 cyclist.ie the Irish Cycling Advocacy Network	**Dublin Cycling Campaign** The Tailors' Hall, Back Lane, Dublin, D08 X2A3. www.dublincycling.ie RCN 20102029
To: **An Bord Pleanála**	
Date: 12th July 2022	
Re: Bus Connects Dublin - Belfield / Blackrock to City Centre: Case no. HA29N.313509	

1.0 Introduction

Dublin Cycling Campaign is a registered charity that advocates for better cycling conditions in Dublin. We have a vision for Dublin that is a vibrant city where people of all ages and abilities choose to cycle as part of their everyday life. We make this submission also on behalf of Cyclist.ie, the Federation of Cycling Advocacy Groups, Greenway Groups and Bike Festivals on the island of Ireland, and the Irish member of the European Cyclists' Federation.

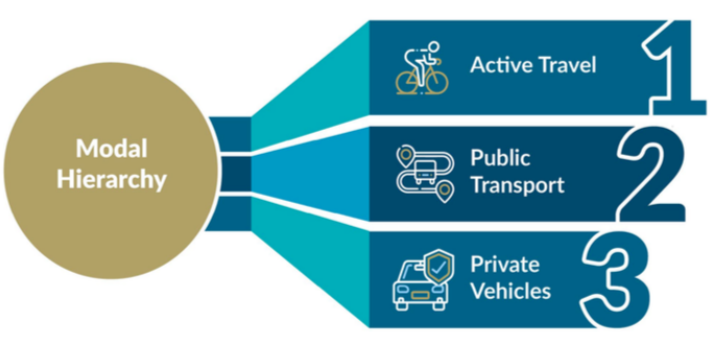
The Campaign has been engaging with the applicant, National Transport Authority, through all stages of this project including all three rounds of public consultation, community forums, and in one-to-one meetings. We outlined general points on important design details that apply to all proposed routes. In this submission, rather than reiterate all of these points in detail, we re-state them briefly and reference our previous submissions.

Also relevant is our April 27th submission to Dun Laoghaire Rathdown County Council. This addressed the recently proposed pedestrian and cycling facility between Blackrock and Trimlestown Road.

On the whole, we are extremely happy to see this proposal. However we believe that without modifications it will not deliver on the cycling modal shift called for in the

National Sustainable Mobility Policy. We suggest several modifications below, all of which are possible via condition, if An Bord is agreeable. We request an Oral Hearing to discuss the issues around the junction designs.

We note that the Department of Transport's infrastructure investment framework (NIFTI) sets up a clear hierarchy of transport modes:



2.0 Four Types of Cyclist

The goal should be to create a cycling environment that is suitable for people of all ages and abilities. That way the project can achieve the greatest modal shift to cycling, which will help Ireland achieve its climate, public health, and transport ambitions.

A useful typography is the 'Four Types of Cyclist' by Dr Jennifer Dill, Professor Urban Studies & Planning:

1. Strong and Fearless (4-7%): will cycle in any conditions no matter how hostile. They will mix in all traffic types with no cycling infrastructure.
2. Enthused and Confident (5-9%): They will mix with some traffic. They require some infrastructure.
3. Interested but Concerned (50-60%): will only cycle if provided with high-quality safe and comfortable cycle routes. Will only comfortably mix with low levels of traffic in intentional low speed environments.
4. No Way, No How (25-33%): unlikely to ever cycle no matter the conditions

Most of the people now using bikes in Dublin are in the first two cohorts; people in the largest 'Interested but Concerned' cohort are not empowered to use a bike. Bus Connects must resolve the issues we set out below or it will not attract these users and will fail to fulfil the goals of the National Sustainable Mobility Policy.

Reductions in 'school run' traffic will be an important measure of how much of this cohort is attracted to active travel; the applicant should be encouraged to track this metric.

3.0 Existing Cycling Conditions

The existing cycling conditions along the project corridor are poor. On Rock Road people on bikes are expected to share the lane with buses, taxis and other vehicles. The junctions are unsafe and there is little cycle infrastructure. Straight-ahead cyclists face 'orphaned' cycle lanes where motor traffic – in both left-turning and straight-ahead lanes – passes on both sides. These sections are only suitable for the 'Strong and Fearless'.

There are some good parts such as the cycle path through Booterstown and Blackrock parks, the improved public realm in Blackrock village, and the cycleway along the Blackrock bypass, but the rest of it is hostile, having few of the design elements needed to attract people in the large 'Interested but Concerned' cohort.

4.0 Welcome improvements

The proposed cycling infrastructure in this project would significantly improve the existing situation, providing an environment that will attract a large number of 'interested but concerned' people to use their bikes for more journeys, for a number of reasons:

- Continuous kerb-protected cycle tracks along the entire length of the project; a major improvement on most existing cycle routes in Dublin.
- Bus stop designs that mean people cycling never share the same space as buses. Mixing with 30 ton buses is a major perceived safety risk that puts many people in Dublin off cycling. We welcome the moving of bus stops to allow for bus stop bypasses, as called for in our Round 2 submission of April 17th, 2020.
- Protected cycle junction designs so people cycling aren't mixed with heavy traffic at large junctions (though we have concerns about junction designs).
- The removal of slip lanes e.g. at Nutley Lane, Clyde Road/ Ballsbridge and Mount Merrion Avenue will make cycling feel much safer and is welcome.

5.0 Requested Modifications

We urge An Bord to require the applicants to address the following issues:

1. Width of Cycle Track: (Major lengths of Rock Road, Merrion Road, etc.)

   Cycle tracks should be wide - the wider the better. At the very least, they should be wide enough for cyclists to overtake each other comfortably. This is particularly important given that cycle tracks should be inclusive, and allow easy use by cargo bikes, handtrikes and mobility scooters without impeding others. A standard cycle track of 1.5m may be adequate for commuter cycling (individuals on standard bikes, cycling in single file) but a 2m to 2.25m track facilitates overtaking and allows for non-standard cycles, as well as allowing 2 people to cycle side-by-side eg parents cycling with smaller children or older children cycling to school with friends. .

2. Shared Walking and Cycling Spaces and Crossings: (Emmet Sq./ Blackrock Clinic; Nutley Avenue; Ballsbridge village centre, etc.)

   Pedestrians, cyclists and disability groups all dislike shared spaces that mix walking, wheeling and cycling – this mixing leads to conflict and to people finding these shared spaces confusing and intimidating. The applicant should revisit the designs where space is shared, particularly Toucan crossings.

3. Right-turn movements:

   Review right-turn movements for people on bikes at all proposed major junctions. A number of the proposed designs make it nearly impossible for people on bikes to make a simple right turn e.g. northbound on Stradbrook Road turning into Monkstown Road. Some minor junctions also need right-turn movements reviewed e.g. Nutley Lane where toucan crossings will provide a very low quality of service.

4. Other modifications:

   Right hand turns from general traffic lanes into minor roads should be removed; these introduce conflict with people cycling straight ahead, e.g. Ben Iveagh Park.

   Provide green buffers wherever possible between cycle lane and bus/ general traffic lane to improve the quality of experience for people on bikes e.g. Temple Road where a wide planted median strip exists.

   'Yield' road markings where cycle lanes end on side-arms (usually after turning left) are contrary to NIFTI hierarchy. The applicant must be required to revise this design.

5. Connections beyond the scheme:

   A small number of out-of-scheme connections could greatly facilitate surrounding populations to access and use the scheme e.g. cycle lanes on Mount Merrion Avenue; connecting with Blackrock village at Carysfort Ave and Rock Hill; and, crucially, to the Coastal Mobility Route at Newtown Ave. Shelbourne Road is another example. While these are beyond the 'red line' of the scheme, we urge An Bord to require adjustment of the extents where significant benefits might be gained.

Finally, existing cycle tracks in Dublin are abused every day by parking motorists due to the near-zero level of enforcement, but there is no provision for enforcement cameras proposed as part of this project. Without a plan for camera or other enforcement methods, the effects of the improvements proposed in this scheme will not be seen by bus users or by people on bikes and its potential won't be fulfilled.

5.1 Junction Design

The applicants are proposing unproven junction designs for cycling that include traffic hazards that will put people cycling at unnecessary risk. In EIAR Appendix A6.3 Junction Design Report, the applicant states there are four junction types. From a cycling perspective, there are two junction types, Junction Type 1-3 and Junction Type 4.

Junction Type 4, known as the Cyclops Junction, follows the international standard pioneered in the UK. The key element for people cycling is that they cross the junction under green signals at the same time as pedestrians. People using bikes don't cross the junction at the same time as left-turning motor traffic. This eliminates one of the most frequent cycling / motor traffic collisions, the 'left-hook'. As pedestrians and people on bikes cross at the same time it improves junction efficiency and reduces wait times for all modes.

Junction Type 1-3, known as the Dublin-style junction, does not follow any international standard. It has been created by the National Transport Authority (NTA). People cycling will be crossing the junction at the same time as left-turning motor traffic. This can lead to 'left-hook' collisions for people cycling.

The Pedestrian Infrastructure Assessment criteria in EIAR Chapter 6 Table 6.18 (Appendix A6.4) do not include the pedestrian crossing distance when assessing junction quality. Shorter pedestrian crossing distances are important for slower moving pedestrians like children and those with mobility impairments. The NTA's chosen

junction design Type 1-3 has longer pedestrian crossing distances than alternatives, like Junction Type 4, typically 3-5m longer.

There have only been two constructed examples of Junction Type 1 - 3 in Ireland. One at Balbutcher Lane in Ballymun, Dublin, which is a much smaller junction than any of the proposed junctions. The other is the Lombard Street / Townsend Street junction in Dublin city centre. This small junction has gone through multiple iterations to attempt to resolve shortcomings from initial design. However, our members still report many frequent near misses and collisions. We encourage An Bord's inspector to visit either location and observe the unsafe operation of these junctions.

In previous design iterations of Bus Connects core bus corridors the NTA have also proposed Dutch-style junction designs. It has similar properties to the Cyclops junction design. However, Dutch-style junctions do not feature in this application. This Dutch-style junction design has been used successfully for decades in the Netherlands, and is in use in 14 other countries worldwide. There are examples in Ireland. There is a Dutch-style junction in Wicklow town at R750/ R999 and Hawkstown Road junction, constructed two decades ago. Another example is the new junction at Drummartin Link Road / Lower Kilmacud Road in DLRCC.

A visual representation of all three junction types is appended.

The National Transport Authority will not live up to their responsibilities as a Road Authority under the Roads Acts or NIFTI by building unproven Junction Type 1-3. The only two examples of the NTA junctions Type 1-3 have safety issues. There are proven international standards that the NTA could use for all junctions on this project instead. An Bord must require a re-think of the applicant's junction designs.

5.2 Location-specific comments

Newtown Avenue and Entrance to St. Vincent's Park: As set out above and in our submission during Round 3 consultation, the cycle lane must connect to the Coastal Mobility Route (CMR) here. The left exit traffic lane from Newtown Avenue is not needed and should be converted to a 2 way cycle track connecting the 2 routes. CMR is a major generator of cycle traffic including many kids.

The Vincent's Park/ Rockfield Park entrance will have vehicles directly crossing over people on bikes, and needs to be re-designed to make them safe from left turning traffic and remove the orphaned cycle lane. A very small piece of private driveway protrudes into the area and should be acquired to enable a much safer design.

Nutley Lane: We would call for consideration of a conventional one-way cycle track either side of the full length of Nutley Lane. This route is a main accessway to UCD so a 3.0 m two-way track is inadequate. Stopping the eastbound two-way bike lane entirely at the entrance to Vincent's Hospital provides far too low a quality of service for this very busy route. An Bord should request that the applicant consider making Nutley Lane one-way for motor traffic, so there's less land take and more modal shift is encouraged.

Ballsbridge: The Toucan crossing will promote conflict with pedestrians, as will the northbound contraflow section to Beatty's Avenue. Desire lines along the Dodder Greenway must be taken into account.

Baggot Street Upper: The bus gate here is a great idea and will calm the surrounding environment.

7.0 Conclusion

We urge An Bord to carefully consider the above detailed design issues, particularly at junctions. Providing properly for the large cohort of 'interested but concerned' cyclists, with its health benefits and reduction of demand for public transport, will ensure Bus Connects fulfils its potential to substantially enhance the lives of Dubliners.

We request an Oral Hearing in order to discuss and resolve the junction issues and other items raised above.

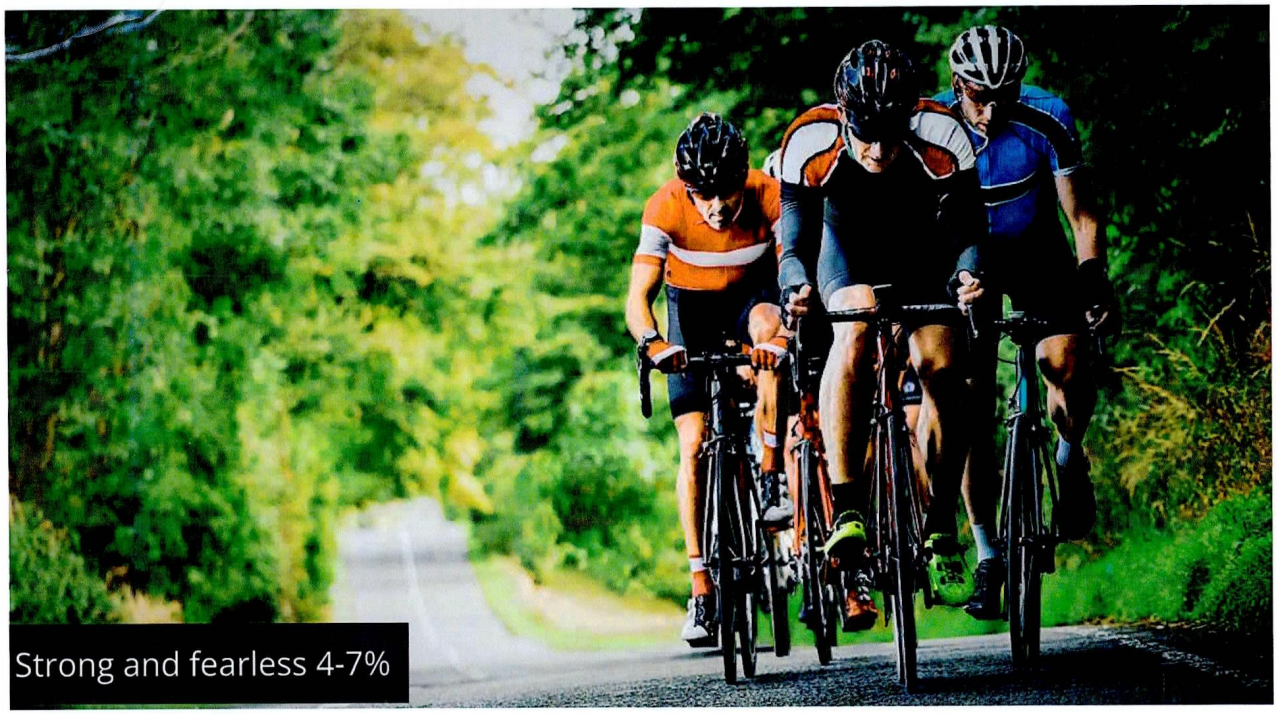
Ellen Cullen

Chairperson, Dublin Cycling Campaign

DUBLIN CYCLING CAMPAIGN

Appendices

1. Representation of the types of cyclist
2. Simplified schematics of different junction designs

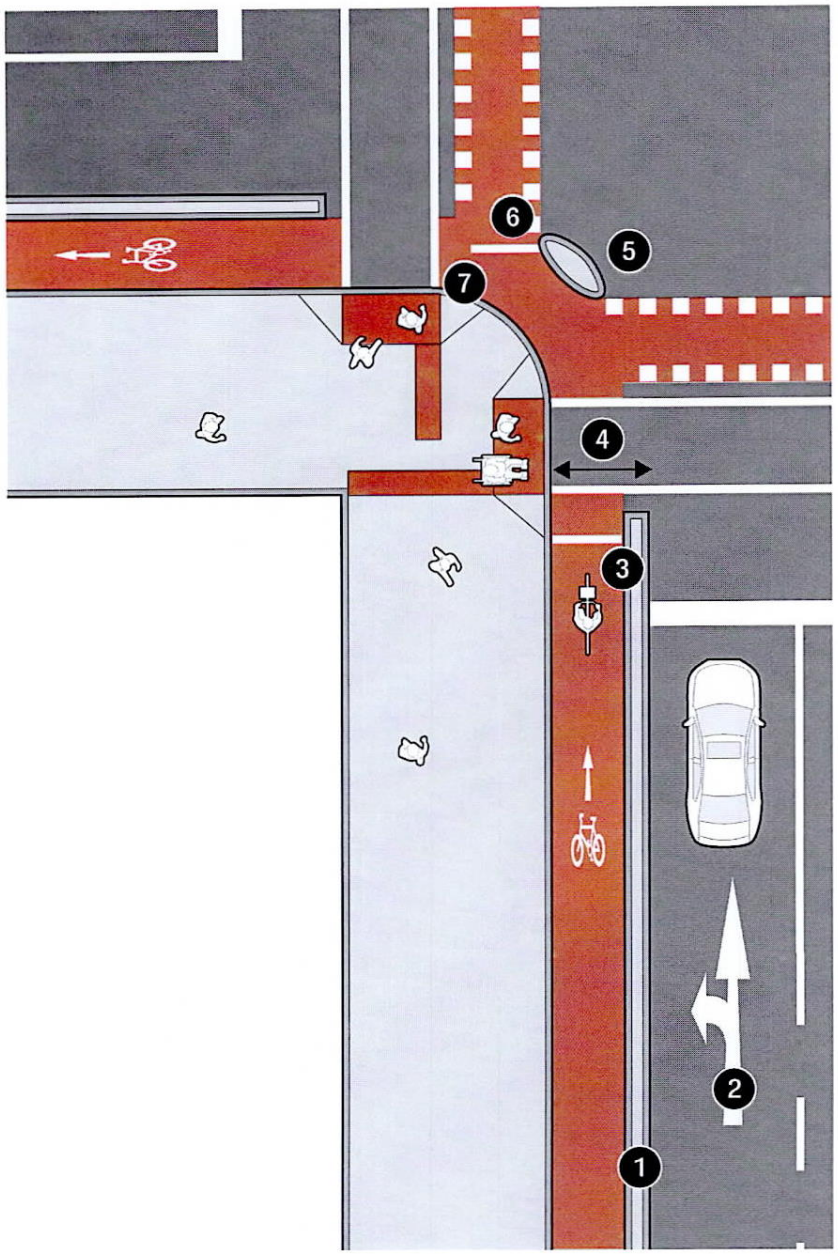

Strong and fearless 4-7%


15A
Enthused and confident 5-9%


Interested but concerned 50-60%

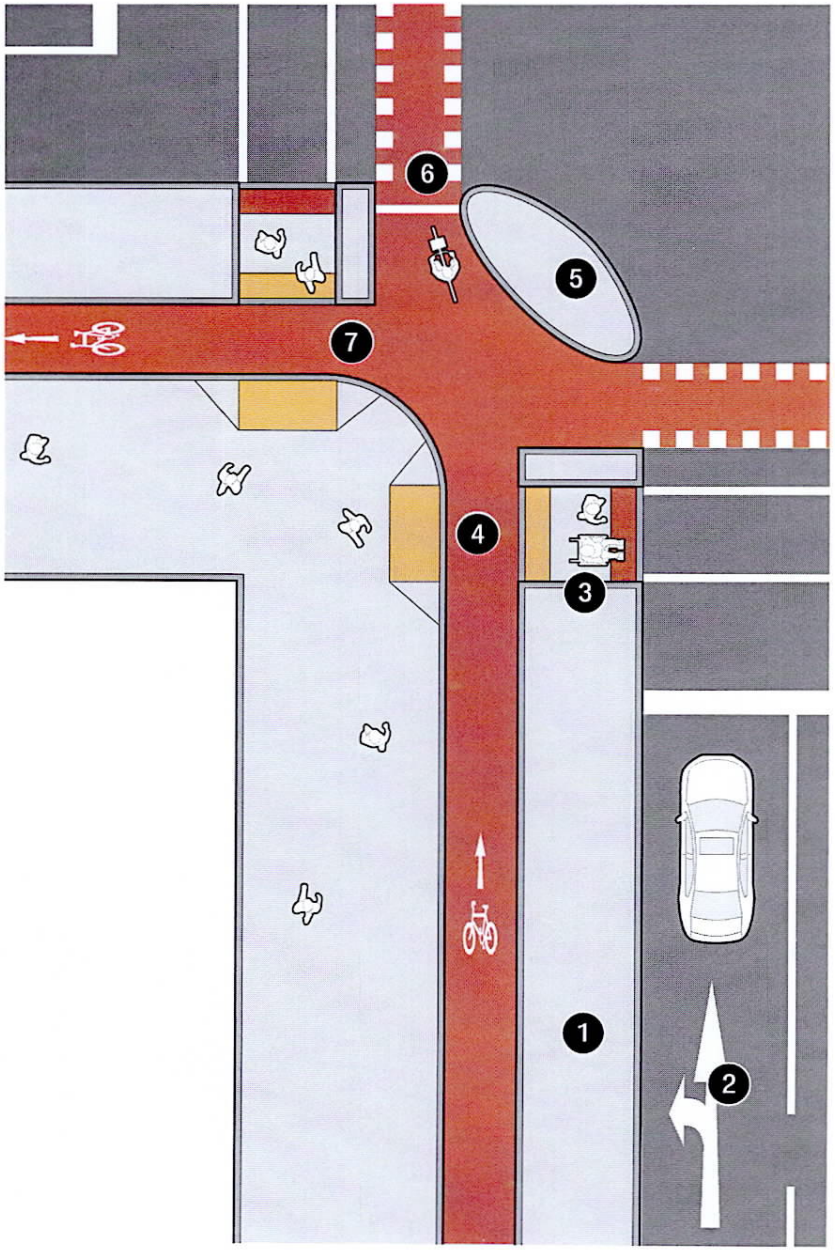

Interested but concerned 50-60%

DUBLIN JUNCTION WITH CORNER ISLAND



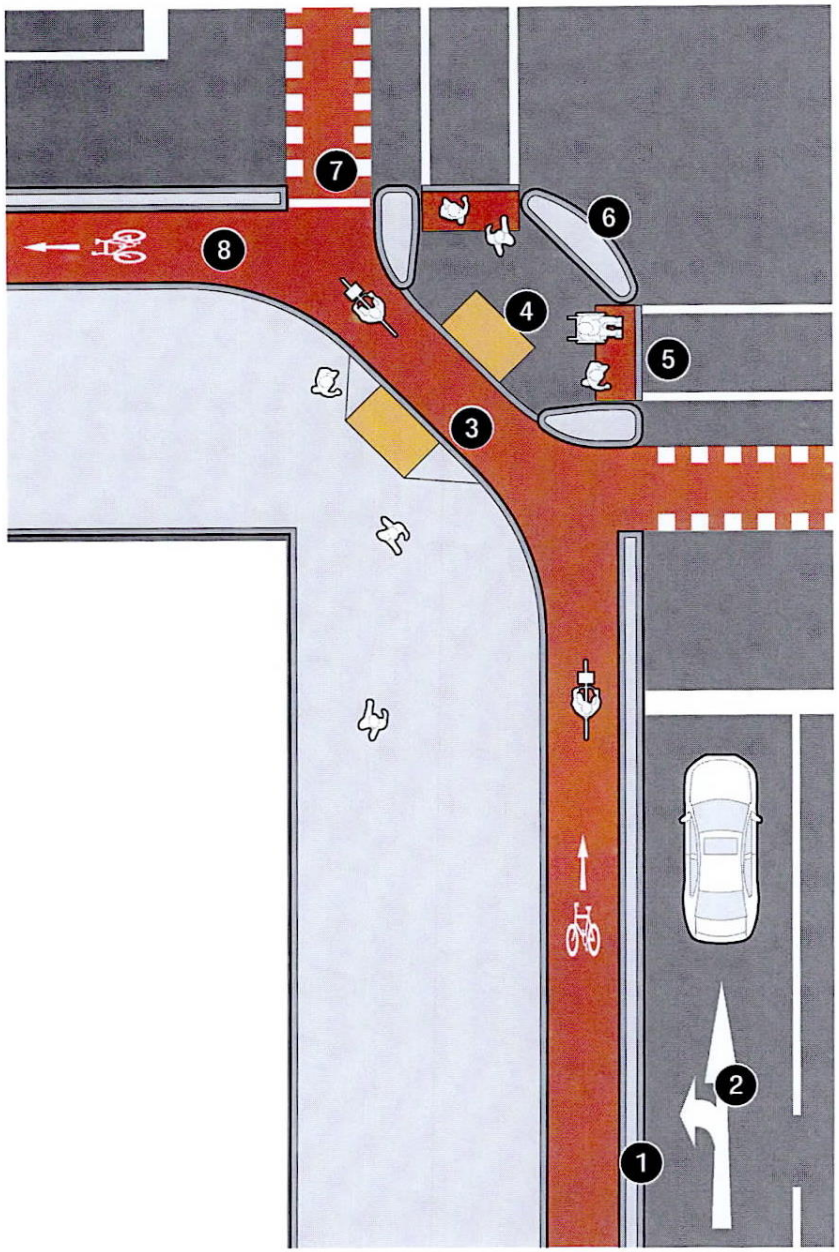
1. Raised kerb segregation
2. Left turning and straight ahead motor traffic lane
3. Stop line for cyclists
4. 2.5m approx.
5. Corner protection island
6. Stop line for right-turning cyclists (depends on junction signalling)
7. Left turning cyclist must stop when pedestrian crossing is green.

DUTCH JUNCTION



1. Horizontal segregation wide enough to provide safe space for pedestrian waiting area
2. Left turning and straight ahead motor traffic lane
3. Pedestrian crossing waiting area
4. Pedestrian crossing over cycle lane
5. Protective corner island
6. Stop line for straight-ahead and right-turning cyclists (depends on junction signalling)
7. Left turning cyclists never encounter signals

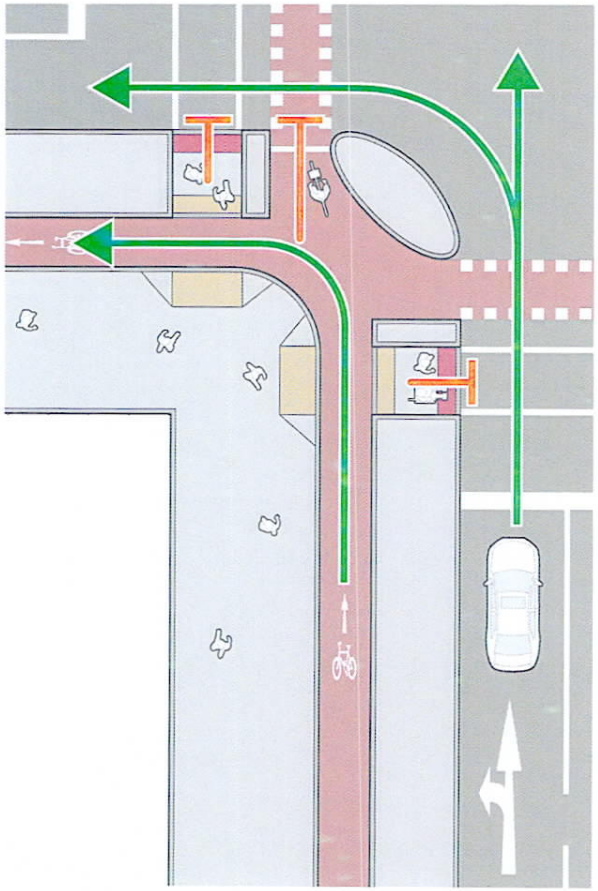
CYCLOPS JUNCTION



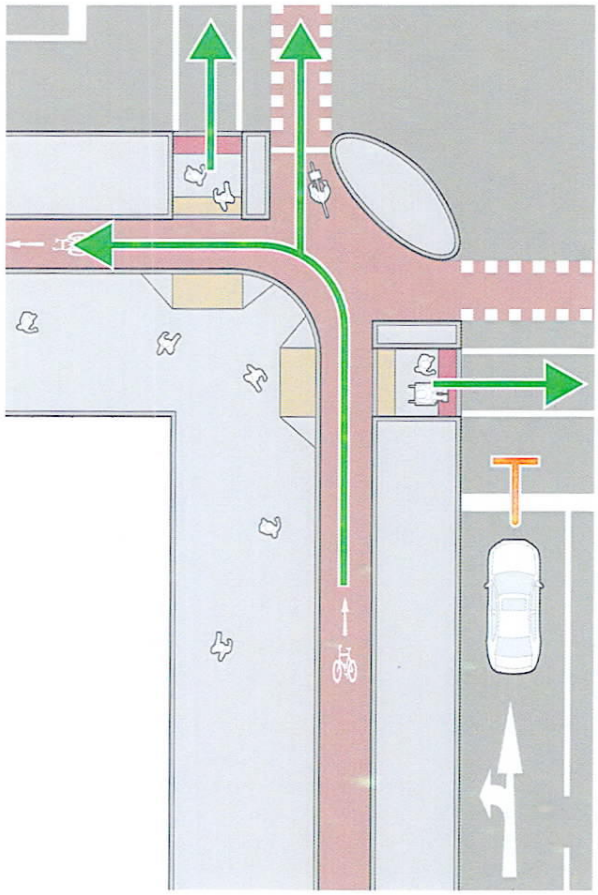
1. Raised kerb segregation
2. Left turning and straight ahead motor traffic lane
3. Pedestrian crossing point to pedestrian island
4. Pedestrian island
5. Controlled crossing across motor traffic lanes only
6. Protected corner island
7. Stop line for cyclists. Right-turns for cyclists can be made in a single phase
8. Left-turning cyclists never encounter signals

DUTCH JUNCTION MOVEMENT SEQUENCE

1 All motor traffic proceeds.
Straight ahead cycle & all pedestrian traffic is held.
Left turning cycle traffic proceeds.

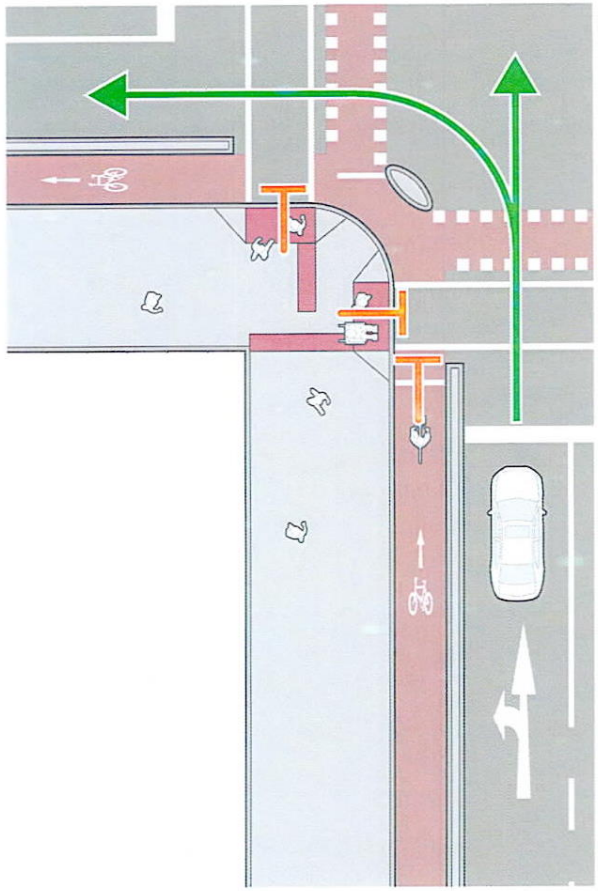


2 All motor traffic is held.
All cycle and pedestrian traffic proceeds.

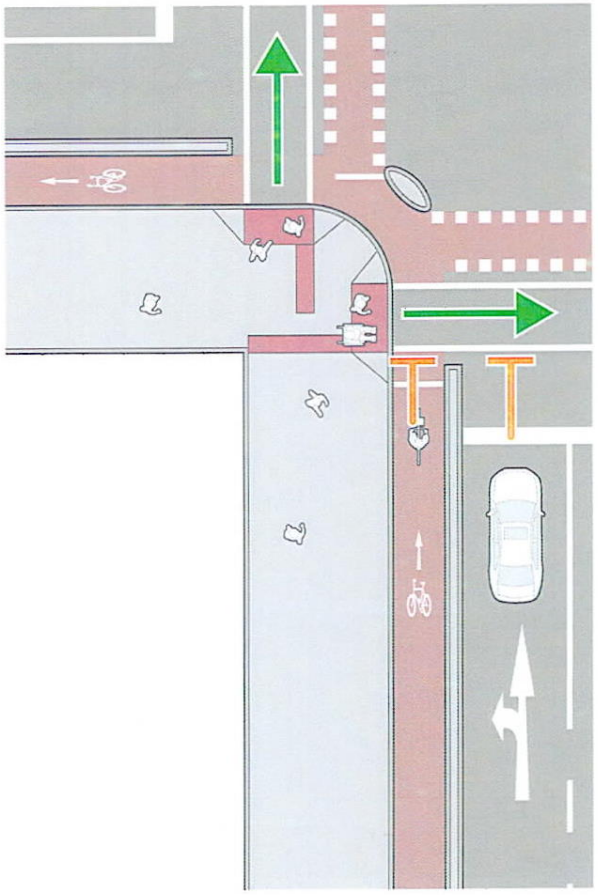


DUBLIN JUNCTION MOVEMENT SEQUENCE (A)

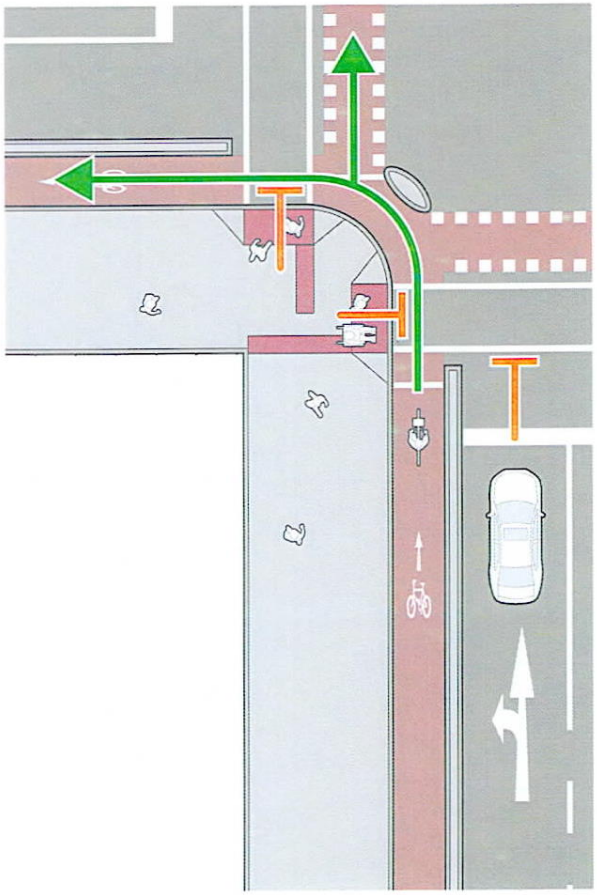
1 All motor traffic proceeds.
All cycle & pedestrian traffic is held.



2 All pedestrian traffic proceeds.
All motor & cycle traffic is held.



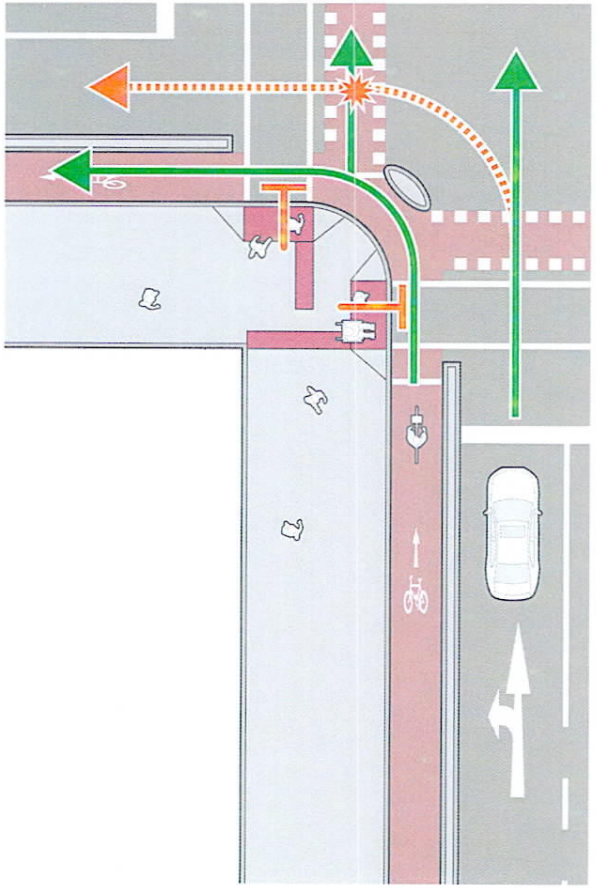
3 All cycle traffic proceeds.
All pedestrian & motor traffic is held.



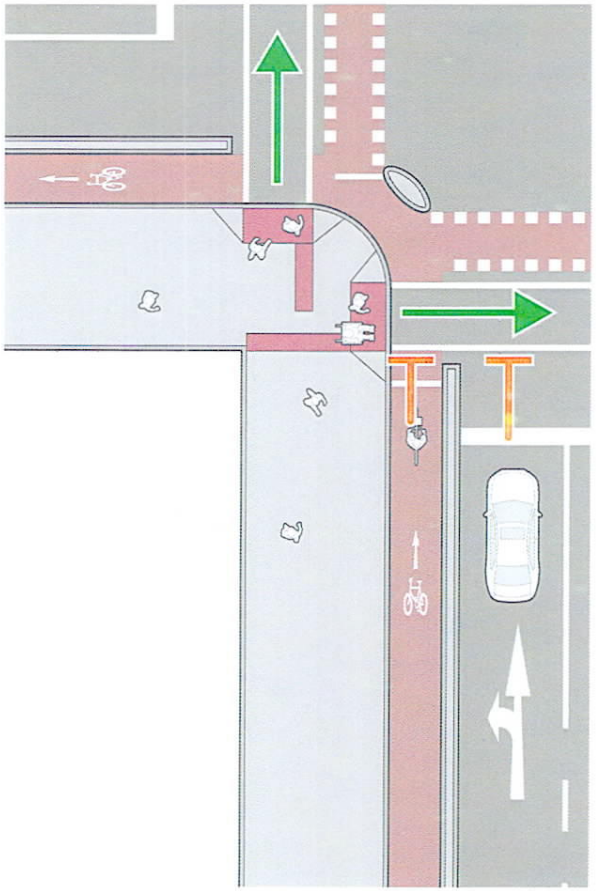
NOTE: Interupting the cycle lane with the controlled pedestrian crossing will add an extra 5m to the pedestrian crossing span.

DUBLIN JUNCTION MOVEMENT SEQUENCE (B) (NOT SAFE FOR LARGE OR BUSY JUNCTIONS!)

1 All motor & cycle traffic proceeds.
All pedestrian traffic is held.
High risk of conflict between cycle and motor traffic.

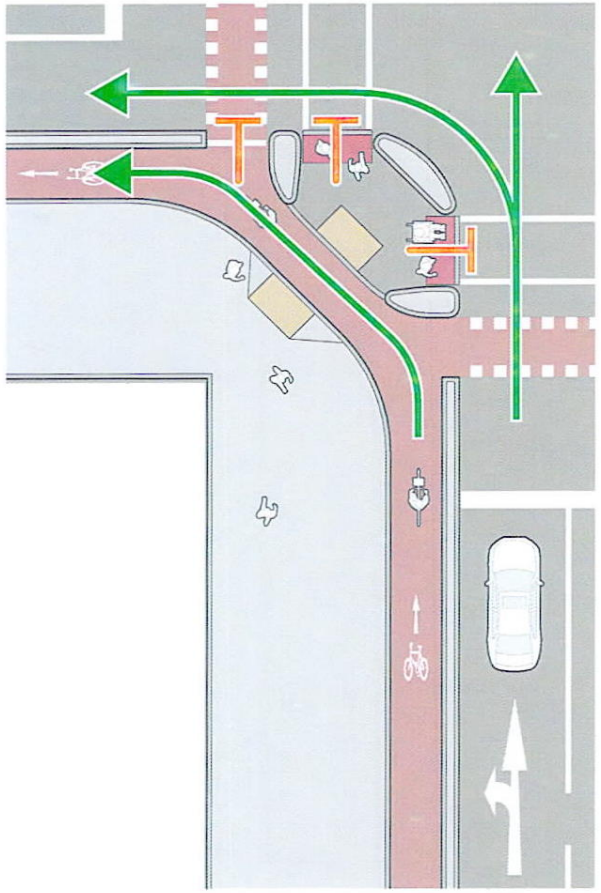


2 All pedestrian traffic proceeds.
All motor & cycle traffic is held.



CYCLOPS JUNCTION MOVEMENT SEQUENCE

1 All motor traffic proceeds.
Straight ahead cycle & all pedestrian traffic is held.
Left turning cycle traffic proceeds.



2 All motor traffic is held.
All cycle and pedestrian traffic proceeds.