considering standard construction practices would be used, the scale of the proposed development would be small, and no unusual substances or technologies would be used. The proposed development would provide a safer and more accessible facility for cyclists and pedestrians by reducing conflict with motorised vehicles.

3.1.7 Risk to Human Health

Temporary negative impacts to human health may be likely during the construction phase due to noise, dust, air quality, visual and traffic impacts. These impacts will be short term in nature and are not considered to be significant. No in-stream works will take place, minimising the potential of significantly effecting the water quality. The proposed development will improve the connectivity along the Dodder corridor and therefore will have a positive impact on human health during the operation phase.

All works will be subject to the implementation of a Construction Environmental Management Plan which will be prepared by the contractor in agreement with South Dublin County Council prior to construction. This plan will ensure all risks to human health including risks to noise, air quality, water quality, traffic and the visual amenity will be controlled on site during construction.

4. LOCATION OF THE PROPOSED DEVELOPMENT

The location of the proposed development is an important factor when considering the characteristics of potential impacts and is described in the sections below with references to Section 2, Schedule 7 of the Planning and Development Regulations.

The proposed development is located alongside the River Dodder on the Dodder Road Lower in South Dublin. The location of the proposed Greenway is shown in Figure 4.1.

It is located in a residential area of south Dublin, with the urban areas of Terenure and Rathfarnham located nearby, to the northwest and south west. There are a number of Schools and Colleges in the area as will be outlined further in the report, as well as sports centres and public parks along the River Dodder, golf courses and a number of Hospitals and community facilities including places of worship.

The proposed development has been designed to current standards including the Design Manual for Urban Roads and Streets (DMURS), TII DMRB, the National Cycle Manual (NCM) and in accordance with smarter travel objectives.

Figure 4.1 Location of the proposed development

The proposed development extends from Ely's Arch on Dodder Park Road to Dodder Park Dr as per Figure 4.2 below. For a better understanding of the proposed development please refer to the overall layout in Appendix A.

Figure 4.2 Extent of proposed development

4.1 Existing and Approved Land Use

The propose development is located in a residential area of south Dublin, alongside the route of the River Dodder. The footprint of the proposed route development will replace the existing footpath, cycle track and eastbound carriageway on the Dodder Road Lower which currently provides substandard facilities to pedestrians and cyclists.

According to the landuse policy established within the South Dublin County Development Plan 2016 – 2022, SDCC aims to:

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"*HCL10 Objective 6: To recognise the key role the Dodder River plays in the County's*

of the Dodder Valley (Zoning Objective 'HA – DV') as a linear park, greenway a

”

“ *3 1*

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”

4.1.1 The Relative Abundance, Quality and Regenerative Capacity of Natural Resources

The proposed Greenway will have minimum impact on the quality and regenerative capacity of natural resources in the area as the entire area is along existing footpaths with only widening or realignment proposed. In addition, sensitive landscape design will be incorporated into the overall project design which will assist in replacing any vegetation loss and avoid or reduce potential impacts where possible.

4.2 The Absorption Capacity of the Natural Environment

The River Dodder is located within the Liffey and Dublin Bay Catchment (09) and the Water Framework Directive river sub-basin catchment of the Dodder Lower (IE_EA_09_587). This WFD river waterbody sub-basin has been assigned a status of Poor water quality. The River Dodder is located within the WFD groundwater body catchment of Dublin Urban (IE_EA_G_005). The groundwater classification for this region is classified as good.

The Water Framework Directive requires that good water quality status is achieved for the Dodder Lower sub-basin catchment by December 2027. The current Risk category is 1A with the sub-basin considered at risk from both diffuse pollution and water abstraction pressures.

The GSI quaternary mapping for the area is described as limestone till and made ground with a high clay content making the drainage characteristic poor. Alluvium and gravels are indicated along the route of the River Dodder. During the construction phase due to potential pollution incidences, measures must be put in place to protect affected water bodies and to maintain or improve the water quality status. In particular the water quality status of the River Dodder should not be degraded further.

During the operational phase, storm water runoff from the proposed development will be allowed to run off over the edge where it will drain into the River Dodder. There will be no additional volume of runoff due to the fact that the proposed development is on existing hard standing and will be utilised by pedestrians and cyclists and in this regard the quality of any storm water runoff from paved areas will be of a very high standard with very low sediment content. In this regard, any additional runoff generated from paved areas is not anticipated to cause any appreciable degradation in water quality either in the River Dodder.

Wetlands Riparian Areas and River Mouths

The proposed development is located on the Dodder Road Lower which runs adjacent to the River Dodder. The Dodder flows from Kippure Ridge in the Dublin/Wicklow Mountains to Glenasmole Valley where the Bohernabreena Reservoirs are located. The Dodder then flows north-east through Tallaght and then Firhouse. From Firhouse the Dodder travels through Rathfarnham, Templeogue, Rathgar, Milltown, Clonskeagh, Donnybrook, and finally Ballsbridge before it enters the Liffey near Ringsend. The river becomes tidal downstream of Donnybrook.

A number of weirs are present along the river, including the Rathfarnham Weir located close to the proposed development. The river corridor provides habitat for wildlife including Otter, Badger, Kingfisher, Heron and bats. These species were recorded along the river at the location of the proposed development in 2019, however due to the nature of the proposed development and the fact it is entirely on existing hard standing, there will be no impacts on biodiversity. Part of the river corridor is designated as a proposed Natural Heritage Area.

The River Dodder itself is an important wildlife corridor and contains rare and protected species including Otter, Kingfisher, Daubenton's Bat, Atlantic Salmon and Badger. Invasive species including Japanese Knotweed, Himalayan Balsam, Giant Rhubarb, Himalayan Honeysuckle and Cherry Laurel are also widespread in the Dodder catchment. Japanese Knotweed and Himalayan Balsam have been recorded on the opposite bank of the river to the proposed development.

Flood alleviation works are ongoing on the Lower Dodder with bunds and flood walls currently being constructed. Due to the minor alterations which are proposed, it is not anticipated that the proposed development will contribute to flooding along the Dodder.

Coastal Zones and the Marine Environment

The proposed development is not located in a coastal or tidal area. The River Dodder becomes tidal approximately 4km downstream below Donnybrook. It is not anticipated that the proposed works will have any significant effects on any coastal waterbody.

Mountain and Forest Areas

There are no mountains or areas of forestry in the area of the proposed development. It is not anticipated that the proposed works will have any significant effects on any mountain or forest area.

Nature Reserves and Parks

There are no nature reserves affected by the proposed development. The proposed development will form part of the overall Dodder Greenway and assist in the linking up of a number of public parks, as part of the Dodder Greenway Project. The nature of works proposed through these parks is limited with only widening and upgrading of existing footpaths generally proposed.

European or National Designated Sites

The proposed development is located c. 5km downstream of the Dodder Valley proposed Natural Heritage Area (pNHA) and 10km upstream of the Dolphin, Dublin Docks pNHA and is in connected to three European Sites:

- North Dublin Bay SAC [000206] located approximately 12.5km downstream of the proposed development. The latest (2013 – 2018) Costal Waterbody Water Framework Directive (WFD) Status of Dublin Bay was reported to be of "Good" status and "not at risk" of not achieving good status.
- South Dublin Bay and River Tolka Estuary SPA [Site code: 004024] located approximately 10km downstream of the proposed development at the ESB Dolphin.
- North Bull Island SPA [Site code: 004006] located approximately 12.5km downstream of the proposed development. The latest (2013 – 2018) Costal Waterbody Water Framework Directive (WFD) Status of Dublin Bay was reported to be of "Good" status and "not at risk" of not achieving good status.

A Screening for Appropriate Assessment (AA) Report has been prepared for the proposed development. The AA Screening Report concluded that the proposed development is not likely to have significant effects on the South Dublin Bay and River Tolka Estuary SPA, North Dublin Bay SAC, North Bull Island SPA or any other European site in view of best scientific knowledge and the Conservation Objectives of the site concerned.

Areas with Exceedances in Environmental Standards

The River Dodder is classified under the Water Framework Directive (WFD) rating system as being 'at risk' of not achieving good status. There are no other known areas in which the environmental quality standards have been reported as exceeded.

Densely Populated Areas

The proposed route passes through a residential area. A number of schools are located close to the proposed development, namely the High School, Terenure College, Mount Carmel Community Hospital and Our Lady's School. It is likely that the proposed development will have a positive impact on these adjoining areas due to the high amenity value of the proposed development and its value to commuters. There may be temporary local impacts in these areas relating to noise and traffic impacts during the construction phase. In addition, existing routes may be temporarily closed and diverted while works take place which may cause inconvenience for users however, this will have a localised and temporary effect.

During the operational phase, adjoining areas are expected to benefit from an enhanced parkland setting and an improved environmental condition is expected as a result of the improved leisure facilities. Some areas may also benefit from a decrease in vehicular traffic with modal shift to cycling or walking. The proposed one-way system layout on the Dodder Lower Road has been designed considering recent traffic counts and predicted traffic increase for all junction surrounding the area of the proposed development.

This location is deemed to have sufficient capacity to absorb these short-term impacts during the construction phase. A CEMP will be prepared and agreed with South Dublin County Council prior to construction.

Landscapes and sites of historical cultural or archaeological significance

The route of the proposed Dodder Greenway is rich in archaeological, architectural and cultural heritage features. The River Dodder itself has been identified as being rich in archaeological significance due to settlement activities tending to occur adjacent to watercourses. Given that the proposed development involves 730 m of alterations to the existing footpaths and carriageway, it is not likely that the proposed development will have a significant effect on potential archaeological features.

The following recorded protected structures are in the vicinity of the proposed development:

- Pearse Bridge, Rathfarnham Road (RPS no. 193), c. 130m from the proposed development.
- Weir, Dodder Road Lower (RPS no. 194), immediately adjacent to the proposed development.
- Roman Arch/ Ely Arch, Dodder Road Lower (RPS no. 201), 40m from the proposed development.

St. Agnes Terrace Cottages, Rathfarnham Road are listed on the National Inventory of Architectural Heritage (NIAH Ref. 11211020-11211026).

Rathfarnham Village/Willbrook, 300m south of the proposed development is designated as an Architectural Conservation Areas (ACA) in the South Dublin County Council Development Plan.

None of these historical or architectural features will be directly impacted by the proposed development.

Designated Focal Points/ Views

Given the nature of the proposed development, it is anticipated that there will be negligible impacts on the existing landscape as a result of the proposed development. The proposed development design has been visually integrated into the existing landscape through careful design and landscape planting as much as possible. The proposed development will not detract from existing views along the river, particularly given that the proposed development will only involve alternations to the existing footpath, cycle track and carriageway.

5. TYPES AND CHARACTERISTICS OF POTENTIAL IMPACTS

5.1 Assessment of the Characteristics of the Proposed Development

Table 5.1 details the screening assessment relating to the characteristics of the proposed development.

Ta le 5.1 Types and Characteristics of Potential Impacts

EIA – Environmental Receptor: -	Screening Assessment	EIA Screened In/ Out
Population and Human Health	**Construction Phase** During construction, there is likely to be localised, slight, temporary, negative effects due to noise, dust, visual and traffic impacts to Population and Human Health. The construction stage will be 4 months in duration and consequently, these impacts will be temporary in nature and are not considered to be significant. It is likely that closure of existing footpaths will be required during construction phase, causing temporary nuisance for the existing users. However, it is envisaged that short sections will be affected at any given time due to the linear nature of the development and appropriate signage to alternative routes will be provided to mitigate impacts for users. Routine practice and procedures as identified in Section 3.1.6 above, to prevent pollution of the environment and in particular the aquatic environment, will apply during the construction phase, reducing the risk of water pollution. **Operational Phase** The proposed one-way system layout on the Dodder Road Lower has been designed considering recent traffic counts and predicted traffic increase for all junctions surrounding the area of the proposed development. The one-way system will increase the journey times for some of the residents on the Dodder Road Lower, however, as the total length of new one-way street is 730m, this impact is considered to be negligible. The proposed improved pedestrian and cycle paths will have positive, long term effects on the population of South Dublin and the wider region by improving connectivity along the Dodder corridor and promoting physical activity. No likely significant effects are predicted.	Screened out
Biodiversity with particular attention to species and habitats protected under the Habitats and Birds Directives	**Construction Phase** The route of the proposed development is confined to the existing footpath, cycle path and roadway. Where loss of vegetation is required, replanting of areas with native species will occur as part of the proposed development. **Operational Phase** The existing public lighting along the Dodder Road Lower will be upgraded and the design will be sensitive to bats and other wildlife. There will be no significant environmental and ecological effects as a result of the lighting design proposed. A Screening for Appropriate Assessment (AA) Report has been prepared for the proposed development. The AA Screening Report concluded that the proposed development is not likely to have significant effects on the South Dublin Bay and River Tolka Estuary SPA, South Dublin Bay SAC, the North Bull Island SPA	Screened out

EIA – Environmental Receptor: -	Screening Assessment	EIA Screened In/ Out
	or any other European site in view of best scientific knowledge and the Conservation Objectives of the site concerned. **No likely significant effects are predicted.**	
Soil and Geology	**Construction Phase** Small amounts of natural material, construction and general waste will be generated during works. However, given the nature, scale and size of the proposed development, this is not considered to be significant. Any waste produced as part of the proposed greenway will be dealt with in a sustainable manner and in accordance with all relevant environmental guidance and policy documents and the Contractors approved Construction Environmental Management Plan (CEMP). **Operation Phase** The operation phase will not see any increased risk to Soils and Geology. **No likely significant effects are predicted.**	Screened out
Hydrology and Hydrogeology	**Construction Phase** During construction phase, there is potential for contamination to enter the River Dodder and its tributaries. However, best practice construction management will be applied in accordance with TII, IFI and CIRIA guidelines in order to ensure that there will be no release of contaminants into adjacent lands or waterbodies. Earthworks will be minor and therefore will not pose a risk to groundwater. **Operation Phase** The operation phase will not see any increased risk to surface or groundwater quality due to its continued use by pedestrians and cyclists. **No likely significant effects are predicted.**	Screened out
Air and Climate	**Construction Phase** The proposed development is likely to generate nuisance dust and particulate matter from the movement of vehicles transporting construction material to and from site during the construction stage. However, due to the small scale and limited works required for the majority of the route, no significant effects are likely. There are also likely to be no significant effects on climate change during construction phase as the construction traffic is likely to be small due to the small quantity of materials required for construction works. **Operational Phase** No significant effect is likely to occur to air quality and climate during operation phase of the proposed development as there will no vehicular traffic permitted on the greenway, with the exception of maintenance vehicles. The proposed one-way system layout on the Dodder Road Lower has been designed considering recent traffic counts and predicted traffic increase for all junctions surrounding the area of the proposed development. The one-way system will increase the journey times for some of the residents on the Dodder Road Lower, however, as the total length of new one-way street is 730m, this impact is considered to be negligible.	Screened out

EIA – Environmental Receptor: -	Screening Assessment	EIA Screened In/ Out
	It is also considered that the operation stage of the proposed greenway will have a positive impact on Air Quality and Climate in the area through a modal shift to sustainable transport methods. **No likely significant effects are predicted.**	
Noise and Vibration	**Construction Phase** During the construction phase, there will be temporary disruption to existing traffic and to local property owners and users of the existing paths. However, these will be minimised by being subject to a Construction Environmental Management Plan (CEMP). Additionally, the contractor will be required to comply with the noise and vibration levels as stipulated in the TII/NRA's . Consequently, there are likely to be localised, moderate, temporary effects on noise and vibration during the construction phase. **Operational Phase** During the operational phase, there will be no increase in noise or vibration emissions as the proposed development is intended for pedestrian and cyclist use only. The proposed one-way system layout on the Dodder Road Lower has been designed considering recent traffic counts and predicted traffic increase for all junctions surrounding the area of the proposed development. The one-way system will increase the journey times for some of the residents on the Dodder Road Lower, however, as the total length of new one-way street is 730m, this impact is considered to be negligible. **No likely significant effects are predicted.**	
Material Assets	**Construction Phase** There will be no land acquisition necessary for the proposed development and therefore no significant effect on businesses or property will occur. Additionally, there will be slight and temporary community severance due to the temporary closure of footpaths and/or roads. However, appropriate signage to alternative routes will be provided to mitigate impacts for users. **Operational Phase** During the operational phase, the proposed development will have the additional benefits of improving connectivity for pedestrians and cyclists along the Dodder corridor. **No likely significant effects are predicted.**	Screened out
Cultural Heritage including archaeology and architectural heritage	**Construction Phase** There are a number of protected structures, NIAH listed properties and an Architectural Heritage Area in close proximity to the proposed development, however these will not be directly impacted by the proposed development. **Operational Phase** No significant direct or indirect effects are likely to occur on protected structures NIAH listed properties or Architectural Heritage Areas as a result of the works. **No likely significant effects are predicted.**	Screened out

EIA – Environmental Receptor: -	Screening Assessment	EIA Screened In/ Out
Landscape	**Construction Phase** During the construction stage, it is inevitable that the temporary presence of plant and machinery along the river corridor will detract from certain views and amenity. However, this is considered to be only a slight temporary effect which is easily offset by the benefits accrued at the operational stage. **Operational Phase** The proposed development will comprise a realignment of the existing road layout including the pedestrians and cyclist facilities to provide an improved design and enhanced area of public realm. The proposed development will not detract from the existing views of the river or views to or from any natural and built heritage features present. The landscape planting design has the potential to create a positive landscape and visual impact. The landscape planting is shown in Appendix A. Overall, it is considered that any adverse effects on the landscape will be offset by the sensitive design, the minimal new construction and the enhanced landscape planting. **No likely significant effects are predicted.**	Screened out
Interactions between the impacts on different factors	**Construction Phase** During the construction phase, interactions will occur between air quality and climate, noise and vibration, landscape and visual and population and human health. Standard control measures proposed to reduce noise and air quality impacts during construction will result in positive effects on population and human health through the reduction in nuisances and visual effects during construction. The small scale and temporary nature of some of these interactions are not likely to result in significant environmental effects. **Operational Phase** During operation, the main interaction will be between landscape and visual and population and human health. The upgrade of this section of the Greenway will have a positive impact on population and human health through the enhancement of the public realm. **No likely significant effects are predicted.**	Screened out
Cumulative Assessment	A review of plans and projects (recently granted planning applications) was undertaken in the vicinity of the proposed development and assessed in Table B.1 in Appendix B of this EIA Screening Report. The sources of information included: • An Bord Pleanála Website (Planning Searches); • EIA Portal (Planning Search); • Dublin City Council Online Planning Search; • South Dublin County Council Planning Search; • Dun Laoghaire Rathdown County Council Planning Search. Having considered the anticipated overall potential impact with respect to each of these developments it is considered that the there are no likely significant effects on the environment when considered in combination with each other. It is therefore considered that the cumulative impact of the Dodder Road	Screened out

EIA – Environmental Receptor: -	Screening Assessment	EIA Screened In/ Out
	Lower Upgrade in combination with existing baseline actions (the approved projects listed above) is not significantly worse than any of the individual impacts associated with site preparation, construction and subsequent maintenance of the proposed development. **No likely significant effects are predicted.**	

6. SCREENING CONCLUSION AND RECOMMENDATION

This EIA Screening Report has determined that the proposed development does not exceed the thresholds that trigger the mandatory requirement for EIA and subsequently the proposed development is deemed to be a sub-threshold development. This sub-threshold development has been assessed in accordance with Schedule 7 and 7A of the Planning and Development Regulations 2001 – 2020.

Having regard to this assessment with regard in particular to the (1) characteristics of proposed development; (2) location of proposed development; (3) characteristics of potential impacts; this EIA Screening found that the proposed development is **not likely** to result in significant negative environmental effects.

It is therefore recommended to South Dublin County Council that the proposed development would not be likely to have significant effects on the environment by virtue of its characteristics, location, size or potential impacts and does not require an Environmental Impact Assessment Report to be undertaken.

APPENDIX A

DEVELOPMENT DRAWINGS

Údarás Náisiúnta Iompair
National Transport Authority

Comhairle Contae Átha Cliath Theas
South Dublin County Council

DODDER GREENWAY
DODDER ROAD LOWER

Clifton Scannell Emerson Associates

DRAWING IS PRODUCED USING THE IRISH TRANSVERSE MERCATOR (ITM) GEOGRAPHIC COORDINATE SYSTEM

A1

LEGEND:

- PROPOSED CARRIAGEWAY REALIGNMENT
- PROPOSED SHARED AREA
- PROPOSED CONCRETE FOOTPATH
- PROPOSED RAMP
- PROPOSED GRASS VERGE
- PROPOSED PROPERTY ACCESS
- PROPOSED TACTILE PAVING (RED)
- PROPOSED TACTILE PAVING (BUFF)
- EXISTING FOOTPATH

Rev	Description	Drawn	Checked	Date
P01	PART 8 PLANNING	KT	DRL	03/12/20

Clifton Scannell Emerson Associates

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Client: SOUTH DUBLIN COUNTY COUNCIL

Project: DODDER GREENWAY PHASE 5

Dwg. Title: DODDER ROAD LOWER UPGRADE - OVERALL

Drawn By	Date	CSEA Job No.
KT	DEC. 2020	18_123C
Checked By	Scale	
DRL	1:1250 @ A1	

Project Code	Originator	Zone/ Phase	Level	Type	Role	Dwg. No.
18_123C	CSE	GEN	XX	DR	C	1430

Status Code: S2 — SUITABLE FOR INFORMATION

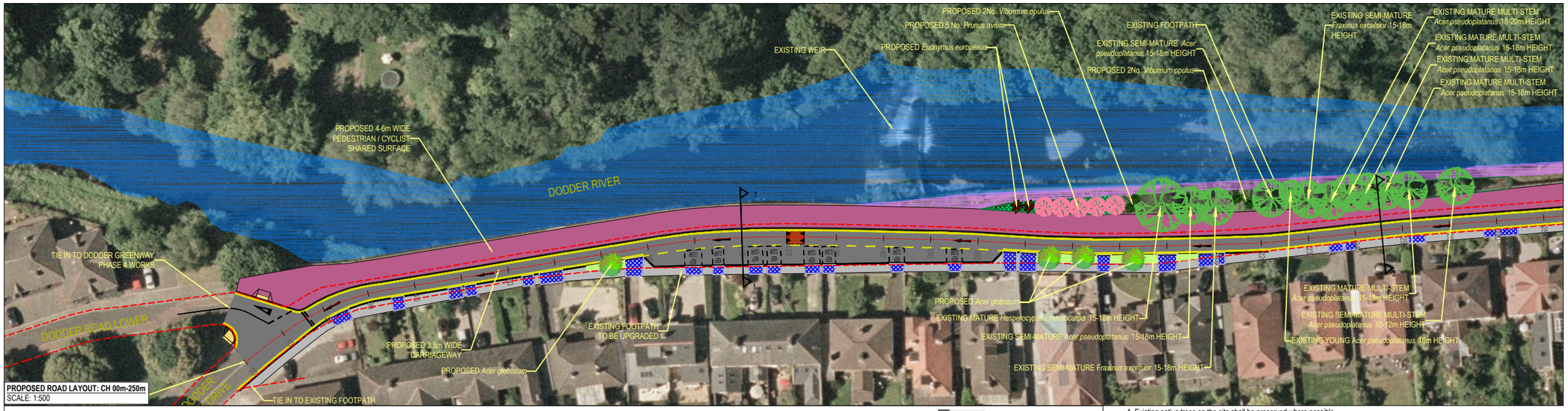
Revision: P01 — Project Status: PART 8 PLANNING

Údarás Náisiúnta Iompair
National Transport Authority

Comhairle Contae Átha Cliath Theas
South Dublin County Council

DODDER GREENWAY
DODDER ROAD LOWER

Clifton Scannell Emerson Associates



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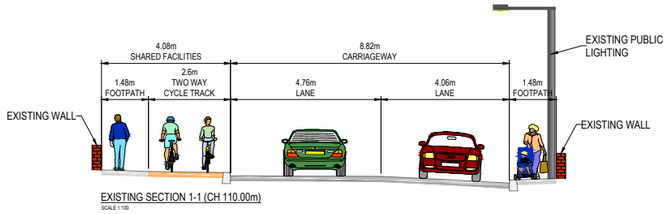

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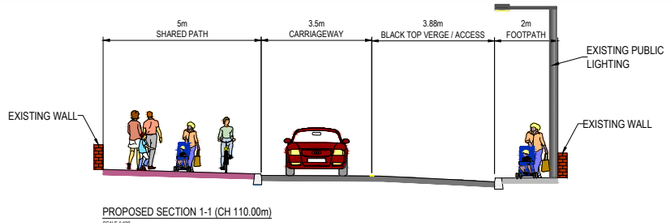

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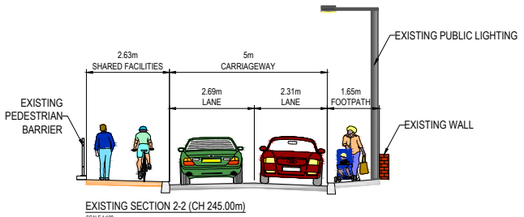

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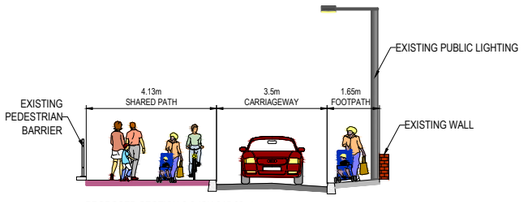

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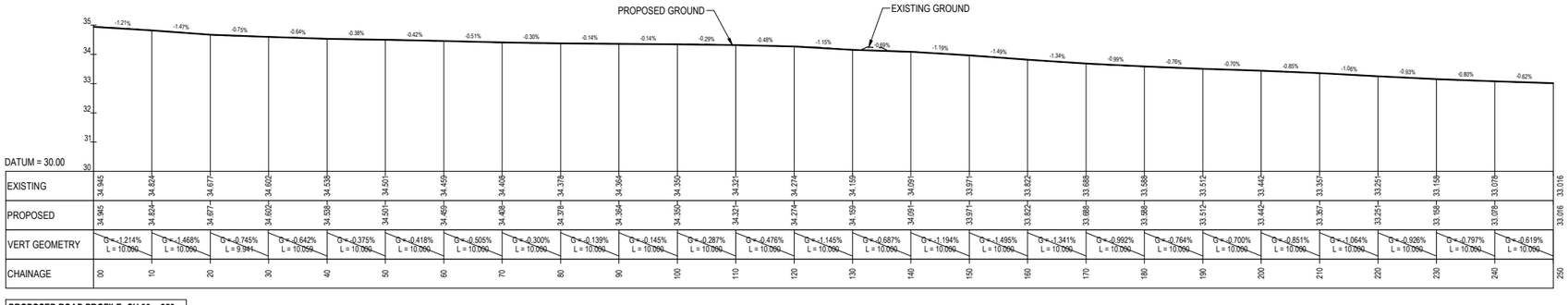


PROPOSED ROAD PROFILE: CH 00m-250m
SCALE: H 1:500,V 1:100

1. Existing native trees on the site shall be preserved where possible, as a part of the landscape design scheme. The Landscape Architect/Arborist shall be consulted at the time of vegetation clearance with regards to ascertaining which trees can viably and safely be preserved as a part of the Landscape construction works.

HARD LANDSCAPING

- Galvanised steel post 100x100mm, powder coated RAL 3020 of 1500mm height, fixed in position with individual concrete footings set below ground level with steel reinforcement bracing (Refer to Engineer's drawings for fixing details) — 4no.
- Galvanised steel post 100x100mm, powder coated RAL 3020 of 2500mm height fixed in position with individual concrete footings set below ground level with steel reinforcement bracing (Refer to Engineer's drawings for fixing details) — 3no.
- Galvanised steel post 100x100mm, powder coated RAL 3020 of 2000mm height fixed in position with individual concrete footings set below ground level with steel reinforcement bracing (Refer to Engineer's drawings for fixing details) — 2no.
- Galvanised steel post 100x100mm, powder coated RAL 3020 of 1700mm height fixed in position with individual concrete footings set below ground level with steel reinforcement bracing (Refer to Engineer's drawings for fixing details) — 2no.

SOFT LANDSCAPING

Trees

Betula pendula, rb, 20-25cmg	11no.
Prunus avium, rb, 20-25cmg	4no.
Acer globosum, rb, 30-35cmg	8no.
Retained existing trees	

Shrubs

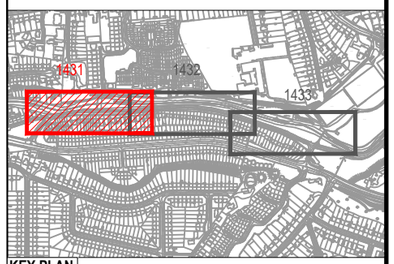
Viburnum opulus, br, 120-150cm	10no.
Euonymus europeaus, br, 120-150cm	7no.
Cornus sanguinea, br, 120-150cm	7no.
Cytisus scoparius, br, 120-150cm	2no.
Sambucus nigra, br, 120-150cm	6no.
Corylus avellana, br, 120-150cm	5no.

Native groundcover planting mix	
Rosa canina, CG 2L	3/m²
Calluna vulgaris, CG 2L	5/m²
Hypericum calycinum, CG 2L	6/m²
Hedera helix 'Hibernica', CG 2L	8/m²
Viburnum opulus 'Compactum', CG 2L	3/m²

Wildflower mix
NOTE: Allow minimum 1m band of wildflower mix seeding on either side of new paving construction in grass areas, sow at 2 gms/m²

DRAWING IS PRODUCED USING THE IRISH TRANSVERSE MERCATOR (ITM) GEOGRAPHIC COORDINATE SYSTEM

A1



KEY PLAN
NTS

LEGEND:

- PROPOSED CARRIAGEWAY REALIGNMENT
- PROPOSED SHARED AREA
- PROPOSED CONCRETE FOOTPATH
- PROPOSED RAMP
- PROPOSED GRASS VERGE
- PROPOSED PROPERTY ACCESS
- PROPOSED TACTILE PAVING (RED)
- PROPOSED TACTILE PAVING (BUFF)
- EXISTING FOOTPATH

Rev	Description	Drawn	Checked	Date
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Client: SOUTH DUBLIN COUNTY COUNCIL

Project: DODDER GREENWAY PHASE 5

Dwg. Title: DODDER ROAD LOWER UPGRADE, SHEET 1 OF 3

Drawn By	KT	Date	DEC. 2020
Checked By	DRL	Scale	1:500 @ A1
		CSEA Job No.	18_123C

Project Code	Originator	Zone/ Phase	Level	Type	Role	Dwg. No.
18_123C	CSE	GEN	XX	DR	C	1431

Status Code: S2 — SUITABLE FOR INFORMATION

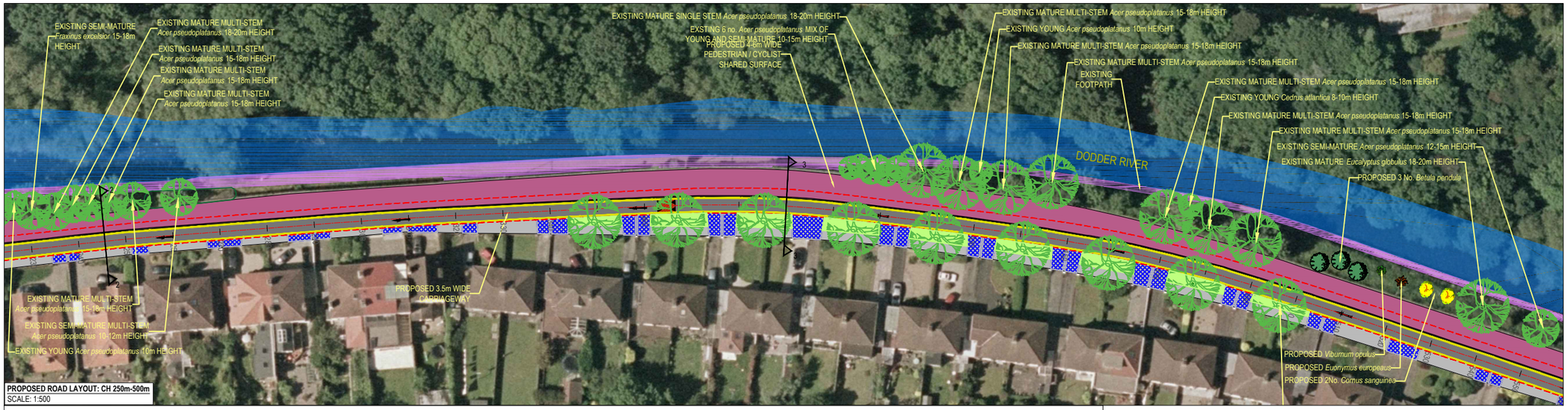
Revision: P01 — PART 8 PLANNING

DODDER GREENWAY
DODDER ROAD LOWER

Údarás Náisiúnta Iompair
National Transport Authority

Comhairle Contae Átha Cliath Theas
South Dublin County Council

Clifton Scannell Emerson Associates



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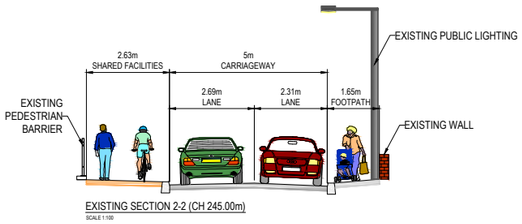

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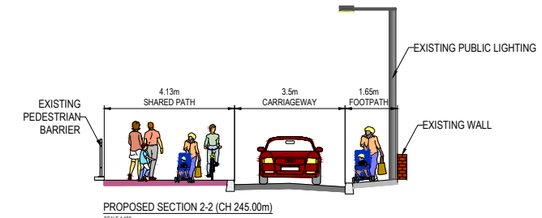

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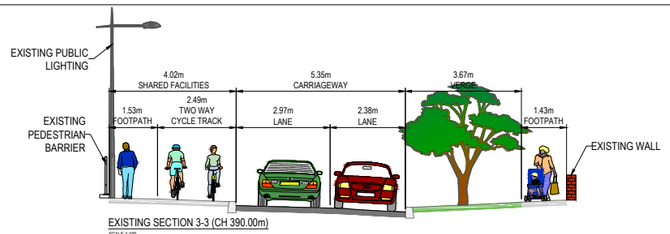

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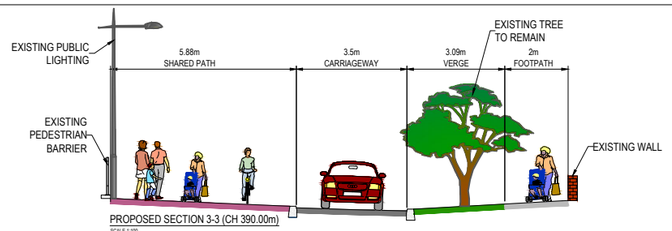


PROPOSED SECTION 3-3 (CH 390.00m)
SCALE 1:100

NOTE:
1. Existing native trees on the site shall be preserved where possible, as a part of the landscape design scheme. The Landscape Architect/Arborist shall be consulted at the time of vegetation clearance with regards to ascertaining which trees can viably and safely be preserved as a part of the Landscape construction works.

HARD LANDSCAPING

Galvanised steel post 100x100mm, powder coated RAL 3020 of 1500mm height, fixed in position with individual concrete footings set below ground level with steel reinforcement bracing (Refer to Engineer's drawings for fixing details)	4no.
Galvanised steel post 100x100mm, powder coated RAL 3020 of 2500mm height fixed in position with individual concrete footings set below ground level with steel reinforcement bracing (Refer to Engineer's drawings for fixing details)	3no.
Galvanised steel post 100x100mm, powder coated RAL 3020 of 2000mm height fixed in position with individual concrete footings set below ground level with steel reinforcement bracing (Refer to Engineer's drawings for fixing details)	2no.
Galvanised steel post 100x100mm, powder coated RAL 3020 of 1700mm height fixed in position with individual concrete footings set below ground level with steel reinforcement bracing (Refer to Engineer's drawings for fixing details)	2no.

SOFT LANDSCAPING

Trees

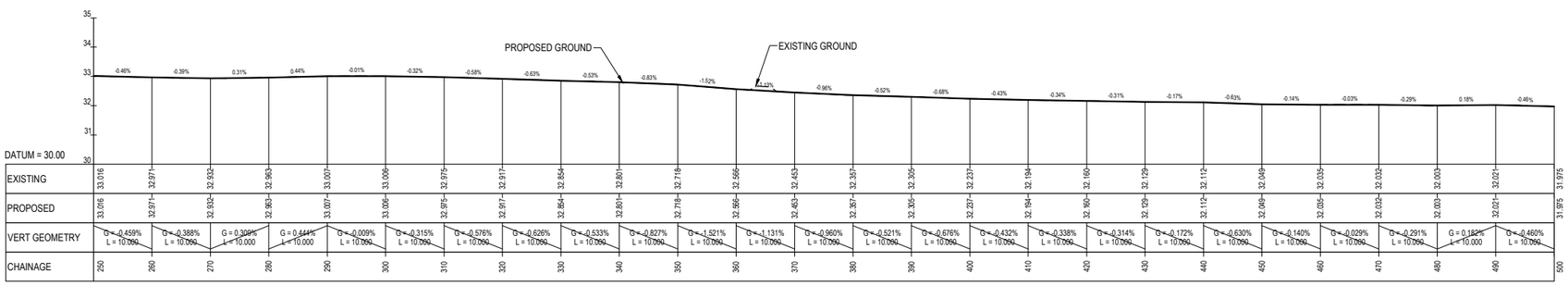
Betula pendula, rb, 20-25cmg	11no.
Prunus avium, rb, 20-25cmg	4no.
Acer globosum, rb, 30-35cmg	8no.
Retained existing trees	

Shrubs

Viburnum opulus, br, 120-150cm	10no.
Euonymus europeaus, br, 120-150cm	7no.
Cornus sanguinea, br, 120-150cm	7no.
Cytisus scoparius, br, 120-150cm	2no.
Sambucus nigra, br, 120-150cm	6no.
Corylus avellana, br, 120-150cm	5no.

Native groundcover planting mix	
Rosa canina, CG 2L	3/m²
Calluna vulgaris, CG 2L	5/m²
Hypericum calycinum, CG 2L	6/m²
Hedera helix 'Hibernica', CG 2L	8/m²
Viburnum opulus 'Compactum', CG 2L	3/m²
Wildflower mix	

NOTE: Allow minimum 1m band of wildflower mix seeding on either side of new paving construction in grass areas, sow at 2 gms/m²



PROPOSED ROAD PROFILE: CH 250m-500m
SCALE: H 1:500,V 1:100

DRAWING IS PRODUCED USING THE IRISH TRANSVERSE MERCATOR (ITM) GEOGRAPHIC COORDINATE SYSTEM

A1

KEY PLAN
NTS

LEGEND:

- PROPOSED CARRIAGEWAY REALIGNMENT
- PROPOSED SHARED AREA
- PROPOSED CONCRETE FOOTPATH
- PROPOSED RAMP
- PROPOSED GRASS VERGE
- PROPOSED PROPERTY ACCESS
- PROPOSED TACTILE PAVING (RED)
- PROPOSED TACTILE PAVING (BUFF)
- EXISTING FOOTPATH

Rev	Description	Drawn	Checked	Date
P01	PART 8 PLANNING	KT	DRL	03/12/20

Clifton Scannell Emerson Associates

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Client: SOUTH DUBLIN COUNTY COUNCIL

Project: DODDER GREENWAY PHASE 5

Dwg. Title: DODDER ROAD LOWER UPGRADE, SHEET 2 OF 3

Drawn By: KT
Checked By: DRL
Date: DEC. 2020
Scale: 1:500 @ A1
CSEA Job No.: 18_123C

Project Code	Originator	Zone/ Phase	Level	Type	Role	Dwg. No.
18_123C	CSE	GEN	XX	DR	C	1432

18_123C - CSE - GEN - XX - DR - C - 1432

S2 — SUITABLE FOR INFORMATION
Status Code — Suitability Description

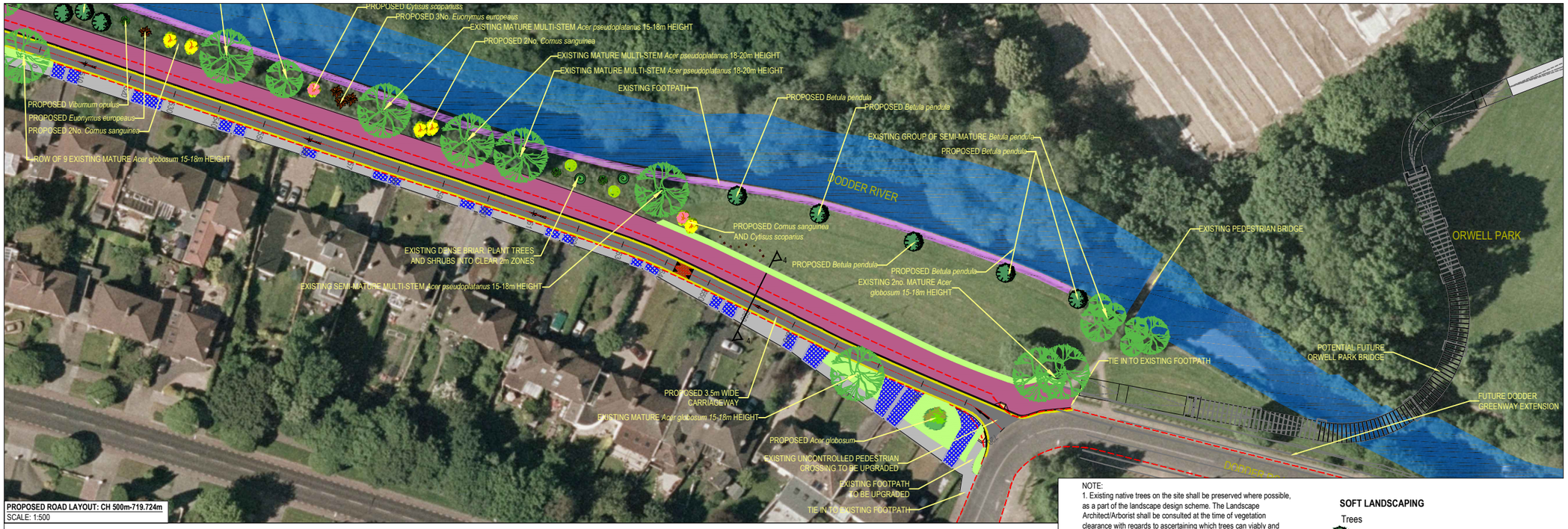
P01 — PART 8 PLANNING
Revision — Project Status

Údarás Náisiúnta Iompair
National Transport Authority

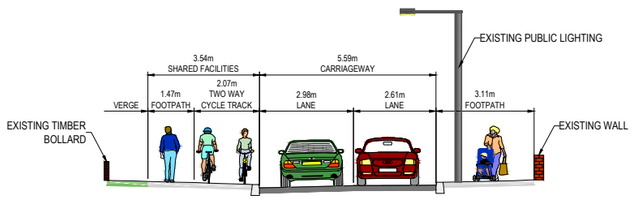
Comhairle Contae Átha Cliath Theas
South Dublin County Council

DODDER GREENWAY
DODDER ROAD LOWER

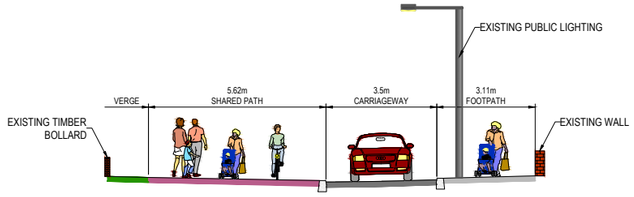
Clifton Scannell Emerson Associates



PROPOSED ROAD LAYOUT: CH 500m-719.724m
SCALE: 1:500



EXISTING SECTION 4-4 (CH 660.00m)
SCALE 1:100



PROPOSED SECTION 4-4 (CH 660.00m)
SCALE 1:100

NOTE:
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SOFT LANDSCAPING

Trees

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Retained existing trees	

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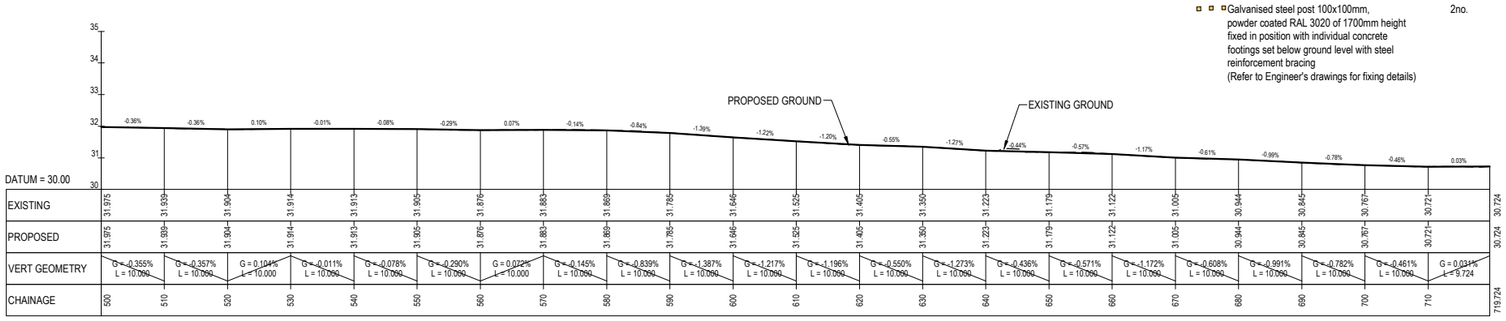
Sambucus nigra, br, 120-150cm	6no.
Corylus avellana, br, 120-150cm	5no.

Native groundcover planting mix		
Rosa canina, CG 2L	3/m²	20%
Calluna vulgaris, CG 2L	5/m²	20%
Hypericum calycinum, CG 2L	6/m²	20%
Hedera helix 'Hibernica', CG 2L	8/m²	20%
Viburnum opulus 'Compactum', CG 2L	3/m²	20%

Wildflower mix
NOTE: Allow minimum 1m band of wildflower mix seeding on either side of new paving construction in grass areas, sow at 2 gms/m²



PROPOSED ROAD PROFILE: CH 500m-719.724m
SCALE: H 1:500,V 1:100

DRAWING IS PRODUCED USING THE IRISH TRANSVERSE MERCATOR (ITM) GEOGRAPHIC COORDINATE SYSTEM

A1

KEY PLAN
NTS

LEGEND:

- PROPOSED CARRIAGEWAY REALIGNMENT
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- PROPOSED PROPERTY ACCESS
- PROPOSED TACTILE PAVING (RED)
- PROPOSED TACTILE PAVING (BUFF)
- EXISTING FOOTPATH

Rev	Description	Drawn	Checked	Date
P01	PART 8 PLANNING	KT	DRL	03/12/20

Clifton Scannell Emerson Associates

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W. www.csea.ie

Client: SOUTH DUBLIN COUNTY COUNCIL

Project: DODDER GREENWAY PHASE 5

Dwg. Title: DODDER ROAD LOWER UPGRADE, SHEET 3 OF 3

Drawn By	Date	
KT	DEC. 2020	18_123C
Checked By	Scale	CSEA Job No.
DRL	1:500 @ A1	

Project Code	Originator	Zone/ Phase	Level	Type	Role	Dwg. No.
18_123C	CSE	GEN	XX	DR	C	1433

18_123C - CSE - GEN - XX - DR - C - 1433

S2 — SUITABLE FOR INFORMATION
Status Code — Suitability Description

P01 — PART 8 PLANNING
Revision — Project Status

APPENDIX B

ASSESSMENT OF CUMULATIVE IMPACTS

Ta le B.1: Assessment of Projects in Respect of their Potential to Result in Cumulative/ in-com ination Effects with the Proposed Development

Plan or Project	Description of Plan or Project	In-com ination effect(s)
Dodder Greenway (SDCC Section)	The Dodder Greenway (SDCC Section) is a c. 12km 3-4m wide cycling and pedestrian path between Orwell Park and Fort Bridge near Bohernabreena. The project will include three new cycling/ pedestrian bridges, bat friendly public lighting and toucan crossings. This project will link up with the DCC section on the Dodder Road Lower. The SDCC Section received planning in 2017.	There are no significant effects predicted to arise from the combination of this development with the proposed development.
Dodder Greenway (DCC Section)	The Dodder Greenway (DCC Section) is a c. 5km 3-4m wide cycling and pedestrian path between Orwell Park and Sir John Rogerson's Quay. The project will include bat friendly public lighting and toucan crossings. This project will link up with the SDCC section on the Dodder Road Lower, forming a contiguous 17km Greenway between Dublin City and the Dublin Mountains. The planning application is currently being prepared by the NTA.	There are no significant effects predicted to arise from the combination of this development with the proposed development.
Dodder Greenway-Springfield Avenue Upgrade	The proposed Springfield Avenue Upgrade scheme is an upgrade on 1.5km of carriageway, footpaths, and cycle tracks. The scheme is part of the Dodder Greenway overall scheme, and it will link two phases of the Dodder Greenway. The scheme, considered to be an "on road" section of the Dodder Greenway, and it is also described as an extension and a supplement to the Dodder Greenway. The project proposes to upgrade two junctions and rearrange and upgrade the existing cycle facilities on the road. It also intends to upgrade existing pedestrian crossings and create a continuously 5 m wide shared path along Springfield Avenue. SDCC intend to apply for Part VIII consent in December 2020.	There are no significant effects predicted to arise from the combination of this development with the proposed development.
Dodder Greenway-Firhouse Road and Wellington Lane Links	The proposed Firhouse Road and Wellington Lane Links scheme is a road upgrade scheme and contains approximately 1.53km of a 4m wide shared path that will link and complement two sections of Dodder Greenway. The scheme, considered to be an "on road" section of the Dodder Greenway, is also described as an extension and a supplement to the Dodder Greenway scheme. The project proposes to relocate 2 no. bus stops and rearrange the existing cycle facilities on the road. It also intends to upgrade existing pedestrian crossings on Firhouse Road and redesign the Old Bridge Road–Firhouse Road junction making it safer for pedestrian and cyclists. Along the 1.53km of proposed shared path of the Firhouse Road and Wellington Lane Links scheme, a Plaza Entrance is proposed at the Firhouse Road-Knocklyon Road Junction to aesthetically harmonize with the Dodder Greenway routes. All proposed works for the project will include a fully integrated landscape plan and will accommodate all the required services or all required services diversion, if any. SDCC intend to apply for Part VIII consent in December 2020.	There are no significant effects predicted to arise from the combination of this development with the proposed development.
Proposed Royal Canal Greenway	The Royal Canal Greenway will involve the construction of a Premium Cycle and Pedestrian Route along the Royal Canal from North Wall Quay to Ashtown. The overall length of the scheme is 7.1 km from Sheriff Street Upper to Ashtown. The scheme has been broken into four phases:	There are no significant effects predicted to arise from the combination of

Plan or Project	Description of Plan or Project	In-com ination effect(s)
	• Phase 1: Guild Street (North Wall Quay) to Sheriff Street Upper (completed); • Phase 2: Sheriff Street Upper to North Strand (work started March 2019); • Phase 3: North Strand to Phibsborough; • Phase 4: Phibsborough to Ashtown. An AA Screening has been undertaken at planning stage and it was concluded that there will be no likely significant effects on any Natura 2000 site(s) either alone or in-combination with other plans or projects. This project is 5km north of the proposed development.	this development with the proposed development.
Dodder Flood Alleviation Works-Planning Amendment to the previously approved Planning Application 2504/13 at Donny rook RFC	Dublin City Council is currently engaged in River Dodder Flood Alleviation Works, Phases 2c/2d/2e under a Part 8 planning permission issued in 2013. Part of this project includes works to the western bank of the river Dodder between Herbert Park and Anglesea Bridge (Donnybrook). The preferred option for the Dodder Greenway through the Donnybrook area has been identified as a route along the western bank of the River Dodder between Anglesea Bridge (Donnybrook) and Herbert Park. The current proposals for the flood alleviation works in this area would require major alteration in the future to allow for the Dodder Greenway to be provided along this preferred route. Dublin City Council therefore proposes to amend the current proposals for the flood alleviation works between Herbert Park and Anglesea Bridge so that the greenway can be constructed as part of the current on-going flood defences in this area. As part of the amended works it is proposed: • To widen a 120m section of the originally planned flood embankment to allow for the construction of a 4m wide walking and cycling route along its length. • To alter the line of approx.140m, and cantilever over the riverbank approximately 130m, of the originally planned flood wall in order that the walking and cycling route can be constructed between the flood wall and the neighbouring pitches and tennis courts. • To remove some existing low value trees and provide a new tree planting scheme • To install a new boundary fence between the walking and cycling route and the neighbouring property belonging to the Leinster Branch of the IRFU. To provide beech hedging or similar as screening on the Leinster Branch side of the boundary fence.	There are no significant effects predicted to arise from the combination of this development with the proposed development.

Plan or Project	Description of Plan or Project	In-com ination effect(s)
Dodder Flood Alleviation Scheme (Phase 3)	The purpose of the River Dodder Flood Alleviation Scheme Phase 3 is to assess and develop a viable, cost effective and sustainable Flood Alleviation Scheme in order to alleviate flooding along the River Dodder between Clonskeagh Road Bridge to Orwell Road Bridge including Little Dargle Stream at Braemor Road-Woodside Drive south-eastern junction. This project is being developed between Dún Laoghaire- Rathdown County Council and the Office of Public Works is currently at preliminary discussion stage. In the absence of any design or even design options, an assessment of in-combination effects with this project cannot be undertaken at this stage. Once developed, this project will be required to undertake the appropriate assessments including EIA Screening and AA Screening and consider the cumulative effects resulting from all other projects, as appropriate.	There is no design available for this project and therefore an assessment of in-combination effects cannot be undertaken at this time. The Dodder Flood Alleviation Scheme (Phase 3) will be assessed for in-combination effects when the design is completed.
Proposed Dodder Pu lic Transportation Opening Bridge	Dublin City Council has commenced the planning and design of the Dodder Public Transportation Opening Bridge. The scheme comprises a new public transportation opening bridge over the River Dodder at its confluence with the River Liffey along with the construction of approach roads associated with the bridge; the construction of a new control building; the provision of a new club house and facilities for St Patrick's Boat Club; the reclamation of land to the west of Tom Clarke Bridge to facilitate the build; the landscaping of the area between York Road/Thorncastle street and the R131 over the extents of the project. An EIAR and Natura Impact Statement will be prepared in support of the project.	There are no significant effects predicted to arise from the combination of this development with the proposed development.
Proposed Bloodstoney Foot ridge	Dublin City Council has commenced the planning and design of the Bloodstoney Footbridge. The proposed bridge will cross the River Liffey upstream of the confluence with its tributary, River Dodder in central the Docklands area of Dublin. The Blood Stoney Bridge will connect the two river banks at the projection of the Blood Stoney Road and New Wapping Street, at Sir John Rogerson's Quay (in the South) and North Wall Quay (in the North), respectively. In this area the river channel is c.125m wide. The bridge will carry pedestrians and cyclists in both directions with the cycle path segregated from the footpaths. The bridge must move to allow for passing river traffic, maintaining unlimited head clearance across the full width of the navigation channel (31.5m) in the open position. An EIAR and Natura Impact Statement will be prepared in support of the project.	There are no significant effects predicted to arise from the combination of this development with the proposed development.
DCC Planning Application No. 2868/16 (Granted)	Demolition of a 5-storey commercial building on Shelbourne Road and the construction of a 4 to 6 story commercial building over basement level that will provide office space. Ground level will provide space for either retail or a café. Car and bicycle parking spaces will also be provided by the development.	There are no significant effects predicted to arise from the combination of this development with the proposed development.

Plan or Project	Description of Plan or Project	In-com ination effect(s)
DCC Planning Application No. 3726/09 2669/11 3810/11 2744/12 2427/13 3624/13 3012/14 2250/15 2259/15 4005/15 4216/15 2766/16 3187/17 (Granted)	Demolition of existing buildings at Orwell Park and the construction of 77 residential units mainly consisting of terraced, townhouse-style buildings. Car and bicycle parking spaces are also included alongside an ESB sub-station, communal gardens. Public open spaces, and all associated infrastructure and site development works including landscaping and boundary treatment. Located 200m north-east of the proposed development.	There are no significant effects predicted to arise from the combination of this development with the proposed development.
DCC Planning Application No. 2212/13 (Granted)	Construction of 3 floors above ground floor slab, extension and change of building uses to provide 116 nursing home bedrooms at Orwell Nursing Home, dining and day rooms, ancillary accommodations, office and training rooms, and car parking spaces will also be included. A single storey concierge and sub-station building will also be constructed. Landscaping and boundary works are also included in the development. Located 250m north-east of the proposed development.	There are no significant effects predicted to arise from the combination of this development with the proposed development.
DCC Planning Application No. 2659/13 2013/14 (Granted)	The development involves the construction on 8 apartments and 8 town houses at Orwell Park alongside associated site development and landscape works. Located 280m north-east of the proposed development.	There are no significant effects predicted to arise from the combination of this development with the proposed development.
DCC Planning Application No. 2593/18 (Granted)	The development involves the construction of 4 single storey apartments over existing ground floor retail unit on Milltown Road. Located 2 km north-east of the proposed development.	There are no significant effects predicted to arise from the combination of this development with the proposed development.
DCC Planning Application No. 2709/19 (Granted)	The development involves the construction of 9 offices/consulting rooms, a waiting area and toilets in a single storey building at Glenmalure Day Hospital. Located 2 km north-east of the proposed development.	There are no significant effects predicted to arise from the combination of this development with the proposed development.
DCC Planning Application No. 2676/11 (Granted)	The development involves the demolition of an existing building at Clonskeagh House and the construction of a 4-storey multi-purpose building. Reconfiguration and resurfacing of an existing car park will be carried out, alterations to existing access and associated site development works are also included. Located 2.5 km north-east of the proposed development.	There are no significant effects predicted to arise from the combination of this development with the proposed development.

Plan or Project	Description of Plan or Project	In-com ination effect(s)
DCC Planning Application No 2620/14 (Granted)	The development involves the demolition of existing offices, factory buildings, yards, chimneys and ancillary accommodation and alterations to surrounding buildings will also be carried out on Clonskeagh Road. 92 apartments will be constructed in 4 apartment blocks ranging between 2 and 4 storeys and will also contain a creche. A river walk and landscaping will be carried out along the banks of the River Dodder. A new site entrance will be provided that will provide access to car and bicycle parking spaces. Improvements to existing boundary walls, landscaping and associated works will also be carried out. Located 2.5km north-east of the proposed development.	There are no significant effects predicted to arise from the combination of this development with the proposed development.
DCC Planning Application No. 4049/09 (Granted)	Demolition of an existing 2-storey building and the construction of 29 apartments in 4 blocks between 4 and 6 storeys on Anglesea Road. Ancillary stores and office will be located at ground level, car and bicycle parking spaces will also be provided. Anglesea Road will be widened to 4.8m width. Located 3 km north-east of the proposed development.	There are no significant effects predicted to arise from the combination of this development with the proposed development.
SDCC Planning Application No. SD128/0003 (Pending)	The proposed development of the Tallaght to Ballyboden Cycle Route Scheme. This involves the construction of new off-road cycle tracks on Oldbawn Road, Knocklyon Road and Templeroan Road. The construction of shared facilities through Dodder Valley Park, Monlea Park and Knocklyon Road. Upgrade of existing off-road cycle tracks on the Firhouse Road and Scholarstown Road. The incorporation of cyclist facilities along Oldbawn Road and Tallaght Village. Cycle lanes will be provided through the N21, junction and road safety improvements are also included. Located 2.5 km south-west of the proposed development.	There are no significant effects predicted to arise from the combination of this development with the proposed development.
SDCC Planning Application No. SD198/0006 (Pending)	Construction of 3 play spaces and a play trail route in the Dodder Valley Park. The play spaces will require play equipment, surfacing, boundary treatments, seating areas, planting and paving. Play equipment, surfacing, boundary treatments, seating areas, and planting will also be involved in the development of the trail. All associated works will also be included. This development was subject to an Appropriate Assessment Screening and an Environmental Impact Assessment. Located 3 km south-west of the proposed development.	There are no significant effects predicted to arise from the combination of this development with the proposed development.

APPENDIX C

EIA SCREENING CHECKLIST
(Source EIA of Projects Guidance on Scoping (Directive 2011/92/EU as amended y 2014/52/EU) (2017) European Commission

Questions to e Considered	es / No / Briefly Descri e	Is this likely to result in a significant effect es/No/ – Why
Brief Project Description: The Dodder Road Lower Upgrade intents to upgrade the conditions of the existing Dodder Road Lower. The proposal contains approximately 730m of a 5m wide shared path that will link the Dodder Greenway route on Springfield Ave – passing through Rathfarnham Rd–Springfield Ave junction – and the continuation of the Dodder Greenway Route within the South Dublin County Council boundaries. The proposed development is considered to be an "on road" section of the Dodder Greenway and its major proposed adjustment is to convert the Dodder Road Lower, currently a two-way system road, into a one-way system road to accommodate the proposed 5m wide shared path. The proposed one-way system layout has been designed considering recent traffic counts and predicted traffic increase for all junction surrounding the area of the proposed development.		
1. Will construction, operation or decommissioning of the Project involve actions which will cause physical changes in the locality (topography, land use, changes in waterbodies, etc)?	**es.** The proposed development will involve realignment of existing footpaths, cycle track and road.	**No.** The landscape will remain largely as per existing. The upgrade of lighting will reduce the ecological impacts of lighting on the River Dodder. Landscape planting will be incorporated sensitively into the proposed development.
2. Will construction or operation of the Project use natural resources such as land, water, materials or energy, especially any resources which are non-renewable or in short supply?	**es.** Concrete, hardcore (stone) and bituminous material will be required.	**No.** Relatively small amounts of material will be required and excavations will be limited.
3. Will the Project involve use, storage, transport, handling or production of substances or materials which could be harmful to human health or the environment or raise concerns about actual or perceived risks to human health?	**es.** Concrete, bitumen, oils, etc will be used during construction.	**No.** Best practice construction management techniques and guidance will be followed during the construction of the proposed Greenway. The quantity of materials required is limited.
4. Will the Project produce solid wastes during construction, operation or decommissioning?	**es.** Soil and hard material (existing pavements and concrete) may be removed to facilitate construction.	**No.** The quantity of solid waste which will be produced will be small given the nature and scale of the proposed works.
5. Will the Project release pollutants or any hazardous, toxic or noxious substances to air?	**es.** The construction phase will produce limited air pollutants.	**No.** Construction related activities and construction traffic levels are not anticipated to create air pollution that will exceed permitted thresholds. Best practice construction management techniques and guidance will be followed during the construction of the proposed Upgrade.

Questions to e Considered	es / No / Briefly Descri e	Is this likely to result in a significant effect es/No/ – Why
6. Will the Project cause noise and vibration or release of light, heat energy or electromagnetic radiation?	**es.** The construction phase will create limited noise and vibration. The operational phase will increase lighting in some areas, however as the Greenway will not be used by motorised vehicles except for limited day time use by maintenance vehicles, this will be a bat friendly design. There will be no heat energy or electromagnetic radiation associated with either stage of the proposed development.	**No.** The construction works proposed are limited and therefore not anticipated to create noise and vibration levels that will exceed permitted thresholds. Bat friendly lighting will ensure no impacts on commuting and foraging routes. During the operational phase the bat friendly lighting will provide a safer amenity for users.
7. Will the Project lead to risks of contamination of land or water from releases of pollutants onto the ground or into surface waters, groundwater, coastal waters or the sea?	**es.** The construction phases will have risk of pollutants entering surface and groundwaters however the operational phase will not.	**No.** The proposed Greenway development will be constructed in accordance with best practice guidelines which will ensure no release of contaminants into adjacent lands or waterbodies.
8. Will there be any risk of accidents during construction or operation of the Project which could affect human health or the environment?	**es.** The construction phase will have a risk of accidents leading to pollutants entering surface and groundwaters.	**No.** The proposed Greenway development will be constructed in accordance with best practice guidelines which will ensure no release of contaminants into adjacent lands or waterbodies.
9. Will the Project result in social changes, for example, in demography, traditional lifestyles, employment?	**es.** It is anticipated that the project will increase local employment and promote a healthier lifestyle.	**No.**
10. Are there any other factors which should be considered such as consequential development which could lead to environmental effects or the potential for cumulative impacts with other existing or planned activities in the locality?	**No.**	**No.** There is potential for additional cycle / leisure related businesses however any future applications will be required to be compliant with the relevant planning standards and policies.

Questions to e Considered	es / No / Briefly Descri e	Is this likely to result in a significant effect es/No/ – Why
11. Is the project located within or close to any areas which are protected under international or national or local legislation for their ecological, landscape, cultural or other value, which could be affected by the project?	Yes. The proposed development is located c. 5km downstream of the Dodder Valley proposed Natural Heritage Area (pNHA) and 10km upstream of the Dolphin, Dublin Docks pNHA and is in connected to three European Sites in Dublin Bay: North Dublin Bay SAC [000206] located approximately 12.5km downstream of the proposed development; South Dublin Bay and River Tolka Estuary SPA [Site code: 004024] located approximately 10km downstream of the proposed development at the ESB Dolphin; and, North Bull Island SPA [Site code: 004006] located approximately 12.5km downstream of the proposed development. There are a number of protected structures, NIAH listed properties and an ACA in the vicinity of the proposed development.	**No.** A Screening for Appropriate Assessment has been carried out and following a detailed analysis of the Project and the potential relationships with Natura 2000 Sites within the likely zone of impact, it was objectively concluded that there will be no likely significant effects on any Natura 2000 site(s) either alone or in-combination with other plans or projects. A detailed Ecological Impact Assessment has been undertaken which identified potential effects of the proposed development on ecology and proposed mitigation measures and habitat enhancement measures. There are no impacts whatsoever on the protected structures, NIAH listed properties and the ACA in the vicinity of the proposed development.
12. Are there any other areas on or around the location which are important or sensitive for reasons of their ecology e.g. wetlands, watercourses or other waterbodies, the coastal zone, mountains, forests or woodlands, which could be affected by the project?	**es.** The River Dodder itself is considered an important feeding and commuting pathway for protected mammals such as bats and otters and as a habitat for protected Flora and Fauna.	**No.** Detailed field surveys have been carried out to map and locate all sensitive features and the design has been developed to avoid these sites through realignment where feasible. The contractor will be required to prepare a Construction Environmental Management Plan (CEMP) to the satisfaction of the Client and ensure compliance with TII and IFI construction guidelines.

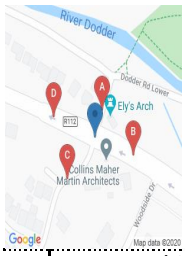
Questions to e Considered	es / No / Briefly Descri e	Is this likely to result in a significant effect es/No/ – Why
13. Are there any areas on or around the location which are used by protected, important or sensitive species of fauna or flora e.g. for breeding, nesting, foraging, resting, overwintering, migration, which could be affected by the project?	**es** The habitats within the corridor are suitable for use by species such as bats, badgers, otters, kingfisher and other bird species.	**No.** The proposed development is on the existing footpath, cycle track and roadway. There are no sensitive ecological features in this area.
14. Are there any inland, coastal, marine or underground waters (or features of the marine environment) on or around the location which could be affected by the project?	**es** The proposed project runs adjacent to the River Dodder.	**No.** The nature of the proposed Greenway development requires widening works to existing footpaths which limits the extent of works carried out. The proposed Greenway development will be constructed in accordance with best practice guidelines which will ensure no release of contaminants into adjacent lands or waterbodies.
15. Are there any areas or features of high landscape or scenic value on or around the location which could be affected by the project?	**No.** The proposed development is on the existing footpath, cycle track and roadway.	**N/A**
16. Are there any routes or facilities on or around the location which are used by the public for access to recreation or other facilities, which could be affected by the project?	**es.** The project will increase access to recreational facilities, particularly for pedestrians and cyclists. It will also connect a number of existing walking and cycling routes.	**No.**
17. Are there any transport routes on or around the location which are susceptible to congestion or which cause environmental problems, which could be affected by the project?	**es.** In the urban areas of the proposed Greenway, many of the adjacent roads are subject to congestion. The proposed one-way system layout has been designed considering recent traffic counts and predicted traffic increase for all junction surrounding the area of the proposed development. It is considered that the proposed development may reduce congestion to some extent through the improved cycle and pedestrian facilities encouraging a modal shift.	**No.**

Questions to e Considered	es / No / Briefly Descri e	Is this likely to result in a significant effect es/No/ – Why
18. Is the project in a location where it is likely to be highly visible to many people?	**es.**	**No.** The detailed design will be developed to fit with the receiving environment in consultation with the relevant Parks Department and Conservation Departments.
19. Are there any areas or features of historic or cultural importance on or around the location which could be affected by the project?	**es.** The entire Dodder corridor is considered to be a sensitive archaeological, architectural and cultural heritage resource. There are numerous features of interest located along or adjacent to the proposed route.	**No.** There are no Architectural Conservation Areas (ACA) or protected architectural features directly or indirectly affected by proposed development.
20. Is the project located in a previously undeveloped area where there will be loss of greenfield land?	**No.** The proposed development is on the existing footpath, cycle track and roadway.	**N/A**
21. Are there existing land uses on or around the location e.g. homes, gardens, other private property, industry, commerce, recreation, public open space, community facilities, agriculture, forestry, tourism, mining or quarrying which could be affected by the project?	**es** The project will involve the widening and realignment of existing footpath, cycle path and roadway in a residential area.	**No.** The proposed development will provide greater connectivity along the Dodder corridor. Indirect impacts during construction as a result of works will be temporary and not significant.
22. Are there any plans for future land uses on or around the location which could be affected by the project?	**No.**	**No.**
23. Are there any areas on or around the location which are densely populated or built-up, which could be affected by the project?	**es.** The project will involve the widening and realignment of existing footpath, cycle path and roadway in a residential area.	**No.** The proposed development will follow the existing footpath, cycle path and roadway. Indirect impacts during construction as a result of works will be temporary and not significant.
24. Are there any areas on or around the location which are occupied by sensitive land uses e.g. hospitals, schools, places of worship, community facilities, which could be affected by the project?	**es.** There are a number of sensitive land uses within the surrounding area including the High School, Terenure College, Mount Carmel Community Hospital and Our Lady's School .	**No.** The nature of the proposed Upgrade development requires realignment works to existing footpath, cycle path and roadway which limits the extent of works carried out. The proposed Greenway will provide improved access for pedestrians and cyclists to such facilities.

Questions to e Considered	es / No / Briefly Descri e	Is this likely to result in a significant effect es/No/ – Why
25. Are there any areas on or around the location which contain important, high quality or scarce resources e.g. groundwater, surface waters, forestry, agriculture, fisheries, tourism, minerals, which could be affected by the project?	**es.** The Dodder River is a sensitive watercourse.	**No.** The proposed development will be constructed in accordance with best practice guidelines which will ensure no release of contaminants into adjacent lands or waterbodies.
26. Are there any areas on or around the location which are already subject to pollution or environmental damage e.g. where existing legal environmental standards are exceeded, which could be affected by the project?	**es.** The River Dodder is classified under the Water Framework Directive (WFD) rating system as being 'at risk' of not achieving good status.	**No.** There are no in-stream works proposed as part of the proposed development. The proposed development will be constructed in accordance with best practice guidelines which will ensure no release of contaminants into River Dodder.
27. Is the project location susceptible to earthquakes, subsidence, landslides, erosion, flooding or extreme or adverse climatic conditions e.g. temperature inversions, fogs, severe winds, which could cause the project to present environmental problems?	**es.** The Lower River Dodder is known to flood historically, and a number of flood alleviation projects have been developed with works continuing up to the Lower Smurfit Weir.	**No.** The proposed development will have a neutral effect on flooding with no increase in hardstanding area. Runoff will generally discharge through the existing surface water drainage system as well as over the edge drainage.
Summary of features of Project and of its location indicating the need for EIA: No features of the proposed development or of its location indicate the need for an EIA.		

CHECKLIST OF CRITERIA FOR EVALUATING THE SIGNIFICANCE OF ENVIRONMENTAL IMPACTS		
Questions to e Considered	**es / No**	**Significant**
1. Will there be a large change in environmental conditions?	No	Not Significant
2. Will new features be out-of-scale with the existing environment?	No	Not Significant
3. Will the impact be unusual in the area or particularly complex?	No	Not Significant
4. Will the impact extend over a large area?	No	Not Significant
5. Will there be any potential for transboundary impact?	No	Not Significant
6. Will many people be affected?	No	Not Significant
7. Will many receptors of other types (fauna and flora, businesses, facilities) be affected?	No	Not Significant
8. Will valuable or scarce features or resources be affected?	No	Not Significant
9. Is there a risk that environmental standards will be breached?	No	Not Significant
10. Is there a risk that protected sites, areas, features will be affected?	No	Not Significant
11. Is there a high probability of the effect occurring?	No	Not Significant
12. Will the impact continue for a long time?	No	Not Significant
13. Will the effect be permanent rather than temporary?	No	Not Significant
14. Will the impact be continuous rather than intermittent?	No	Not Significant
15. If it is intermittent will it be frequent rather than rare?	n/a	n/a
16. Will the impact be irreversible?	n/a	n/a
17. Will it be difficult to avoid, or reduce or repair or compensate for the effect?	n/a	n/a

Appendix D – Traffic Survey Results



IDASO

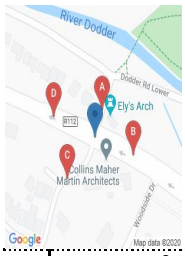
Survey Name: 135 20265 Dodder Rd Lower/ Dodder Park Rd

Site: Site

Location: Dodder Lower Road/R12 Braemor Road/Woodside/R112 Dodder park Road

Date: Thu 01-Oct-2020

	A => A										A => B										A => C										A => D									
TIME	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	1	0	11	0	1	1	0	0	14	13.7
07:15	0	0	0	0	0	0	0	0	0	0	2	0	0	1	0	0	0	0	3	1.4	0	0	0	0	0	0	0	0	0	0	0	0	12	1	2	0	0	0	15	15
07:30	0	0	0	0	0	0	0	0	0	0	1	0	3	0	1	0	0	0	5	4.2	0	0	0	0	0	0	0	0	0	0	0	0	16	1	2	0	0	0	19	19
07:45	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	24	0	0	0	0	0	24	24
H/TOT	0	0	0	0	0	0	0	0	0	0	3	0	5	1	1	0	0	0	10	7.6	0	0	1	0	0	0	0	0	1	1	1	0	63	2	5	1	0	0	72	71.7
08:00	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	4	2.4	0	0	0	0	0	0	0	0	0	0	0	0	30	1	2	0	0	0	33	33
08:15	0	0	0	0	0	0	0	0	0	0	2	0	5	0	0	0	0	0	7	5.4	0	0	3	0	0	0	0	0	3	3	0	0	44	0	2	0	1	0	47	48.3
08:30	0	0	0	0	0	0	0	0	0	0	1	0	13	0	1	0	0	0	15	14.2	1	0	2	0	0	0	0	0	3	2.2	1	0	61	3	1	3	0	0	69	69.7
08:45	0	0	0	0	0	0	0	0	0	0	0	0	12	0	3	0	0	0	15	15	0	0	1	0	0	0	0	0	1	1	0	0	38	2	1	0	0	0	41	41
H/TOT	0	0	0	0	0	0	0	0	0	0	5	0	32	0	4	0	0	0	41	37	1	0	6	0	0	0	0	0	7	6.2	1	0	173	6	6	3	1	0	190	192
09:00	0	0	0	0	0	0	0	0	0	0	2	0	7	0	0	0	0	0	9	7.4	1	0	0	0	0	0	0	0	1	0.2	0	0	32	0	2	1	1	0	36	37.8
09:15	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	2	2	1	0	0	0	0	0	0	0	1	0.2	2	0	26	1	4	0	0	0	33	31.4
09:30	0	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	0	6	3.6	0	0	0	0	0	0	0	0	0	0	1	0	13	0	2	0	0	0	16	15.2
09:45	0	0	0	0	0	0	0	0	0	0	0	0	4	1	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0	0	0	22	0	3	0	0	0	25	25
H/TOT	0	0	0	0	0	0	0	0	0	0	5	0	15	2	0	0	0	0	22	18	2	0	0	0	0	0	0	0	2	0.4	3	0	93	1	11	1	1	0	110	109.4
10:00	0	0	0	0	0	0	0	0	0	0	1	0	3	0	0	0	0	0	4	3.2	0	0	1	0	0	0	0	0	1	1	0	1	21	0	6	1	2	0	31	33.5
10:15	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	31	0	3	1	0	0	35	35.5
10:30	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	6	7.5	0	0	0	0	0	0	0	0	0	0	2	1	30	0	1	0	0	0	34	31.8
10:45	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	22	0	3	2	0	0	27	28
H/TOT	0	0	0	0	0	0	0	0	0	0	1	0	11	0	0	3	0	0	15	15.7	0	0	1	0	0	0	0	0	1	1	2	2	104	0	13	4	2	0	127	128.8
11:00	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	6	6	0	0	1	0	0	0	0	0	1	1	0	0	29	0	6	0	0	0	35	35
11:15	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	4	4	1	0	0	0	0	0	0	0	1	0.2	0	0	26	0	1	1	1	0	29	30.8
11:30	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	4	2.4	0	0	1	0	0	0	0	0	1	1	0	1	26	2	8	0	0	0	37	36.4
11:45	0	0	0	0	0	0	0	0	0	0	0	0	5	1	2	0	0	0	8	8	0	0	0	0	0	0	0	0	0	0	1	0	31	0	3	1	0	0	36	35.7
H/TOT	0	0	0	0	0	0	0	0	0	0	2	0	17	1	2	0	0	0	22	20.4	1	0	2	0	0	0	0	0	3	2.2	1	1	112	2	18	2	1	0	137	137.9
12:00	0	0	0	0	0	0	0	0	0	0	2	0	8	0	1	0	0	0	11	9.4	0	0	0	0	0	0	0	0	0	0	2	1	24	2	3	0	0	0	32	29.8
12:15	0	0	0	0	0	0	0	0	0	0	3	0	9	0	0	0	0	0	12	9.6	0	0	1	0	0	0	0	0	1	1	0	0	28	1	5	0	0	0	34	34
12:30	0	0	0	0	0	0	0	0	0	0	1	0	4	0	0	0	0	0	5	4.2	1	0	2	0	0	0	0	0	3	2.2	2	1	31	1	2	2	0	0	39	37.8
12:45	0	0	0	0	0	0	0	0	0	0	2	0	4	0	0	1	0	0	7	5.9	0	0	0	0	1	0	0	0	1	1	0	0	30	2	8	1	0	0	41	41.5
H/TOT	0	0	0	0	0	0	0	0	0	0	8	0	25	0	1	1	0	0	35	29.1	1	0	3	0	1	0	0	0	5	4.2	4	2	113	6	18	3	0	0	146	143.1
13:00	0	0	0	0	0	0	0	0	0	0	0	0	8	0	1	0	0	0	9	9	0	0	1	0	0	0	0	0	1	1	1	0	30	0	7	1	0	0	39	38.7
13:15	0	0	0	0	0	0	0	0	0	0	1	0	9	0	1	0	0	0	11	10.2	0	0	0	0	0	0	0	0	0	0	0	0	36	2	7	5	1	0	51	54.8
13:30	0	0	0	0	0	0	0	0	0	0	1	0	8	0	0	0	0	0	9	8.2	2	0	3	0	0	0	0	0	5	3.4	0	1	39	1	5	0	0	0	46	45.4
13:45	0	0	0	0	0	0	0	0	0	0	1	0	2	1	0	1	0	0	5	4.7	2	0	0	0	0	0	0	0	2	0.4	1	0	40	2	4	0	0	0	47	46.2
H/TOT	0	0	0	0	0	0	0	0	0	0	3	0	27	1	2	1	0	0	34	32.1	4	0	4	0	0	0	0	0	8	4.8	2	1	145	5	23	6	1	0	183	185.1
14:00	0	0	0	0	0	0	0	0	0	0	0	0	8	0	1	0	0	0	9	9	0	0	0	0	0	0	0	0	0	0	2	1	37	0	7	1	0	0	48	46.3
14:15	0	0	0	0	0	0	0	0	0	0	2	0	5	0	1	0	0	0	8	6.4	2	0	1	0	0	0	0	0	3	1.4	1	1	44	2	8	1	0	0	57	56.1
14:30	0	0	0	0	0	0	0	0	0	0	6	0	10	1	1	0	0	0	18	13.2	1	0	0	0	0	0	0	0	1	0.2	0	1	42	1	10	5	0	0	59	60.9
14:45	0	0	0	0	0	0	0	0	0	0	4	0	6	1	1	0	0	0	12	8.8	1	0	1	0	0	0	0	0	2	1.2	1	1	32	1	6	2	0	0	43	42.6
H/TOT	0	0	0	0	0	0	0	0	0	0	12	0	29	2	4	0	0	0	47	37.4	4	0	2	0	0	0	0	0	6	2.8	4	4	155	4	31	9	0	0	207	205.9
15:00	0	0	0	0	0	0	0	0	0	0	0	0	11	0	0	0	0	0	11	11	0	0	3	0	0	0	0	0	3	3	0	0	47	2	11	4	0	0	64	66
15:15	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	6	6	0	0	0	0	0	0	0	0	0	0	0	0	59	0	9	0	0	0	68	68
15:30	0	0	0	0	0	0	0	0	0	0	3	1	4	0	0	0	0	0	8	5	0	0	3	0	0	0	0	0	3	3	1	0	45	1	10	2	0	0	59	59.2
15:45	0	0	0	0	0	0	0	0	0	0	2	0	12	0	0	0	0	0	14	12.4	1	0	2	0	0	0	0	0	3	2.2	0	0	62	1	10	1	1	0	75	76.8
H/TOT	0	0	0	0	0	0	0	0	0	0	5	1	33	0	0	0	0	0	39	34.4	1	0	8	0	0	0	0	0	9	8.2	1	0	213	4	40	7	1	0	266	270
16:00	0	0	0	0	0	0	0	0	0	0	7	0	5	0	0	0	0	0	12	6.4	0	0	3	0	0	0	0	0	3	3	1	0	54	0	10	1	0	0	66	65.7
16:15	0	0	0	0	0	0	0	0	0	0	1	0	5	1	0	0	0	0	7	6.2	0	0	1	0	0	0	0	0	1	1	1	0	63	0	22	2	0	0	88	88.2
16:30	0	0	0	0	0	0	0	0	0	0	2	0	9	1	0	0	0	0	12	10.4	0	0	3	0	0	0	0	0	3	3	1	1	58	0	18	2	1	0	81	81.9
16:45	0	0	0	0	0	0	0	0	0	0	1	0	7	0	0	0	0	0	8	7.2	2	0	1	0	0	0	0	0	3	1.4	2	1	50	2	6	0	0	0	61	58.8
H/TOT	0	0	0	0	0	0	0	0	0	0	11	0	26	2	0	0	0	0	39	30.2	2	0	8	0	0	0	0	0	10	8.4	5	2	225	2	56	5	1	0	296	294.6
17:00	0	0	0	0	0	0	0	0	0	0	1	0	10	0	0	0	0	0	11	10.7	0	0	1	0	0	0	0	0	1	1	3	0	81	1	11	2	0	0	98	96.6
17:15	0	0	0	0	0	0	0	0	0	0	4	0	10	0	0	0	0	0	14	10.8	0	0	2	0	0	0	0	0	2	2	4	0	69	0	8	0	0	0	81	77.8
17:30	0	0	0	0	0	0	0	0	0	0	6	0	7	0	0	0	0	0	13	8.2	0	0	3	0	0	0	0	0	3	3	0	0	58	2	7	1	0	0	68	68.5
17:45	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	4	2.4	2	0	2	0	0	0	0	0	4	2.4	2	1	34	4	13	0	0	0	54	51.8
H/TOT	0	0	0	0	0	0	0	0	0	0	13	0	29	0	0	0	0	0	42	31.9	2	0	8	0	0	0	0	0	10	8.4	9	1	242	7	39	3	0	0	301	294.7
18:00	0	0	0	0	0	0	0	0	0	0	1	0	3	0	0	0	0	0	4	3.2	0	0	2	1	0	0	0	0	3	3	2	0	72	3	8	1	0	0	86	84.9
18:15	0	0	0	0	0	0	0	0	0	0	2	0	6	0	0	0	0	0	8	6.4	1	0	0	0	0	0	0	0	1	0.2	0	1	51	0	7	0	0	1	60	60.4
18:30	0	0	0	0	0	0	0	0	0	0	8	0	3	0	1	0	0	0	12	5.6	0	0	4	0	0	0	0	0	4	4	2	0	57	0	2	0	0	0	61	59.4
18:45	0	0	0	0	0	0	0	0	0	0	1	0	8	0	0	0	0	0	9	8.2	2	0	4	0	0	0	0	0	6	4.4	0	0	16	0	4	0	0	0	20	20
H/TOT	0	0	0	0	0	0	0	0	0	0	12	0	20	0	1	0	0	0	33	23.4	3	0	10	1	0	0	0	0	14	11.6	4	1	196	3	21	1	0	1	227	224.7
12 TOT	0	0	0	0	0	0	0	0	0	0	80	1	269	9	15	5	0	0	379	316.9	21	0	53	1	1	0	0	0	76	59.2	37	14	1834	42	281	45	8	1	2262	2258



IDASO

Survey Name: 135 20265 Dodder Rd Lower/ Dodder Park Rd

Site: Site

Location: Dodder Lower Road/R12 Braemor Road/Woodside/R112 Dodder park Road

Date: Thu 01-Oct-2020

	B => A										B => B										B => C										B => D									
TIME	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
07:00	1	0	0	0	0	0	0	0	1	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	32	1	5	0	0	0	40	38.4
07:15	1	0	1	0	0	0	0	0	2	1.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1	44	2	4	1	0	0	56	52.7
07:30	1	0	1	0	0	0	0	0	2	1.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	5	2	70	3	5	2	0	0	87	82.8
07:45	4	0	4	0	0	0	0	0	8	4.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	84	2	4	1	0	1	96	94.3
H/TOT	7	0	6	0	0	0	0	0	13	7.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	15	3	230	8	18	4	0	1	279	268.2
08:00	10	0	2	0	0	0	0	0	12	4	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	2	4	2	87	0	7	3	0	2	105	104.1
08:15	8	0	11	0	1	0	0	0	20	13.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	3	67	2	5	0	0	0	81	76
08:30	6	0	13	0	0	0	0	0	19	14.2	0	0	0	0	0	0	0	0	0	0	1	0	2	0	0	0	0	0	3	2.2	4	1	79	6	8	0	0	0	98	94.2
08:45	6	0	7	0	0	0	0	0	13	8.2	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	2	6	0	71	2	3	3	0	0	85	81.7
H/TOT	30	0	33	0	1	0	0	0	64	40	0	0	0	0	0	0	0	0	0	0	1	0	6	0	0	0	0	0	7	6.2	18	6	304	10	23	6	0	2	369	356
09:00	2	0	7	0	0	0	0	0	9	7.4	0	0	0	0	0	0	0	0	0	0	1	0	3	0	0	0	0	0	4	3.2	2	0	69	4	8	2	0	0	85	84.4
09:15	0	0	5	0	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3	3	3	0	68	1	11	0	2	0	85	85.2
09:30	2	0	1	0	1	0	0	0	4	2.4	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0.2	2	0	51	2	4	1	0	0	60	58.9
09:45	1	0	3	2	0	0	0	0	6	5.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	41	2	9	0	0	0	53	52.2
H/TOT	5	0	16	2	1	0	0	0	24	20	0	0	0	0	0	0	0	0	0	0	2	0	6	0	0	0	0	0	8	6.4	8	0	229	9	32	3	2	0	283	280.7
10:00	1	0	4	0	0	0	0	0	5	4.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	40	4	9	4	1	1	62	64.1
10:15	0	0	6	1	0	0	0	0	7	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	55	3	9	4	0	0	73	73.4
10:30	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	2	1	77	4	8	0	1	0	93	92.1
10:45	0	0	2	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	1	0	0	3	3.5	4	0	70	2	7	5	0	0	88	87.3
H/TOT	1	0	13	1	0	0	0	0	15	14.2	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	1	0	0	4	4.5	10	2	242	13	33	13	2	1	316	316.9
11:00	2	0	6	0	0	0	0	0	8	6.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	64	2	8	2	0	0	78	77.4
11:15	2	0	7	0	0	0	0	0	9	7.4	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	1	1	59	0	6	3	0	0	70	70.1
11:30	1	0	9	0	1	0	0	0	11	10.7	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	6	6	2	1	84	3	8	2	1	0	101	101.1
11:45	1	0	3	0	1	0	0	0	5	4.2	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	2	3	0	85	1	17	1	0	0	107	105.1
H/TOT	6	0	25	0	1	1	0	0	33	28.7	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	9	9	8	2	292	6	39	8	1	0	356	353.7
12:00	0	0	7	0	0	0	0	0	7	7	0	0	0	0	0	0	0	0	0	0	0	0	5	1	0	0	0	0	6	6	2	0	71	3	8	2	0	0	86	85.4
12:15	0	0	5	0	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3	3	1	1	72	2	6	4	0	0	86	86.6
12:30	0	0	5	0	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0	1	0	2	0	0	0	0	0	3	2.2	3	0	84	5	8	3	1	0	104	104.4
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H/TOT	1	0	20	1	0	0	0	0	22	21.2	0	0	0	0	0	0	0	0	0	0	1	0	12	1	0	0	0	0	14	13.2	8	2	303	11	28	14	1	0	367	367.7
13:00	1	0	14	0	0	0	0	0	15	14.2	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1	0	0	0	3	3	3	0	85	3	14	3	0	0	108	107.1
13:15	0	0	5	0	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	5	5	2	0	77	1	6	2	0	0	88	87.4
13:30	1	0	8	0	1	0	0	0	10	9.2	0	0	0	0	0	0	0	0	0	0	1	0	4	0	0	0	0	0	5	4.2	2	0	86	2	11	1	0	0	102	100.9
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H/TOT	3	0	35	0	1	0	0	0	39	36.6	0	0	0	0	0	0	0	0	0	0	1	0	11	0	2	0	0	0	14	13.2	9	1	344	7	36	6	0	1	404	400.2
14:00	0	1	5	0	0	1	0	0	7	6.9	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1	0	0	0	3	3	2	1	80	3	7	1	1	0	95	94.6
14:15	0	0	6	0	3	0	0	0	9	9	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	4	4	2	1	78	2	10	0	0	0	93	90.8
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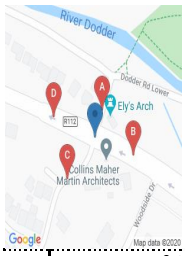
14:45	1	0	5	0	1	0	0	0	7	6.2	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	2	2	1	77	1	8	2	0	0	91	89.8
H/TOT	1	1	21	0	4	1	0	0	28	27.1	0	0	0	0	0	0	0	0	0	0	1	0	10	0	2	0	0	0	13	12.2	9	5	329	8	32	6	1	0	390	384.1
15:00	0	1	3	1	0	0	0	0	5	4.4	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3	3	3	2	89	2	5	2	0	0	103	100.4
15:15	4	0	6	1	0	0	0	0	11	7.8	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	4	4	5	1	111	3	8	1	0	0	129	124.9
15:30	2	0	5	0	0	0	0	0	7	5.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	2	105	3	9	1	0	0	123	119.9
15:45	1	0	7	0	0	0	0	0	8	7.2	0	0	0	0	0	0	0	0	0	0	1	0	4	0	0	0	0	0	5	4.2	9	0	100	3	18	0	0	0	130	122.8
H/TOT	7	1	21	2	0	0	0	0	31	24.8	0	0	0	0	0	0	0	0	0	0	1	0	11	0	0	0	0	0	12	11.2	20	5	405	11	40	4	0	0	485	468
16:00	3	0	9	0	0	1	0	0	13	11.1	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	4	4	3	0	106	0	13	6	0	0	128	128.6
16:15	3	0	10	0	2	0	0	0	15	12.6	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	5	5	4	0	116	1	13	1	0	0	135	132.3
16:30	1	0	10	0	1	0	0	0	12	11.7	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	4	4.4	4	0	109	4	15	0	0	0	132	128.8
16:45	0	0	7	0	0	0	0	0	7	7	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	2	4	0	80	1	9	0	0	0	94	90.8
H/TOT	7	0	36	0	2	2	0	0	47	42.4	0	0	0	0	0	0	0	0	0	0	0	1	15	0	0	0	0	0	16	15.4	15	0	411	6	50	7	0	0	489	480.5
17:00	0	0	9	0	0	0	0	0	9	9	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0	7	7	6	2	87	1	10	0	0	0	106	100
17:15	0	0	8	0	0	0	0	0	8	8	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0	7	7	4	0	114	2	9	3	0	0	132	130.3
17:30	0	0	3	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	5	5	6	3	96	3	12	0	0	0	120	113.4
17:45	0	0	7	0	0	0	0	0	7	7	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	2	14	1	107	3	2	0	0	0	127	115.2
H/TOT	0	0	27	0	0	0	0	0	27	27	0	0	0	0	0	0	0	0	0	0	0	0	21	0	0	0	0	0	21	21	30	6	404	9	33	3	0	0	485	458.5
18:00	2	0	8	0	0	0	0	0	10	8.4	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3	3	7	0	85	3	5	0	0	0	100	94.4
18:15	3	0	6	0	0	0	0	0	9	6.6	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	5	5	9	1	101	1	11	0	0	0	123	115.2
18:30	0	0	7	0	0	0	0	0	7	7	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	6	6	1	0	77	0	6	2	0	0	86	86.2
18:45	0	0	5	0	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	2	2	0	89	2	4	0	0	0	97	95.4
H/TOT	5	0	26	0	0	0	0	0	31	27	0	0	0	0	0	0	0	0	0	0	0	0	16	0	0	0	0	0	16	16	19	1	352	6	26	2	0	0	406	391.2
12 TOT	73	2	279	6	10	4	0	0	374	316.4	0	0	0	0	0	0	0	0	0	0	7	1	120	1	5	1	0	0	135	129.3	169	33	3845	104	390	76	7	5	4629	4526



IDASO

Survey Name: 135 20265 Dodder Rd Lower/ Dodder Park Rd

Site: Site

Location: Dodder Lower Road/R12 Braemor Road/Woodside/R112 Dodder park Road

Date: Thu 01-Oct-2020

TIME	C => A										C => B										C => C										C => D									
	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	2	2
07:15	1	0	2	0	0	0	0	0	3	2.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30	0	0	4	0	0	0	0	0	4	4	4	0	4	0	0	0	0	0	8	4.8	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1
07:45	0	0	4	0	0	0	0	0	4	4	0	0	4	0	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1	0	0	0	3	3
H/TOT	1	0	10	0	0	0	0	0	11	10.2	4	0	8	0	0	0	0	0	12	8.8	0	0	0	0	0	0	0	0	0	0	0	0	4	0	2	0	0	0	6	6
08:00	1	0	7	0	0	0	0	0	8	7.2	0	0	4	0	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1	0	0	0	3	3
08:15	1	0	2	0	0	0	0	0	3	2.2	2	0	4	0	0	0	0	0	6	4.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30	0	0	4	0	0	0	0	0	4	4	1	0	4	0	0	0	0	0	5	4.2	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	4	4
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H/TOT	2	0	14	0	0	0	0	0	16	14.4	3	0	17	0	0	0	0	0	20	17.6	0	0	0	0	0	0	0	0	0	0	0	0	2	0	11	0	1	0	14	12.4
09:00	0	0	3	0	0	0	0	0	3	3	0	0	2	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	4	0	1	0	0	0	5	1.8
09:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
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H/TOT	0	0	5	0	0	0	0	0	5	5	0	0	4	0	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	0	4	0	2	0	0	0	7	3.8
10:00	1	0	0	0	0	0	0	0	1	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1
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H/TOT	1	0	0	0	0	0	0	0	1	0.2	0	0	6	0	0	0	0	0	6	6	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	5	5
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H/TOT	2	0	2	0	0	0	0	0	4	2.4	1	0	7	0	1	1	0	0	10	9.7	0	0	0	0	0	0	0	0	0	0	1	0	5	0	0	0	0	0	6	5.2
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H/TOT	0	0	5	1	0	0	0	0	6	6	1	0	8	0	1	0	0	0	10	9.2	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0	7	7
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H/TOT	1	0	4	0	1	0	0	0	6	5.2	1	0	10	0	2	0	0	0	13	12.2	0	0	0	0	0	0	0	0	0	0	1	0	5	0	0	0	0	0	6	5.2
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H/TOT	1	0	7	0	0	0	0	0	8	7.2	1	0	13	0	3	0	0	0	17	16.2	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	2
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H/TOT	0	0	7	0	0	0	0	0	7	7	0	0	9	0	0	0	0	0	9	9	0	0	0	0	0	0	0	0	0	0	0	0	5	0	1	0	0	0	6	6
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H/TOT	1	0	2	0	0	0	0	0	3	2.2	0	0	9	0	0	0	0	0	9	9	0	0	0	0	0	0	0	0	0	0	0	0	1	9	0	0	0	0	10	9.4
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H/TOT	1	0	3	0	0	0	0	0	4	3.2	1	0	10	0	2	0	0	0	13	12.2	0	0	0	0	0	0	0	0	0	0	0	0	1	9	0	0	0	0	10	9
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18:30	1	0	2	0	0	0	0	0	3	2.2	0	0	3	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
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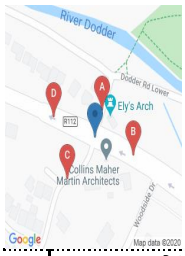
H/TOT	2	0	3	1	0	0	0	0	6	4.4	1	0	9	0	1	0	0	0	11	10.2	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	6	6
12 TOT	12	0	62	2	1	0	0	0	77	67.4	13	0	110	0	10	1	0	0	134	124.1	0	0	0	0	0	0	0	0	0	0	8	1	71	0	4	0	0	0	84	77



IDASO

Survey Name: 135 20265 Dodder Rd Lower/ Dodder Park Rd

Site: Site

Location: Dodder Lower Road/R12 Braemor Road/Woodside/R112 Dodder park Road

Date: Thu 01-Oct-2020

	D => A										D => B										D => C										D => D									
TIME	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
07:00	0	0	37	0	5	0	0	0	42	42	3	0	55	0	9	1	0	0	68	66.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15	1	0	29	0	5	0	0	0	35	34.2	3	0	60	0	13	3	0	0	79	78.1	0	0	2	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0
07:30	2	0	43	0	8	3	1	0	57	58.2	5	0	93	1	15	1	0	0	115	111.5	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
07:45	1	1	66	0	10	1	1	0	80	80.4	6	0	80	3	20	1	0	0	110	105.7	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
H/TOT	4	1	175	0	28	4	2	0	214	214.8	17	0	288	4	57	6	0	0	372	361.4	0	0	3	0	1	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0
08:00	1	0	48	0	7	2	0	0	58	58.2	3	2	67	2	12	0	1	0	87	84.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15	1	0	32	0	5	1	0	0	39	38.7	4	2	67	2	7	0	0	0	82	77.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30	2	1	37	0	6	1	0	0	47	45.3	2	1	86	3	11	1	0	0	104	102.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45	2	0	36	0	7	1	0	0	46	44.9	8	1	84	3	12	2	1	0	111	106.3	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
H/TOT	6	1	153	0	25	5	0	0	190	187.1	17	6	304	10	42	3	2	0	384	370.9	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
09:00	2	2	28	1	8	1	0	0	42	39.7	4	2	82	4	11	2	0	0	105	101.8	0	0	2	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0
09:15	0	0	26	0	8	0	0	0	34	34	6	0	86	3	8	3	0	0	106	102.7	0	0	3	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0
09:30	0	0	43	0	2	1	1	0	47	48.8	2	0	70	3	8	0	0	0	83	81.4	0	0	3	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0
09:45	1	0	30	1	3	2	1	0	38	39.5	3	0	73	4	10	3	1	0	94	94.4	0	0	2	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0
H/TOT	3	2	127	2	21	4	2	0	161	162	15	2	311	14	37	8	1	0	388	380	0	0	10	0	0	0	0	0	10	10	0	0	0	0	0	0	0	0	0	0
10:00	0	0	17	0	3	1	0	0	21	21.5	1	0	64	2	10	3	0	0	80	80.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15	0	0	26	1	2	0	0	0	29	29	3	1	79	0	8	2	0	0	93	91	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
10:30	2	0	18	0	3	0	0	0	23	21.4	3	1	91	1	11	3	0	0	110	108.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45	1	0	25	0	4	1	0	0	31	30.7	5	1	67	5	4	2	0	0	84	80.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	3	0	86	1	12	2	0	0	104	102.6	12	3	301	8	33	10	0	0	367	360.6	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
11:00	2	0	13	0	5	0	1	0	21	20.7	4	2	68	1	13	3	0	0	91	88.1	1	0	1	0	1	0	0	0	3	2.2	0	0	0	0	0	0	0	0	0	0
11:15	1	0	22	1	5	0	0	0	29	28.2	1	1	76	3	7	3	0	0	91	91.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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11:45	0	0	13	0	4	1	0	0	18	18.5	3	0	88	6	10	1	0	0	108	106.1	0	0	2	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0
H/TOT	3	0	71	1	18	2	1	0	96	95.9	10	5	299	13	37	9	1	0	374	368.8	1	0	3	0	1	0	0	0	5	4.2	0	0	0	0	0	0	0	0	0	0
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H/TOT	3	2	97	3	15	4	0	0	123	122	8	5	349	13	44	6	0	0	425	418.7	0	0	4	0	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0
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13:15	1	0	17	1	2	1	0	0	22	21.7	6	0	78	4	13	1	0	0	102	97.7	1	0	0	0	0	0	0	0	1	0.2	0	0	0	0	0	0	0	0	0	0
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H/TOT	3	0	98	2	14	2	0	0	119	117.6	16	3	325	7	35	6	0	0	392	380.4	1	0	3	0	2	0	0	0	6	5.2	0	0	0	0	0	0	0	0	0	0
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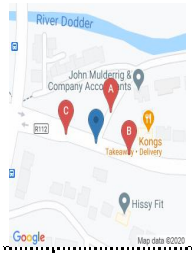
H/TOT	2	0	96	2	8	2	0	0	110	109.4	17	2	360	5	32	5	0	1	422	410	0	0	7	0	1	0	0	0	8	8	0	0	0	0	0	0	0	0	0	0
15:00	0	0	34	1	2	0	0	0	37	37	3	0	99	2	11	1	0	1	117	116.1	0	0	2	0	2	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0
15:15	0	0	12	1	3	0	0	1	17	18	0	0	82	2	8	0	0	0	92	92	0	0	2	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0
15:30	1	0	21	0	1	0	0	0	23	22.2	4	0	99	2	10	3	0	1	119	118.3	0	0	2	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0
15:45	1	0	19	0	2	0	0	0	22	21.2	4	0	76	2	8	1	0	0	91	88.3	0	0	2	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0
H/TOT	2	0	86	2	8	0	0	1	99	98.4	11	0	356	8	37	5	0	2	419	414.7	0	0	8	0	2	0	0	0	10	10	0	0	0	0	0	0	0	0	0	0
16:00	0	0	23	0	0	0	0	0	23	23	2	1	97	1	6	0	0	0	107	104.8	0	0	4	0	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0
16:15	0	1	26	0	0	1	0	0	28	27.9	0	0	69	3	9	1	0	1	83	84.5	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
16:30	2	0	23	0	3	0	0	0	28	26.4	4	3	115	3	7	1	0	1	134	130.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45	0	0	19	0	0	0	0	0	19	19	6	0	82	4	5	0	0	0	97	92.2	0	0	2	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0
H/TOT	2	1	91	0	3	1	0	0	98	96.3	12	4	363	11	27	2	0	2	421	412	0	0	7	0	0	0	0	0	7	7	0	0	0	0	0	0	0	0	0	0
17:00	0	0	21	0	0	0	0	0	21	21	6	1	82	2	3	1	0	0	95	90.1	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
17:15	0	0	16	0	1	0	0	0	17	17	6	0	97	3	1	1	0	0	108	103.7	0	0	3	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0
17:30	0	0	20	0	2	0	0	0	22	22	4	0	101	1	4	1	0	0	111	108.3	0	0	2	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0
17:45	0	0	21	0	0	0	0	0	21	21	3	1	94	1	3	0	0	0	102	99	0	0	2	0	1	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	78	0	3	0	0	0	81	81	19	2	374	7	11	3	0	0	416	401	0	0	8	0	1	0	0	0	9	9	0	0	0	0	0	0	0	0	0	0
18:00	1	0	24	1	2	0	0	0	28	27.2	8	2	82	1	6	1	0	0	100	92.9	1	0	4	0	0	0	0	0	5	4.2	0	0	0	0	0	0	0	0	0	0
18:15	0	0	30	1	1	0	0	0	32	32	4	1	106	1	5	0	0	0	117	113.2	0	0	2	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0
18:30	0	0	17	0	1	0	0	0	18	18	1	1	83	2	4	0	0	0	91	89.6	0	0	2	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0
18:45	2	0	19	1	0	0	0	0	22	20.4	4	1	73	2	1	0	0	0	81	77.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	3	0	90	3	4	0	0	0	100	97.6	17	5	344	6	16	1	0	0	389	372.9	1	0	8	0	0	0	0	0	9	8.2	0	0	0	0	0	0	0	0	0	0
12 TOT	34	6	1248	16	159	26	5	1	1495	1485	171	37	3974	106	408	64	4	5	4769	4652	3	0	62	1	8	0	0	0	74	71.6	0	0	0	0	0	0	0	0	0	0



IDASO

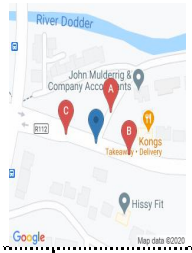
Survey Name: 135 20265 Dodder Rd Lower/ Dodder Park Rd

Site: Site 2

Location: Dodder Park Drive/R112 Dodder Park Road/R112 Dodder Park Road

Date: Thu 01-Oct-2020

	A => A										A => B										A => C									
TIME	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1
07:15	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	0	0	3	1	2	0	0	0	6	6
07:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1
07:45	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	2	0	0	5	1	2	0	0	0	8	8
08:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	9	9
08:15	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	2	1.2	2	0	6	0	1	0	0	0	9	7.4
08:30	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	4	4	0	1	7	0	1	0	0	0	9	8.4
08:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	1	0	0	0	9	9
H/TOT	0	0	0	0	0	0	0	0	0	0	1	0	5	0	0	0	0	0	6	5.2	2	1	30	0	3	0	0	0	36	33.8
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3	3
09:15	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	0	0	7	0	0	0	0	0	7	7
09:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0	7	7
09:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1	0	0	0	0	6	6
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	0	0	22	1	0	0	0	0	23	23
10:00	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0.2	0	0	3	0	2	0	0	0	5	5
10:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	6	0	0	0	0	0	8	6.4
10:30	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	2	0	0	5	0	2	0	0	0	7	7
10:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	4	2.4
H/TOT	0	0	0	0	0	0	0	0	0	0	1	0	2	0	0	0	0	0	3	2.2	4	0	16	0	4	0	0	0	24	20.8
11:00	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	2	1.2	0	0	5	0	0	0	0	0	5	5
11:15	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	2	1.2	0	0	8	0	1	0	0	0	9	9
11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	4	4
11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	4	4
H/TOT	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	4	2.4	0	0	21	0	1	0	0	0	22	22
12:00	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	0	0	3	0	1	0	0	0	4	4
12:15	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	0	0	8	0	0	0	0	0	8	8
12:30	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3	3	1	0	10	0	0	0	0	0	11	10.2
12:45	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	2	0	0	5	1	1	0	0	0	7	7
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0	7	7	1	0	26	1	2	0	0	0	30	29.2
13:00	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	2	0	0	7	0	1	0	0	0	8	8
13:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	9	0	0	0	0	0	10	9.2
13:30	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3	3	0	0	8	0	1	0	0	0	9	9
13:45	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	0	0	3	2.2	0	1	9	0	0	0	0	0	10	9.4
H/TOT	0	0	0	0	0	0	0	0	0	0	1	0	6	0	1	0	0	0	8	7.2	1	1	33	0	2	0	0	0	37	35.6
14:00	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	0	0	3	2.2	1	0	10	1	0	0	0	0	12	11.2
14:15	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	2	1.2	0	0	2	0	0	0	0	0	2	2
14:30	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	2	1.4	0	0	6	0	1	0	0	0	7	7
14:45	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3	3	0	0	8	0	0	0	0	0	8	8
H/TOT	0	0	0	0	0	0	0	0	0	0	2	1	6	0	1	0	0	0	10	7.8	1	0	26	1	1	0	0	0	29	28.2
15:00	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3	3	0	0	8	0	2	0	0	0	10	10
15:15	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	0	0	3	0	1	0	0	0	4	4
15:30	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	1	1	6	0	6	0	0	0	14	12.6
15:45	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1	0	0	0	3	3	0	0	8	0	0	0	0	0	8	8
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	7	0	1	0	0	0	8	8	1	1	25	0	9	0	0	0	36	34.6
16:00	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	2	0	1	18	0	2	0	0	0	21	20.4
16:15	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	2	1	0	23	0	1	0	0	0	25	24.2
16:30	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	2	2.5	1	0	24	0	1	0	0	0	26	25.2
16:45	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	2	0	0	14	0	2	0	0	0	16	16
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	1	0	0	8	8.5	2	1	79	0	6	0	0	0	88	85.8
17:00	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	0	0	11	0	2	0	0	0	13	13
17:15	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	2	1	0	14	0	0	0	0	0	15	14.2
17:30	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	1	0	6	0	1	0	0	0	8	7.2
17:45	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	0	1	8	1	1	0	0	0	11	10.4
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	5	5	2	1	39	1	4	0	0	0	47	44.8
18:00	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	2	1	0	9	0	0	0	0	0	10	9.2
18:15	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	2	2	0	0	8	0	1	0	0	0	9	9
18:30	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	2	0	0	14	0	0	0	0	0	14	14
18:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3	3
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	5	0	1	0	0	0	6	5	1	0	34	0	1	0	0	0	36	35.2
12 TOT	0	0	0	0	0	0	0	0	0	0	7	1	55	0	4	1	0	0	68	62.3	15	5	356	5	35	0	0	0	416	401



IDASO

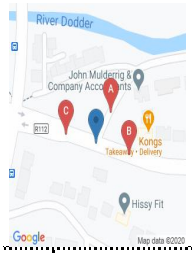
Survey Name: 135 20265 Dodder Rd Lower/ Dodder Park Rd

Site: Site 2

Location: Dodder Park Drive/R112 Dodder Park Road/R112 Dodder Park Road

Date: Thu 01-Oct-2020

	B => A										B => B										B => C									
TIME	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	45	3	6	1	0	0	58	56.1
07:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1	58	3	9	1	0	0	77	72.9
07:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	2	94	3	8	2	0	0	114	109.8
07:45	0	0	1	0	1	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	5	0	105	1	5	1	0	1	118	115.5
H/TOT	0	0	1	0	1	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	18	3	302	10	28	5	0	1	367	354.3
08:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	2	134	1	11	3	0	2	159	156.5
08:15	0	0	2	0	1	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	6	4	114	3	7	0	1	0	135	129.1
08:30	0	0	3	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	9	0	155	6	9	3	0	0	182	176.3
08:45	1	0	0	0	0	0	0	0	1	0.2	0	0	0	0	0	0	0	0	0	0	7	0	117	4	4	4	0	0	136	132.4
H/TOT	1	0	5	0	1	0	0	0	7	6.2	0	0	0	0	0	0	0	0	0	0	28	6	520	14	31	10	1	2	612	594.3
09:00	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	6	0	104	5	12	2	1	0	130	127.5
09:15	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	4	0	93	1	15	2	1	0	116	115.1
09:30	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2	0	69	2	4	0	0	0	77	75.4
09:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	64	2	14	0	0	0	81	80.2
H/TOT	0	0	3	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	13	0	330	10	45	4	2	0	404	398.2
10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	2	66	3	13	5	3	1	96	99.8
10:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	91	3	11	5	0	0	113	113.1
10:30	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	4	2	106	5	8	0	1	0	126	122.9
10:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	99	2	9	7	0	0	121	121.3
H/TOT	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	14	4	362	13	41	17	4	1	456	457.1
11:00	0	0	2	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	3	0	87	2	12	2	0	0	106	104.6
11:15	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1	1	93	1	8	4	1	0	109	110.9
11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	116	4	19	2	1	0	145	145.3
11:45	0	0	2	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	5	0	113	1	18	2	0	0	139	136
H/TOT	0	0	5	0	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0	10	3	409	8	57	10	2	0	499	496.8
12:00	0	0	2	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	3	0	98	2	11	2	0	0	116	114.6
12:15	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1	1	100	3	12	3	1	0	121	122.4
12:30	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	4	1	112	5	13	5	1	0	141	141
12:45	0	0	4	0	1	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0	4	1	109	3	12	7	0	0	136	135.7
H/TOT	0	0	8	0	1	0	0	0	9	9	0	0	0	0	0	0	0	0	0	0	12	3	419	13	48	17	2	0	514	513.7
13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	106	3	23	3	0	0	138	137.1
13:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	131	5	14	8	1	0	162	164.9
13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	125	3	16	1	0	1	149	148.5
13:45	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	4	0	124	4	11	0	0	0	143	139.8
H/TOT	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	11	2	486	15	64	12	1	1	592	590.3
14:00	0	0	1	0	0	1	0	0	2	2.5	0	0	0	0	0	0	0	0	0	0	5	3	124	3	14	1	1	0	151	147
14:15	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	5	1	123	6	19	2	0	0	156	152.4
14:30	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	3	3	138	1	19	7	0	0	171	170.3
14:45	0	0	2	0	1	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	1	2	100	4	15	4	0	0	126	126
H/TOT	0	0	5	0	1	1	0	0	7	7.5	0	0	0	0	0	0	0	0	0	0	14	9	485	14	67	14	1	0	604	595.7
15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	2	137	4	15	6	0	0	167	166.4
15:15	0	0	1	0	0	1	0	0	2	2.5	0	0	0	0	0	0	0	0	0	0	3	1	159	3	18	1	0	0	185	182.5
15:30	0	0	4	0	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	2	1	169	6	18	2	0	0	198	196.8
15:45	1	0	0	0	0	0	0	0	1	0.2	0	0	0	0	0	0	0	0	0	0	7	1	152	4	31	2	1	0	198	194.1
H/TOT	1	0	5	0	0	1	0	0	7	6.7	0	0	0	0	0	0	0	0	0	0	15	5	617	17	82	11	1	0	748	739.8
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	154	1	22	6	0	0	187	186.8
16:15	0	0	4	0	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	5	0	169	1	35	3	0	0	213	210.5
16:30	1	0	2	1	0	0	0	0	4	3.2	0	0	0	0	0	0	0	0	0	0	4	1	153	4	32	1	1	0	196	194
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	2	162	3	18	1	0	0	193	186.7
H/TOT	1	0	6	1	0	0	0	0	8	7.2	0	0	0	0	0	0	0	0	0	0	20	3	638	9	107	11	1	0	789	778
17:00	0	0	2	1	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	8	1	166	3	26	2	0	0	206	200
17:15	0	0	6	0	0	0	0	0	6	6	0	0	0	0	0	0	0	0	0	0	6	1	165	3	14	4	0	0	193	189.6
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	3	152	6	21	0	0	0	187	181.2
17:45	0	0	2	0	1	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	14	1	156	8	15	0	0	0	194	182.2
H/TOT	0	0	10	1	1	0	0	0	12	12	0	0	0	0	0	0	0	0	0	0	33	6	639	20	76	6	0	0	780	753
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	160	4	16	1	0	0	190	183.3
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	2	136	1	13	0	0	1	161	154.4
18:30	0	0	2	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	2	0	140	2	11	1	0	0	156	154.9
18:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	110	1	9	0	0	0	122	120.4
H/TOT	0	0	2	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	21	2	546	8	49	2	0	1	629	613
12 TOT	3	0	52	2	5	2	0	0	64	62.6	0	0	0	0	0	0	0	0	0	0	209	46	5753	151	695	119	15	6	6994	6884



IDASO

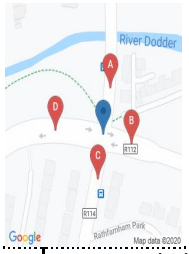
Survey Name: 135 20265 Dodder Rd Lower/ Dodder Park Rd

Site: Site 2

Location: Dodder Park Drive/R112 Dodder Park Road/R112 Dodder Park Road

Date: Thu 01-Oct-2020

	C => A										C => B										C => C									
TIME	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU
07:00	0	0	5	0	1	0	0	0	6	6	3	0	87	0	15	2	0	0	107	105.6	0	0	0	0	0	0	0	0	0	0
07:15	0	0	12	0	1	0	0	0	13	13	3	1	97	0	21	3	0	0	125	123.5	0	0	0	0	0	0	0	0	0	0
07:30	0	0	20	0	1	0	0	0	21	21	5	0	141	0	26	2	1	0	175	173.3	0	0	0	0	0	0	0	0	0	0
07:45	0	0	29	0	1	0	0	0	30	30	8	2	149	4	24	1	2	0	190	185.5	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	66	0	4	0	0	0	70	70	19	3	474	4	86	8	3	0	597	587.9	0	0	0	0	0	0	0	0	0	0
08:00	1	0	26	0	3	0	0	0	30	29.2	3	1	103	1	25	2	0	0	135	133	0	0	0	0	0	0	0	0	0	0
08:15	3	0	49	1	1	1	0	0	55	53.1	3	2	114	1	11	1	0	0	132	128.9	0	0	0	0	0	0	0	0	0	0
08:30	1	0	56	1	1	0	0	0	59	58.2	4	3	115	4	18	2	0	0	146	142	0	0	0	0	0	0	0	0	0	0
08:45	0	0	38	0	8	0	0	0	46	46	8	2	134	3	19	2	1	0	169	163.7	0	0	0	0	0	0	0	0	0	0
H/TOT	5	0	169	2	13	1	0	0	190	186.5	18	8	466	9	73	7	1	0	582	567.6	0	0	0	0	0	0	0	0	0	0
09:00	0	0	22	0	3	0	0	0	25	25	5	3	115	5	16	3	0	0	147	142.7	0	0	0	0	0	0	0	0	0	0
09:15	0	0	24	0	1	0	0	0	25	25	3	0	109	2	13	3	0	0	130	129.1	0	0	0	0	0	0	0	0	0	0
09:30	1	0	16	0	1	0	0	0	18	17.2	3	0	122	2	9	2	1	0	139	138.9	0	0	0	0	0	0	0	0	0	0
09:45	0	0	12	0	2	0	0	0	14	14	3	0	88	6	14	4	1	0	116	116.9	0	0	0	0	0	0	0	0	0	0
H/TOT	1	0	74	0	7	0	0	0	82	81.2	14	3	434	15	52	12	2	0	532	527.6	0	0	0	0	0	0	0	0	0	0
10:00	0	0	12	0	5	0	0	0	17	17	1	0	96	3	14	4	0	0	118	119.2	0	0	0	0	0	0	0	0	0	0
10:15	0	0	6	0	1	0	0	0	7	7	5	2	93	1	15	2	0	0	118	113.8	0	0	0	0	0	0	0	0	0	0
10:30	1	0	11	0	1	0	0	0	13	12.2	2	0	101	5	12	4	0	0	124	124.4	0	0	0	0	0	0	0	0	0	0
10:45	0	0	10	0	0	0	0	0	10	10	4	2	93	3	7	4	0	0	113	110.6	0	0	0	0	0	0	0	0	0	0
H/TOT	1	0	39	0	7	0	0	0	47	46.2	12	4	383	12	48	14	0	0	473	468	0	0	0	0	0	0	0	0	0	0
11:00	0	0	5	0	0	0	0	0	5	5	6	1	85	3	23	1	1	0	120	116.4	0	0	0	0	0	0	0	0	0	0
11:15	2	0	10	0	1	0	0	0	13	11.4	2	1	93	5	10	5	0	0	116	116.3	0	0	0	0	0	0	0	0	0	0
11:30	0	1	9	0	1	0	0	0	11	10.4	3	1	95	4	12	1	1	0	117	115.8	0	0	0	0	0	0	0	0	0	0
11:45	1	0	11	0	0	0	0	0	12	11.2	3	0	99	4	13	5	0	0	124	124.1	0	0	0	0	0	0	0	0	0	0
H/TOT	3	1	35	0	2	0	0	0	41	38	14	3	372	16	58	12	2	0	477	472.6	0	0	0	0	0	0	0	0	0	0
12:00	0	0	15	0	1	0	0	0	16	16	1	1	108	3	17	2	0	0	132	131.6	0	0	0	0	0	0	0	0	0	0
12:15	0	0	16	0	1	0	0	0	17	17	3	2	113	2	21	1	0	0	142	138.9	0	0	0	0	0	0	0	0	0	0
12:30	1	0	14	1	1	0	0	0	17	16.2	3	2	133	2	15	3	1	0	159	158.2	0	0	0	0	0	0	0	0	0	0
12:45	1	0	9	0	0	0	0	0	10	9.2	2	1	109	3	9	2	0	0	126	124.8	0	0	0	0	0	0	0	0	0	0
H/TOT	2	0	54	1	3	0	0	0	60	58.4	9	6	463	10	62	8	1	0	559	553.5	0	0	0	0	0	0	0	0	0	0
13:00	1	0	8	0	0	0	0	0	9	8.2	4	1	106	0	15	5	0	0	131	129.7	0	0	0	0	0	0	0	0	0	0
13:15	2	0	10	1	0	0	0	0	13	11.4	6	0	97	5	17	0	0	0	125	120.2	0	0	0	0	0	0	0	0	0	0
13:30	1	0	14	0	1	0	0	0	16	15.2	4	1	96	1	12	2	0	0	116	113.2	0	0	0	0	0	0	0	0	0	0
13:45	0	0	15	0	1	0	0	0	16	16	9	0	119	2	10	1	1	0	142	136.6	0	0	0	0	0	0	0	0	0	0
H/TOT	4	0	47	1	2	0	0	0	54	50.8	23	2	418	8	54	8	1	0	514	499.7	0	0	0	0	0	0	0	0	0	0
14:00	1	0	21	1	2	0	0	0	25	24.2	3	0	113	1	13	1	0	0	131	129.1	0	0	0	0	0	0	0	0	0	0
14:15	0	0	17	0	0	0	0	0	17	17	9	0	120	0	8	4	0	0	141	135.8	0	0	0	0	0	0	0	0	0	0
14:30	0	0	12	0	0	0	0	0	12	12	5	1	89	1	10	1	0	1	108	104.9	0	0	0	0	0	0	0	0	0	0
14:45	0	0	15	0	0	0	0	0	15	15	2	1	137	3	18	2	0	0	163	161.8	0	0	0	0	0	0	0	0	0	0
H/TOT	1	0	65	1	2	0	0	0	69	68.2	19	2	459	5	49	8	0	1	543	531.6	0	0	0	0	0	0	0	0	0	0
15:00	2	0	10	0	2	0	0	0	14	12.4	2	0	129	1	13	0	0	1	146	145.4	0	0	0	0	0	0	0	0	0	0
15:15	0	0	14	0	0	0	0	0	14	14	1	0	95	3	11	0	0	1	111	111.2	0	0	0	0	0	0	0	0	0	0
15:30	0	0	21	0	0	0	0	0	21	21	4	0	126	3	9	3	0	1	146	145.3	0	0	0	0	0	0	0	0	0	0
15:45	0	0	24	0	1	0	0	0	25	25	5	0	94	2	9	1	0	0	111	107.5	0	0	0	0	0	0	0	0	0	0
H/TOT	2	0	69	0	3	0	0	0	74	72.4	12	0	444	9	42	4	0	3	514	509.4	0	0	0	0	0	0	0	0	0	0
16:00	1	0	28	0	2	1	0	0	32	31.7	3	1	126	1	9	1	0	0	141	138.5	0	0	0	0	0	0	0	0	0	0
16:15	3	1	15	1	2	0	0	0	22	19	1	3	98	3	7	1	0	1	114	112.9	0	0	0	0	0	0	0	0	0	0
16:30	0	0	13	0	2	0	0	0	15	15	7	1	138	4	9	0	0	1	160	154.8	0	0	0	0	0	0	0	0	0	0
16:45	1	1	20	0	1	0	0	0	23	21.6	4	0	102	3	4	0	0	0	113	109.8	0	0	0	0	0	0	0	0	0	0
H/TOT	5	2	76	1	7	1	0	0	92	87.3	15	5	464	11	29	2	0	2	528	516	0	0	0	0	0	0	0	0	0	0
17:00	0	0	11	1	1	0	0	0	13	13	9	1	96	3	5	2	0	0	116	109.2	0	0	0	0	0	0	0	0	0	0
17:15	0	0	21	1	0	0	0	0	22	22	5	0	123	3	4	0	0	0	135	131	0	0	0	0	0	0	0	0	0	0
17:30	3	0	11	0	0	0	0	0	14	11.6	4	0	124	1	3	1	0	0	133	130.3	0	0	0	0	0	0	0	0	0	0
17:45	0	0	17	0	1	0	0	0	18	18	5	1	133	2	9	0	0	0	150	145.4	0	0	0	0	0	0	0	0	0	0
H/TOT	3	0	60	2	2	0	0	0	67	64.6	23	2	476	9	21	3	0	0	534	515.9	0	0	0	0	0	0	0	0	0	0
18:00	0	0	14	1	1	0	0	0	16	16	11	2	118	4	5	1	0	0	141	131.5	0	0	0	0	0	0	0	0	0	0
18:15	0	1	21	0	1	0	0	0	23	22.4	3	2	112	0	6	0	0	0	123	119.4	0	0	0	0	0	0	0	0	0	0
18:30	0	0	10	0	0	0	0	0	10	10	5	1	97	1	2	0	0	0	106	101.4	0	0	0	0	0	0	0	0	0	0
18:45	0	0	6	0	0	0	0	0	6	6	7	1	88	2	2	0	0	0	100	93.8	0	0	0	0	0	0	0	0	0	0
H/TOT	0	1	51	1	2	0	0	0	55	54.4	26	6	415	7	15	1	0	0	470	446.1	0	0	0	0	0	0	0	0	0	0
12 TOT	27	4	805	9	54	2	0	0	901	878	204	44	5268	115	589	87	10	6	6323	6196	0	0	0	0	0	0	0	0	0	0



IDASO

Survey Name: 135 20265 Dodder Rd Lower/ Dodder Park Rd

Site: Site 3

Location: Rathfarnham Road/Dodder Park Road/R114/R112 Dodder Park Road

Date: Thu 01-Oct-2020

	A => A										A => B										A => C										A => D									
TIME	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU
07:00	0	0	0	0	0	0	0	0	0	0	2	0	9	1	2	1	0	0	15	13.9	2	0	13	2	3	0	0	5	25	28.4	0	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0	0	2	0	9	1	2	0	0	0	14	12.4	7	0	15	2	5	2	0	5	36	36.4	0	0	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0	0	0	3	0	16	0	0	0	0	0	19	16.6	6	0	23	2	3	1	0	4	39	38.7	0	0	1	1	0	0	0	0	2	2
07:45	0	0	0	0	0	0	0	0	0	0	4	0	22	0	5	0	0	0	31	27.8	13	0	37	4	3	1	0	3	61	54.1	0	0	4	0	0	0	0	0	4	4
H/TOT	0	0	0	0	0	0	0	0	0	0	11	0	56	2	9	1	0	0	79	70.7	28	0	88	10	14	4	0	17	161	157.6	0	0	5	1	0	0	0	0	6	6
08:00	0	0	0	0	0	0	0	0	0	0	1	1	12	1	4	0	0	0	19	17.6	10	0	47	2	3	1	0	3	66	61.5	2	0	0	0	1	0	0	0	3	1.4
08:15	0	0	0	0	0	0	0	0	0	0	3	0	25	1	0	0	0	0	29	26.6	5	2	59	2	3	2	0	5	78	78.8	1	0	13	0	0	0	0	0	14	13.2
08:30	0	0	0	0	0	0	0	0	0	0	5	1	14	0	1	0	0	0	21	16.4	4	2	54	1	3	0	0	1	65	61.6	0	0	4	0	0	0	0	0	4	4
08:45	0	0	0	0	0	0	0	0	0	0	6	0	18	2	4	0	0	0	30	25.2	7	0	54	0	2	0	0	2	65	61.4	0	0	2	0	1	0	0	0	3	3
H/TOT	0	0	0	0	0	0	0	0	0	0	15	2	69	4	9	0	0	0	99	85.8	26	4	214	5	11	3	0	11	274	263.3	3	0	19	0	2	0	0	0	24	21.6
09:00	0	0	0	0	0	0	0	0	0	0	2	1	28	4	2	0	0	0	37	34.8	6	0	34	1	4	0	0	3	48	46.2	0	0	10	0	0	1	1	1	13	15.8
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09:30	0	0	0	0	0	0	0	0	0	0	1	0	17	1	1	1	0	0	21	20.7	6	0	50	2	6	0	0	4	68	67.2	1	0	7	0	0	0	0	0	8	7.2
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H/TOT	0	0	0	0	0	0	0	0	0	0	5	1	94	6	12	3	0	0	121	117.1	19	1	168	4	18	5	0	16	232	234.7	1	0	28	0	1	1	1	2	34	37
10:00	0	0	0	0	0	0	0	0	0	0	2	0	20	1	3	0	0	0	26	24.4	3	0	45	2	3	2	0	5	60	63.6	0	0	5	0	0	1	0	0	6	6.5
10:15	0	0	0	0	0	0	0	0	0	0	3	2	19	0	1	0	0	0	25	21.4	1	0	47	0	7	1	0	3	59	61.7	0	0	6	0	0	0	0	0	6	6
10:30	0	0	0	0	0	0	0	0	0	0	0	0	23	0	2	0	0	0	25	25	3	0	48	1	5	2	0	1	60	59.6	1	1	6	0	2	0	0	0	10	8.6
10:45	0	0	0	0	0	0	0	0	0	0	0	0	21	0	1	1	0	0	23	23.3	3	3	47	0	3	3	0	2	61	60.3	1	0	10	0	3	0	0	0	14	13.2
H/TOT	0	0	0	0	0	0	0	0	0	0	5	2	83	1	7	1	0	0	99	94.3	10	3	187	3	18	8	0	11	240	245.2	2	1	27	0	5	1	0	0	36	34.3
11:00	0	0	0	0	0	0	0	0	0	0	0	0	22	0	8	1	0	0	31	31.5	3	0	49	2	4	0	0	4	62	63.6	0	0	15	0	0	0	0	0	15	15
11:15	0	0	0	0	0	0	0	0	0	0	0	0	11	0	1	2	0	0	14	15	5	1	54	2	4	0	0	5	71	71.4	0	0	8	0	1	1	0	0	10	10.5
11:30	0	0	0	0	0	0	0	0	0	0	2	0	24	2	5	0	0	0	33	31.4	4	1	56	3	5	0	0	1	70	67.2	1	0	8	1	4	0	0	0	14	13.2
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H/TOT	0	0	0	0	0	0	0	0	0	0	4	0	87	2	18	3	0	0	114	112.3	20	4	223	8	19	0	0	13	287	281.6	2	1	45	1	5	2	0	0	56	54.8
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12:30	0	0	0	0	0	0	0	0	0	0	2	1	35	4	3	2	0	0	47	45.8	3	2	64	1	4	0	0	2	76	74.4	0	0	9	0	0	0	0	0	9	9
12:45	0	0	0	0	0	0	0	0	0	0	1	0	19	1	2	2	0	0	25	25.2	6	1	64	6	5	1	0	3	86	84.1	0	0	8	1	1	0	0	0	10	10
H/TOT	0	0	0	0	0	0	0	0	0	0	7	1	92	9	9	5	0	0	120	116.1	18	5	242	9	19	6	1	12	312	310.9	0	0	34	1	4	1	0	0	40	40.5
13:00	0	0	0	0	0	0	0	0	0	0	0	0	26	1	3	0	0	0	30	30	12	1	57	2	6	0	0	4	82	75.8	0	0	7	0	0	0	0	0	7	7
13:15	0	0	0	0	0	0	0	0	0	0	0	0	21	2	3	0	0	0	26	26	6	3	58	1	5	1	0	1	75	69.5	3	0	17	0	1	0	0	0	21	18.6
13:30	0	0	0	0	0	0	0	0	0	0	3	1	21	0	3	0	0	0	28	25	8	2	53	0	5	0	0	3	71	66.4	1	0	12	0	1	0	0	0	14	13.2
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H/TOT	0	0	0	0	0	0	0	0	0	0	10	1	101	4	10	0	1	0	127	119.7	32	8	229	10	22	3	0	12	316	299.1	4	0	47	0	3	0	0	0	54	50.8
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H/TOT	0	0	0	0	0	0	0	0	0	0	5	0	82	0	8	2	0	0	97	94	22	6	243	9	15	1	0	13	309	301.2	5	0	39	0	9	1	0	0	54	50.5
15:00	0	0	0	0	0	0	0	0	0	0	2	0	22	0	1	0	0	0	25	23.4	5	1	78	2	5	0	0	4	95	94.4	0	1	24	3	2	0	0	0	30	29.4
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H/TOT	0	0	0	0	0	0	0	0	0	0	6	0	96	2	8	4	0	0	116	113.2	31	7	286	9	25	1	0	12	371	354.5	7	2	58	4	13	0	0	0	84	77.2
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H/TOT	0	0	0	0	0	0	0	0	0	0	5	3	106	2	10	0	0	1	127	122.2	57	6	286	6	30	1	0	16	402	369.3	9	1	61	0	16	2	0	2	91	86.2
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17:15	0	0	0	0	0	0	0	0	0	0	0	0	19	3	0	0	0	0	22	22	21	2	91	1	7	2	0	2	126	111	3	1	10	0	3	0	1	0	18	16.3
17:30	0	0	0	0	0	0	0	0	0	0	1	0	26	0	0	0	0	0	27	26.2	17	4	92	7	4	0	0	5	129	118	4	0	18	0	3	0	0	0	25	21.8
17:45	0	0	0	0	0	0	0	0	0	0	3	1	33	0	2	0	0	0	39	36	26	1	87	1	4	0	0	3	122	103.6	3	0	16	0	0	0	0	0	19	16.6
H/TOT	0	0	0	0	0	0	0	0	0	0	9	2	94	5	3	0	0	0	113	104.2	80	11	343	12	20	2	0	13	481	424.2	14	1	61	0	10	0	1	0	87	76.5
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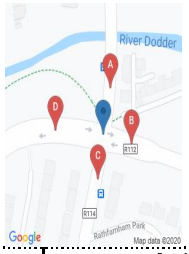
18:45	0	0	0	0	0	0	0	0	0	0	0	0	24	2	2	0	0	0	28	28	9	1	80	8	2	1	1	3	105	102	3	0	15	0	0	0	0	0	18	15.6
H/TOT	0	0	0	0	0	0	0	0	0	0	7	2	87	3	4	0	0	0	103	96.2	81	10	298	19	15	1	1	13	438	382	9	0	47	1	4	0	0	0	61	53.8
12 TOT	0	0	0	0	0	0	0	0	0	0	89	14	1047	37	107	19	1	1	1315	1247	424	65	2807	104	227	35	2	159	3823	3624	56	6	471	8	72	8	2	4	627	589.2



IDASO

Survey Name: 135 20265 Dodder Rd Lower/ Dodder Park Rd

Site: Site 3

Location: Rathfarnham Road/Dodder Park Road/R114/R112 Dodder Park Road

Date: Thu 01-Oct-2020

	B => A										B => B										B => C										B => D									
TIME	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
07:00	0	0	13	1	2	0	0	0	16	16	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	2	2	0	34	1	4	1	0	0	42	40.9
07:15	2	0	21	1	0	0	0	0	24	22.4	0	0	0	0	0	0	0	0	0	0	1	0	6	0	2	0	0	0	9	8.2	2	1	40	1	6	0	0	0	50	47.8
07:30	3	1	18	1	5	0	0	0	28	25	0	0	0	0	0	0	0	0	0	0	0	0	11	0	0	0	0	0	11	11	1	1	66	2	2	2	0	0	74	73.6
07:45	1	0	21	0	0	0	0	1	23	23.2	0	0	0	0	0	0	0	0	0	0	0	0	17	0	1	0	0	0	18	18	1	0	67	2	3	1	0	0	74	73.7
H/TOT	6	1	73	3	7	0	0	1	91	86.6	0	0	0	0	0	0	0	0	0	0	1	0	36	0	3	0	0	0	40	39.2	6	2	207	6	15	4	0	0	240	236
08:00	2	1	35	0	0	1	0	0	39	37.3	0	0	0	0	0	0	0	0	0	0	3	0	19	1	1	0	0	2	26	25.6	2	1	92	0	8	2	0	0	105	103.8
08:15	2	0	10	1	2	0	0	0	15	13.4	0	0	0	0	0	0	0	0	0	0	1	1	23	0	0	0	0	0	25	23.6	2	2	76	1	4	0	1	0	86	84.5
08:30	5	0	14	1	1	0	0	0	21	17	0	0	0	0	0	0	0	0	0	0	2	0	51	1	2	0	0	0	56	54.4	1	2	109	4	7	3	0	0	126	125.5
08:45	1	0	11	0	0	0	0	0	12	11.2	0	0	0	0	0	0	0	0	0	0	1	0	35	0	2	1	0	0	39	38.7	3	0	82	3	3	3	0	0	94	93.1
H/TOT	10	1	70	2	3	1	0	0	87	78.9	0	0	0	0	0	0	0	0	0	0	7	1	128	2	5	1	0	2	146	142.3	8	5	359	8	22	8	1	0	411	406.9
09:00	2	0	20	4	2	0	0	0	28	26.4	0	0	0	0	0	0	0	0	0	0	4	0	23	0	3	0	0	0	30	26.8	0	0	67	0	6	2	1	0	76	78.3
09:15	0	0	15	0	4	0	0	0	19	19	0	0	0	0	0	0	0	0	0	0	2	0	19	0	3	0	0	0	24	22.4	2	0	59	2	9	0	2	0	74	75
09:30	0	0	15	0	0	0	0	0	15	15	0	0	0	0	0	0	0	0	0	0	0	0	20	1	2	0	0	0	23	23	2	0	46	0	3	1	0	0	52	50.9
09:45	0	0	14	0	2	0	0	0	16	16	0	0	0	0	0	0	0	0	0	0	0	0	20	2	2	0	0	0	24	24	1	0	34	1	9	0	0	0	45	44.2
H/TOT	2	0	64	4	8	0	0	0	78	76.4	0	0	0	0	0	0	0	0	0	0	6	0	82	3	10	0	0	0	101	96.2	5	0	206	3	27	3	3	0	247	248.4
10:00	1	0	15	3	4	1	0	0	24	23.7	0	0	0	0	0	0	0	0	0	0	1	1	12	0	4	0	0	0	18	16.6	1	1	40	0	9	4	3	1	59	64.5
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10:30	2	0	19	0	4	0	0	0	25	23.4	0	0	0	0	0	0	0	0	0	0	2	1	28	0	1	0	0	0	32	29.8	0	1	70	1	6	0	1	0	79	79.7
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H/TOT	5	0	68	3	9	2	0	0	87	84	0	0	0	0	0	0	0	0	0	0	9	2	101	1	9	2	0	0	124	116.6	5	2	210	3	30	13	4	1	268	275.5
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11:15	2	0	24	0	3	1	0	0	30	28.9	0	0	0	0	0	0	0	0	0	0	1	0	25	0	2	0	0	0	28	27.2	1	0	50	0	4	3	1	0	59	61
11:30	0	0	15	0	4	0	0	0	19	19	0	0	0	0	0	0	0	0	0	0	0	0	30	0	4	1	0	0	35	35.5	1	2	70	3	12	1	1	0	90	89.8
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H/TOT	4	0	87	0	11	3	0	0	105	103.3	0	0	0	0	0	0	0	0	0	0	1	0	111	0	12	1	0	0	125	124.7	5	2	225	6	36	5	2	0	281	280.9
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12:30	0	0	20	3	0	2	1	0	26	28.3	0	0	0	0	0	0	0	0	0	0	2	1	36	0	5	3	0	0	47	46.3	3	0	72	1	8	0	0	0	84	81.6
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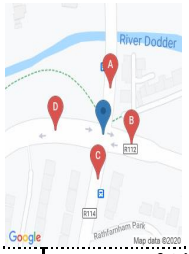
H/TOT	0	0	78	5	6	7	0	0	97	101.5	0	0	0	0	0	0	0	0	0	0	3	1	123	2	14	4	0	0	147	146	5	3	246	6	30	5	1	0	296	294
13:00	1	0	24	2	6	0	0	0	33	32.2	0	0	0	0	0	0	0	0	0	0	0	0	29	0	5	1	0	0	35	35.5	1	0	67	1	13	3	0	0	85	85.7
13:15	2	0	23	1	1	1	0	0	28	26.9	0	0	0	0	0	0	0	0	0	0	2	0	39	1	6	4	0	0	52	52.4	0	0	77	1	8	3	1	0	90	92.8
13:30	0	0	24	1	1	0	0	0	26	26	0	0	0	0	0	0	0	0	0	0	0	1	41	1	5	0	0	0	48	47.4	1	0	69	2	11	1	0	1	85	85.7
13:45	0	0	25	1	3	0	0	0	29	29	0	0	0	0	0	0	0	0	0	0	0	2	34	0	2	0	0	0	38	36.8	4	0	81	2	4	0	0	0	91	87.8
H/TOT	3	0	96	5	11	1	0	0	116	114.1	0	0	0	0	0	0	0	0	0	0	2	3	143	2	18	5	0	0	173	172.1	6	0	294	6	36	7	1	1	351	352
14:00	1	1	20	3	0	0	0	0	25	23.6	0	0	0	0	0	0	0	0	0	0	3	1	26	0	3	0	0	0	33	30	1	0	75	1	11	1	0	0	89	88.7
14:15	2	1	26	1	2	0	0	0	32	29.8	0	0	0	0	0	0	0	0	0	0	2	1	41	0	2	0	0	0	46	43.8	1	0	71	3	16	1	1	0	93	94
14:30	2	0	26	0	3	1	0	0	32	30.9	0	0	0	0	0	0	0	0	0	0	0	0	40	0	3	0	0	0	43	43	1	3	78	1	13	6	0	0	102	102.4
14:45	0	0	25	0	2	0	0	0	27	27	0	0	0	0	0	0	0	0	0	0	0	0	32	0	5	0	0	0	37	37	0	1	55	1	9	4	0	0	70	71.4
H/TOT	5	2	97	4	7	1	0	0	116	111.3	0	0	0	0	0	0	0	0	0	0	5	2	139	0	13	0	0	0	159	153.8	3	4	279	6	49	12	1	0	354	356.7
15:00	3	0	27	0	0	1	0	0	31	29.1	0	0	0	0	0	0	0	0	0	0	0	0	30	0	5	1	0	0	36	36.5	0	2	88	3	13	4	0	0	110	110.8
15:15	2	1	36	0	0	0	0	0	39	36.8	0	0	0	0	0	0	0	0	0	0	0	0	41	0	5	0	0	0	46	46	1	0	88	3	14	1	0	0	107	106.7
15:30	0	1	33	0	2	0	0	0	36	35.4	0	0	0	0	0	0	0	0	0	0	0	0	42	0	4	0	0	0	46	46	1	1	103	2	22	2	0	0	131	130.6
15:45	2	0	22	2	9	0	0	0	35	33.4	0	0	0	0	0	0	0	0	0	0	1	0	37	0	4	0	0	0	42	41.2	4	0	87	1	15	1	1	0	109	107.6
H/TOT	7	2	118	2	11	1	0	0	141	134.7	0	0	0	0	0	0	0	0	0	0	1	0	150	0	18	1	0	0	170	169.2	6	3	366	9	64	8	1	0	457	455.7
16:00	1	0	30	0	0	2	0	0	33	33.2	0	0	0	0	0	0	0	0	0	0	1	0	50	0	7	0	0	0	58	57.2	2	2	88	0	17	3	0	0	112	110.7
16:15	1	0	20	0	1	0	0	0	22	21.2	0	0	0	0	0	0	0	0	0	0	3	0	53	0	8	0	0	0	64	61.6	2	0	117	1	26	3	0	0	149	148.9
16:30	2	0	31	0	2	0	0	0	35	33.4	0	0	0	0	0	0	0	0	0	0	0	1	40	0	8	0	0	0	49	48.4	4	0	112	2	23	1	1	0	143	141.6
16:45	2	0	29	0	1	0	0	0	32	30.4	0	0	0	0	0	0	0	0	0	0	2	1	42	0	1	1	0	0	47	45.3	2	0	100	1	18	1	0	0	122	120.9
H/TOT	6	0	110	0	4	2	0	0	122	118.2	0	0	0	0	0	0	0	0	0	0	6	2	185	0	24	1	0	0	218	212.5	10	2	417	4	84	8	1	0	526	522.1
17:00	1	0	25	1	2	0	0	0	29	28.2	0	0	0	0	0	0	0	0	0	0	1	1	57	0	4	0	0	0	63	61.6	5	1	96	3	19	2	0	0	126	122.4
17:15	0	0	38	0	1	1	0	0	40	40.5	0	0	0	0	0	0	0	0	0	0	3	0	52	0	4	1	0	0	60	58.1	3	1	105	1	12	2	0	0	124	122
17:30	0	1	31	3	3	0	0	0	38	37.4	0	0	0	0	0	0	0	0	0	0	2	0	43	0	4	0	0	0	49	47.4	3	2	90	4	14	0	0	0	113	109.4
17:45	4	1	36	1	1	0	0	0	43	39.2	0	0	0	0	0	0	0	0	0	0	3	0	49	1	4	0	0	0	57	54.6	8	1	82	4	10	0	0	0	105	98
H/TOT	5	2	130	5	7	1	0	0	150	145.3	0	0	0	0	0	0	0	0	0	0	9	1	201	1	16	1	0	0	229	221.1	19	5	373	12	55	4	0	0	468	451.6
18:00	1	0	24	2	1	0	0	0	28	27.2	0	0	0	0	0	0	0	0	0	0	2	0	46	0	4	0	0	0	52	50.4	5	0	95	2	10	1	0	0	113	109.5
18:15	5	1	29	0	2	0	0	0	37	32.4	0	0	0	0	0	0	0	0	0	0	0	1	37	0	3	0	0	1	42	42.4	2	0	81	1	8	0	0	0	92	90.4
18:30	0	0	27	1	1	1	0	0	30	30.5	0	0	0	0	0	0	0	0	0	0	1	0	49	0	1	0	0	0	51	50.2	2	0	71	0	7	1	0	0	81	79.9
18:45	0	0	35	2	1	0	0	0	38	38	0	0	0	0	0	0	0	0	0	0	1	0	26	0	0	0	0	0	27	26.2	1	0	51	1	6	0	0	0	59	58.2
H/TOT	6	1	115	5	5	1	0	0	133	128.1	0	0	0	0	0	0	0	0	0	0	4	1	158	0	8	0	0	1	172	169.2	10	0	298	4	31	2	0	0	345	338
12 TOT	59	9	1106	38	89	20	1	1	1323	1283	0	0	0	0	0	0	0	0	0	0	54	13	1557	11	150	16	0	3	1804	1764	88	28	3480	73	479	79	15	2	4244	4218



IDASO

Survey Name: 135 20265 Dodder Rd Lower/ Dodder Park Rd

Site: Site 3

Location: Rathfarnham Road/Dodder Park Road/R114/R112 Dodder Park Road

Date: Thu 01-Oct-2020

	C => A										C => B										C => C										C => D									
TIME	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
07:00	6	0	60	0	11	2	0	2	81	79.2	1	0	23	0	2	0	0	0	26	25.2	0	0	0	0	0	0	0	0	0	0	0	4	1	0	0	0	0	5	5
07:15	13	1	59	0	6	2	0	4	85	79	0	0	24	0	1	1	0	0	26	26.5	0	0	0	0	0	0	0	0	0	0	0	5	0	0	1	0	1	7	8.5
07:30	14	3	97	5	9	1	0	3	132	122.5	2	0	28	0	1	1	0	0	32	30.9	0	0	0	0	0	0	0	0	0	0	0	5	1	0	0	0	0	6	6
07:45	17	1	137	3	11	0	0	3	172	160.8	1	0	53	0	4	1	0	0	59	58.7	0	0	0	0	0	0	0	0	0	0	0	12	0	3	0	0	0	15	15
H/TOT	50	5	353	8	37	5	0	12	470	441.5	4	0	128	0	8	3	0	0	143	141.3	0	0	0	0	0	0	0	0	0	0	0	26	2	3	1	0	1	33	34.5
08:00	25	2	103	1	2	0	0	4	137	119.8	2	0	30	0	3	0	0	0	35	33.4	0	0	0	0	0	0	0	0	0	0	1	0	9	1	2	0	0	13	12.2
08:15	37	2	87	0	6	0	1	3	136	109.5	3	1	39	1	3	0	0	0	47	44	0	0	0	0	0	0	0	0	0	0	0	0	11	0	1	0	0	12	12
08:30	29	1	47	2	6	1	0	2	88	66.7	1	1	44	1	1	0	0	0	48	46.6	0	0	0	0	0	0	0	0	0	0	0	0	8	0	1	0	1	10	11.3
08:45	17	1	57	3	8	1	0	5	92	83.3	2	1	38	0	3	0	0	0	44	41.8	0	0	0	0	0	0	0	0	0	0	0	0	3	0	1	0	0	4	4
H/TOT	108	6	294	6	22	2	1	14	453	379.3	8	3	151	2	10	0	0	0	174	165.8	0	0	0	0	0	0	0	0	0	0	1	0	31	1	5	0	1	39	39.5
09:00	17	2	63	2	6	2	0	5	97	88.2	1	1	37	0	3	1	0	0	43	42.1	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	8	8
09:15	15	1	78	4	8	1	0	4	111	102.9	1	0	31	0	3	1	0	0	36	35.7	0	0	0	0	0	0	0	0	0	0	0	0	5	1	1	0	0	7	7
09:30	10	4	53	6	7	0	1	5	86	81.9	2	0	22	1	4	1	0	0	30	28.9	0	0	0	0	0	0	0	0	0	0	1	0	8	1	5	0	0	15	14.2
09:45	12	1	66	2	3	0	0	2	86	77.8	0	0	20	3	3	2	0	0	28	29	0	0	0	0	0	0	0	0	0	0	1	0	12	1	1	0	0	15	14.2
H/TOT	54	8	260	14	24	3	1	16	380	350.8	4	1	110	4	13	5	0	0	137	135	0	0	0	0	0	0	0	0	0	0	2	0	33	3	7	0	0	45	43.4
10:00	5	2	60	3	6	0	0	3	79	76.8	1	0	24	2	4	0	0	0	31	30.2	0	0	0	0	0	0	0	0	0	0	0	0	14	0	1	0	0	15	15
10:15	8	0	57	3	3	1	0	3	75	72.1	1	0	25	1	4	1	0	0	32	31.7	0	0	0	0	0	0	0	0	0	0	0	0	4	0	1	0	0	5	5
10:30	2	1	73	2	6	0	0	3	87	87.6	1	0	24	1	3	0	0	0	29	28.2	0	0	0	0	0	0	0	0	0	0	1	0	14	0	0	0	0	15	14.2
10:45	4	0	67	4	10	2	0	4	91	92.8	0	1	26	1	0	1	0	0	29	28.9	0	0	0	0	0	0	0	0	0	0	1	0	8	0	1	0	0	10	9.2
H/TOT	19	3	257	12	25	3	0	13	332	329.5	3	1	99	5	11	2	0	0	121	119	0	0	0	0	0	0	0	0	0	0	2	0	40	0	3	0	0	45	43.4
11:00	6	2	58	2	10	1	0	4	83	81.5	1	0	16	0	5	0	0	0	22	21.2	0	0	0	0	0	0	0	0	0	0	0	0	10	1	1	1	0	13	13.5
11:15	2	0	42	2	2	1	0	2	51	51.9	5	0	22	2	4	0	0	0	33	29	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	4	4
11:30	4	0	56	2	3	1	0	2	68	67.3	0	1	29	0	2	0	0	0	32	31.4	0	0	0	0	0	0	0	0	0	0	0	0	11	1	2	0	1	15	16.3
11:45	10	1	56	3	4	1	1	3	79	75.2	1	0	15	1	3	0	0	0	20	19.2	0	0	0	0	0	0	0	0	0	0	1	0	14	0	1	0	0	16	15.2
H/TOT	22	3	212	9	19	4	1	11	281	275.9	7	1	82	3	14	0	0	0	107	100.8	0	0	0	0	0	0	0	0	0	0	1	0	37	2	6	1	1	48	49
12:00	7	0	58	3	5	0	1	3	77	75.7	0	1	27	1	2	1	0	0	32	31.9	0	0	0	0	0	0	0	0	0	0	1	0	10	0	2	3	0	16	16.7
12:15	6	3	65	6	6	0	0	2	88	83.4	0	1	30	1	4	0	0	0	36	35.4	0	0	0	0	0	0	0	0	0	0	0	0	10	1	2	0	0	13	13
12:30	10	3	66	2	5	1	0	4	91	85.7	1	0	40	1	3	2	0	0	47	47.2	0	0	0	0	0	0	0	0	0	0	0	0	12	1	4	1	0	18	18.5
12:45	10	3	58	4	6	0	0	3	84	77.2	1	0	22	0	3	0	0	0	26	25.2	0	0	0	0	0	0	0	0	0	0	0	0	12	0	1	1	0	14	14.5
H/TOT	33	9	247	15	22	1	1	12	340	322	2	2	119	3	12	3	0	0	141	139.2	0	0	0	0	0	0	0	0	0	0	1	0	44	2	9	5	0	61	62.7
13:00	9	6	59	5	4	0	0	3	86	78.2	1	1	22	0	3	2	0	0	29	28.6	0	0	0	0	0	0	0	0	0	0	0	0	8	0	1	1	0	10	10.5
13:15	4	2	55	4	7	0	0	2	74	71.6	1	0	17	1	3	0	0	0	22	21.7	0	0	0	0	0	0	0	0	0	0	0	0	11	0	4	0	0	15	15
13:30	7	3	68	2	6	1	0	3	90	86.1	1	0	27	0	3	0	0	0	31	30.2	0	0	0	0	0	0	0	0	0	0	0	0	12	0	1	0	0	13	13
13:45	9	1	66	1	5	0	0	6	88	86.2	1	0	26	0	1	0	0	0	28	27.2	0	0	0	0	0	0	0	0	0	0	0	0	8	1	2	0	0	11	11
H/TOT	29	12	248	12	22	1	0	14	338	322.1	4	1	92	1	10	2	0	0	110	107.2	0	0	0	0	0	0	0	0	0	0	0	0	39	1	8	1	0	49	49.5
14:00	4	2	79	8	9	1	0	3	106	105.1	1	0	34	0	6	0	0	0	41	40.2	0	0	0	0	0	0	0	0	0	0	0	0	24	1	0	2	0	27	28
14:15	4	0	63	4	3	0	0	3	77	76.8	1	0	35	0	0	1	0	0	37	36.7	0	0	0	0	0	0	0	0	0	0	0	0	8	1	2	0	0	11	11
14:30	4	2	59	5	3	1	0	3	77	76.1	1	1	20	0	0	1	0	0	23	22.1	0	0	0	0	0	0	0	0	0	0	0	0	7	1	1	0	0	9	9
14:45	3	3	73	2	2	0	0	4	87	86.8	0	0	30	1	3	0	0	0	34	34	0	0	0	0	0	0	0	0	0	0	0	0	19	0	2	1	0	22	22.5
H/TOT	15	7	274	19	17	2	0	13	347	344.8	3	1	119	1	9	2	0	0	135	133	0	0	0	0	0	0	0	0	0	0	0	0	58	3	5	3	0	69	70.5
15:00	4	3	57	4	6	1	0	2	77	74.5	1	0	51	0	4	0	0	0	56	55.2	0	0	0	0	0	0	0	0	0	0	1	0	7	0	1	0	0	9	8.2
15:15	10	3	73	2	5	2	0	4	99	94.2	2	0	19	1	2	0	0	1	25	24.4	0	0	0	0	0	0	0	0	0	0	1	0	17	0	4	0	0	22	21.2
15:30	5	0	60	1	3	0	0	2	71	69	1	0	30	1	0	0	0	0	32	31.2	0	0	0	0	0	0	0	0	0	0	0	0	12	0	1	0	0	13	13
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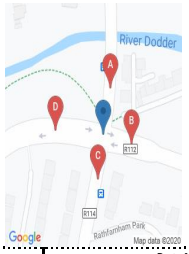
H/TOT	22	8	262	9	22	3	0	12	338	329.1	6	0	127	2	7	0	0	1	143	139.2	0	0	0	0	0	0	0	0	0	0	2	0	47	1	7	0	0	57	55.4
16:00	6	0	64	3	2	1	0	5	81	81.7	3	0	32	0	3	0	0	0	38	35.6	0	0	0	0	0	0	0	0	0	0	0	0	13	0	2	1	0	16	16.5
16:15	2	0	52	1	4	1	0	3	63	64.9	2	1	26	0	0	0	0	1	30	28.8	0	0	0	0	0	0	0	0	0	0	1	0	16	0	4	1	0	22	21.7
16:30	6	0	69	2	2	0	0	4	83	82.2	0	0	19	0	1	0	0	0	20	20	0	0	0	0	0	0	0	0	0	0	0	0	10	1	4	0	0	15	15
16:45	12	0	67	4	3	0	0	2	88	80.4	0	0	34	0	1	0	0	0	35	35	0	0	0	0	0	0	0	0	0	0	0	0	13	0	0	0	0	13	13
H/TOT	26	0	252	10	11	2	0	14	315	309.2	5	1	111	0	5	0	0	1	123	119.4	0	0	0	0	0	0	0	0	0	0	1	0	52	1	10	2	0	66	66.2
17:00	12	1	51	3	3	1	0	3	74	67.3	1	0	19	0	2	0	0	0	22	21.7	0	0	0	0	0	0	0	0	0	0	0	0	13	0	2	0	0	15	15
17:15	8	0	58	1	3	0	0	3	73	69.6	0	0	32	0	0	0	0	0	32	32	0	0	0	0	0	0	0	0	0	0	1	0	19	0	1	0	0	21	20.2
17:30	6	2	55	6	5	1	0	4	79	77.5	1	0	27	1	3	1	0	0	33	32.7	0	0	0	0	0	0	0	0	0	0	0	0	14	1	0	0	0	15	15
17:45	7	2	68	2	2	1	0	3	85	81.7	1	0	30	0	0	0	0	0	31	30.2	0	0	0	0	0	0	0	0	0	0	0	0	12	0	1	0	0	13	13
H/TOT	33	5	232	12	13	3	0	13	311	296.1	3	0	108	1	5	1	0	0	118	116	0	0	0	0	0	0	0	0	0	0	1	0	58	1	2	0	0	64	63.2
18:00	6	2	54	6	3	0	0	3	74	71	1	0	23	0	1	0	0	0	25	24.2	0	0	0	0	0	0	0	0	0	0	2	0	15	1	1	0	0	19	17.4
18:15	10	1	63	5	1	2	0	3	85	80.4	0	0	20	0	1	0	0	0	21	21	0	0	0	0	0	0	0	0	0	0	0	0	11	0	0	0	0	11	11
18:30	5	0	69	1	4	0	0	4	83	83	3	0	25	0	1	0	0	0	29	26.6	0	0	0	0	0	0	0	0	0	0	2	0	9	0	2	0	0	13	11.4
18:45	3	4	80	0	3	0	0	4	94	93.2	1	0	19	0	0	0	0	0	20	19.2	0	0	0	0	0	0	0	0	0	0	0	0	9	1	1	0	0	11	11
H/TOT	24	7	266	12	11	2	0	14	336	327.6	5	0	87	0	3	0	0	0	95	91	0	0	0	0	0	0	0	0	0	0	4	0	44	2	4	0	0	54	50.8
12 TOT	435	73	3157	138	245	31	4	158	4241	4028	54	11	1333	22	107	18	0	2	1547	1508	0	0	0	0	0	0	0	0	0	0	15	0	509	19	71	13	2	1	630	628.1



IDASO

Survey Name: 135 20265 Dodder Rd Lower/ Dodder Park Rd

Site: Site 3

Location: Rathfarnham Road/Dodder Park Road/R114/R112 Dodder Park Road

Date: Thu 01-Oct-2020

	D => A										D => B										D => C										D => D									
TIME	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU
07:00	4	0	7	0	3	0	1	0	15	13.1	0	0	54	1	14	3	0	0	72	73.5	0	0	0	0	0	1	0	0	1	1.5	0	0	0	0	0	0	0	0	0	0
07:15	3	0	16	0	3	1	0	0	23	21.1	1	1	71	2	17	3	0	0	95	95.1	1	0	1	0	0	0	0	0	2	1.2	0	0	0	0	0	0	0	0	0	0
07:30	6	0	22	0	3	1	0	1	33	29.7	0	0	114	0	27	1	1	0	143	144.8	0	0	5	1	0	1	0	0	7	7.5	0	0	0	0	0	0	0	0	0	0
07:45	1	0	33	1	4	0	0	0	39	38.2	7	2	109	4	14	0	2	0	138	133.8	2	0	5	0	2	0	0	0	9	7.4	0	0	0	0	0	0	0	0	0	0
H/TOT	14	0	78	1	13	2	1	1	110	102.1	8	3	348	7	72	7	3	0	448	447.2	3	0	11	1	2	2	0	0	19	17.6	0	0	0	0	0	0	0	0	0	0
08:00	3	0	37	1	2	1	0	0	44	42.1	1	0	82	0	20	2	0	0	105	105.2	1	0	3	0	2	1	0	0	7	6.7	0	0	0	0	0	0	0	0	0	0
08:15	5	0	48	0	2	0	0	0	55	51	1	1	101	0	9	2	0	0	114	113.6	0	0	9	0	1	0	0	0	10	10	0	0	0	0	0	0	0	0	0	0
08:30	4	0	40	0	3	0	0	2	49	47.8	0	1	110	4	18	2	0	0	135	135.4	0	0	13	0	1	0	0	0	14	14	0	0	0	0	0	0	0	0	0	0
08:45	3	0	24	0	2	0	0	0	29	26.6	3	1	119	1	23	2	1	0	150	149.3	0	0	13	1	1	0	0	0	15	15	0	0	0	0	0	0	0	0	0	0
H/TOT	15	0	149	1	9	1	0	2	177	167.5	5	3	412	5	70	8	1	0	504	503.5	1	0	38	1	5	1	0	0	46	45.7	0	0	0	0	0	0	0	0	0	0
09:00	4	0	19	0	3	0	0	0	26	22.8	3	1	71	1	9	2	0	0	87	85	2	0	11	0	0	0	0	0	13	11.4	0	0	0	0	0	0	0	0	0	0
09:15	3	1	28	0	0	0	0	0	32	29	1	0	79	2	8	1	0	0	91	90.7	1	0	12	0	2	0	0	0	15	14.2	0	0	0	0	0	0	0	0	0	0
09:30	0	1	34	0	1	0	0	0	36	35.4	3	0	94	0	6	0	0	0	103	100.6	0	0	10	1	1	0	0	0	12	12	0	0	0	0	0	0	0	0	0	0
09:45	0	0	10	0	2	0	0	0	12	13	2	0	58	1	7	1	1	0	70	70.2	1	0	9	1	1	1	0	0	13	12.7	0	0	0	0	0	0	0	0	0	0
H/TOT	7	2	91	0	4	2	0	0	106	100.2	9	1	302	4	30	4	1	0	351	346.1	4	0	42	2	4	1	0	0	53	50.3	0	0	0	0	0	0	0	0	0	0
10:00	1	0	13	0	1	0	0	0	15	14.2	0	0	65	0	13	4	0	0	82	84	0	0	9	0	2	0	0	0	11	11	0	0	0	0	0	0	0	0	0	0
10:15	2	0	12	0	2	0	0	0	16	14.4	2	0	56	0	8	1	0	0	67	65.9	0	0	13	0	0	0	0	0	13	13	0	0	0	0	0	0	0	0	0	0
10:30	1	0	15	0	5	0	0	0	21	20.2	1	0	66	4	8	4	0	0	83	84.2	1	0	14	0	2	0	0	0	17	16.2	0	0	0	0	0	0	0	0	0	0
10:45	1	0	19	0	1	0	0	0	21	20.2	3	1	60	2	7	2	0	0	75	73	0	0	13	1	0	1	0	0	15	15.5	0	0	0	0	0	0	0	0	0	0
H/TOT	5	0	59	0	9	0	0	0	73	69	6	1	247	6	36	11	0	0	307	307.1	1	0	49	1	4	1	0	0	56	55.7	0	0	0	0	0	0	0	0	0	0
11:00	0	0	11	0	2	0	0	0	13	13	4	1	48	3	6	0	1	0	63	60.5	1	0	10	0	1	0	0	0	12	11.2	0	0	0	0	0	0	0	0	0	0
11:15	0	0	16	0	2	0	0	0	18	18	0	1	71	2	7	3	0	0	84	84.9	0	0	11	0	0	1	0	0	12	12.5	0	0	0	0	0	0	0	0	0	0
11:30	0	0	13	0	4	1	0	0	18	18.5	0	1	55	0	7	1	1	0	65	66.2	1	0	19	1	2	0	0	0	23	22.2	0	0	0	0	0	0	0	0	0	0
11:45	0	0	28	0	1	0	0	1	30	31	1	0	63	4	9	5	0	0	82	83.7	0	0	17	0	1	0	0	0	18	18	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	68	0	9	1	0	1	79	80.5	5	3	237	9	29	9	2	0	294	295.3	2	0	57	1	4	1	0	0	65	63.9	0	0	0	0	0	0	0	0	0	0
12:00	3	0	12	0	3	0	0	0	18	15.6	1	0	79	2	14	1	0	0	97	96.7	0	0	10	0	1	0	0	0	11	11	0	0	0	0	0	0	0	0	0	0
12:15	3	0	14	0	3	0	0	0	20	17.6	1	1	76	1	16	0	0	0	95	93.6	1	0	8	0	1	0	0	0	10	9.2	0	0	0	0	0	0	0	0	0	0
12:30	1	0	13	0	1	0	0	0	15	14.2	1	1	71	0	9	1	0	0	83	82.1	0	0	11	0	2	1	0	0	14	14.5	0	0	0	0	0	0	0	0	0	0
12:45	4	0	22	0	4	2	0	0	32	29.8	2	1	78	1	4	0	0	0	86	83.8	0	0	12	0	1	0	0	0	13	13	0	0	1	0	0	0	0	0	1	1
H/TOT	11	0	61	0	11	2	0	0	85	77.2	5	3	304	4	43	2	0	0	361	356.2	1	0	41	0	5	1	0	0	48	47.7	0	0	1	0	0	0	0	0	1	1
13:00	0	1	13	1	2	0	0	0	17	16.4	4	0	66	0	9	3	0	0	82	80.3	0	0	8	0	0	0	0	0	8	8	0	0	0	0	0	0	0	0	0	0
13:15	5	0	20	0	0	0	0	0	25	21	5	0	70	2	11	0	0	0	88	84	0	0	15	2	3	1	0	0	21	21.5	0	0	0	0	0	0	0	0	0	0
13:30	1	1	27	0	1	1	0	0	31	30.1	2	0	62	2	6	2	0	0	74	73.4	0	0	19	0	3	0	0	0	22	22	0	0	0	0	0	0	0	0	0	0
13:45	2	0	17	0	3	0	0	0	22	20.4	0	0	75	1	9	1	0	0	86	86.5	0	0	13	1	3	0	0	0	17	17	0	0	0	0	0	0	0	0	0	0
H/TOT	8	2	77	1	6	1	0	0	95	87.9	11	0	273	5	35	6	0	0	330	324.2	0	0	55	3	9	1	0	0	68	68.5	0	0	0	0	0	0	0	0	0	0
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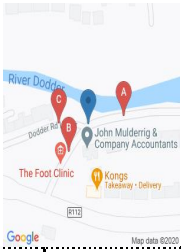
14:15	4	1	20	1	1	0	0	0	27	23.2	6	0	77	0	8	2	0	0	93	89.2	0	0	11	0	1	1	0	0	13	13.5	0	0	0	0	0	0	0	0	0	0
14:30	4	0	9	0	0	0	0	0	13	9.8	1	0	63	2	6	0	0	1	73	73.2	0	0	17	1	3	1	0	0	22	22.5	0	0	0	0	0	0	0	0	0	0
14:45	3	0	17	0	0	0	0	0	20	17.6	1	1	102	2	10	1	0	0	117	116.1	0	0	14	0	0	0	0	0	14	14	0	0	0	0	0	0	0	0	0	0
H/TOT	13	1	67	1	1	0	0	0	83	72	10	1	328	5	30	4	0	1	379	373.1	0	0	52	1	4	2	1	0	60	62.3	0	0	0	0	0	0	0	0	0	0
15:00	0	0	28	1	3	1	0	0	33	33.5	1	0	64	1	10	0	0	1	77	77.2	0	0	12	0	1	0	0	0	13	13	0	0	0	0	0	0	0	0	0	0
15:15	2	0	16	0	4	0	0	2	24	24.4	0	0	72	1	8	0	0	0	81	81	0	0	13	0	1	0	0	0	14	14	0	0	0	0	0	0	0	0	0	0
15:30	4	0	19	0	1	0	0	0	24	20.8	2	0	82	2	5	1	0	1	93	92.9	0	0	16	0	1	0	0	0	17	17	0	0	0	0	0	0	0	0	0	0
15:45	3	0	30	0	0	0	0	0	33	30.6	1	0	76	0	4	0	0	0	81	80.2	0	0	19	0	3	0	0	0	22	22	0	0	0	0	0	0	0	0	0	0
H/TOT	9	0	93	1	8	1	0	2	114	109.3	4	0	294	4	27	1	0	2	332	331.3	0	0	60	0	6	0	0	0	66	66	0	0	0	0	0	0	0	0	0	0
16:00	1	0	22	0	2	0	0	0	25	24.2	0	1	94	1	2	1	0	0	99	98.9	2	0	21	0	3	0	0	0	26	24.4	0	0	0	0	0	0	0	0	0	0
16:15	2	0	12	0	1	0	0	0	15	13.4	1	2	72	2	8	1	0	0	86	84.5	1	0	11	0	0	0	0	0	12	11.2	0	0	0	0	0	0	0	0	0	0
16:30	2	0	10	0	0	0	1	0	13	12.7	3	0	87	3	7	0	0	0	100	97.6	0	0	27	1	2	0	0	0	30	30	0	0	0	0	0	0	0	0	0	0
16:45	2	0	22	0	4	0	0	0	28	26.4	2	1	73	3	4	0	0	0	83	80.8	0	0	24	1	2	1	0	0	28	28.5	0	0	0	0	0	0	0	0	0	0
H/TOT	7	0	66	0	7	0	1	0	81	76.7	6	4	326	9	21	2	0	0	368	361.8	3	0	83	2	7	1	0	0	96	94.1	0	0	0	0	0	0	0	0	0	0
17:00	3	0	17	0	0	0	0	0	20	17.6	3	0	70	1	4	2	0	0	80	78.6	0	0	11	1	1	0	0	0	13	13	0	0	0	0	0	0	0	0	0	0
17:15	1	0	20	0	2	0	0	0	23	22.2	4	0	94	1	4	0	0	0	103	99.8	0	0	28	0	3	0	0	0	31	31	0	0	0	0	0	0	0	0	0	0
17:30	2	0	10	1	0	0	0	0	13	11.4	4	0	79	0	0	0	0	0	83	79.8	1	0	18	1	0	1	0	0	21	20.7	0	0	0	0	0	0	0	0	0	0
17:45	1	0	11	0	0	0	0	0	12	11.2	1	0	87	1	9	0	0	0	98	97.2	0	0	12	0	4	0	0	0	16	16	0	0	0	0	0	0	0	0	0	0
H/TOT	7	0	58	1	2	0	0	0	68	62.4	12	0	330	3	17	2	0	0	364	355.4	2	0	69	2	8	1	0	0	81	80.7	0	0	0	0	0	0	0	0	0	0
18:00	1	0	14	0	1	0	0	0	16	15.2	5	0	86	2	3	1	0	0	97	93.5	1	0	15	1	2	0	0	0	19	18.2	0	0	0	0	0	0	0	0	0	0
18:15	0	0	16	0	2	0	0	0	18	18	2	3	88	0	5	0	0	0	98	94.6	0	0	22	1	2	0	0	0	25	25	0	0	0	0	0	0	0	0	0	0
18:30	2	0	12	0	0	0	0	0	14	12.4	1	0	73	0	1	0	0	0	75	74.2	0	0	11	0	0	0	0	0	11	11	0	0	0	0	0	0	0	0	0	0
18:45	0	1	10	0	2	0	0	0	13	12.4	4	1	50	1	1	0	0	0	57	53.2	0	0	12	0	1	0	0	0	13	13	0	0	0	0	0	0	0	0	0	0
H/TOT	3	1	52	0	5	0	0	0	61	58	12	4	297	3	10	1	0	0	327	315.9	1	0	60	2	5	0	0	0	68	67.2	0	0	0	0	0	0	0	0	0	0
12 TOT	99	6	919	6	84	10	2	6	1132	1063	93	23	3698	64	420	57	7	3	4365	4311	17	0	617	16	63	12	1	0	726	719.7	0	0	1	0	0	0	0	0	1	1



IDASO

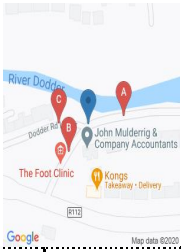
Survey Name: 135 20265 Dodder Rd Lower/ Dodder Park Rd

Site: Site 4

Location: Dodder Lower Road/Dodder Park Drive/Dodder Lower Road

Date: Thu 01-Oct-2020

	A => A										A => B										A => C									
TIME	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU
07:00	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0	0	0	0	3	1	1	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	8	1	1	0	0	0	10	10	0	0	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0	7	7	6	0	0	0	0	0	0	0	6	1.2
08:15	0	0	0	0	0	0	0	0	0	0	3	0	6	0	1	0	0	0	10	7.6	12	0	0	0	0	0	0	0	12	2.4
08:30	0	0	0	0	0	0	0	0	0	0	0	0	11	0	1	0	0	0	12	12	7	0	0	0	0	0	0	0	7	1.4
08:45	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0	7	7	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	3	0	31	0	2	0	0	0	36	33.6	25	0	0	0	0	0	0	0	25	5
09:00	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	6	6	0	0	1	0	0	0	0	0	1	1
09:30	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	6	6	1	0	0	0	0	0	0	0	1	0.2
09:45	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	16	1	0	0	0	0	17	17	1	0	1	0	0	0	0	0	2	1.2
10:00	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1	0	0	0	3	3	1	0	0	0	0	0	0	0	1	0.2
10:15	0	0	0	0	0	0	0	0	0	0	2	0	5	0	0	0	0	0	7	5.4	2	0	0	0	0	0	0	0	2	0.4
10:30	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0
10:45	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2	0.4	2	0	0	0	0	0	0	0	2	0.4
H/TOT	0	0	0	0	0	0	0	0	0	0	4	0	8	0	3	0	0	0	15	11.8	5	0	0	0	0	0	0	0	5	1
11:00	0	0	0	0	0	0	0	0	0	0	1	0	3	0	0	0	0	0	4	3.2	1	0	0	0	0	0	0	0	1	0.2
11:15	0	0	0	0	0	0	0	0	0	0	1	0	7	0	0	0	0	0	8	7.2	3	0	0	0	0	0	0	0	3	0.6
11:30	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	4	4	9	0	0	0	0	0	0	0	9	1.8
11:45	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	2	0	16	0	0	0	0	0	18	16.4	13	0	0	0	0	0	0	0	13	2.6
12:00	0	0	0	0	0	0	0	0	0	0	0	0	3	0	1	0	0	0	4	4	3	0	1	0	0	0	0	0	4	1.6
12:15	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	4	4	2	0	0	0	0	0	0	0	2	0.4
12:30	0	0	0	0	0	0	0	0	0	0	1	0	10	0	0	0	0	0	11	10.2	4	0	0	0	0	0	0	0	4	0.8
12:45	0	0	0	0	0	0	0	0	0	0	0	0	4	0	1	0	0	0	5	5	1	0	0	0	0	0	0	0	1	0.2
H/TOT	0	0	0	0	0	0	0	0	0	0	1	0	21	0	2	0	0	0	24	23.2	10	0	1	0	0	0	0	0	11	3
13:00	0	0	0	0	0	0	0	0	0	0	0	0	7	0	1	0	0	0	8	8	4	0	0	0	0	0	0	0	4	0.8
13:15	0	0	0	0	0	0	0	0	0	0	1	0	7	0	0	0	0	0	8	7.2	2	0	0	0	0	0	0	0	2	0.4
13:30	0	0	0	0	0	0	0	0	0	0	0	0	4	0	1	0	0	0	5	5	1	0	0	0	0	0	0	0	1	0.2
13:45	0	0	0	0	0	0	0	0	0	0	1	1	7	0	1	0	0	0	10	8.6	3	0	0	0	0	0	0	0	3	0.6
H/TOT	0	0	0	0	0	0	0	0	0	0	2	1	25	0	3	0	0	0	31	28.8	10	0	0	0	0	0	0	0	10	2
14:00	0	0	0	0	0	0	0	0	0	0	3	0	9	1	1	0	0	0	14	11.6	0	0	1	0	0	0	0	0	1	1
14:15	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	2	0	0	0	0	0	0	0	2	0.4
14:30	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	5	5	4	0	0	0	0	0	0	0	4	0.8
14:45	0	0	0	0	0	0	0	0	0	0	0	0	10	0	2	0	0	0	12	12	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	3	0	25	1	3	0	0	0	32	29.6	6	0	1	0	0	0	0	0	7	2.2
15:00	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0	7	7	1	0	0	0	0	0	0	0	1	0.2
15:15	0	0	0	0	0	0	0	0	0	0	0	0	3	0	1	0	0	0	4	4	1	0	0	0	0	0	0	0	1	0.2
15:30	0	0	0	0	0	0	0	0	0	0	1	1	5	0	5	0	0	0	12	10.6	2	0	0	0	0	0	0	0	2	0.4
15:45	0	0	0	0	0	0	0	0	0	0	0	0	9	0	1	0	0	0	10	10	2	0	0	0	0	0	0	0	2	0.4
H/TOT	0	0	0	0	0	0	0	0	0	0	1	1	24	0	7	0	0	0	33	31.6	6	0	0	0	0	0	0	0	6	1.2
16:00	0	0	0	0	0	0	0	0	0	0	0	1	19	0	2	0	0	0	22	21.4	9	0	0	0	0	0	0	0	9	1.8
16:15	0	0	0	0	0	0	0	0	0	0	1	0	25	0	1	0	0	0	27	26.2	1	0	0	0	0	0	0	0	1	0.2
16:30	0	0	0	0	0	0	0	0	0	0	1	0	22	0	1	0	0	0	24	23.2	5	0	0	0	0	0	0	0	5	1
16:45	0	0	0	0	0	0	0	0	0	0	0	0	11	0	2	0	0	0	13	13	1	0	0	0	0	0	0	0	1	0.2
H/TOT	0	0	0	0	0	0	0	0	0	0	2	1	77	0	6	0	0	0	86	83.8	16	0	0	0	0	0	0	0	16	3.2
17:00	0	0	0	0	0	0	0	0	0	0	0	0	7	0	1	0	0	0	8	8	1	0	0	0	0	0	0	0	1	0.2
17:15	0	0	0	0	0	0	0	0	0	0	1	0	13	0	0	0	0	0	14	13.2	7	0	0	0	0	0	0	0	7	1.4
17:30	1	0	0	0	0	0	0	0	1	0.2	1	0	5	0	1	0	0	0	7	6.2	9	0	0	0	0	0	0	0	9	1.8
17:45	0	0	0	0	0	0	0	0	0	0	0	1	5	1	1	0	0	0	8	7.4	5	0	0	0	0	0	0	0	5	1
H/TOT	1	0	0	0	0	0	0	0	1	0.2	2	1	30	1	3	0	0	0	37	34.8	22	0	0	0	0	0	0	0	22	4.4
18:00	0	0	0	0	0	0	0	0	0	0	1	0	10	0	0	0	0	0	11	10.2	10	0	0	0	0	0	0	0	10	2
18:15	0	0	0	0	0	0	0	0	0	0	0	0	6	0	2	0	0	0	8	8	3	0	1	0	0	0	0	0	4	1.6
18:30	0	0	0	0	0	0	0	0	0	0	0	0	11	0	0	0	0	0	11	11	2	0	0	0	0	0	0	0	2	0.4
18:45	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3	3	0	0	1	0	0	0	0	0	1	1
H/TOT	0	0	0	0	0	0	0	0	0	0	1	0	30	0	2	0	0	0	33	32.2	15	0	2	0	0	0	0	0	17	5
12 TOT	1	0	0	0	0	0	0	0	1	0.2	21	4	311	4	32	0	0	0	372	352.8	129	0	5	0	0	0	0	0	134	30.8



IDASO

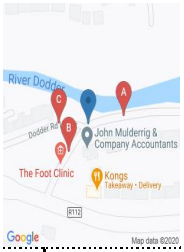
Survey Name: 135 20265 Dodder Rd Lower/ Dodder Park Rd

Site: Site 4

Location: Dodder Lower Road/Dodder Park Drive/Dodder Lower Road

Date: Thu 01-Oct-2020

	B => A										B => B										B => C									
TIME	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
07:00	0	0	3	0	1	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1
07:15	1	0	10	0	2	0	0	0	13	12.2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1
07:30	0	0	19	0	2	0	0	0	21	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45	3	0	29	0	1	0	0	0	33	30.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
H/TOT	4	0	61	0	6	0	0	0	71	67.8	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1	0	0	0	3	3
08:00	1	0	24	0	2	0	0	0	27	26.2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1
08:15	2	1	49	1	2	1	0	0	56	54.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30	0	0	54	1	2	0	0	0	57	57	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1
08:45	0	0	36	1	7	0	0	0	44	44	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	2
H/TOT	3	1	163	3	13	1	0	0	184	181.5	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	4	4
09:00	0	0	21	0	2	0	0	0	23	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15	0	0	21	0	1	0	0	0	22	22	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	2
09:30	1	0	15	0	1	0	0	0	17	16.2	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
09:45	0	0	9	0	1	0	0	0	10	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	1	0	66	0	5	0	0	0	72	71.2	0	0	1	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	2	2
10:00	0	0	10	0	4	0	0	0	14	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15	0	0	5	0	1	0	0	0	6	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30	1	0	9	0	1	0	0	0	11	10.2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1
10:45	0	0	8	0	0	0	0	0	8	8	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1
H/TOT	1	0	32	0	6	0	0	0	39	38.2	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	2
11:00	0	0	6	0	0	0	0	0	6	6	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1
11:15	2	0	7	0	0	0	0	0	9	7.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30	1	1	8	0	1	0	0	0	11	9.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45	1	0	10	1	0	0	0	0	12	11.2	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	2
H/TOT	4	1	31	1	1	0	0	0	38	34.2	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3	3
12:00	0	0	15	0	1	0	0	0	16	16	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1
12:15	0	0	13	0	1	0	0	0	14	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30	1	0	12	1	1	0	0	0	15	14.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45	1	0	9	0	1	0	0	0	11	10.2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1
H/TOT	2	0	49	1	4	0	0	0	56	54.4	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	2
13:00	1	0	7	0	0	0	0	0	8	7.2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1
13:15	2	0	7	0	0	0	0	0	9	7.4	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	0	3	3
13:30	1	0	11	0	1	0	0	0	13	12.2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1
13:45	0	0	12	0	1	0	0	0	13	13	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	2
H/TOT	4	0	37	0	2	0	0	0	43	39.8	0	0	0	0	0	0	0	0	0	0	0	0	6	1	0	0	0	0	7	7
14:00	1	0	18	0	2	1	0	0	22	21.7	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	2
14:15	0	0	14	0	0	0	0	0	14	14	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1
14:30	0	0	14	0	0	0	0	0	14	14	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1
14:45	0	0	12	0	0	0	0	0	12	12	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1	0	0	0	3	3
H/TOT	1	0	58	0	2	1	0	0	62	61.7	0	0	0	0	0	0	0	0	0	0	0	0	6	0	1	0	0	0	7	7
15:00	2	0	7	0	2	0	0	0	11	9.4	0	0	1	0	0	0	0	0	1	1	1	0	1	0	0	0	0	0	2	1.2
15:15	0	0	15	0	0	1	0	0	16	16.5	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1
15:30	1	0	24	0	0	0	0	0	25	24.2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1
15:45	0	0	23	0	1	0	0	0	24	24	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0.2
H/TOT	3	0	69	0	3	1	0	0	76	74.1	0	0	1	0	0	0	0	0	1	1	2	0	3	0	0	0	0	0	5	3.4
16:00	1	0	23	0	2	0	0	0	26	25.2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	2	2.5
16:15	3	1	15	0	1	0	0	0	20	17	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	2	2
16:30	1	0	14	1	1	0	0	0	17	16.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
16:45	0	1	18	0	1	0	0	0	20	19.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	5	2	70	1	5	0	0	0	83	77.8	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	1	0	0	5	5.5
17:00	0	0	12	3	1	0	0	0	16	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15	0	0	25	1	0	0	0	0	26	26	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1
17:30	2	0	8	0	0	0	0	0	10	8.4	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	2
17:45	0	0	19	0	2	0	0	0	21	21	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
H/TOT	2	0	64	4	3	0	0	0	73	71.4	0	0	1	0	0	0	0	0	1	1	0	0	3	0	0	0	0	0	3	3
18:00	0	0	13	1	0	0	0	0	14	14	0	0	1	0	0	0	0	0	1	1	0	0	1	0	0	0	0	0	1	1
18:15	0	0	21	0	0	0	0	0	21	21	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	2	1.4
18:30	0	0	10	0	1	0	0	0	11	11	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3	3
18:45	0	0	5	0	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	49	1	1	0	0	0	51	51	0	0	1	0	0	0	0	0	1	1	0	1	5	0	0	0	0	0	6	5.4
12 TOT	30	4	749	11	51	3	0	0	848	823.1	0	0	4	0	0	0	0	0	4	4	2	1	40	1	4	1	0	0	49	47.3



IDASO

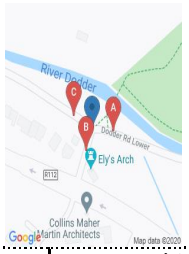
Survey Name: 135 20265 Dodder Rd Lower/ Dodder Park Rd

Site: Site 4

Location: Dodder Lower Road/Dodder Park Drive/Dodder Lower Road

Date: Thu 01-Oct-2020

	C => A										C => B										C => C									
TIME	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
07:00	1	0	0	0	0	0	0	0	1	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15	3	0	0	0	0	0	0	0	3	0.6	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
07:30	7	0	0	0	0	0	0	0	7	1.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45	1	0	0	0	1	0	0	0	2	1.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	12	0	0	0	1	0	0	0	13	3.4	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
08:00	4	0	0	0	0	0	0	0	4	0.8	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
08:15	8	0	1	0	0	0	0	0	9	2.6	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
08:30	9	0	0	0	0	0	0	0	9	1.8	0	1	2	0	0	0	0	0	3	2.4	0	0	0	0	0	0	0	0	0	0
08:45	8	0	0	0	0	0	0	0	8	1.6	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
H/TOT	29	0	1	0	0	0	0	0	30	6.8	0	1	5	0	0	0	0	0	6	5.4	0	0	0	0	0	0	0	0	0	0
09:00	6	0	0	0	0	0	0	0	6	1.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15	1	0	1	0	0	0	0	0	2	1.2	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
09:30	3	0	0	0	0	0	0	0	3	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45	2	0	0	0	0	0	0	0	2	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	12	0	1	0	0	0	0	0	13	3.4	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
10:00	2	0	1	0	0	0	0	0	3	1.4	1	0	0	0	0	0	0	0	1	0.2	0	0	0	0	0	0	0	0	0	0
10:15	3	0	0	0	0	0	0	0	3	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30	1	0	1	0	0	0	0	0	2	1.2	0	0	3	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0
10:45	1	0	1	0	0	0	0	0	2	1.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	7	0	3	0	0	0	0	0	10	4.4	1	0	3	0	0	0	0	0	4	3.2	0	0	0	0	0	0	0	0	0	0
11:00	1	0	0	0	0	0	0	0	1	0.2	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
11:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30	1	0	0	0	0	0	0	0	1	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45	2	0	0	0	0	0	0	0	2	0.4	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
H/TOT	4	0	0	0	0	0	0	0	4	0.8	0	0	2	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0
12:00	3	0	0	0	0	0	0	0	3	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15	5	0	0	0	0	0	0	0	5	1	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
12:30	2	0	0	0	0	0	0	0	2	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45	2	0	0	0	0	0	0	0	2	0.4	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
H/TOT	12	0	0	0	0	0	0	0	12	2.4	0	0	1	1	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0
13:00	3	0	0	0	0	0	0	0	3	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:15	3	0	0	0	0	0	0	0	3	0.6	0	0	2	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0
13:30	3	0	0	0	0	0	0	0	3	0.6	0	0	2	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0
13:45	2	0	1	0	0	0	0	0	3	1.4	0	0	2	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0
H/TOT	11	0	1	0	0	0	0	0	12	3.2	0	0	6	0	0	0	0	0	6	6	0	0	0	0	0	0	0	0	0	0
14:00	3	0	0	0	0	0	0	0	3	0.6	0	0	2	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0
14:15	6	0	1	0	0	0	0	0	7	2.2	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
14:30	6	0	0	0	0	0	0	0	6	1.2	0	1	0	0	0	0	0	0	1	0.4	0	0	0	0	0	0	0	0	0	0
14:45	2	0	0	0	0	0	0	0	2	0.4	0	0	2	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0
H/TOT	17	0	1	0	0	0	0	0	18	4.4	0	1	5	0	0	0	0	0	6	5.4	0	0	0	0	0	0	0	0	0	0
15:00	3	0	0	0	0	0	0	0	3	0.6	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
15:15	4	0	0	0	0	0	0	0	4	0.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:30	3	0	0	0	0	0	0	0	3	0.6	0	0	1	0	1	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0
15:45	8	0	0	0	0	0	0	0	8	1.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	18	0	0	0	0	0	0	0	18	3.6	0	0	2	0	1	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0
16:00	1	0	0	0	0	0	0	0	1	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15	1	0	0	0	0	0	0	0	1	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30	3	0	1	0	0	0	0	0	4	1.6	0	0	1	0	0	1	0	0	2	2.5	0	0	0	0	0	0	0	0	0	0
16:45	3	0	0	0	0	0	0	0	3	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	8	0	1	0	0	0	0	0	9	2.6	0	0	1	0	0	1	0	0	2	2.5	0	0	0	0	0	0	0	0	0	0
17:00	1	0	0	0	0	0	0	0	1	0.2	0	0	1	0	1	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0
17:15	2	0	0	0	0	0	0	0	2	0.4	0	0	2	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0
17:30	8	0	0	0	0	0	0	0	8	1.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45	1	1	0	0	0	0	0	0	2	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	12	1	0	0	0	0	0	0	13	2.8	0	0	3	0	1	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0
18:00	1	0	0	0	0	0	0	0	1	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15	7	0	1	0	0	0	0	0	8	2.4	0	0	3	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0
18:30	4	0	0	0	0	0	0	0	4	0.8	0	0	3	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0
18:45	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	12	0	2	0	0	0	0	0	14	4.4	0	0	6	0	0	0	0	0	6	6	0	0	0	0	0	0	0	0	0	0
12 TOT	154	1	10	0	1	0	0	0	166	42.2	1	2	35	1	3	1	0	0	43	41.5	0	0	0	0	0	0	0	0	0	0



IDASO

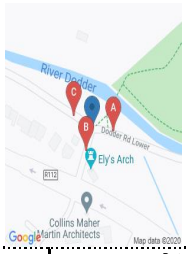
Survey Name: 135 20265 Dodder Rd Lower/ Dodder Park Rd

Site: Site 5

Location: Dodder Road Lower/Unnamed Road/Dodder Lower Road

Date: Thu 01-Oct-2020

	A => A										A => B										A => C									
TIME	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
07:00	0	0	0	0	0	0	0	0	0	0	1	0	11	0	2	1	0	0	15	14.7	0	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0	0	0	0	13	2	2	0	0	0	17	17	0	0	1	1	1	0	0	0	3	3
07:30	0	0	0	0	0	0	0	0	0	0	0	0	23	1	1	0	0	0	25	25	0	0	1	0	0	0	0	0	1	1
07:45	0	0	0	0	0	0	0	0	0	0	0	0	18	0	0	0	0	0	18	18	1	0	0	0	0	0	0	0	1	0.2
H/TOT	0	0	0	0	0	0	0	0	0	0	1	0	65	3	5	1	0	0	75	74.7	1	0	2	1	1	0	0	0	5	4.2
08:00	0	0	0	0	0	0	0	0	0	0	0	0	34	1	1	0	0	0	36	36	4	0	1	0	0	0	0	0	5	1.8
08:15	0	0	0	0	0	0	0	0	0	0	1	0	46	0	3	1	1	0	52	53	5	0	3	0	0	0	0	0	8	4
08:30	0	0	0	0	0	0	0	0	0	0	1	0	59	3	4	2	0	0	69	69.2	0	0	2	0	0	0	0	0	2	2
08:45	0	0	0	0	0	0	0	0	0	0	2	0	34	2	2	0	0	0	40	38.4	0	0	3	0	0	0	0	0	3	3
H/TOT	0	0	0	0	0	0	0	0	0	0	4	0	173	6	10	3	1	0	197	196.6	9	0	9	0	0	0	0	0	18	10.8
09:00	0	0	0	0	0	0	0	0	0	0	0	0	36	1	2	1	1	0	41	42.8	0	0	2	0	0	0	0	0	2	2
09:15	0	0	0	0	0	0	0	0	0	0	1	0	21	1	5	0	0	0	28	27.2	0	0	1	0	0	0	0	0	1	1
09:30	0	0	0	0	0	0	0	0	0	0	2	0	13	1	1	0	0	0	17	15.4	0	0	4	0	0	0	0	0	4	4
09:45	0	0	0	0	0	0	0	0	0	0	0	0	25	0	4	0	1	0	30	31.3	0	0	3	0	0	0	0	0	3	3
H/TOT	0	0	0	0	0	0	0	0	0	0	3	0	95	3	12	1	2	0	116	116.7	0	0	10	0	0	0	0	0	10	10
10:00	0	0	0	0	0	0	0	0	0	0	1	1	23	0	5	1	1	0	32	32.4	0	0	3	0	0	0	0	0	3	3
10:15	0	0	0	0	0	0	0	0	0	0	0	0	27	1	2	1	0	0	31	31.3	2	0	3	0	0	0	0	0	5	3.4
10:30	0	0	0	0	0	0	0	0	0	0	2	1	36	0	1	3	0	0	43	42.3	0	0	1	0	0	0	0	0	1	1
10:45	0	0	0	0	0	0	0	0	0	0	0	0	25	0	2	2	0	0	29	30	2	0	0	0	0	0	0	0	2	0.4
H/TOT	0	0	0	0	0	0	0	0	0	0	3	2	111	1	10	7	1	0	135	136.2	4	0	7	0	0	0	0	0	11	7.8
11:00	0	0	0	0	0	0	0	0	0	0	1	0	28	1	5	0	0	0	35	34.2	1	0	3	0	0	0	0	0	4	3.2
11:15	0	0	0	0	0	0	0	0	0	0	1	1	29	0	1	1	1	0	34	34.4	4	0	0	0	0	0	0	0	4	0.8
11:30	0	0	0	0	0	0	0	0	0	0	0	0	29	2	8	0	0	0	39	39	6	0	0	0	0	0	0	0	6	1.2
11:45	0	0	0	0	0	0	0	0	0	0	2	0	35	2	4	1	0	0	44	42.9	0	0	1	0	0	0	0	0	1	1
H/TOT	0	0	0	0	0	0	0	0	0	0	4	1	121	5	18	2	1	0	152	150.5	11	0	4	0	0	0	0	0	15	6.2
12:00	0	0	0	0	0	0	0	0	0	0	1	1	33	1	6	2	0	0	44	43.6	2	0	3	0	1	0	0	0	6	4.4
12:15	0	0	0	0	0	0	0	0	0	0	1	0	26	2	3	0	0	0	32	31.2	4	0	4	0	0	0	0	0	8	4.8
12:30	0	0	0	0	0	0	0	0	0	0	3	1	33	0	3	2	0	0	42	40	2	0	3	0	0	0	0	0	5	3.4
12:45	0	0	0	0	0	0	0	0	0	0	1	0	37	3	6	2	0	0	49	49.2	1	0	3	0	0	0	0	0	4	3.2
H/TOT	0	0	0	0	0	0	0	0	0	0	6	2	129	6	18	6	0	0	167	164	9	0	13	0	1	0	0	0	23	15.8
13:00	0	0	0	0	0	0	0	0	0	0	1	0	33	0	7	2	0	0	43	43.2	3	0	3	0	1	0	0	0	7	4.6
13:15	0	0	0	0	0	0	0	0	0	0	1	0	49	3	7	4	1	0	65	67.5	1	0	5	0	0	0	0	0	6	5.2
13:30	0	0	0	0	0	0	0	0	0	0	4	1	37	1	5	0	0	0	48	44.2	0	0	3	0	1	0	0	0	4	4
13:45	0	0	0	0	0	0	0	0	0	0	2	0	45	3	4	0	0	0	54	52.4	3	1	5	0	1	0	0	0	10	7
H/TOT	0	0	0	0	0	0	0	0	0	0	8	1	164	7	23	6	1	0	210	207.3	7	1	16	0	3	0	0	0	27	20.8
14:00	0	0	0	0	0	0	0	0	0	0	2	1	46	0	11	0	0	0	60	57.8	2	0	5	0	1	0	0	0	8	6.4
14:15	0	0	0	0	0	0	0	0	0	0	2	0	50	2	6	2	0	0	62	61.4	4	0	4	0	0	0	0	0	8	4.8
14:30	0	0	0	0	0	0	0	0	0	0	4	2	46	3	11	4	0	0	70	67.6	1	0	2	0	1	0	0	0	4	3.2
14:45	0	0	0	0	0	0	0	0	0	0	3	0	38	1	9	2	0	0	53	51.6	0	0	4	0	1	0	0	0	5	5
H/TOT	0	0	0	0	0	0	0	0	0	0	11	3	180	6	37	8	0	0	245	238	7	0	15	0	3	0	0	0	25	19.4
15:00	0	0	0	0	0	0	0	0	0	0	0	0	59	2	11	4	0	0	76	78	5	0	3	0	0	0	0	0	8	4
15:15	0	0	0	0	0	0	0	0	0	0	2	0	62	1	10	1	0	0	76	74.9	3	0	1	0	2	0	0	0	6	3.6
15:30	0	0	0	0	0	0	0	0	0	0	2	1	54	0	11	1	1	0	70	69.6	6	1	6	0	4	0	0	0	17	11.6
15:45	0	0	0	0	0	0	0	0	0	0	4	0	68	1	11	2	0	0	86	83.8	4	0	5	0	1	0	0	0	10	6.8
H/TOT	0	0	0	0	0	0	0	0	0	0	8	1	243	4	43	8	1	0	308	306.1	18	1	15	0	7	0	0	0	41	26
16:00	0	0	0	0	0	0	0	0	0	0	6	0	46	1	12	0	0	0	65	60.2	3	1	6	0	2	0	0	0	12	9
16:15	0	0	0	0	0	0	0	0	0	0	1	0	60	1	15	2	1	0	80	81.5	2	0	20	0	1	0	0	0	23	21.4
16:30	0	0	0	0	0	0	0	0	0	0	3	1	68	1	19	2	0	0	94	92	5	0	14	0	2	0	0	0	21	17
16:45	0	0	0	0	0	0	0	0	0	0	6	1	54	1	5	0	0	0	67	61.6	1	0	5	0	1	0	0	0	7	6.2
H/TOT	0	0	0	0	0	0	0	0	0	0	16	2	228	4	51	4	1	0	306	295.3	11	1	45	0	6	0	0	0	63	53.6
17:00	0	0	0	0	0	0	0	0	0	0	5	0	87	1	14	2	0	0	109	106	0	0	6	0	1	0	0	0	7	7
17:15	0	0	0	0	0	0	0	0	0	0	7	1	67	1	8	1	0	0	85	79.3	8	0	9	0	0	0	0	0	17	10.6
17:30	0	0	0	0	0	0	0	0	0	0	4	0	56	1	9	0	0	0	70	66.8	6	0	5	1	0	0	0	0	12	7.2
17:45	0	0	0	0	0	0	0	0	0	0	3	1	47	5	10	0	0	0	66	63	6	0	1	0	2	0	0	0	9	4.2
H/TOT	0	0	0	0	0	0	0	0	0	0	19	2	257	8	41	3	0	0	330	315.1	20	0	21	1	3	0	0	0	45	29
18:00	0	0	0	0	0	0	0	0	0	0	3	1	76	0	10	1	0	0	91	88.5	7	0	8	0	0	0	0	0	15	9.4
18:15	0	0	0	0	0	0	0	0	0	0	1	1	51	0	5	0	0	1	59	58.6	1	0	3	0	0	0	0	0	4	3.2
18:30	0	0	0	0	0	0	0	0	0	0	8	0	58	0	1	0	0	0	67	60.6	2	0	4	0	0	0	0	0	6	4.4
18:45	0	0	0	0	0	0	0	0	0	0	1	0	26	0	6	0	0	0	33	32.2	0	0	2	0	0	0	0	0	2	2
H/TOT	0	0	0	0	0	0	0	0	0	0	13	2	211	0	22	1	0	1	250	239.9	10	0	17	0	0	0	0	0	27	19
12 TOT	0	0	0	0	0	0	0	0	0	0	96	16	1977	53	290	50	8	1	2491	2441	107	3	174	2	24	0	0	0	310	222.6



IDASO

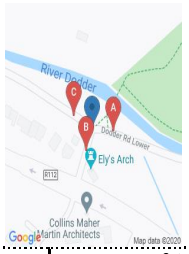
Survey Name: 135 20265 Dodder Rd Lower/ Dodder Park Rd

Site: Site 5

Location: Dodder Road Lower/Unnamed Road/Dodder Lower Road

Date: Thu 01-Oct-2020

	B => A										B => B										B => C									
TIME	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
07:00	1	0	36	0	9	0	0	0	46	45.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15	3	0	31	0	6	1	0	0	41	39.1	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	2	1.2
07:30	2	0	52	0	7	2	1	0	64	64.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45	5	1	75	0	11	1	1	0	94	91.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	11	1	194	0	33	4	2	0	245	240.2	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	2	1.2
08:00	6	0	46	0	9	2	0	0	63	59.2	0	0	0	0	0	0	0	0	0	0	6	0	2	0	0	0	0	0	8	3.2
08:15	9	0	43	0	6	1	0	0	59	52.3	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	4	2.4
08:30	4	2	47	0	7	1	0	0	61	57.1	0	0	0	0	0	0	0	0	0	0	4	0	9	0	0	0	0	0	13	9.8
08:45	9	2	36	0	9	1	0	0	57	49.1	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	2
H/TOT	28	4	172	0	31	5	0	0	240	217.7	0	0	0	0	0	0	0	0	0	0	12	0	15	0	0	0	0	0	27	17.4
09:00	3	1	36	1	6	1	0	0	48	45.5	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3	3
09:15	0	0	32	0	8	0	0	0	40	40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30	1	0	42	0	2	2	1	0	48	49.5	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	2	1.2
09:45	0	0	32	2	3	1	1	0	39	40.8	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2	0.4
H/TOT	4	1	142	3	19	4	2	0	175	175.8	0	0	0	0	0	0	0	0	0	0	3	0	3	1	0	0	0	0	7	4.6
10:00	2	0	20	1	4	1	0	0	28	26.9	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1
10:15	0	0	31	1	2	0	0	0	34	34	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1
10:30	2	0	18	0	5	0	0	0	25	23.4	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	2	2
10:45	1	0	27	0	2	1	0	0	31	30.7	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0.2
H/TOT	5	0	96	2	13	2	0	0	118	115	0	0	0	0	0	0	0	0	0	0	1	0	3	0	1	0	0	0	5	4.2
11:00	3	0	16	2	4	0	1	0	26	24.9	0	0	0	0	0	0	0	0	0	0	1	0	3	0	0	0	0	0	4	3.2
11:15	2	0	25	2	7	1	0	0	37	35.9	0	0	0	0	0	0	0	0	0	0	1	0	2	0	0	0	0	0	3	2.2
11:30	2	0	27	0	6	2	0	0	37	36.4	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	2
11:45	1	0	13	1	5	3	0	0	23	23.7	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3	3
H/TOT	8	0	81	5	22	6	1	0	123	120.9	0	0	0	0	0	0	0	0	0	0	2	0	10	0	0	0	0	0	12	10.4
12:00	1	0	33	1	3	0	0	0	38	37.2	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	2
12:15	1	2	32	0	6	1	0	0	42	40.5	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	2
12:30	0	0	28	1	5	1	0	0	35	35.5	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	2	1.2
12:45	2	0	28	1	0	0	0	0	31	29.4	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1
H/TOT	4	2	121	3	14	2	0	0	146	142.6	0	0	0	0	0	0	0	0	0	0	1	0	6	0	0	0	0	0	7	6.2
13:00	0	0	30	0	3	2	0	0	35	36	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	5	5
13:15	1	0	26	1	4	0	0	0	32	31.2	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	2
13:30	2	0	34	1	4	0	0	0	41	39.4	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1
13:45	1	0	38	1	4	0	0	0	44	43.2	0	0	0	0	0	0	0	0	0	0	2	0	2	0	1	0	0	0	5	3.4
H/TOT	4	0	128	3	15	2	0	0	152	149.8	0	0	0	0	0	0	0	0	0	0	2	0	10	0	1	0	0	0	13	11.4
14:00	1	0	27	0	3	2	0	0	33	33.2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0.4
14:15	2	0	32	0	5	0	0	0	39	37.4	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1	0	0	0	3	3
14:30	0	0	20	1	2	1	0	0	24	24.5	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	4	4
14:45	1	1	33	1	4	0	0	0	40	38.6	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1
H/TOT	4	1	112	2	14	3	0	0	136	133.7	0	0	0	0	0	0	0	0	0	0	0	1	7	0	1	0	0	0	9	8.4
15:00	0	0	32	2	1	0	0	0	35	35	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3	3
15:15	6	0	20	2	3	0	0	1	32	28.2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1
15:30	1	1	26	0	1	0	0	0	29	27.6	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	2	1.2
15:45	2	0	20	0	1	0	0	0	23	21.4	0	0	0	0	0	0	0	0	0	0	1	0	7	0	1	0	0	0	9	8.2
H/TOT	9	1	98	4	6	0	0	1	119	112.2	0	0	0	0	0	0	0	0	0	0	2	0	12	0	1	0	0	0	15	13.4
16:00	1	0	32	0	2	1	0	0	36	35.7	0	0	0	0	0	0	0	0	0	0	3	0	2	0	0	0	0	0	5	2.6
16:15	4	1	33	0	1	1	0	0	40	36.7	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	4	4
16:30	1	0	24	0	3	1	0	0	29	28.7	0	0	0	0	0	0	0	0	0	0	1	0	5	0	0	0	0	0	6	5.2
16:45	0	0	32	0	0	0	0	0	32	32	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	5	5
H/TOT	6	1	121	0	6	3	0	0	137	133.1	0	0	0	0	0	0	0	0	0	0	4	0	16	0	0	0	0	0	20	16.8
17:00	0	0	21	0	0	0	0	0	21	21	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	4	4
17:15	0	0	17	0	1	0	0	0	18	18	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	4	4
17:30	1	0	21	0	2	0	0	0	24	23.2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1
17:45	1	0	31	0	0	0	0	0	32	31.2	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3	3
H/TOT	2	0	90	0	3	0	0	0	95	93.4	0	0	0	0	0	0	0	0	0	0	0	0	12	0	0	0	0	0	12	12
18:00	3	0	31	3	2	0	0	0	39	36.6	0	0	0	0	0	0	0	0	0	0	2	0	4	0	0	0	0	0	6	4.4
18:15	1	0	27	0	1	0	0	0	29	28.2	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	2
18:30	1	1	25	0	2	0	0	0	29	27.6	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	2
18:45	3	0	26	1	0	0	0	0	30	27.6	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	2	1.2
H/TOT	8	1	109	4	5	0	0	0	127	120	0	0	0	0	0	0	0	0	0	0	3	0	9	0	0	0	0	0	12	9.6
12 TOT	93	12	1464	26	181	31	5	1	1813	1754	0	0	0	0	0	0	0	0	0	0	31	1	104	1	4	0	0	0	141	115.6



IDASO

Survey Name: 135 20265 Dodder Rd Lower/ Dodder Park Rd

Site: Site 5

Location: Dodder Road Lower/Unnamed Road/Dodder Lower Road

Date: Thu 01-Oct-2020

	C => A										C => B										C => C									
TIME	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
07:00	0	0	3	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15	2	0	7	0	1	0	0	0	10	8.4	1	0	0	0	0	0	0	0	1	0.2	0	0	0	0	0	0	0	0	0	0
07:30	4	0	15	0	2	0	0	0	21	17.8	1	0	0	0	1	0	0	0	2	1.2	0	0	0	0	0	0	0	0	0	0
07:45	7	0	33	0	1	0	0	0	41	35.4	1	0	5	0	0	0	0	0	6	5.2	0	0	0	0	0	0	0	0	0	0
H/TOT	13	0	58	0	4	0	0	0	75	64.6	3	0	5	0	1	0	0	0	9	6.6	0	0	0	0	0	0	0	0	0	0
08:00	3	0	21	0	1	0	0	0	25	22.6	3	0	2	0	1	0	0	0	6	3.6	0	0	0	0	0	0	0	0	0	0
08:15	4	1	40	1	2	1	0	0	49	45.7	0	0	10	0	0	0	0	0	10	10	0	0	0	0	1	0	0	0	1	1
08:30	5	0	37	0	0	0	0	0	42	38	1	0	19	0	0	0	0	0	20	19.2	0	0	0	0	0	0	0	0	0	0
08:45	3	0	31	1	6	0	0	0	41	38.6	1	0	11	0	0	0	0	0	12	11.2	0	0	0	0	0	0	0	0	0	0
H/TOT	15	1	129	2	9	1	0	0	157	144.9	5	0	42	0	1	0	0	0	48	44	0	0	0	0	1	0	0	0	1	1
09:00	4	0	16	0	2	0	0	0	22	18.8	2	0	3	0	0	0	0	0	5	3.4	0	0	0	0	0	0	0	0	0	0
09:15	1	0	20	0	1	0	0	0	22	21.2	1	0	2	0	1	0	0	0	4	3.2	0	0	0	0	0	0	0	0	0	0
09:30	2	0	12	0	1	0	0	0	15	13.4	2	0	2	0	0	0	0	0	4	2.4	0	0	0	0	0	0	0	0	0	0
09:45	4	0	7	0	1	0	0	0	12	8.8	0	0	2	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0
H/TOT	11	0	55	0	5	0	0	0	71	62.2	5	0	9	0	1	0	0	0	15	11	0	0	0	0	0	0	0	0	0	0
10:00	1	0	13	0	2	0	0	0	16	15.2	0	0	5	0	0	0	0	0	5	5	0	0	0	0	1	0	0	0	1	1
10:15	3	0	5	0	1	0	0	0	9	6.6	0	0	3	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0
10:30	1	0	6	0	1	0	0	0	8	7.2	0	0	2	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0
10:45	1	0	7	0	0	0	0	0	8	7.2	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
H/TOT	6	0	31	0	4	0	0	0	41	36.2	0	0	11	0	0	0	0	0	11	11	0	0	0	0	1	0	0	0	1	1
11:00	1	0	4	0	0	0	0	0	5	4.2	0	0	3	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0
11:15	1	0	5	0	0	0	0	0	6	5.2	0	0	2	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0
11:30	2	1	6	0	0	0	0	0	9	6.8	1	0	0	0	0	0	0	0	1	0.2	0	0	0	0	0	0	0	0	0	0
11:45	2	0	8	1	0	0	0	0	11	9.4	1	0	1	0	0	0	0	0	2	1.2	0	0	0	0	0	0	0	0	0	0
H/TOT	6	1	23	1	0	0	0	0	31	25.6	2	0	6	0	0	0	0	0	8	6.4	0	0	0	0	0	0	0	0	0	0
12:00	3	0	8	0	1	0	0	0	12	9.6	1	0	6	0	0	0	0	0	7	6.2	0	0	0	0	0	0	0	0	0	0
12:15	2	0	7	0	0	0	0	0	9	7.4	2	0	3	0	0	0	0	0	5	3.4	0	0	0	0	0	0	0	0	0	0
12:30	1	0	11	0	1	0	0	0	13	12.2	1	0	2	1	0	0	0	0	4	3.2	0	0	0	0	0	0	0	0	0	0
12:45	3	0	5	0	0	0	0	0	8	5.6	2	0	2	0	2	0	0	0	6	4.4	0	0	0	0	0	0	0	0	0	0
H/TOT	9	0	31	0	2	0	0	0	42	34.8	6	0	13	1	2	0	0	0	22	17.2	0	0	0	0	0	0	0	0	0	0
13:00	2	0	7	0	0	0	0	0	9	7.4	1	0	3	0	0	0	0	0	4	3.2	0	0	0	0	0	0	0	0	0	0
13:15	3	0	7	0	0	0	0	0	10	7.6	0	0	2	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0
13:30	4	0	6	0	0	0	0	0	10	6.8	1	0	4	0	0	0	0	0	5	4.2	0	0	0	0	0	0	0	0	0	0
13:45	4	0	8	0	2	0	0	0	14	10.8	0	0	2	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0
H/TOT	13	0	28	0	2	0	0	0	43	32.6	2	0	11	0	0	0	0	0	13	11.4	0	0	0	0	0	0	0	0	0	0
14:00	2	0	16	0	2	0	0	0	20	18.4	0	1	1	0	0	1	0	0	3	2.9	0	0	0	0	0	0	0	0	0	0
14:15	3	0	13	0	0	0	0	0	16	13.6	3	0	2	0	1	0	0	0	6	3.6	0	0	0	0	0	0	0	0	0	0
14:30	5	0	12	0	0	0	0	0	17	13	3	0	1	0	1	0	0	0	5	2.6	0	0	0	0	0	0	0	0	0	0
14:45	0	0	10	0	0	0	0	0	10	10	3	0	0	0	0	0	0	0	3	0.6	0	0	0	0	0	0	0	0	0	0
H/TOT	10	0	51	0	2	0	0	0	63	55	9	1	4	0	2	1	0	0	17	9.7	0	0	0	0	0	0	0	0	0	0
15:00	2	0	6	0	0	0	0	0	8	6.4	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
15:15	1	0	9	0	0	0	0	0	10	9.2	0	0	2	0	1	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0
15:30	2	0	10	0	0	1	0	0	13	11.9	2	0	3	0	0	0	0	0	5	3.4	0	0	0	0	0	0	0	0	0	0
15:45	1	0	11	0	1	0	0	0	13	12.2	1	0	5	0	0	0	0	0	6	5.2	0	0	0	0	0	0	0	0	0	0
H/TOT	6	0	36	0	1	1	0	0	44	39.7	3	0	11	0	1	0	0	0	15	12.6	0	0	0	0	0	0	0	0	0	0
16:00	4	0	12	0	0	0	0	0	16	12.8	1	0	17	0	1	0	0	0	19	18.2	0	0	0	0	0	0	0	0	0	0
16:15	2	1	11	0	1	0	0	0	15	12.8	1	0	4	0	1	0	0	0	6	5.2	0	0	0	0	0	0	0	0	0	0
16:30	4	0	9	0	0	0	0	0	13	9.8	0	0	5	1	0	0	0	0	6	6	0	0	0	0	0	0	0	0	0	0
16:45	1	1	11	0	1	0	0	0	14	12.6	0	0	7	0	0	0	0	0	7	7	0	0	0	0	0	0	0	0	0	0
H/TOT	11	2	43	0	2	0	0	0	58	48	2	0	33	1	2	0	0	0	38	36.4	0	0	0	0	0	0	0	0	0	0
17:00	3	0	8	3	1	0	0	0	15	12.6	0	0	5	0	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0
17:15	0	0	14	1	0	0	0	0	15	15	0	0	10	0	0	0	0	0	10	10	0	0	0	0	0	0	0	0	0	0
17:30	6	0	5	0	0	0	0	0	11	6.2	5	0	1	0	0	0	0	0	6	2	0	0	0	0	0	0	0	0	0	0
17:45	0	0	10	0	1	0	0	0	11	11	1	0	1	0	1	0	0	0	3	2.2	0	0	0	0	0	0	0	0	0	0
H/TOT	9	0	37	4	2	0	0	0	52	44.8	6	0	17	0	1	0	0	0	24	19.2	0	0	0	0	0	0	0	0	0	0
18:00	1	0	7	1	0	0	0	0	9	8.2	0	0	2	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0
18:15	1	0	13	0	0	0	0	0	14	13.2	2	0	2	0	1	0	0	0	5	3.4	0	0	0	0	0	0	0	0	0	0
18:30	3	0	10	0	1	0	0	0	14	11.6	2	0	8	0	0	0	0	0	10	8.4	0	0	0	0	0	0	0	0	0	0
18:45	0	0	8	0	0	0	0	0	8	8	0	0	4	0	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0
H/TOT	5	0	38	1	1	0	0	0	45	41	4	0	16	0	1	0	0	0	21	17.8	0	0	0	0	0	0	0	0	0	0
12 TOT	114	4	560	8	34	2	0	0	722	629.4	47	1	178	2	12	1	0	0	241	203.3	0	0	0	0	2	0	0	0	2	2

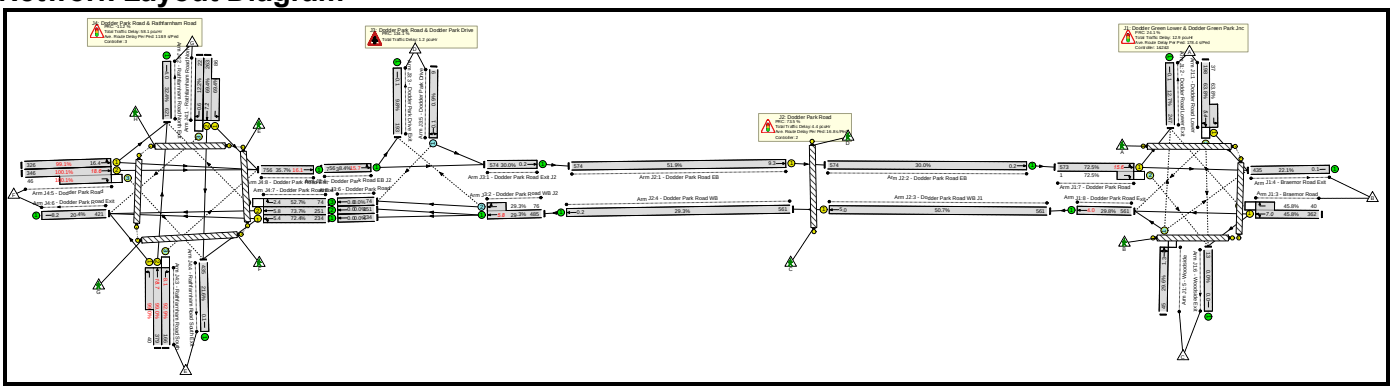
Appendix E – Linsig Results

User and Project Details

Project:	**Dodder Green Lower Part VIII**
Title:	
Location:	Dodder Park Road
Client:	South Dublin County Council
Date Started:	10/15/2020
Model Purpose:	Traffic Impact Assesment: Improvements to the Dodder Road Lower to provide additional pedestrian/cyclist facilities
Additional detail:	
File name:	20 Oct_20 Dodder Green Junctions Proposed conditions v1.5.lsg3x
Author:	Carol Diaz Rosario
Company:	Clifton Scanell Emerson and Associates
Address:	CSEA, Mentec House (1st Floor), Bakers Point, Pottery Road, Dun Laoghaire, Co. Dublin, A96 K6P3
Linsig Version:	3, 2, 40, 0

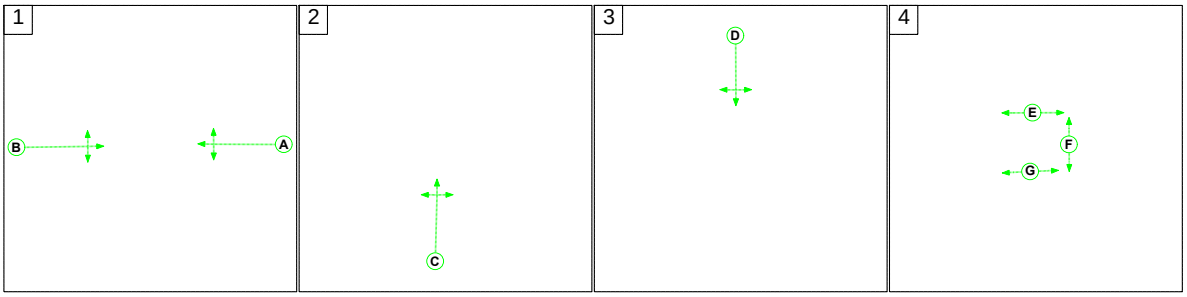
Scenario 1: 'AM PEAK Do-Nothing' (FG1: 'AM PEAK Do-Nothing', Plan 1: 'Network Control Plan 1')

Network Layout Diagram

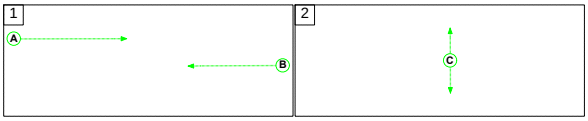


Stage Sequence Diagram

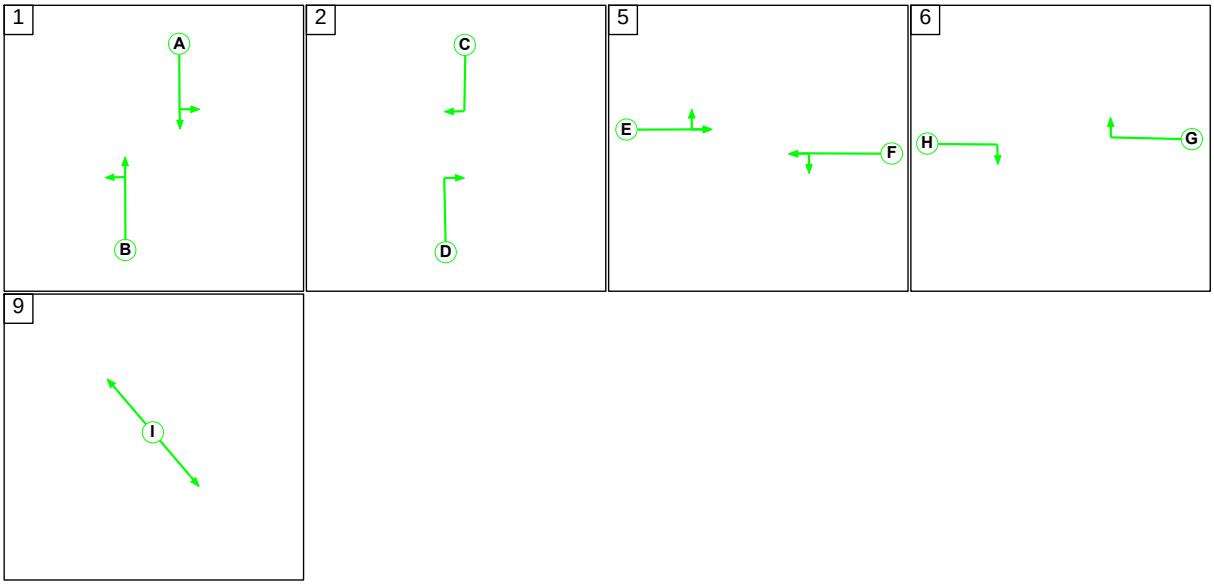
C1 - Dodder Green Lower && Dodder Park Road



C2 - Dodder Park Road



C3 - Rathfarnham Road && Dodder Park Road



Network Results

Item	Lane Description	Lane Type	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-	-	-	**100.1%**	**51**	**504**	**34**	**76.6**	-	-
J1: Dodder Green Lower && Dodder Green Park Jnc	-	-	-	-	-	**72.5%**	**41**	**225**	**5**	**12.9**	-	-
1/2+1/1	Dodder Road Lower Left Ahead Right	O+U	235	1708:1613	310+58	63.8 : 63.8%	0	194	4	3.0	46.3	5.4
2/1	Dodder Road Lower Exit	U	247	1940	1940	12.7%	-	-	-	0.1	1.1	0.1
3/1+3/2	Braemor Road Right Left Ahead	U+O	402	1969:1700	790+87	45.8 : 45.8%	40	0	0	2.4	21.9	7.0
4/1	Braemor Road Exit	U	435	1965	1965	22.1%	-	-	-	0.1	1.2	0.1
5/1	Woodside Ahead Right Left	O	45	1708	152	29.6%	0	31	1	0.7	55.2	1.3
7/1+7/2	Dodder Park Road Left Ahead Right	U+O	574	1825:1541	790+1	72.5 : 72.5%	1	0	0	6.3	39.6	15.6
8/1	Dodder Park Road Exit Ahead	U	561	1885	1885	29.8%	-	-	-	0.2	1.4	4.0
Ped Link: P1	Unnamed Ped Link	-	20	-	5600	0.4%	-	-	-	0.3	54.5	0.5
Ped Link: P2	Unnamed Ped Link	-	20	-	5600	0.4%	-	-	-	0.4	69.4	0.5
Ped Link: P3	Unnamed Ped Link	-	20	-	5600	0.4%	-	-	-	0.3	54.5	0.5
J2: Dodder Park Road	-	-	-	-	-	**51.9%**	**0**	**0**	**0**	**4.4**	-	-
1/1	Dodder Park Road EB Ahead	U	574	1915	1106	51.9%	-	-	-	2.4	15.1	9.3
2/1	Dodder Park Road EB Ahead	U	574	1915	1915	30.0%	-	-	-	0.2	1.3	0.2
3/1	Dodder Park Road WB J1 Ahead	U	561	1915	1106	50.7%	-	-	-	1.6	10.2	5.0
4/1	Dodder Park Road WB Ahead	U	561	1915	1915	29.3%	-	-	-	0.2	1.3	0.2
Ped Link: P1	Unnamed Ped Link	-	20	-	11200	0.2%	-	-	-	0.1	16.8	0.2
J3: Dodder Park Road && Dodder Park Drive	-	-	-	-	-	**38.4%**	**10**	**0**	**0**	**1.2**	-	-

1/1	Dodder Park Road Exit J2 Ahead	U	574	1915	1915	30.0%	-	-	-	0.2	1.3	0.2
2/1+2/2	Dodder Park Road WB J2 Right Ahead	U+O	561	1915:1890	1653+259	29.3 : 29.3%	6	0	0	0.4	2.6	5.8
3/1	Dodder Park Drive Exit	U	193	1965	1965	9.8%	-	-	-	0.1	1.0	0.1
4/1	Dodder Park Road EB J2 Ahead Left	U	756	1966	1966	38.4%	-	-	-	0.5	2.3	15.7
5/1	Dodder Park Drive Left Right	O	9	1909	1041	0.9%	4	0	0	0.0	6.6	0.1
J4: Dodder Park Road && Rathfarnham Road	**-**	**-**	**-**	**-**	**-**	**100.1%**	**0**	**279**	**29**	**58.1**	**-**	**-**
1/2+1/1	Rathfarnham Road Norht Ahead Left	U	349	1915:1768	379+124	69.4 : 69.4%	-	-	-	4.3	44.2	7.2
1/3	Rathfarnham Road Norht Right	O	22	1798	180	12.2%	0	22	0	0.3	48.3	0.6
2/1	Rathfarnham Road North Exit	U	621	1915	1915	32.4%	-	-	-	0.2	1.4	4.0
3/2+3/1	Rathfarnham Road South Ahead Left	U	419	1915:1665	383+40	99.0 : 99.0%	-	-	-	13.3	114.6	18.7
3/3	Rathfarnham Road South Right	O	166	1787	179	92.9%	0	139	27	5.9	127.1	8.1
4/1	Rathfarnham Road South Exit	U	435	2015	2015	21.6%	-	-	-	0.1	1.1	0.1
5/1	Dodder Park Road Left Ahead	U	326	1850	329	99.1%	-	-	-	11.7	129.0	16.4
5/2+5/3	Dodder Park Road Right Ahead	U+O	392	1945:1809	346+46	100.1 : 100.1%	0	45	1	14.0	128.8	18.6
6/1	Dodder Park Road Exit	U	421	2065	2065	20.4%	-	-	-	0.2	2.0	8.2
7/1	Dodder Park Road Exit Left Ahead	U	234	1817	323	72.4%	-	-	-	2.5	38.4	5.4
7/2	Dodder Park Road Exit Ahead	U	251	1915	340	73.7%	-	-	-	2.7	38.7	5.8
7/3	Dodder Park Road Exit Right	O	74	1807	141	52.7%	0	74	0	1.5	75.1	2.4
8/1	Dodder Park Road Exit Ahead	U	756	2115	2115	35.7%	-	-	-	1.3	6.0	16.1

Ped Link: P1	Unnamed Ped Link	-	20	-	5600	0.4%	-	-	-	0.3	59.5	0.5
Ped Link: P2	Unnamed Ped Link	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P3	Unnamed Ped Link	-	60	-	5600	1.1%	-	-	-	0.9	52.8	1.4
Ped Link: P4	Unnamed Ped Link	-	40	-	5600	0.7%	-	-	-	0.8	69.4	1.0

C1 - Dodder Green Lower && Dodder Park Road	PRC for Signalled Lanes (%):	24.1	Total Delay for Signalled Lanes (pcuHr):	12.47
C2 - Dodder Park Road	PRC for Signalled Lanes (%):	73.5	Total Delay for Signalled Lanes (pcuHr):	4.00
C3 - Rathfarnham Road && Dodder Park Road	PRC for Signalled Lanes (%):	-11.2	Total Delay for Signalled Lanes (pcuHr):	56.23
	PRC Over All Lanes (%):	-11.2	Total Delay Over All Lanes(pcuHr):	76.58

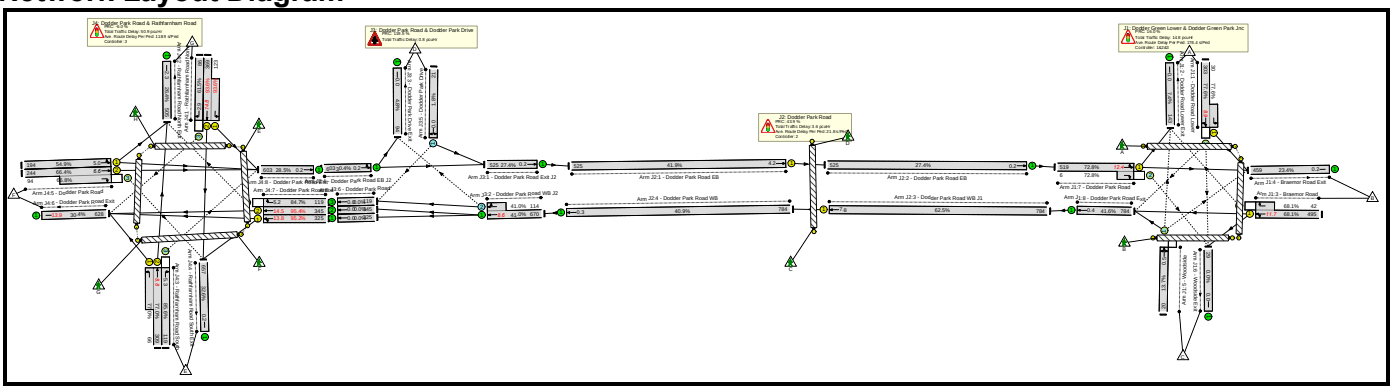
Cycle Time (s):	90
Cycle Time (s):	90
Cycle Time (s):	90

Ped Route Delay Times

Route Num	Org Zone	Org Lane	Dest Zone	Dest Lane	Scenario 1: AM PEAK Do-Nothing
1	A	J1:8/1	B	J1:9/1	178.44
2	B	J1:10/1	A	J1:7/1	178.44
3	C	J2:4/1	D	J2:5/1	16.79
4	D	J2:6/1	C	J2:3/1	16.79
5	E	J4:10/1	G	J4:13/1	118.80
6	F	J4:12/1	G	J4:13/1	39.38
7	G	J4:14/1	E	J4:9/1	118.80
8	G	J4:14/1	F	J4:11/1	39.38
9	G	J4:14/1	H	J4:15/1	198.44
10	H	J4:16/1	G	J4:13/1	198.44

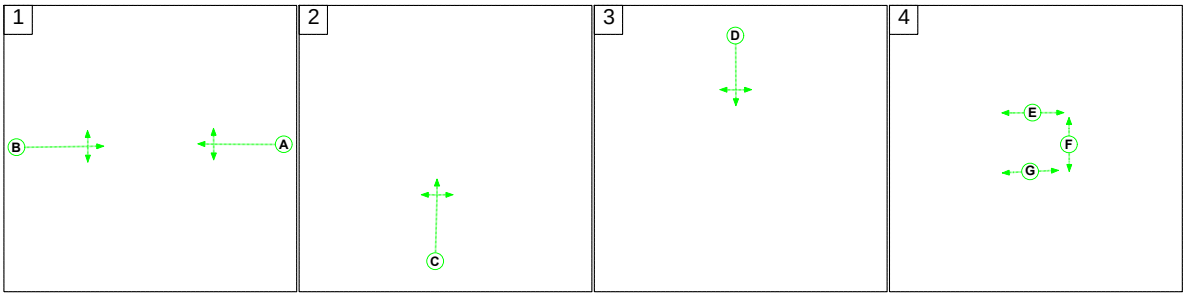
Scenario 2: 'PM PEAK Do-Nothing' (FG2: 'PM PEAK Do-Nothing', Plan 1: 'Network Control Plan 1')

Network Layout Diagram

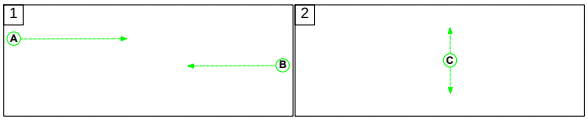


Stage Sequence Diagram

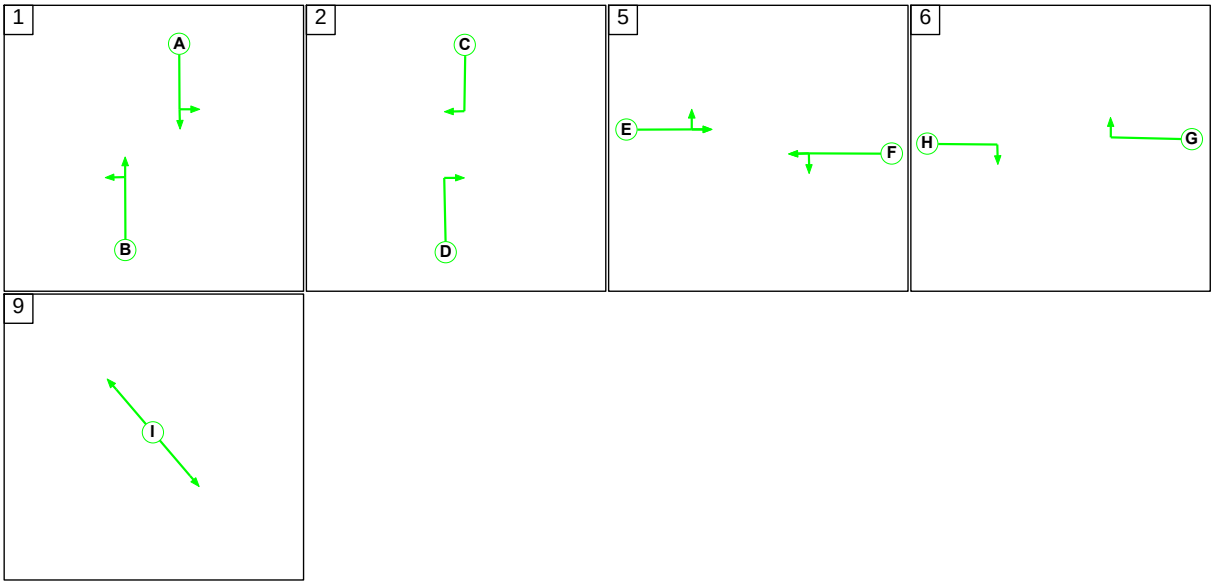
C1 - Dodder Green Lower && Dodder Park Road



C2 - Dodder Park Road



C3 - Rathfarnham Road && Dodder Park Road



Network Results

Item	Lane Description	Lane Type	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-	-	-	**95.4%**	**67**	**683**	**49**	**70.1**	-	-
J1: Dodder Green Lower && Dodder Green Park Jnc	-	-	-	-	-	**77.6%**	**48**	**307**	**7**	**14.8**	-	-
1/2+1/1	Dodder Road Lower Left Ahead Right	O+U	333	1707:1613	390+39	77.6 : 77.6%	0	296	7	4.6	50.1	8.9
2/1	Dodder Road Lower Exit	U	143	1940	1940	7.4%	-	-	-	0.0	1.0	0.0
3/1+3/2	Braemor Road Right Left Ahead	U+O	537	1964:1700	727+62	68.1 : 68.1%	42	0	0	4.6	30.5	11.7
4/1	Braemor Road Exit	U	459	1965	1965	23.4%	-	-	-	0.2	1.2	0.2
5/1	Woodside Ahead Right Left	O	20	1644	146	13.7%	0	11	0	0.3	52.1	0.5
7/1+7/2	Dodder Park Road Left Ahead Right	U+O	525	1858:1541	712+8	72.8 : 72.8%	6	0	0	4.8	32.6	12.4
8/1	Dodder Park Road Exit Ahead	U	784	1885	1885	41.6%	-	-	-	0.4	1.6	0.4
Ped Link: P1	Unnamed Ped Link	-	20	-	5600	0.4%	-	-	-	0.3	54.5	0.5
Ped Link: P2	Unnamed Ped Link	-	20	-	5600	0.4%	-	-	-	0.4	69.4	0.5
Ped Link: P3	Unnamed Ped Link	-	20	-	5600	0.4%	-	-	-	0.3	54.5	0.5
J2: Dodder Park Road	-	-	-	-	-	**62.5%**	**0**	**0**	**0**	**3.6**	-	-
1/1	Dodder Park Road EB Ahead	U	525	1915	1253	41.9%	-	-	-	1.0	7.0	4.2
2/1	Dodder Park Road EB Ahead	U	525	1915	1915	27.4%	-	-	-	0.2	1.3	0.2
3/1	Dodder Park Road WB J1 Ahead	U	784	1915	1253	62.5%	-	-	-	2.0	9.4	7.8
4/1	Dodder Park Road WB Ahead	U	784	1915	1915	40.9%	-	-	-	0.3	1.6	0.3
Ped Link: P1	Unnamed Ped Link	-	20	-	9164	0.2%	-	-	-	0.1	21.8	0.3
J3: Dodder Park Road && Dodder Park Drive	-	-	-	-	-	**41.0%**	**19**	**0**	**0**	**0.8**	-	-

1/1	Dodder Park Road Exit J2 Ahead	U	525	1915	1915	27.4%	-	-	-	0.2	1.3	0.2
2/1+2/2	Dodder Park Road WB J2 Right Ahead	U+O	784	1915:1896	1634+278	41.0 : 41.0%	7	0	0	0.3	1.6	8.6
3/1	Dodder Park Drive Exit	U	94	1965	1965	4.8%	-	-	-	0.0	1.0	0.0
4/1	Dodder Park Road EB J2 Ahead Left	U	603	1986	1986	30.4%	-	-	-	0.2	1.3	0.2
5/1	Dodder Park Drive Left Right	O	21	1932	1137	1.8%	12	0	0	0.0	1.6	0.0
J4: Dodder Park Road && Rathfarnham Road	**-**	**-**	**-**	**-**	**-**	**95.4%**	**0**	**376**	**42**	**50.9**	**-**	**-**
1/2+1/1	Rathfarnham Road Norht Ahead Left	U	492	1915:1768	394+131	93.6 : 93.6%	-	-	-	10.1	74.1	14.8
1/3	Rathfarnham Road Norht Right	O	86	1798	140	61.5%	0	84	2	1.7	72.7	2.9
2/1	Rathfarnham Road North Exit	U	505	1915	1915	26.4%	-	-	-	0.2	1.3	2.3
3/2+3/1	Rathfarnham Road South Ahead Left	U	375	1915:1665	401+86	77.0 : 77.0%	-	-	-	5.0	48.2	8.8
3/3	Rathfarnham Road South Right	O	119	1787	139	85.6%	0	99	20	3.8	113.6	5.3
4/1	Rathfarnham Road South Exit	U	657	2015	2015	32.6%	-	-	-	0.2	1.3	0.2
5/1	Dodder Park Road Left Ahead	U	194	1871	353	54.9%	-	-	-	2.4	44.2	5.0
5/2+5/3	Dodder Park Road Right Ahead	U+O	338	1945:1809	367+141	66.4 : 66.8%	0	92	2	4.3	46.1	6.6
6/1	Dodder Park Road Exit	U	628	2065	2065	30.4%	-	-	-	0.8	4.5	13.9
7/1	Dodder Park Road Exit Left Ahead	U	325	1807	341	95.2%	-	-	-	9.1	100.5	13.8
7/2	Dodder Park Road Exit Ahead	U	345	1915	362	95.4%	-	-	-	9.5	98.8	14.5
7/3	Dodder Park Road Exit Right	O	119	1807	141	84.7%	0	100	19	3.6	109.9	5.2
8/1	Dodder Park Road Exit Ahead	U	603	2115	2115	28.5%	-	-	-	0.2	1.2	0.2

Ped Link: P1	Unnamed Ped Link	-	20	-	5600	0.4%	-	-	-	0.3	59.5	0.5
Ped Link: P2	Unnamed Ped Link	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P3	Unnamed Ped Link	-	60	-	5600	1.1%	-	-	-	0.9	52.8	1.4
Ped Link: P4	Unnamed Ped Link	-	40	-	5600	0.7%	-	-	-	0.8	69.4	1.0

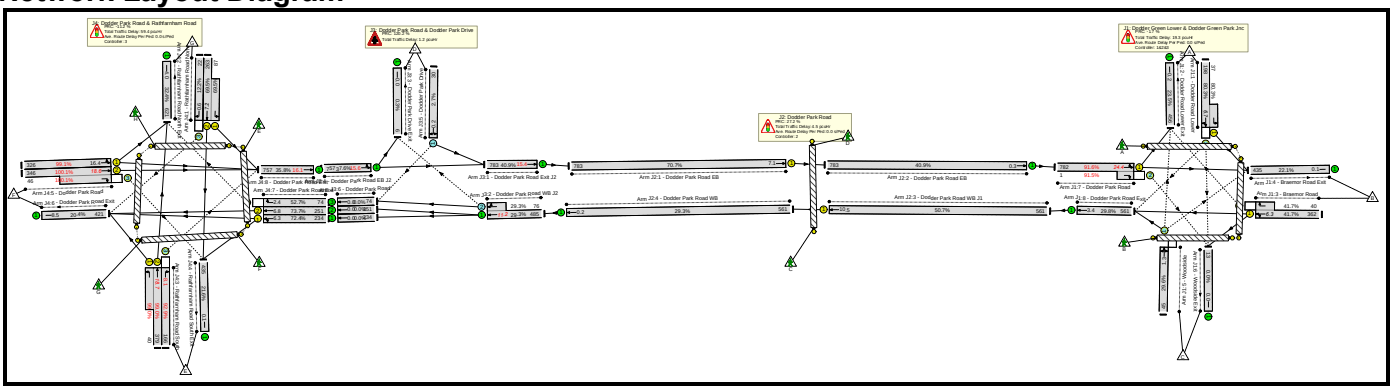
C1 - Dodder Green Lower && Dodder Park Road	PRC for Signalled Lanes (%):	16.0	Total Delay for Signalled Lanes (pcuHr):	14.23	Cycle Time (s): 90
C2 - Dodder Park Road	PRC for Signalled Lanes (%):	43.9	Total Delay for Signalled Lanes (pcuHr):	3.06	Cycle Time (s): 110
C3 - Rathfarnham Road && Dodder Park Road	PRC for Signalled Lanes (%):	-6.0	Total Delay for Signalled Lanes (pcuHr):	49.53	Cycle Time (s): 90
	PRC Over All Lanes (%):	-6.0	Total Delay Over All Lanes(pcuHr):	70.11	

Ped Route Delay Times

Route Num	Org Zone	Org Lane	Dest Zone	Dest Lane	Scenario 2: PM PEAK Do-Nothing
1	A	J1:8/1	B	J1:9/1	178.44
2	B	J1:10/1	A	J1:7/1	178.44
3	C	J2:4/1	D	J2:5/1	21.77
4	D	J2:6/1	C	J2:3/1	21.77
5	E	J4:10/1	G	J4:13/1	118.80
6	F	J4:12/1	G	J4:13/1	39.38
7	G	J4:14/1	E	J4:9/1	118.80
8	G	J4:14/1	F	J4:11/1	39.38
9	G	J4:14/1	H	J4:15/1	198.44
10	H	J4:16/1	G	J4:13/1	198.44

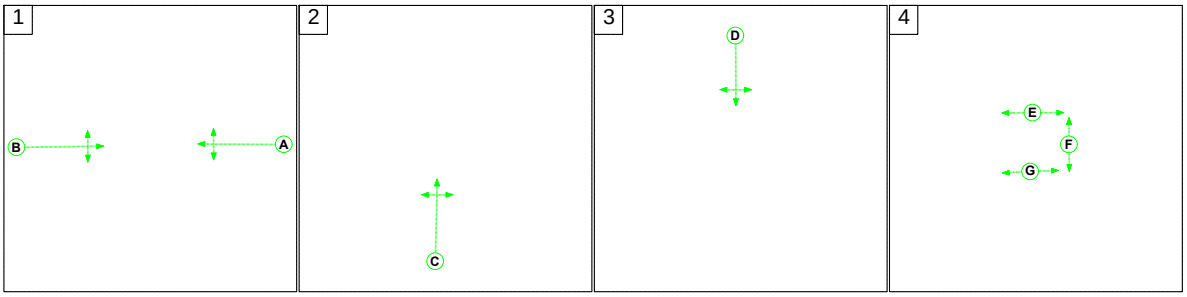
Scenario 3: 'AM PEAK Do-Something' (FG3: 'AM PEAK Do-Something', Plan 1: 'Network Control Plan 1')

Network Layout Diagram

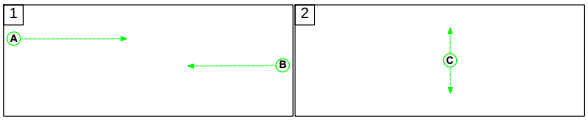


Stage Sequence Diagram

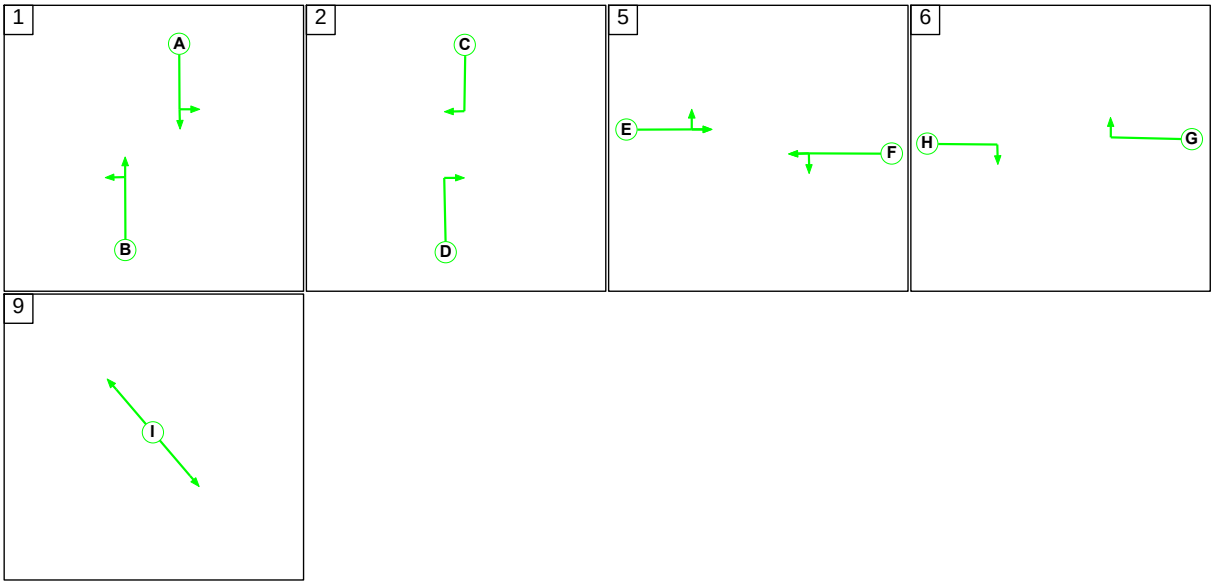
C1 - Dodder Green Lower && Dodder Park Road



C2 - Dodder Park Road



C3 - Rathfarnham Road && Dodder Park Road



Network Results

Item	Lane Description	Lane Type	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-	-	-	**100.1%**	**51**	**504**	**34**	**84.4**	-	-
J1: Dodder Green Lower && Dodder Green Park Jnc	-	-	-	-	-	**91.6%**	**41**	**225**	**5**	**19.3**	-	-
1/2+1/1	Dodder Road Lower Left Ahead Right	O+U	235	1708:1613	247+46	80.3 : 80.3%	0	194	4	4.3	66.0	6.7
2/1	Dodder Road Lower Exit	U	456	1940	1940	23.5%	-	-	-	0.2	1.2	0.2
3/1+3/2	Braemor Road Right Left Ahead	U+O	402	1969:1700	868+96	41.7 : 41.7%	40	0	0	2.0	18.2	6.3
4/1	Braemor Road Exit	U	435	1965	1965	22.1%	-	-	-	0.1	1.2	0.1
5/1	Woodside Ahead Right Left	O	45	1708	152	29.6%	0	31	1	0.7	55.2	1.3
7/1+7/2	Dodder Park Road Left Ahead Right	U+O	783	1787:1541	854+1	91.6 : 91.5%	1	0	0	11.8	54.1	24.4
8/1	Dodder Park Road Exit Ahead	U	561	1885	1885	29.8%	-	-	-	0.2	1.4	3.4
Ped Link: P1	Unnamed Ped Link	-	0	-	5600	0.0%	-	-	-	0.0	0.0	0.0
Ped Link: P2	Unnamed Ped Link	-	0	-	5600	0.0%	-	-	-	0.0	0.0	0.0
Ped Link: P3	Unnamed Ped Link	-	0	-	5600	0.0%	-	-	-	0.0	0.0	0.0
J2: Dodder Park Road	-	-	-	-	-	**70.7%**	**0**	**0**	**0**	**4.5**	-	-
1/1	Dodder Park Road EB Ahead	U	783	1915	1106	70.7%	-	-	-	2.2	10.1	7.1
2/1	Dodder Park Road EB Ahead	U	783	1915	1915	40.9%	-	-	-	0.3	1.6	0.3
3/1	Dodder Park Road WB J1 Ahead	U	561	1915	1106	50.7%	-	-	-	1.8	11.4	10.5
4/1	Dodder Park Road WB Ahead	U	561	1915	1915	29.3%	-	-	-	0.2	1.3	0.2
Ped Link: P1	Unnamed Ped Link	-	0	-	11200	0.0%	-	-	-	0.0	0.0	0.0
J3: Dodder Park Road && Dodder Park Drive	-	-	-	-	-	**40.9%**	**10**	**0**	**0**	**1.2**	-	-

1/1	Dodder Park Road Exit J2 Ahead	U	783	1915	1915	40.9%	-	-	-	0.5	2.1	15.4
2/1+2/2	Dodder Park Road WB J2 Right Ahead	U+O	561	1915:1890	1653+259	29.3 : 29.3%	6	0	0	0.3	1.9	11.2
3/1	Dodder Park Drive Exit	U	6	1965	1965	0.3%	-	-	-	0.0	0.9	0.0
4/1	Dodder Park Road EB J2 Ahead Left	U	757	2015	2015	37.6%	-	-	-	0.4	1.9	15.6
5/1	Dodder Park Drive Left Right	O	30	1854	1131	2.7%	4	0	0	0.1	6.2	0.2
J4: Dodder Park Road && Rathfarnham Road	**-**	**-**	**-**	**-**	**-**	**100.1%**	**0**	**279**	**29**	**59.4**	**-**	**-**
1/2+1/1	Rathfarnham Road Norht Ahead Left	U	350	1915:1768	379+125	69.5 : 69.5%	-	-	-	4.3	44.2	7.2
1/3	Rathfarnham Road Norht Right	O	22	1798	180	12.2%	0	22	0	0.3	48.3	0.6
2/1	Rathfarnham Road North Exit	U	621	1915	1915	32.4%	-	-	-	0.2	1.4	4.0
3/2+3/1	Rathfarnham Road South Ahead Left	U	419	1915:1665	383+40	99.0 : 99.0%	-	-	-	13.3	114.6	18.7
3/3	Rathfarnham Road South Right	O	166	1787	179	92.9%	0	139	27	5.9	127.1	8.1
4/1	Rathfarnham Road South Exit	U	435	2015	2015	21.6%	-	-	-	0.1	1.1	0.1
5/1	Dodder Park Road Left Ahead	U	326	1850	329	99.1%	-	-	-	11.7	129.0	16.4
5/2+5/3	Dodder Park Road Right Ahead	U+O	392	1945:1809	346+46	100.1 : 100.1%	0	45	1	14.0	128.8	18.6
6/1	Dodder Park Road Exit	U	421	2065	2065	20.4%	-	-	-	0.3	2.3	8.5
7/1	Dodder Park Road Exit Left Ahead	U	234	1817	323	72.4%	-	-	-	3.1	47.5	6.3
7/2	Dodder Park Road Exit Ahead	U	251	1915	340	73.7%	-	-	-	3.3	47.7	6.8
7/3	Dodder Park Road Exit Right	O	74	1807	141	52.7%	0	74	0	1.6	78.6	2.4
8/1	Dodder Park Road Exit Ahead	U	757	2115	2115	35.8%	-	-	-	1.3	6.0	16.1

Ped Link: P1	Unnamed Ped Link	-	0	-	5600	0.0%	-	-	-	0.0	0.0	0.0
Ped Link: P2	Unnamed Ped Link	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P3	Unnamed Ped Link	-	0	-	5600	0.0%	-	-	-	0.0	0.0	0.0
Ped Link: P4	Unnamed Ped Link	-	0	-	5600	0.0%	-	-	-	0.0	0.0	0.0

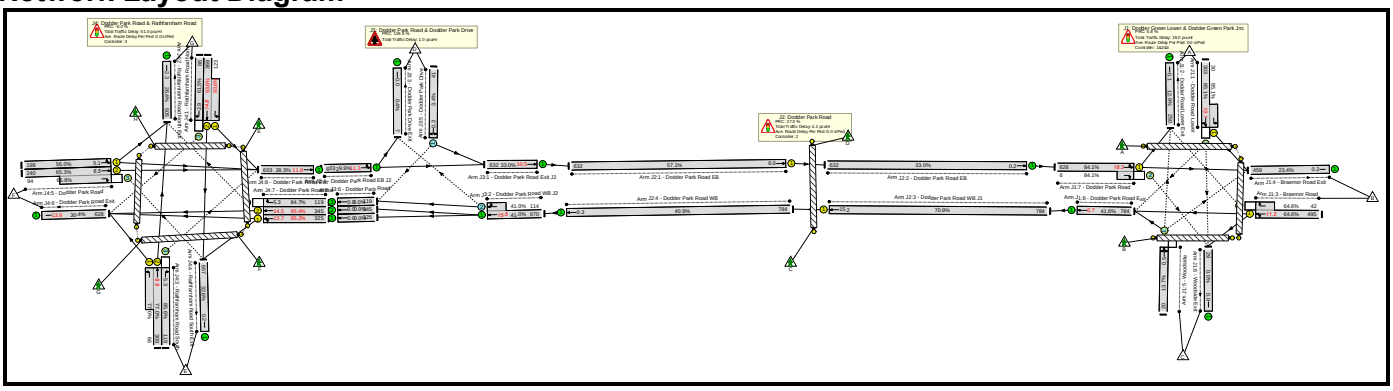
C1 - Dodder Green Lower && Dodder Park Road	PRC for Signalled Lanes (%):	-1.7	Total Delay for Signalled Lanes (pcuHr):	18.78	Cycle Time (s): 90
C2 - Dodder Park Road	PRC for Signalled Lanes (%):	27.2	Total Delay for Signalled Lanes (pcuHr):	3.97	Cycle Time (s): 90
C3 - Rathfarnham Road && Dodder Park Road	PRC for Signalled Lanes (%):	-11.2	Total Delay for Signalled Lanes (pcuHr):	57.53	Cycle Time (s): 90
	PRC Over All Lanes (%):	-11.2	Total Delay Over All Lanes(pcuHr):	84.44	

Ped Route Delay Times

Route Num	Org Zone	Org Lane	Dest Zone	Dest Lane	Scenario 3: AM PEAK Do-Something
1	A	J1:8/1	B	J1:9/1	-
2	B	J1:10/1	A	J1:7/1	-
3	C	J2:4/1	D	J2:5/1	-
4	D	J2:6/1	C	J2:3/1	-
5	E	J4:10/1	G	J4:13/1	-
6	F	J4:12/1	G	J4:13/1	-
7	G	J4:14/1	E	J4:9/1	-
8	G	J4:14/1	F	J4:11/1	-
9	G	J4:14/1	H	J4:15/1	-
10	H	J4:16/1	G	J4:13/1	-

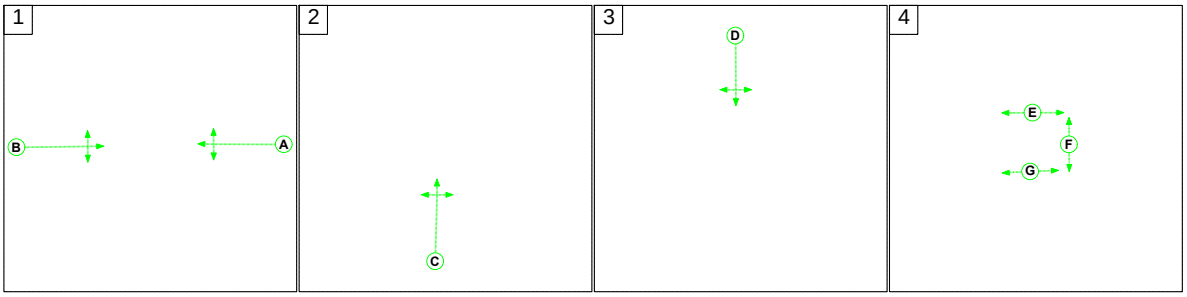
Scenario 4: 'PM PEAK Do-Something' (FG4: 'PM PEAK Do-Something', Plan 1: 'Network Control Plan 1')

Network Layout Diagram

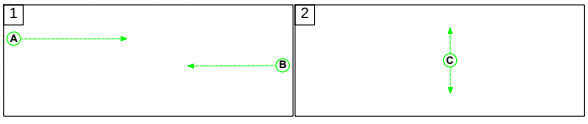


Stage Sequence Diagram

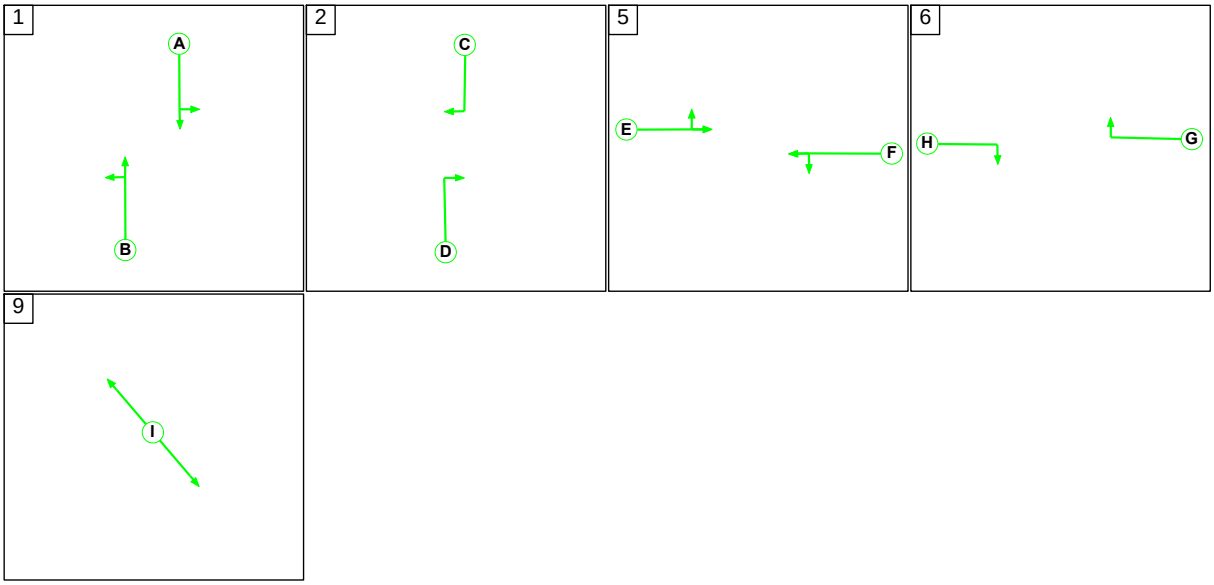
C1 - Dodder Green Lower && Dodder Park Road



C2 - Dodder Park Road



C3 - Rathfarnham Road && Dodder Park Road



Network Results

Item	Lane Description	Lane Type	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-	-	-	**95.4%**	**67**	**683**	**49**	**75.2**	-	-
J1: Dodder Green Lower && Dodder Green Park Jnc	-	-	-	-	-	**85.1%**	**48**	**307**	**7**	**19.0**	-	-
1/2+1/1	Dodder Road Lower Left Ahead Right	O+U	333	1707:1613	356+35	85.1 : 85.1%	0	296	7	5.8	62.2	10.1
2/1	Dodder Road Lower Exit	U	250	1940	1940	12.9%	-	-	-	0.1	1.1	0.1
3/1+3/2	Braemor Road Right Left Ahead	U+O	537	1964:1700	766+65	64.6 : 64.6%	42	0	0	4.1	27.4	11.2
4/1	Braemor Road Exit	U	459	1965	1965	23.4%	-	-	-	0.2	1.2	0.2
5/1	Woodside Ahead Right Left	O	20	1644	146	13.7%	0	11	0	0.3	52.1	0.5
7/1+7/2	Dodder Park Road Left Ahead Right	U+O	632	1827:1541	744+7	84.1 : 84.1%	6	0	0	8.3	47.0	18.3
8/1	Dodder Park Road Exit Ahead	U	784	1885	1885	41.6%	-	-	-	0.4	1.7	6.7
Ped Link: P1	Unnamed Ped Link	-	0	-	5600	0.0%	-	-	-	0.0	0.0	0.0
Ped Link: P2	Unnamed Ped Link	-	0	-	5600	0.0%	-	-	-	0.0	0.0	0.0
Ped Link: P3	Unnamed Ped Link	-	0	-	5600	0.0%	-	-	-	0.0	0.0	0.0
J2: Dodder Park Road	-	-	-	-	-	**70.9%**	**0**	**0**	**0**	**4.2**	-	-
1/1	Dodder Park Road EB Ahead	U	632	1915	1106	57.1%	-	-	-	0.8	4.6	6.0
2/1	Dodder Park Road EB Ahead	U	632	1915	1915	33.0%	-	-	-	0.2	1.4	0.2
3/1	Dodder Park Road WB J1 Ahead	U	784	1915	1106	70.9%	-	-	-	2.8	12.7	15.2
4/1	Dodder Park Road WB Ahead	U	784	1915	1915	40.9%	-	-	-	0.3	1.6	0.3
Ped Link: P1	Unnamed Ped Link	-	0	-	11200	0.0%	-	-	-	0.0	0.0	0.0
J3: Dodder Park Road && Dodder Park Drive	-	-	-	-	-	**41.0%**	**19**	**0**	**0**	**1.0**	-	-

1/1	Dodder Park Road Exit J2 Ahead	U	632	1915	1915	33.0%	-	-	-	0.3	1.7	10.5
2/1+2/2	Dodder Park Road WB J2 Right Ahead	U+O	784	1915:1896	1634+278	41.0 : 41.0%	7	0	0	0.4	1.9	15.5
3/1	Dodder Park Drive Exit	U	7	1965	1965	0.4%	-	-	-	0.0	0.9	0.0
4/1	Dodder Park Road EB J2 Ahead Left	U	603	2015	2015	29.9%	-	-	-	0.3	1.6	11.3
5/1	Dodder Park Drive Left Right	O	41	1882	1195	3.4%	12	0	0	0.0	4.2	0.3
J4: Dodder Park Road && Rathfarnham Road	**-**	**-**	**-**	**-**	**-**	**95.4%**	**0**	**376**	**42**	**51.0**	**-**	**-**
1/2+1/1	Rathfarnham Road Norht Ahead Left	U	492	1915:1768	394+131	93.6 : 93.6%	-	-	-	10.1	74.1	14.8
1/3	Rathfarnham Road Norht Right	O	86	1798	140	61.5%	0	84	2	1.7	72.7	2.9
2/1	Rathfarnham Road North Exit	U	505	1915	1915	26.4%	-	-	-	0.2	1.3	2.3
3/2+3/1	Rathfarnham Road South Ahead Left	U	375	1915:1665	401+86	77.0 : 77.0%	-	-	-	5.0	48.2	8.8
3/3	Rathfarnham Road South Right	O	119	1787	139	85.6%	0	99	20	3.8	113.6	5.3
4/1	Rathfarnham Road South Exit	U	657	2015	2015	32.6%	-	-	-	0.2	1.3	0.2
5/1	Dodder Park Road Left Ahead	U	198	1872	354	56.0%	-	-	-	2.5	44.6	5.1
5/2+5/3	Dodder Park Road Right Ahead	U+O	334	1945:1809	367+141	65.3 : 66.8%	0	92	2	4.3	45.9	6.5
6/1	Dodder Park Road Exit	U	628	2065	2065	30.4%	-	-	-	0.8	4.5	13.9
7/1	Dodder Park Road Exit Left Ahead	U	325	1807	341	95.2%	-	-	-	8.6	95.3	13.7
7/2	Dodder Park Road Exit Ahead	U	345	1915	362	95.4%	-	-	-	9.0	94.3	14.5
7/3	Dodder Park Road Exit Right	O	119	1807	141	84.7%	0	100	19	4.1	123.4	5.3
8/1	Dodder Park Road Exit Ahead	U	603	2115	2115	28.5%	-	-	-	0.7	4.3	11.8

Ped Link: P1	Unnamed Ped Link	-	0	-	5600	0.0%	-	-	-	0.0	0.0	0.0
Ped Link: P2	Unnamed Ped Link	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P3	Unnamed Ped Link	-	0	-	5600	0.0%	-	-	-	0.0	0.0	0.0
Ped Link: P4	Unnamed Ped Link	-	0	-	5600	0.0%	-	-	-	0.0	0.0	0.0

C1 - Dodder Green Lower && Dodder Park Road	PRC for Signalled Lanes (%):	5.8	Total Delay for Signalled Lanes (pcuHr):	18.38	Cycle Time (s): 90
C2 - Dodder Park Road	PRC for Signalled Lanes (%):	27.0	Total Delay for Signalled Lanes (pcuHr):	3.57	Cycle Time (s): 90
C3 - Rathfarnham Road && Dodder Park Road	PRC for Signalled Lanes (%):	-6.0	Total Delay for Signalled Lanes (pcuHr):	49.07	Cycle Time (s): 90
	PRC Over All Lanes (%):	-6.0	Total Delay Over All Lanes(pcuHr):	75.15	

Ped Route Delay Times

Route Num	Org Zone	Org Lane	Dest Zone	Dest Lane	Scenario 4: PM PEAK Do-Something
1	A	J1:8/1	B	J1:9/1	-
2	B	J1:10/1	A	J1:7/1	-
3	C	J2:4/1	D	J2:5/1	-
4	D	J2:6/1	C	J2:3/1	-
5	E	J4:10/1	G	J4:13/1	-
6	F	J4:12/1	G	J4:13/1	-
7	G	J4:14/1	E	J4:9/1	-
8	G	J4:14/1	F	J4:11/1	-
9	G	J4:14/1	H	J4:15/1	-
10	H	J4:16/1	G	J4:13/1	-

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