An Taisce
The National Trust for Ireland

19 January 2015

North Dublin Transport Study,
National Transport Authority,
Dun Sceine, Iveagh Court,
Harcourt Lane,
Dublin 2

Submitted online at http://www.nationaltransport.ie/consultations/public-consultation-on-the-north-dublin-transport-study/

Re: North Dublin Transport Study Public Consultation

Dear Sir or Madam,

Attached is a submission on the North Dublin Transport Study Public Consultation

Yours Sincerely,
James Leahy
Honorary Secretary
An Taisce – The National Trust for Ireland
secretary@antaisce.org

An Taisce – The National Trust for Ireland

Response to National Transport Authority's Public Consultation on the North Dublin Transport Study with a deadline of 9th January 2015 as advertised at:

http://www.nationaltransport.ie/consultations/public-consultation-on-the-north-dublin-transport-study/

Prepared by: James Leahy, secretary@antaisce.org

Date: 19th January 2015

Table of Contents

1 INTRODUCTION 3

1.1 The Consultation 3

1.2 Background 3

2 COMMENTS ON METHODOLOGY 4

3 CONCLUSIONS 5

3.1 Dart Underground in Do Minimum Welcomed 5

3.2 Conculsions broadly supported by An Taisce 5

3.3 Congestion at Dolye's Corner, Phibsborough 5

3.4 Comments on Metro North 6

3.5 Technical comment on Ballymun tunnel. 6

3.6 Heavy Rail should be used for tunnels 6

3.7 Reconsider Heuston – Swords Rail Tunnel 6

4 REFERENCES 7

1 Introduction

1.1 The Consultation

This submission is a response to the National Transport Authority's Public Consultation on the North Dublin Transport Study with a deadline of 19th January 2015 as advertised at:

http://www.nationaltransport.ie/consultations/public-consultation-on-the-north-dublin-transport-study/

An Taisce welcomes the study and the opportunity to submit a submission.

An Taisce would like to be included as a stakeholder on further workshops or consultations on this subject.

1.2 Background

An Taisce has for many years being advocating for a review of transport plans for North Dublin and strongly welcomes the wide scope of this review. In particular:

- An Taisce strongly supports the Smarter Travel policy vision for transport to 2020 and has repeatedly referred to it in its planning submissions. It can be cited internationally as an best practice example of a national transport policy.
- An Taisce attended the Oral Hearing for the Metro North project and made a detailed submission on the project (Available on request). The submission said that the benefits of the project were being oversold, especially due to the end of the Celtic Tiger bubble. It criticised the way that the cost benefit analysis only compared a single low cost low benefit bus or Bus Rapid Transit option with the Metro North proposals. An Taisce has always stressed that the Metro North should have been compared to a combination of BRT routes including the Swords Road and the Dublin Port Tunnel.
- An Taisce advised the NCAD graphic designer Aris Venetikidis on his masters project on mapping of public transport in Dublin: http://www.venetikidis.com/ArisV/DUBLIN_TRANSPORT_MAP.html This was not a detailed design, rather an attempt to illustrate how Dublin could benefit from a 'network effect' if it created a dense integrated public transport network. It also illustrated the potenital for lower cost Bus Rapid Transit to be more widely deployed to achieve this network effect in a low-density city like Dublin. In particular note that a number of different BRT routes are shown serving Swords and the Airport rather than a single LRT or rail line. See the Dublin network diagram in the appendices.
- In September 2013 An Taisce made a submission on the Draft Integrated Implementation Plan 2013-2018. This submission was strongly supportive of the projects included in plan to 2018 and called for them to be funded. In particular it welcomed: the rail connections between Heuston and Docklands which would complement the later Dart Underground; and the decision to try BRT on three routes on five radial corridors. http://www.nationaltransport.ie/wp-

content/uploads/2011/12/Integrated_Implementation_2013-2018.pdf and http://www.antaisce.org/articles/national-transport-authority-draft-integrated-implementation-plan-2013-2018

- To show support for the Integrated Implementation Plan 2013-2018 and illustrate the potential benefits for the city An Taisce published a series of schematic maps of the proposals in the plan and what they would look like with Dart Underground completed too. It can be seen that for the first time Dublin would have an integrated transport network. The maps are included in an appendix to this document. http://www.antaisce.org/articles/taisce-published-schematic-map-dublin-transport-proposals
- An Taisce made submissions to the two Swiftway public consultations. These were generally strongly supportive, while including a detailed review of the proposals. http://www.antaisce.org/articles/submission-swiftway-bus-rapid-transport-proposals-dublin http://www.antaisce.org/articles/swiftway-bus-rapid-transit-–-swordsairport-city-centre-submission

Therefore An Taisce finds itself in the happy position that it is strongly supportive of the projects in the published Integrated Implementation Plan 2013-2018 and now welcomes a fresh look at transport provision beyond 2018.

2 Comments on Methodology

- We note the decision to use a catchment of 1000 m for rail and Light Rail Transit but 600 m for Bus Rapid Transit. 1000 m makes sense for rail. However in many cases Light Rail Transit services might only warrant a 600 m catchment while high specification BRT services may warrant a 1000 m catchment in some cases. It would be better to use 1000 m for all, use 600 m for LRT and BRT, or use 1000 m where certain standards for capacity and line speed are met. O'Connor (2014) and O'Connor (2014) shows show that people in Dublin are demonstrably walking 1000-1500m to good quality QBC's, never mind BRT.
- The growth in cycling and the Dublin Bikes are a very significant change since previous transport reviews. Cycling should be integrated with public transport. It is generally considered that cyclists will cycle three times the walking distance to a stop, which is a area that is nine times greater. Martens (2004) http://www.sciencedirect.com/science/article/pii/S1361920904000100 found that "[t]he majority of bike-and-ride users travels between 2 and 5 km to a public transport stop, with longer access distances reported for faster modes of public transport." This is relevant in serving a large low-density area such as Swords. Note also that the long term plans for Dublin Bikes published by Dublin City Council envisage extenting the scheme as far north as Dublin City University. This will increase catchments at stops in North Dublin City. The more general point worth adding here is that there ought to be cycling friendly routes from all directions within a 5km radius of every public transport stop.

- Greater benefits should be given to proposals which do more to created an integrated transport network. There is a network effect where once individual services integrated into a network the sum of the passengers on the network will be greater than the sum of the individual projects analysed in isolation (Laird et al 2005). This should be considered when comparing single routes with combination options. Increases in passengers on existing routes and stops should also be considered. By improving the transport network these proposals may make journeys involving interchange more attractive, or may facilitate people to live car-free or purchase annual transport passes. These factors can increase passengers away from the specific new stops.
- Given the changes to the rail network proposed and the siginficant investment in tunnelling proposed for some options the implications for the national rail network should be considered. This does not mean that the scope should go beyond the study area just that potential improvements to the national rail network should be allowed for, in particular the potential to create a direct Belfast – Dublin Airport – Dublin – Cork intercity service.

3 Conclusions

3.1 Dart Underground in Do Minimum Welcomed

An Taisce welcome the inclusion of the three Swiftway services and the Dart Underground in the Do Minimum scenario. Dart Underground must be the first priority as it integrated services across Leinster and maximises benefits of the significant existing network.

3.2 Conclusions broadly supported by An Taisce

An Taisce commends the sensible analysis of the different options and generally agrees with the one's which have been eliminated, with the exception of the Heuston-Airport Rail option which we will discuss below. The six short-listed schemes are a sensible list and An Taisce would welcome the opportunity to be involved in the next stage of the process.

3.3 Congestion at Doyle's Corner, Phibsborough

The conclusion that a LRT or BRT service running North South through Doyle's Corner in Phibsborough would not work due to the congestion caused is surely true. Alternatives to avoid this pinch point should be considered. An Taisce suggests considering a cut and cover tunnel under the Royal Canal Park from Broadstone to Phibsborough to avoid Doyle's Corner. This would have environmental impacts that would need to be mitigated sensitively. However, it would link up the four lane roads on Constitution Hill and Glasnevin. Alternatively, consider shared Bus Rapid Transit and Light Rail Transit on the Luis Cross City from Broadstone northwards to avoid Doyle's Corner. This was illustrated in the maps by Aris Venetikidis
http://www.venetikidis.com/ArisV/DUBLIN_TRANSPORT_MAP_files/DublinCityCentre-AllModes_1.jpg
http://www.venetikidis.com/ArisV/DUBLIN_TRANSPORT_MAP.html

And in the Appendices

3.4 Comments on Metro North

Having built Luas Cross City and the Swiftway BRT to Swords the idea of running Metro North parallel to the Luas from Stephen's Green to Parnell Square and then parallel to the Swiftway to Swords is crazy. We note that the passenger forecasts for Metro North have been reduced by the RPA to 12,000 passengers per direction per hour. In An Taisce's submission to the Metro North Oral Hearing we called for the Metro North to be compared to three BRT routes on: the Ballymun corridor, Swords corridor and the Dublin Port tunnel. This can easily deliver 12,000 passengers per direction per hour. It would also serve both the Ballymun and Swords road corridors in Dublin City and provide fast express access to the Airport and Swords. See the Aris Venetikidis maps for illustrations: http://www.venetikidis.com/ArisV/DUBLIN_TRANSPORT_MAP.html. If a rail option is still to be considered it should server areas that do not already have a high quality BRT or LRT service and not duplicate existing investment.

3.5 Technical comment on Ballymun tunnel.

Was a bored tunnel under Ballymun compared to the cut and cover options? Once the tunnel-boring machine (if one is used) is set up to go under Glasnevin, would it not make sense to continue it on?

3.6 Heavy Rail should be used for tunnels

If significant lengths of tunnel are proposed then heavy rail DART services should be used. The existing LRT lines have significant length of shared running through the city, which reduces the speed and the capacity of the services. Therefore the full benefits of a tunnel would not be realised if it were to be integrated with the Luas network. Meanwhile the DART network serves four corridors with segregated fast high capacity services. If any long tunnel is proposed it makes sense for it to be heavy rail DART standard to allow integration across the Greater Dublin Network. More on this follows in the next section.

Because of the points above the optimised Metro North option LR7 would appear to be a poor investment.

The LR3 option of continuing the Luas Cross City with a short tunnel under Glasnevin and then street running to the Airport might not be a bad option if the costs were low enough, but it would need to be complemented by a heavy rail or Port Tunnel BRT express service to Swords and the Airport.

3.7 Reconsider Heuston – Swords Rail Tunnel

An Taisce would like one of the eliminated options to be reconsidered, namely heavy rail HR9 Heuston to Swords via Phoenix Park Tunnel.

We note that this was eliminated due to the distance from Islandbridge to Heuston and the need to transfer to get to the City Centre Core. However, we believe one key factor has not been considered the potential benefits for the National Rail Network.

An Taisce suggests continuing the option to connect with the Northern Line at Donabate and with the Dublin City – Airport – Swords Port Tunnel BRT. This would open up the following opportunities:

- Passengers from Dublin Airport or Swords would have a direct express Port Tunnel BRT service to the City Centre.
- Passengers from Dublin Airport or Swords could also use the new Dart service and interchange at Donabate (Balbriggan DART), Broombridge (Maynooth and Dunboyne DART and Luas Green) or Heuston/Islandbridge (Kildare DART).
- It would also facilitate the potential to run a electrified national rail service from Belfast – Donabate - Dublin Airport – Broombridge – Islandbridge – Cork. In the context of planning to 2035 the national rail network must be considered. An electrified direct Belfast – Cork services is not an outlandish proposal.

See the map in the appendices, which illustrate this.

4 References

Laird et al (2005)
[http://www.sciencedirect.com/science/article/pii/S0967070X05000909]

Martens (2004)
[http://www.sciencedirect.com/science/article/pii/S1361920904000100]

O'Connor David (2014) MALAHIDE QBC & ENVIRONS LEVEL OF SERVICE ANALYSIS Proceedings of the ITRN2014 4-5th September, University of Limerick

O'Connor David (2014) STILLORGAN QBC LEVEL OF SERVICE ANALYSIS Proceedings of the ITRN2014 4-5th September, University of Limerick

5 Appendices

5.1 Appendix A: 2015 Map by An Taisce

An Taisce Cork - Dublin - Airport - Belfast Intercity Train Proposal

Drawn by James Leahy | 19th January 2015 | (c) James Leahy 2015 | www.antaisce.org

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Routes

- DART1 Bray - Maynooth
- DART2 Hazelhatch - Balbriggan
- DART3 Howth Shuttle
- DART4 Navan North - Docklands
- DART5 Hazelhatch - Balbriggan
- Luas Red
- Luas Green
- BRT 1
- BRT 2
- BRT 3
- Port Tunnel Express BRT
- Arrow 1 Dundalk - Connolly or Islandbridge
- Arrow 2 Kildare - Spencer Dock
- Arrow 3 Gorey - Pearse or Connolly
- Arrow 4 Longford - Grand Canal Dock
- Intercity 1 Belfast - Dublin Airport - Dublin - Limerick - Cork
- Intercity 2 Sligo - Spencer Dock
- Intercity 3 Rosslare Harbour - Pearse or Connolly
- Intercity 4 Galway / Ballina / Westport - Heuston
- Intercity 5 Tralee / Waterford - Dublin

Projects Included on This Map by An Taisce

Existing DART, Luas, Commuter Arrow and Intercity services with some reorganisation of train services due to opportunities from new infrastructure.

Luas Cross City Green line under construction

NTA's proposed three Swiftway Bus Rapid Transit services

NTA's proposed Navan DART rail line.

Dublin Port Bus Rapid Transit option from North Dublin Transport Study

Heuston - Airport DART option from North Dublin Transport Study with assumed stop locations and An Taisce's proposal to extend this to the Balbriggan line.

An Taisce's proposal to run Intercity trains from Cork to Islandbridge, then via the existing Phoenix Park Tunnel to Liffey Junction, then via a new tunnel under Glasnevin to the Airport, then overland to the Balbriggan line and on to Belfast. This would require electrification and should be allowed for in the long-term.

Advantages

Provides a long-term plan for Ireland's Intercity Rail Network

Provides local and national connections to Dublin Airport

Maximises exiting rail and port tunnel infrastructure

The airport and intercity line stops twice in the City Centre at Islandbridge and Liffey Junction. It includes interchanges with BRT, Luas, DART and train services at Donabate, Airport, Liffey Junction and Heuston/Islandbridge connecting the entire city and country.

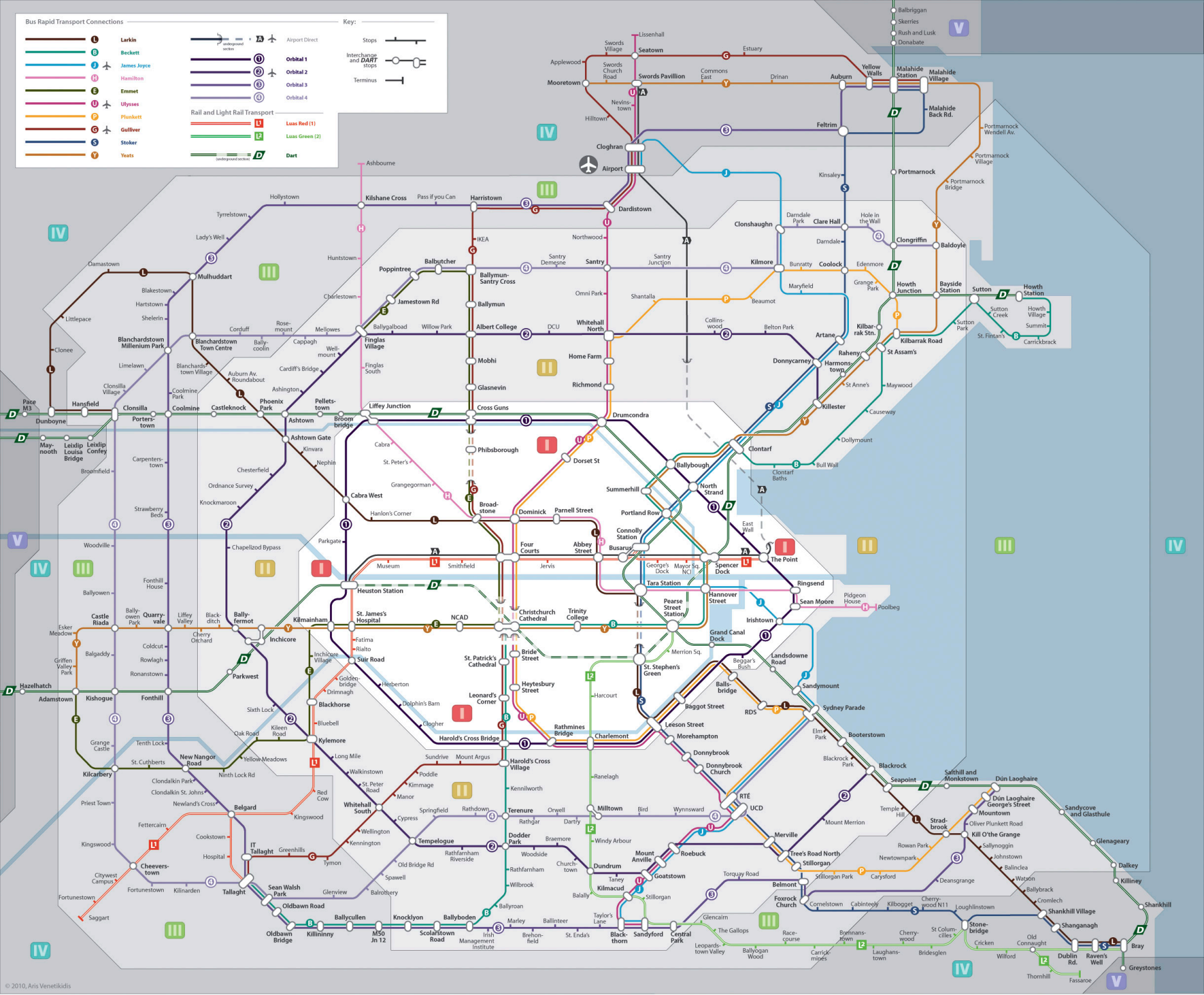
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Balbriggan
Skerries
Rush and Lusk
Donabate
Rathbeale Rd.
Castlefarm
Castlegrange
Estuary
Swords North
Swords Central
Pinnockhill
Airside
Cloghran
Dublin Airport
Swords Road / Airport
Malahide
Portmarnock
Clongriffin
Belmayne
Newtown
Clare Hall
Coolock
Artane
Killester
Howth
Sutton
Bayside
Donaghmede
Kilbarrack
Raheny
Harmonstown
Killester
Clontarf Rd.
Spencer Dock
The Point
Castlewood
Huntstown Way
Blakestown
Blanchardstown Rd. South
Blanchardstown Town Centre
Snugborough Rd.
Mill Road
Millenium Park
Auburn Ave
Phoenix Park / Navan Road Parkway
Beechfield
Ongar
Allendale
Clonsilla
Navan North
Navan Central
Kilmessan
Dunshaughlin
Pace M3
Dunboyne
Hansfield
Porterstown
Clonsilla
Coolmine
Castleknock
Ashtown
Pelletstown
Broombridge
Liffey Junction
Silloge
Ballymun
Glasnevin
Collinstown
Turnapin
Santry North
Santry South
Collins Ave. / DCU
Griffith Ave.
Drumcondra Village
Cross Guns
Drumcondra
Clonliffe Rd.
Donnycarney
Griffith Ave.
Fairview Park
North Strand
Maynooth
Leixlip Confey
Leixlip Louisa Bridge
Ashtown Gate
Kinvara Ave
Nephin Rd.
Cabra
Phibsboro
Grangegorman
Broadstone
Dominick
Cabra Rd.
Mountjoy Sq.
Parnell
GPO / Marlboro / Abbey / O'Connell Br.
Prussia St.
Stoneybatter
Smithfield / Queen St.
Four Courts
Museum
Jervis
Connolly Station
Busaras
Portland Row
George's Dock
Tara St.
Mayor St.
Islandbridge
Park West
Fonthill
Kilshogue
Adamstown
Hazelhatch/Celbrige
Heuston
James's
Fatima
Rialto
Suir Road
Goldenbridge
Drimnagh
Blackhorse
Bluebell
Kylemore
Red Cow
Kingswood
Belgard
Fettercairn
Cheeverstown
Citywest Campus
Fortunestown
Saggart
Cookstown
Hospital
Tallaght
TBC
Liberties Quarter
Christchurch
Kevin St.
Clanbrasil St.
South Great Georges St.
Harold's Cross
Parkview
Mount Tallant
Terenure Road
Rathfarnham
Rathfarnham Castle/Woodview Cottages
Butterfield Ave. / Springfield Ave.
Trinity
Dawson
Pearse
Aungier St.
Stephens Green West
Harcourt
Ranelagh
Beechwood
Cowper
Milltown
Windy Arbour
Dundrum
Balally
Kilmacud
Stillorgan
Sandyford
Central Park
Glencairn
The Gallops
Leopardstown Valley
Ballyogan Woods
Carrickmines
Laughlanstown
Brides Glen
Leeson St. Lower
Earlsfort Terrace
Leeson St. Upper.
Appian Way
Morehampton Rd.
Donnybrook
Donnybrook Ch.
Nutley Lane
UCD
Stephen's Green East
Merrion Sq.
Grand Canal Dock
Landsdowne Rd.
Sandymount
Sydney Parade
Booterstown
Blackrock
Seapoint
Salthill / Monkstown
Dun Laoghaire
Sandycove / Glasthule
Glenageary
Dalkey
Killiney
Shankill
Bray
Greystones
Kilcoole
TBC
TBC

5.2 2009 Map by Aris Venetikidis

See http://www.venetikidis.com/ArisV/DUBLIN_TRANSPORT_MAP.html for more.

© Aris Venetikidis.


Bus Rapid Transport Connections
Larkin
Beckett
James Joyce
Hamilton
Emmet
Ulysses
Plunkett
Gulliver
Stoker
Yeats
Airport Direct
Orbital 1
Orbital 2
Orbital 3
Orbital 4
Rail and Light Rail Transport
Luas Red (1)
Luas Green (2)
Dart
Key:
Stops
Interchange and DART stops
Terminus
Balbriggan
Skerries
Rush and Lusk
Donabate
Lissenhall
Swords Village
Seatown
Estuary
Applewood
Swords Church Road
Swords Pavillion
Commons East
Drinan
Auburn
Yellow Walls
Malahide Station
Malahide Village
Malahide Back Rd.
Mooretown
Nevins-town
Hilltown
Feltrim
Portmarnock Wendell Av.
Portmarnock Village
Portmarnock Bridge
Cloghran
Airport
Kinsaley
Portmarnock
Ashbourne
Hollystown
Kilshane Cross
Pass if you Can
Harristown
Dardistown
Tyrrelstown
Lady's Well
IKEA
Northwood
Clonshaughn
Darndale Park
Clare Hall
Hole in the Wall
Clongriffin
Baldoyle
Damastown
Huntstown
Poppintree
Balbutcher
Ballymun-Santry Cross
Santry Demesne
Santry
Santry Junction
Kilmore
Darndale
Bunratty
Coolock
Edenmore
Howth Junction
Bayside Station
Howth Station
Sutton
Sutton Creek
Howth Village
Summit
Carrickbrack
Mulhuddart
Blakestown
Hartstown
Charlestown
Jamestown Rd
Ballymun
Omni Park
Shantalla
Maryfield
Grange Park
Littlepace
Shelerin
Corduff
Rose-mount
Mellowes
Ballygall-wood
Willow Park
Albert College
DCU
Whitehall North
Collins-wood
Belton Park
Artane
Kilbar-rak Stn.
Kilbarrak Road
St Fintan's
Sutton Park
Clonee
Blanchardstown Millenium Park
Blanchardstown Town Centre
Bally-coolin
Cappagh
Well-mount
Finglas Village
Finglas South
Beaumont
Howth Junction
Limelawn
Blanchards-town Village
Auburn Av. Roundabout
Cardiff's Bridge
Mobhi
Home Farm
Donnycarney
Harmons-town
Raheny
St Assam's
Clonsilla Village
Coolmine Park
Ashington
Glasnevin
Richmond
St Anne's
Maywood
Pace M3
Hansfield
Clonsilla
Coolmine
Castleknock
Phoenix Park
Pelletts-town
Liffey Junction
Cross Guns
Drumcondra
Killester
Causeway
Dunboyne
Porters-town
Ashtown
Broom-bridge
Ashtown Gate
Kinvara
Nephin
Cabra
Phibsborough
Dorset St
Clontarf
Dollymount
Maynooth
Leixlip Louisa Bridge
Leixlip Confey
Carpenters-town
Broomfield
Chesterfield
St. Peter's
Grangegorman
Ordnance Survey
Knockmaroon
Strawberry Beds
Cabra West
Broad-stone
Dominick
Parnell Street
Hanlon's Corner
Summerhill
North Strand
Ballybough
Clontarf Baths
Bull Wall
Portland Row
Woodville
Chapelizod Bypass
Parkgate
Four Courts
Abbey Street
Connolly Station
Busaras
East Wall
The Point
Museum
Smithfield
Jervis
George's Dock
Mayor Sq. NCI
Spencer Dock
Fonthill House
Heuston Station
Tara Station
Ringsend
Hannover Street
Pearse Street Station
Sean Moore
Pidgeon House
Poolbeg
Ballyowen
Castle Riada
Bally-owen Park
Quarry-vale
Liffey Valley
Black-ditch
Bally-fermot
Kilmainham
St. James's Hospital
NCAD
Christchurch Cathedral
Trinity College
Irishtown
Esker Meadow
Inchicore
Cherry Orchard
Fatima
Rialto
Suir Road
Grand Canal Dock
Merrion Sq.
Landsdowne Road
Balgaddy
Coldcut
Rowlagh
Griffen Valley Park
Ronanstown
Inchicore Village
St. Patrick's Cathedral
Bride Street
St. Stephen's Green
Beggar's Bush
Balls-bridge
Sandymount
Parkwest
Golden-bridge
Drimnagh
Herberton
Heytesbury Street
Harcourt
Hazelhatch
Adamstown
Kishogue
Fonthill
Blackhorse
Dolphin's Barn
Leonard's Corner
Baggot Street
RDS
Sydney Parade
Sixth Lock
Kileen Road
Bluebell
Clogher
Rathmines
Leeson Street
Oak Road
Harold's Cross Bridge
Charlemont
Morehampton
Booterstown
Grange Castle
Tenth Lock
Kylemore
Long Mile
Donnybrook
Elm Park
Blackrock Park
Blackrock
New Nangor Road
Yellow Meadows
Sundrive
Mount Argus
Harold's Cross Village
Donnybrook Church
Seapoint
Salthill and Monkstown
Dún Laoghaire
St. Cuthberts
Ninth Lock Rd
Kilcarbery
Clondalkin Park
Clondalkin St. Johns
Walkinstown
Poddle
Kimmage
Manor
Ranelagh
RTÉ
Dún Laoghaire George's Street
Mountown
Sandycove and Glasthule
Priest Town
Newland's Cross
Belgard
Red Cow
Kingswood
St. Peter Road
Whitehall South
Springfield
Rathdown
Terenure
Orwell
Rathgar
Dartry
Milltown
Bird
Wynnsward
UCD
Temple Hill
Mount Merrion
Strad-brook
Oliver Plunkett Road
Kill O'the Grange
Fettercairn
Cookstown
Wellington
Kennington
Tempelogue
Dodder Park
Braemore
Windy Arbour
Merville
Sallynoggin
Johnstown
Glenageary
Kingswood
Hospital
IT Tallaght
Greenhills
Tymon
Rathfarnham Riverside
Woodside
Roebuck
Rowan Park
Newtownpark
Balinclea
Dalkey
Cheevers-town
Old Bridge Rd
Rathfarnham
Church-town
Dundrum
Mount Anville
Tree's Road North
Stillorgan
Carysford
Killiney
Citywest Campus
Fortunestown
Kilnarden
Tallaght
Spawell
Wilbrook
Taney
Goatstown
Stillorgan Park
Deansgrange
Watson
Ballybrack
Saggart
Sean Walsh Park
Glenview
Balrothery
Ballyroan
Kilmacud
Balally
Torquay Road
Belmont
Foxrock Church
Cornelstown
Cabinteely
Kilbogget
Cherry-wood N11
Loughlinstown
Cromlech
Shankhill
Shankhill Village
Oldbawn Road
Ballycullen
Knocklyon
Ballyboden
Marley
Ballinteer
Taylor's Lane
Glencairn
Shanganagh
Oldbawn
Killininny
M50 Jn 12
Scholarstown Road
Irish Management Institute
Brehon-field
St. Enda's
Black-thorn
Sandyford
Central Park
The Gallops
Race-course
Brennans-town
Cherry-wood
St Colum-cilles
Stone-bridge
Old Connaught
Bray
Leopards-town Valley
Ballyogan Wood
Carrick-mines
Laughans-town
Bridesglen
Cricken
Willford
Dublin Rd.
Raven's Well
Greystones
Thornhill
Fassaroe
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