

Submission of Dún Laoghaire-Rathdown County Council to the Bus Connects Core Bus Corridors Phase 3

Introduction

This submission has been prepared by the Municipal Service Department in consultation with the Planning Department and the Infrastructure and Climate Change Department. This submission will deal with both strategic level issues and more detailed issues. I thank the NTA for engaging in an open, extensive, and positive public consultation process. I recognise that this is an early stage of the design process (emerging preferred route stage) and that there will inevitably be further discussions and consultation at a more detailed level.

This submission includes some general comments in support of the proposed corridors. It also includes comments relating to the County Development Plan and LAPs, strategic issues, parks, and traffic. Finally, there is a brief summary of the submission. There are three appendices (in separate Word and PDF files) dealing with policies from the County Development Plan, and detailed comments from the Parks Section relating to Corridor 13 and Corridor 15.

General Support for the Core Bus Corridors

The Council welcomes the Bus Connects project generally and welcomes in particular the relevant proposed Core Bus Corridors (i.e. Corridors 13 Bray to City Centre, 14 UCD Ballsbridge to City Centre, and 15 Blackrock to Merrion).

Bus as a Major Contribution to Sustainable Travel

Bus can be described as the Cinderella of the public transport system, in that it does the bulk of the work but without the glamour. I note from the NTA's *Canal Cordon Report 2018* that bus has the largest mode share (30.0%), which is almost double the DART mode share (16.1%) and almost five times the Luas modes share (6.5%). The CSO figures for Dublin City and suburbs from the Census of 2016, show that bus mode share is more than double the combined share for Train, DART and Luas. In Dún Laoghaire-Rathdown the bus share (10.4%) is similar to the share for Train, DART and Luas (11.8%). In summary, bus is the most important mode of sustainable transport in Dublin and is a critical part of the sustainable transport system in Dún Laoghaire-Rathdown.

Dún Laoghaire-Rathdown County Development Plan

Section 2.2 of the County Development Plan sets out the Council's views and policies regarding "Sustainable Travel and Transportation". The relevant policies are quoted in the appendix below. It is clear from the Plan and its policies that the Council supports the various modes of sustainable travel, including walking, cycling, public transport in general, and the Quality Bus Network and Bus Rapid Transit in particular. It should be noted, that the Bus Connects project was in existence when the County Development Plan was adopted, so the terminology has changed, but the principles have not.

The County Development Plan also includes two 6-year road objectives which interface with Corridor 13, namely:

- Dublin Road, Bray (Willford to the County Boundary); and
- Shanganagh Road Improvement Scheme.

The Plan also includes a Specific Local Objective, SLO 42: *"To liaise with Transport Infrastructure Ireland (TII) to investigate potential improvements to the Loughlinstown Roundabout with any such improvements to be informed by the outcome of the TII's on-going Corridor Studies"*.

The introduction of an, in part, 4 lane carriageway through Shankill Village would have an impact upon the public realm, character and 'sense of place' of the Village and may be at odds with policy set out in the 2016-2022 DLR County Development Plan.

Section 1.3.6 of the County Development Plan 'The Villages of Dún Laoghaire-Rathdown' acknowledges the importance of historic villages in the County and seeks to support and strengthen their role. Section 1.3.6 provides that: *"One notable characteristic of Dún Laoghaire-Rathdown is how the built up area has largely formed around and has spread out from its historic villages and towns. These centres add greatly to the individual character of the County and help to provide a positive 'sense of place' and identity as well as providing for local shopping and amenities for social interaction. It is Council policy that this will be supported and strengthened and that resources, where available, will be directed to support this role."*

Local Area Plans

Corridor 13 will interface with one draft Local Area Plan (LAP) and one adopted LAP. Corridor 15 will interface with one adopted LAP.

Draft Old Connaught Local Area Plan 2020-2026:

The Old Connaught Local Area Plan is currently being drafted, and it is hoped that a draft Plan will be completed over the summer months.

The LAP lands are located immediately west of the M11/N11, approx. 1km from the Dublin Road and the proposed Corridor 13. These lands consist of 62ha of 'A1' zoned lands, which are lands designated for residential development in accordance with an approved Local Area Plan. The Core Strategy of the DLR County Development Plan 2016-2022 identifies a potential for 2000 residential units on the lands. At preliminary stages, this figure will be the very minimum and more than likely will be closer to 2,500 residential units.

The development of the LAP lands is dependent upon significant upgrades of transport infrastructure in the vicinity, as recommended by the NTA's Bray and Environs Transport Study 2019, including the arrival of the Luas line B2 extension, which is earmarked for delivery post 2027. In the interim, the public transport servicing of the developed lands will be wholly dependent on bus-based solutions. As the proposed Corridor 13 bus corridor on the Dublin Road is located approximately 1km from the LAP lands, the proposed Corridor is essential to the public transport solution for the development lands, prior to the delivery of the Luas line B2 extension.

Woodbrook/Shanganagh Local Area Plan 2017-2023:

Proposed Corridor 13 will also serve the Woodbrook/Shanganagh LAP lands. The LAP area is well-served by bus infrastructure at present and will also be served by the future Woodbrook DART station.

The following policy of the DLR County Development Plan 2016-2022 supports the proposed Corridor by stating the following:

Policy WS4 of the DLR County Development Plan 2016-2022: *"It is the policy of Dún Laoghaire-Rathdown County Council to promote sustainable transport forms such as walking, cycling and public transport as set out in the Government's 'Smarter Travel – A Sustainable Transport Future 2009-2020' and to support planned infrastructure that prioritises public transport, as well as new cycling route and pedestrian interconnections to key public transport nodes, school and amenity destinations in the Woodbrook-Shanganagh LAP Area and wider environs."*

Section 3.4.2 (iv) Sustainable Movement & Transport The Road Network:
"Nonetheless, in the event of any road widening or road improvement scheme along the Dublin Road, the Council will seek to retain its sylvan character and to this end, will give consideration in the first instance to innovative design solutions which allow for retention of a significant proportion of the existing mature trees and historic boundary walls in situ. Design solutions may include the provision of publicly accessible pedestrian / cycle routes internal to the two respective development parcels."

In the event that road widening is considered necessary to meet the requirements of the NTA / TII, as may arise from the on-going Corridor Studies or otherwise, the Council will promote the planting of replacement semi-mature trees and re-instatement of any historic boundary walls or features, as appropriate. In addition, any loss of trees arising from essential road widening will be mitigated by proposed new tree belts to be provided to a substantial depth along the road frontage in each of the development parcels and as part of Master Plan proposals for Shanganagh Park."

The LAP also includes objectives that support the proposed Corridor, such as:
Objective T1 of LAP: *"To promote sustainable transport forms such as walking, cycling and public transport as set out in the Government's 'Smarter Travel, A Sustainable Transport Future 2009-2020'."*

Objective T7 of LAP: *"To co-operate with the National Transport Authority, Transport Infrastructure Ireland and Wicklow County Council in relation to on-going corridor studies in respect of the Dublin Road Core Bus Corridor M11/N11 which will inform potential road infrastructure improvements and public transport provision both in the Plan area and the wider environs."*

The LAP includes an objective regarding the minimisation/mitigation of the loss of mature trees and the re-instatement of historic walls/features:
Objective T8 of LAP: *"To seek to retain the sylvan character of the Dublin Road in any road improvement schemes and to ensure that any loss of mature trees will be mitigated by replacement tree-planting with consideration also to the re-instatement of any historic walls or features along any new road alignment."*

The design details of the proposed Corridor include information regarding a comprehensive replanting programme (Section 3.3.4) and rebuilding/replacing programme (Section 3.3.2) which may correlate with this objective in the LAP, depending on specific detailing.

It is noted in Maps 48-50 of the emerging preferred Corridor 13, that it appears that there will be road widening to the western boundaries of development parcels identified within the LAP at both Shanganagh Castle and Woodbrook.

In relation to the Shanganagh Castle site the 'Public Realm and Open Space' objectives of the LAP indicate,

SC30 *Seek to retain and protect the tree copses or substantial tree belts at the two locations as shown on the Site Framework Map and to undertake additional tree planting in the form of tree belt along the Dublin Road boundary. Design of vehicular access to the new residential neighbourhood shall minimise the loss of mature trees, whilst meeting road safety standards.*

SC31 *Ensure appropriate boundary treatment along all boundaries of the site, and in particular the northern boundary, in the interest of residential, visual and landscape amenity. In accordance with the Landscape Strategy set out in Map 16, the landscape buffer along the Dublin Road shall be between 20-30m wide to protect the sylvan character of the area.*

In relation to the Woodbrook site the 'Public Realm and Open Space' objectives of the LAP indicate,

WB23 *Seek to retain and enhance the sylvan character of the site boundaries for biodiversity and amenity value. Design of vehicular access to the new residential neighbourhood shall minimise the loss of mature trees and historic boundary wall along the Dublin Road, whilst meeting road safety standards. In accordance with the Landscape Strategy set out in Map 16, the landscape buffer along the Dublin road shall be between 20-30m wide to protect the sylvan character of the area.*

The LAP identifies potential delivery of between approx. 1,380-1,860 residential units on the lands. However, since the adoption of the LAP, the Apartment Guidelines and Urban Development and Building Heights Guidelines for Planning Authorities 2018 have been published and these guidelines have allowed for increased heights in areas governed by LAPs (with caveats). As a result, the future development of the lands may result in a higher yield of residential units.

It is noted that Maps 48-50 identify Bus Stops that will serve both land parcels (Shanganagh Castle and Woodbrook) as part of the LAP.

Blackrock Local Area Plan 2015 – 2021:

Proposed Corridor 15 will serve the Blackrock Local Area Plan lands.

Relevant objectives/policies that support the proposed Corridor include the following:

Policy BK12: *"It is Council policy to promote the principles of sustainable travel both to-and-from and within the Blackrock Local Area Plan boundary."*

Objective R18: *"It is an objective of the Council to facilitate the future upgrading of the junction at Temple Hill/Newtown Avenue/ St. Vincent's Park in tandem with the redevelopment of the St. Teresa's and Dunardagh landholdings in accordance with objective DS15 (St. Teresa's & Dunardagh Site Framework Strategy)."*

Objective PT3: *"It is an objective of the Council, with the agreement of the NTA, to facilitate the provision of appropriate bus routes and stops in co-ordination with the overall Blackrock Transport Network Strategy (see Maps 13A and 13B – Transport Network Strategy)."*

Maps 13A and 13B of the Transport Network Strategy identifies new bus stop locations:

- Frascati Road, close to junction with Sweetman's Avenue - southern side of road
- Junction of Frascati and Temple Road –northern side of road
- Temple Road, junction with Craigmole Gardens - southern side of road

The corresponding maps of Corridor 15 are maps 9, 10 and 11. These maps identify new bus stops on the northern and southern sides of the junction of Temple Road and Frascati Road. The proposed northern stop correlates with the LAP, while the single proposed bus stop on the southern side would act as a compromise for the two southern stops under the LAP.

It is noted that Maps 10 and 11 identify bus locations which are proximate to the main development sites within the Blackrock LAP.

In accordance with the LAP, there is potential for an additional residential development on the main development sites. However, as with the Woodbrook-Shanganagh LAP, due to the recent Apartment Guidelines and Urban Development and Building Heights Guidelines for Planning Authorities 2018, there is scope to uplift this output.

Strategic Issues

The Council has a number of concerns and suggestions regarding the proposed Core Bus Corridors at a strategic level. Many of the concerns are inter-related (e.g. loss of street trees would impact on the public realm). The concerns below are in no particular order. The Council recognises that there are trade-offs between the different concerns and therefore difficult decisions facing the NTA (e.g. providing sufficient priority for buses may require land acquisition). The Council also recognises that some of our main concerns were identified by the NTA and given due prominence in the public consultation documents.

1. The level of priority for buses, pedestrians, and cyclists. While the focus is on bus priority, the Council welcomes the significant improvements for cyclists and pedestrians. However, especially in Shankill, bicycle routes take a significant and indirect diversion through residential streets.
2. Impact on general traffic. The removal of general traffic lanes (e.g. on Frascati Road) could have a serious negative impact on general traffic. During the construction of improved cycle facilities along Frascati Road, one lane of general traffic was removed. This caused significant additional queuing and delays. The queues extended back to Monkstown Road and Newtown Park Avenue. If the same queuing occurred as a result of the Core Bus Corridors, then buses would not be able to access the proposed new bus lanes. Have the traffic impacts been modelled and, if so, what were the results?
3. Property acquisition. The proposals show significant lengths of "possible land acquisition", especially in Shankill and Blackrock. The acquisition of property is a significant negative effect, especially for the residents of the affected properties. Each proposed property acquisition would need to be justified on an individual basis.

4. Loss of on-street car parking and loading bays, especially in Shankill. Clearly, on-street car parking and loading bays are essential for the viability of nearby businesses. The maps show three "bus priority signals" in or approaching Shankill Village centre. I assume that a form of "queue relocation" would be used. The NTA should consider more extensive "queue relocation", thereby retaining more on-street parking and loading bays in Shankill Village centre.
5. Loss of trees. It is not clear from the public consultation documentation how many, and which, trees would be lost or damaged due to the construction of the Core Bus Corridors. Many trees appear to be at risk, including many mature trees, both on-street and in private property.
6. Impact on public realm. The provision of a general traffic lane, a bus lane, a cycle lane, and a footpath in each direction leads to a standard cross-section of approximately 20m in width. While this would be immaterial for most of the lengths of the proposed CBCs, it would have a significant negative impact on the public realm in Shankill and Little Bray.
7. Impact on Blackrock Park. Corridor 15 appears to require land take from Blackrock Park, possibly requiring the construction of a retaining wall and a revised car park, while the potential benefits of interfacing with existing and future cycling facilities has not been included.
8. Integration with other modes. There is relatively little opportunity for integration of CBCs 13, 14, and 15 with other modes. However, the NTA should consider the exact locations of bus stops near Booterstown and Blackrock DART stations and the relevant pedestrian links. The provision of high-quality, covered bicycle parking at numerous bus stops should be considered.
9. Possible extension of CBC 15. The Council suggests that the NTA should examine the possible extension of Corridor 15 from the proposed terminal point at Blackrock. An extension towards Dun Laoghaire would extend the catchment of the CBC, it would include the County town (Dún Laoghaire), and it would improve integration with other bus routes and with DART. Extensions to Sallynoggin and/or Ballybrack would extend the catchment to areas with lower disposable income and therefore higher potential bus mode share. An extension to Cherrywood would extend the catchment to an area with high density development and improve integration with Luas/MetroLink and with CBC 13.
10. Integration with current and future development areas. As noted above (under Local Area Plans), there is one area of current development adjacent to CBC 13, namely Cherrywood and two areas of future development, namely Woodbrook-Shanganagh and Old Connaught. The design should ensure that these areas will easily be accessible to the Corridor by sustainable modes.
11. Traffic Impact. There is no traffic impact analysis mentioned in the public consultation documents. No indication is given of the effect the proposals will have on individual junctions, on the Corridors as a whole, or on the road and bus networks generally. The NTA's Eastern Regional Model (ERM) is a sophisticated, multi-modal model of the Greater Dublin Area which takes into account the future development, population growth, and employment growth. It provides outputs of mode splits, boardings and alightings, traffic flows, queues, and delays. This should be used to quantify the effect of the proposals. More detailed modelling of individual junctions would also be useful.

12. Traffic Management during construction. The proposed CBCs are along critical arterial links. It is essential that traffic management during construction minimises the disruption to existing bus, bicycle, pedestrian and car traffic. Ongoing consultation with individual residents and business as well as the Council must be an important component of any Construction Traffic Management Plan.

Detailed Parks Issues

The Council's Parks Section has the following comments. Detailed comments for Corridors 13 and 15 are in separate appendices.

The observations of the Parks Section focus on how the emerging preferred route will impact on trees along the corridors in Dún Laoghaire Rathdown County. Only by thorough analysis of the structure of the existing tree canopy along the Bus Connects Corridors can we begin to value their existing environmental functions, the impact the Corridors will have in relation to environment and health, and weigh the overall value to the public of the proposed Bus Connects project. No information on the trees, (species, location, condition, age) to be removed has been provided except as follows:

Data from Paragraph 2.3 Key Facts in each Public Consultation booklet			
Corridor	Approximate number of roadside trees that may be removed:	Approximate length of route	Average loss along route
13: Bray to City Centre	330	13km	25 trees /km
14: UCD to City Centre	160	4km	40 trees /km
15: Blackrock to Merrion	25	4km	6.25 trees /km
Total	515	21km	24.5 trees /km

Tree removal refers to roadside trees only, not those in private ownership. The impact on privately owned trees would be far greater. No detail as to the age, species, or maturity of these trees has been provided. Therefore it is difficult to comment on the potential impact removing these trees will have in relation to environment and health.

Health benefits of trees are greatest in urban areas, trees in urban areas have greatest impact on human health due to their close proximity, and those with greatest monetary values are also in areas with larger population densities. By analyzing the structure of the trees and applying values to the functions these trees provide, a thorough cost/benefit analysis could be provided. Although the Council does not have information on all the trees along the relevant Corridors, we can provide a sample of the benefits and costs some trees currently provide along one map section. For example, on Corridor 13, Bray to City Centre, Map 49: the grass verge indicated will be impacted by road widening. Currently, there are 26 trees in grass verge ranging in age and species, which were surveyed April 2018.

Age	No. of Trees	DBH	Species
Young	5	8 - 13cm	Ash, Oak
Mature	21	32 - 94	Horse Chestnut, Maples

The ash and oak are young trees, planted 5 years ago. The maple and horse chestnut are mature trees, part of a tree line visible on the Historic 25-inch map (1888 – 1813).

Benefits Summary of Trees by Species					
Species	No. of Trees	Carbon Storage (ton)	Gross Carbon Sequestration (ton/yr)	Avoided Runoff (ft³/yr)	Structural Value (€)*
Maple	3	5.40	0.10	122.67	20,302.00
Horse Chestnut	18	28.51	0.62	687.21	99,399.00
Ash	4	.10	0.01	14.54	1,754.00
Oak	1	.02	0.00	2.56	369.00
Total	26	34.03	0.73	826.98	€121,826.00

*Structural value is the compensatory value calculated based on the cost of having to replace a tree with a similar tree. References: David J. Nowak, 'Tree and forest effects on air quality and human health in the United States' *Environmental Pollution* 193 (2014) 119e129, <http://dx.doi.org/10.1016/j.envpol.2014.05.028>

Comment on paragraph 3.2 Potential Impacts:

The Corridors will impact trees as outlined above, however this may not include the impact on trees in the immediate area affected by construction along the perimeter of the Corridor. For example, on average the typical cross section is approximately 25m wide, but the rooting zone of neighbouring trees could also be affected. No information is provided. Other potential impacts on landowners also exist; for example the car park in Blackrock Park (Corridor 15), each parking space along Rock Road will be reduced -therefore it may have to be redesigned.

Comment on paragraph 3.3.4 Trees

"Where trees are removed from roadsides and footpaths we will put in place a comprehensive replanting programme. This programme will use mature or semi-mature ready grown trees where appropriate and, where it is feasible, plant them as close as possible to the original locations."

What is the definition of mature or semi-mature trees in relation to any replanting programme? If it is not feasible to plant close to original location will replacements be planted elsewhere? How would this apply to private land/small gardens?

Summary of Parks Section Comments

This stage of the Bus Connects public consultation is lacking detail on which a fully informed commentary could be made. A comprehensive survey of both on-public and private trees is necessary to progress the design, in consultation with the Council and other interested parties. The design should seek to eliminate or minimise the impact on both public and private trees. Overall, a replacement tree planting programme should over-compensate for any removal of existing trees in terms of health benefits, improvement of air quality, stormwater runoff, public realm, etc.

Detailed Traffic Issues – General Comments

There appears to be different design details used at different locations. Some bus stops are shown recessed and some are shown in-line. What criteria were used to arrive at these designs? If recessed bus stops provide a significant benefit, should future planning permissions be required to accommodate recessed bus stops? Some bus lanes extend to the stop line (Corridor 14) while others do not (Corridor 13). What criteria were used to arrive at these designs?

Right turn pockets are being removed in some locations (e.g. Corridor 13 - Map 47 - Olcovar). Would straight ahead traffic be allowed to access the bus lane to pass the right turning vehicle? Will there be a broken line bus lane to indicate this is allowed or will it be generally accepted that this is the way it works? Left turn pockets vary in length - Wilford 'roundabout' has a large volume of left turning traffic but a relatively short left turn pocket. What criteria were used to decide on the lengths of right turn pockets and left turn lanes?

There are a number of locations where the Council and/or developers, often in cooperation with the NTA and TII, is progressing designs. They include UCD at Nova, Brewery Road, the access to Cherrywood SDZ (Junction Q), and access to the Woodbrook-Shanganagh LAP lands. The details of the designs will need to be agreed with the relevant parties at an early stage.

The condition of the traffic signals at all of junctions along all three Corridors will need to be assessed. Upgrading the signals to include the latest technology for bicycle detection and bus prioritisation should be part of the Bus Connects project.

The following detailed traffic comments are set out on a corridor-by-corridor basis. The map numbers refer to the maps in the public consultation documentation.

Detailed Traffic Issues – Corridor 13

Map 15: It is not clear why there are bus stops on both the northbound on- and off-ramps. Would it be better to have all bus stops at one location, thereby facilitating interchange between different bus routes?

Map 17, 18: The Council and UCD, with support from the NTA, have approval for improved cycle and pedestrian facilities between the Rise and a proposed new entrance to UCD at the Nova Building. This should be reflected in the CBC designs.

Map 18: The left turn into Belfield Park should be designed in accordance with DMURS.

Map 19: The left turn into Booterstown Avenue should be designed in accordance with DMURS. The NTA should consider segregating the northbound bus lane and cycle path from general traffic, thereby allowing this traffic to by-pass the traffic signals.

Map 20: The NTA should consider segregating the northbound bus lane and cycle path from general traffic, thereby allowing this traffic to by-pass the traffic signals.

Map 22: Are the proposed accesses to the widened pedestrian underpass compliant with Part M of the building regulations?

Map 23: The Council has adopted the Stillorgan Village Area Movement Framework Plan, which it is constructing in phases. Developers are progressing design and construction on sites which are likely to include cycle lanes on each

side of the Lower Kilmacud Road. The tie-in of these cycle lanes with the Bus Corridor will need to be considered.

Map 24: Is it proposed to have the footpath at the same grade as Glenalbyn Road or the Stillorgan Road?

Map 25: The detailed design and tender documents for the Council's safety scheme for Brewery Road are nearing completion. Both the NTA and TII have been involved in the design process. This should be reflected in the CBC designs.

Map 27: The Council is preparing a minor safety scheme for the Newtown Park Avenue approach to White's Cross. The scheme will involve re-lining and possibly some minor kerb realignment. We are consulting with the NTA.

Map 29: Would it be possible to have separate left and right turning cycle lanes on the approach from Kill Lane, thereby avoiding the need for a toucan crossing, which could have a significant impact on signal timings.

Map 30: Is it necessary to have two pedestrian/toucan crossings of the Bray Road?

Map 31: Is it proposed to ban the right turn from the south into the cul-de-sac?

Map 36: Could the crossing of the Bray Road be a toucan?

Map 42: The details of the signalisation of the roundabout will need to be agreed with the Council and TII. A report carried out on behalf of DLRCC stated:

"Based on the geometric parameters of the existing roundabout a signalised rotary is not a viable solution to the long term traffic needs of this junction."

The bicycle access to St Columcille's Hospital should be improved. This could also tie-in to a Council scheme to provide a pedestrian and cycle link through the hospital to Cherrywood. The provision of a bypass of the junction for south-bound buses is welcome. The provision of a two-way cycle track to bypass the junction is also welcome.

Map 44: Has the NTA examined the possibility of providing a right turn pocket for traffic turning into Stonebridge Road, which is a reasonably busy band disruptive turning movement?

Map 45: What options were considered for the redesign of the existing roundabout? Would it be possible to allow a left turn from Shanganagh Road into Corbawn Lane? I would like more details on the proposed widening of the bridge over the old railway line.

Maps 45, 46: The proposed design would have a serious negative impact on on-street parking, public realm and neighbouring properties, yet do not provide a direct cycle route or continuous bus lanes. The maps show bus priority signals at the Corbawn Lane junction and at the Quinn's Road junction. It appears from the design that a form of queue relocation would be used. The NTA should consider a more intense form of queue relocation, or other options, which would reduce or eliminate the serious negative impact of the current proposals.

Map 48: Has consideration been given to a possible upgrade of Allies River Road in the context of the Bray and Environs Transport Study, which identified the necessity for a road link from the Fassaroe and Old Connaught areas to the Bray Road.

Map 48, 50, and 51: The accesses to the development areas in Shanganagh, Woodbrook and Bray North will need to be agreed with the Council, TII and the developers.

Maps 55 and 56: The alternative route for cyclists lacks directness and comfort.

Detailed Traffic Issues – Corridor 14

Map 13: See comments above regarding Corridor 13 Map 15.

In addition, the NTA should consult with UCD and the Council regarding any planned or potential future alterations they may have to the road network and

built form within Belfield in order to ensure that all future layouts are compatible with the objectives of Bus Connects.

Detailed Traffic Issues – Corridor 15

Maps 2, 3, 4, and 5: The function of the two-way cycle track on the coast side of the road is not clear. It is also unclear how north-bound cyclist can exit the cycle track approaching Merrion Gates.

Map 4: Is it necessary to remove the right turn pocket at Trimleston Avenue? This could have significant negative traffic impacts, especially in the PM peak period. Is it necessary to ban the right turn from Trimleston Avenue? The NTA should consider segregating the southbound bus lane and cycle path from general traffic, thereby allowing this traffic to by-pass the traffic signals. It is not clear which movements at the two junctions with St Helen's Road would be banned.

Maps 5, 7 and 8: The details of the tie-in between your proposed cycle tracks and the Council's existing and proposed cycle facilities in Blackrock Park will need to be agreed.

Map 5: Given that Booterstown Dart Station would potentially be a significant destination for cyclists, the NTA should consider having the crossing of Rock Road as a toucan crossing.

Map 6: Given the exit from the car park, the location of the southbound bus stop and the pedestrian crossing may need to be reconsidered.

Map 7: There is currently an evening peak (16:00-19:00) right turn ban at the entrance to the Blackrock Clinic. Given your proposal to provide a dedicated, albeit short, right turn lane, is it proposed to remove this ban? What is the width of the right turn pocket for Phoenix Terrace?

Maps 8 and 9: I have four questions/comments relating to this area.

- 1) There are significant embankments at the boundary of Blackrock Park. Will the proposed road widening require the construction of retaining walls?
- 2) The left turn into Blackrock Village should be designed in accordance with DMURS (i.e. remove the triangular island and reduce the kerb radius).
- 3) If this is done, then the separation between the Mount Merrion Avenue junction and the Rock Hill junction will be increased and consequently, you could consider segregating the southbound bus lane and cycle path from general traffic at the Mount Merrion Avenue junction, thereby allowing this traffic to by-pass the traffic signals. I accept that there could be a short weaving movement (straight through buses conflicting with and general traffic going from Mount Merrion Avenue to Blackrock Village) which would need to be considered.
- 4) Right turning cyclists should be accommodated at the Mount Merrion Avenue and Rock Hill junctions.

Maps 9, 10, and 11: The drawings appear to show bus pre-signals at the approaches to the junction with Carysfort Avenue, Temple Road, Newtown Avenue and Monkstown Road. Is this so, and if so, what are the likely benefits?

Map 9: What type of signalised crossing is proposed between Rock Hill and George's Avenue? Given the large retail destinations on both sides of the road which would attract large numbers of cyclists, a Toucan crossing should be considered.

Map 11: The right turn from Stradbroke Road into Monkstown Road is currently banned. Consequently, a significant volume of traffic from Stradbroke Road uses St Vincent's Park to make an awkward u-turn and then turn left onto Monkstown Road. It is possible that the owners of land to the west of St

Vincent's Park would develop the land for housing and this could provide an opportunity to redesign the junction. The NTA should consult with the Council and the land owner to see if there are mutually beneficial design options.

Summary

The Council supports the proposed Core Bus Corridors. The bus mode is, and will continue to, be a critical part of the sustainable transport system. There are numerous policies and objectives in the County Development Plan and relevant LAPs which explicitly support the provision of sustainable transport, including buses. The Core Bus Corridors will produce a higher capacity public transport network which will allow for higher density of housing development, thereby contributing to solving the current housing situation.

The Council has a number of queries, comments, and concerns regarding the designs. While this submission is lengthy, most of our queries and comments relate to details of the design and should be easily resolvable. Our main concerns relate to the impact in Shankill Village, the interface with the Woodbrook – Shanganagh LAP lands, the loss of trees, and the requirement to acquire significant amount of land. We look forward to on-going consultation with the NTA during the next stages of the design. We are confident that, working together, we will produce optimal designs and best solutions to the problem of providing sustainable transport in Dún Laoghaire-Rathdown.