

**CS CONSULTING
GROUP**
DUBLIN - LONDON - LIMERICK

CRONIN & SUTTON CONSULTING (part of the CS Consulting Group)
19-22 Dame Street, Dublin 2, D02 E267, Ireland

T | 353 1 5480863

E | info@cscsconsulting.ie

W | www.cscsconsulting.ie

Mobility Management Plan Framework

Spencer Place Residential Block 2, Spencer Dock, Dublin 1

Client: Spencer Place Development Company Limited

Job No. R043

August 2019

Limerick Office:

45 O'Connell Street
Limerick, V94 XE18
Ireland

T: 353 (0)61 594988
E: info@cscsconsulting.ie
W: www.cscsconsulting.ie

London Office:

45 Beech Street
London, EC2Y 8AD
UK

T: +44 (0) 207 070 3660
E: info@cscsconsultinguk.com
W: www.cscsconsultinguk.com

KP & Associates Consulting Engineers Ltd. T/A Cronin & Sutton Consulting
Directors: K. Cronin, D. Rehill, O. Sullivan, P. Sutton
Associate Directors: N. Barrett, R. Fitzmaurice, M. McEntee, L. McNamee Associates: C. Twomey, C. Barry
Registered Office: 1st Floor, 19-22 Dame Street, Dublin 2, D02 E267, Ireland | Company No. 505303





CS CONSULTING
GROUP

DUBLIN - LONDON - LIMERICK

MOBILITY MANAGEMENT PLAN FRAMEWORK

SPENCER PLACE RESIDENTIAL, BLOCK 2, SPENCER DOCK, DUBLIN 1

CONTENTS

1.	INTRODUCTION	1
2.	SUSTAINABLE TRAVEL	5
3.	MOBILITY MANAGEMENT PLAN PURPOSE	5
4.	EXISTING SITE CONDITIONS	6
5.	PROPOSED FUTURE TRANSPORT IMPROVEMENTS	12
6.	CONTENT OF THE MOBILITY MANAGEMENT PLAN	16
7.	OBJECTIVES OF THE MOBILITY MANAGEMENT PLAN	18
8.	CONCLUSIONS	23

Appendix A: Details of proposed local transport infrastructure improvements

Appendix B: Liv Consult Amenity Provision and Car Pool Narrative

Appendix C: Links to relevant guidance documents concerning Mobility Management

This Report has been prepared by CS Consulting for the benefit of its Client only. The contents of this Report are shared with interested parties for information only and without any warranty or guarantee, express or implied, as to their accuracy, reliability or completeness. This Report cannot be relied on by any party other than the party who commissioned it.

File Location: Job-R043\B_Documents\C_Civil\A_CS Reports\4.0 SHD Application for Additional Floors\Traffic

Job Ref.	Author	Reviewed By	Authorised By	Issue Date	Rev. No.
R043	NB	GF	NB	09.08.2019	B
R043	NB	GF	NB	10.04.2019	A
R043	NB	GF	NB	27.04.2018	-



CS CONSULTING
GROUP

DUBLIN - LONDON - LIMERICK

1.0 INTRODUCTION

- 1.1 Cronin & Sutton Consulting (CS Consulting) have been commissioned by Spencer Place Development Company Limited to prepare a Mobility Management Plan for a proposed strategic housing development of 464no. apartment units and the change of use of the permitted aparthotel development to shared accommodation at Block 2, Spencer Dock, Dublin 1, bounded by Sheriff Street to the north, Mayor Street to the south and New Wapping Street to the east.
- 1.2 The proposed development site is located at the site at City Block 2, bound by Sheriff Street to the north, Mayor Street to the south and New Wapping Street to the east, Spencer Dock, Dublin 1, within the North Lotts and Grand Canal Dock Strategic Development Zone. The site is located in the administrative jurisdiction of Dublin City Council and has a total area of circa 1.26ha.

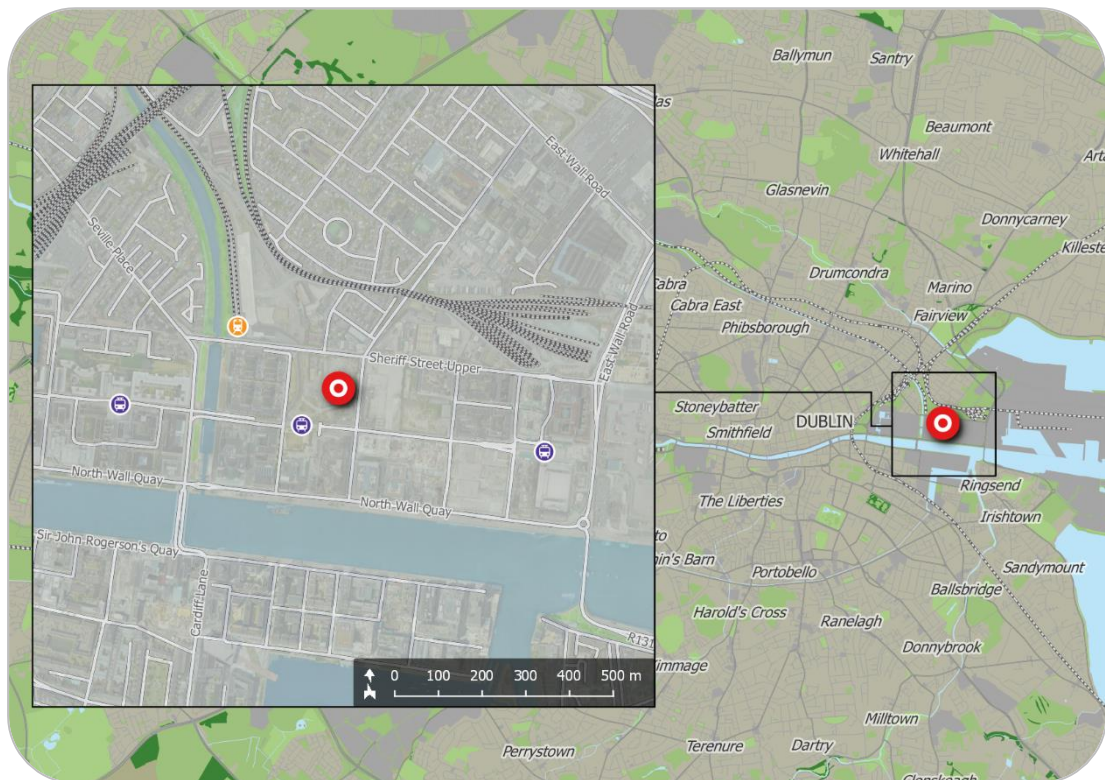


Figure 1 – Location of proposed development site

(map data: EPA, NTA, OSi, OSM Contributors, Google)

The location of the proposed development site is shown in Figure 1 above; the indicative extents of the development site, as well as relevant elements of the surrounding street network, are shown in more detail in Figure 2.

The development site is bounded to the east by New Wapping Street, to the south by Mayor Street Upper, to the north by Sheriff Street Upper, and to the west by a vacant brownfield site.

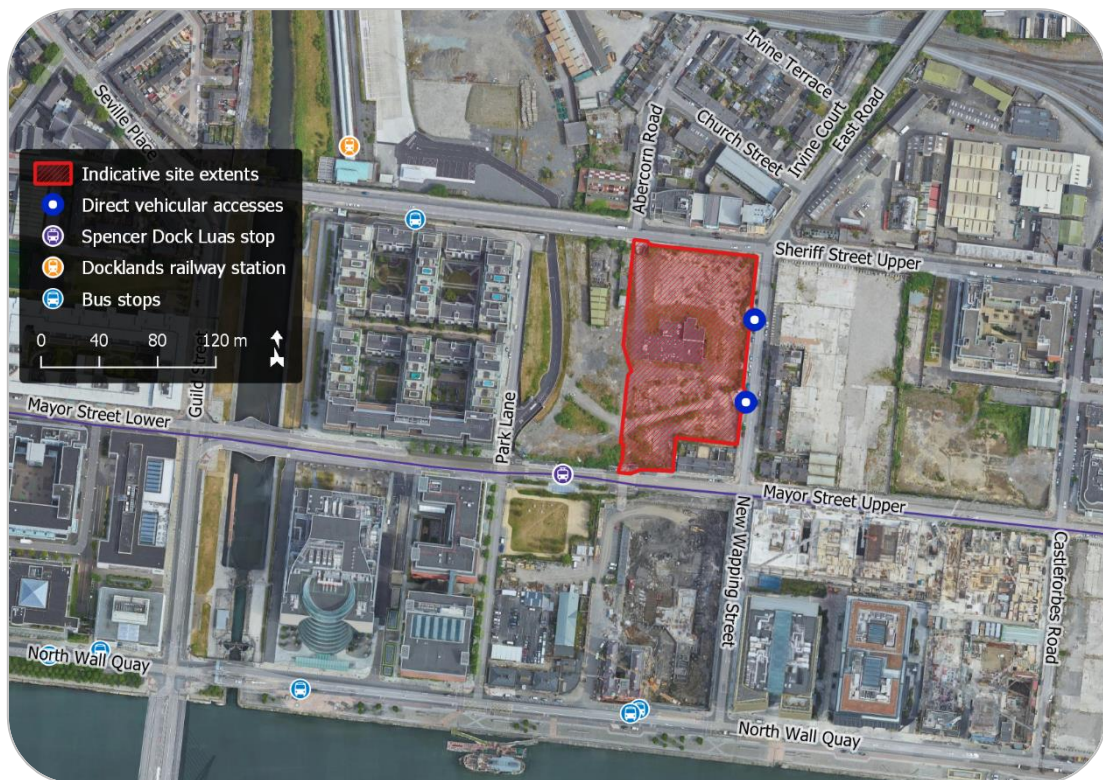


Figure 2 – Elements of surrounding street network
(map data & imagery: NTA, OSi, OSM Contributors, Google)

- 1.3 The proposed development comprises an alteration to the permitted development Reg. Ref. DSDZ2896/18 and as amended by Reg. Ref. DSDZ4279/18 at Spencer Place North, City Block 2, Spencer Dock, Dublin 1. The proposed development seeks revisions to the permitted Block 1 and 2 to provide for an increase in the number of residential units from 349no. to 464no.

apartment units and the change of use of the permitted aparthotel development to shared accommodation.

The proposed development will increase the height of the permitted development, increasing the maximum height of Block 1 from 7no. storeys (27.5m) to a maximum height of 13no. storeys (46.8m) and increasing the maximum height of Block 2 (27.5m) to 11no. storeys (40.5m). The proposed development will also include the provision of a link bridge between Block 1 and Block 2 at 6th floor level, landscaping, the provision of communal open space, revised undercroft level, provision of roof terraces, and all other associated site development works to facilitate the development.

- 1.4 The proposed development is supported by an MMP as a suitable mechanism by which the future development can maintain a low rate of private car use and support the objectives of sustainable development.

The proposed development site is located in proximity to existing high-quality bus, rail and light rail services through Dublin City, as well as proposed future transport infrastructure. The site benefits from a location close to numerous amenities and centres of employment and is within approximately 20 minutes' walk of O'Connell Bridge, at the heart of the city centre.

It is therefore an objective under this MMP that a minimal proportion of the trips generated by this development be made by private car.

The projected Modal Splits for the proposed development, as described, are given in Table 1. These modal splits will be reviewed following the completion of the proposed development; they will thereafter be continuously reviewed under the targets of the MMP.

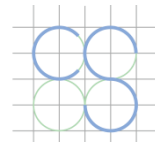


Table 1 – Projected Modal Splits for Development

Mode	Modal Split
Public Transport	50%
Car	5%
Bicycle	15%
Walking	30%
Total	100%

2.0 SUSTAINABLE TRAVEL

MMPs are developed for the purpose of promoting and enhancing travel via more sustainable modes of transport. MMPs are conducted to identify travel demand strategies that reduce single occupancy private car travel, which in turn reduces traffic congestion, noise pollution and environmental impacts. Occupants of and visitors to the development are informed of existing alternatives to the private car and are given the required advice, support & encouragement to travel in a sustainable way. The MMP will also include proposed future improvements to those transport options already available.

3.0 MOBILITY MANAGEMENT PLAN PURPOSE

- 3.1 The aim for the plan is to provide more sustainable transport choices which lead to a reduction in the need for vehicular journeys, especially by private car. The MMP recognises that not all trips can be taken by sustainable modes and that some motor vehicle trips will still be necessary.
- 3.2 The MMP should be considered as a dynamic process, wherein a package of measures and campaigns are identified, piloted, and then monitored on an ongoing basis. The nature of the plan therefore changes during its implementation: measures that prove successful are retained, while those that are not supported are discarded. It is important that the plan retains the support of users and receives continuous monitoring. Feedback and active management of the plan are required for it to continue to be successful.

4.0 EXISTING SITE CONDITIONS

4.1 Existing pedestrian facilities in the vicinity of the development site are extensive and of good quality. Raised footpaths and public lighting are in place along all nearby streets, including New Wapping Street, Sheriff Street Upper, Mayor Street Upper, and North Wall Quay. Signalised pedestrian crossings of New Wapping Street, Sheriff Street Upper, and Mayor Street Upper are provided in proximity to the development site.

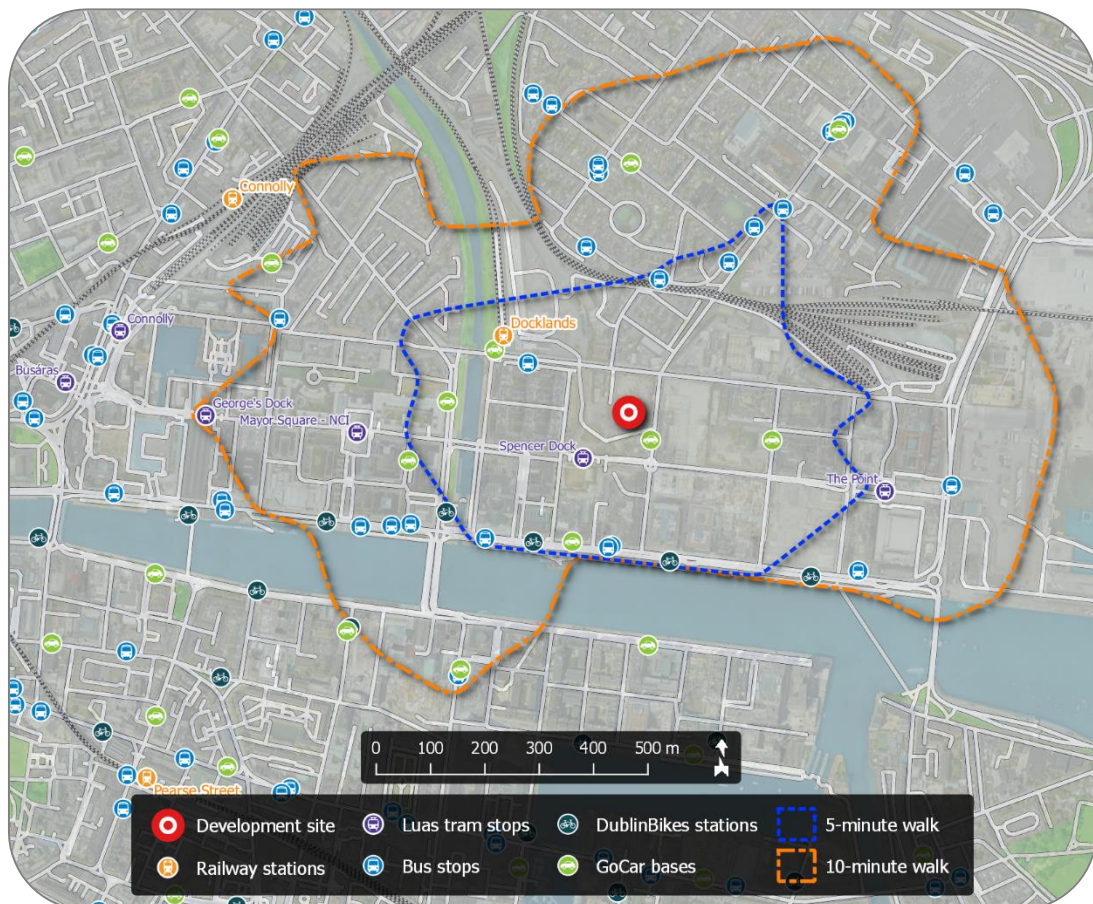


Figure 3 – Public and shared transport accessibility
(map data and imagery: NTA, GoCar, DCC, OSM Contributors, Google)

4.2 The location of the site within Dublin's City Centre and adjacent to North Wall Quay, a significant arterial route within Dublin city centre, means that there are several Dublin Bus routes that serve bus stops in close proximity to the site. The

Spencer Dock Luas light rail stop on Mayor Street is also located within walking distance of the development site.

4.3 Existing Public Transport Services

4.3.1 Bus Services

A number of bus stops are located within a 5-minute walk of the subject site. These stops collectively are served by 7no. Dublin Bus routes, details of which are given below in Table 2.

Table 2 – Dublin Bus Services

Route No.	Origin	Destination	Weekday Services	Peak Interval
Stop no. 6251 – Approximately 150m from site				
151	Docklands	Foxborough	48	20 min
Stop no. 7611 – Approximately 165m from site				
747	Heuston Station	Dublin Airport	100	10 min
757	Camden Street	Dublin Airport	38	30 min
Stop no. 2501 – Approximately 165m from site				
33d	St. Stephen's Green	Portrane	1	n/a
33x	St. Stephen's Green	Skerries	5	15 min
41x	UCD Belfield	Knocksedan	3	15 min
142	UCD Belfield	Portmarnock	10	15 min
151	Foxborough	Docklands	50	15 min
Stop no. 7398 – Approximately 260m from site				
33x	Skerries	St. Stephen's Green	5	20 min
142	Portmarnock	UCD Belfield	11	10 min
747	Dublin Airport	Heuston Station	100	10 min
757	Dublin Airport	Camden Street	39	30 min

Further bus services, run by other operators, also serve stops in proximity to the subject site. The most relevant of these are listed in Table 3.

Table 3 – Other Bus Services

Route Nos.	Terminus 1	Terminus 2	Weekday Services	Peak Interval
Bus Éireann				
133	Dublin Airport	Wicklow Town	22	60 min
Swords Express				
500 to 507	Dublin	Swords	64	3 min
Matthews Coach Hire				
903	Dublin	Dundalk	2	n/a
Ashbourne Connect				
194A	Ratoath	UCD Belfield	4	n/a
East Point Shuttle				
n/a	East Point Business Park	Point Village	n/a	n/a

In addition to the services listed in Table 3, the main bus station at Busáras is located approx. 1km from the subject site and is connected to it by the LUAS light rail line. This gives access to the wider network of interurban and long-distance bus routes operated by Bus Éireann.

4.3.2 Rail Services

The subject site is located approx. 200m east of the Docklands railway station. Services from this station operate towards Sligo, serving commuter towns in Meath and Kildare.

Pearse Street railway station is approx. 1 km to the southwest of the subject site; Connolly Railway station, to which the subject site is connected by the LUAS light rail line, is approx. 900m to the west. Intercity rail services

from these stations operate towards Belfast, Sligo and Rosslare, serving commuter towns in counties Dublin, Meath, Louth, Kildare, Wicklow and Wexford. Frequent DART rail services also operate via these stations, between Malahide/Howth in the north and Greystones in the south. A limited number of commuter rail services also operate from these stations to Newbridge in southern Kildare, via the recently reopened Phoenix Park rail tunnel.

4.3.3 Light Rail Services

The LUAS light rail network consists of two principal lines, which until recently did not connect with one another:

- LUAS Red Line (E-W) Dublin Docklands to Tallaght/Saggart
- LUAS Green Line (N-S) St. Stephen's Green to Bride's Glen

The Spencer Dock stop, on the LUAS Red line, is located 20m from the subject site. Light rail services operating via this stop connect the Dublin Docklands to the city centre, continuing on to Tallaght and Saggart in the southwest. Trams run at intervals of approximately 5 minutes at peak times. The main railway stations of Connolly and Heuston are also located on the LUAS Red line.

The recently completed LUAS Cross City project has extended the LUAS Green Line northward from St. Stephen's Green, running as far as Broombridge on the Royal Canal, and created an interchange with the LUAS Red Line at Abbey Street (4 stops west of Spencer Dock); this has provided a significant further improvement to the public transport provision at the proposed development site.

Figure 4 shows the reach of public transport journeys from the development site by total travel time (including walking to and between stops), based upon a departure time of 08:00 on a typical weekday.

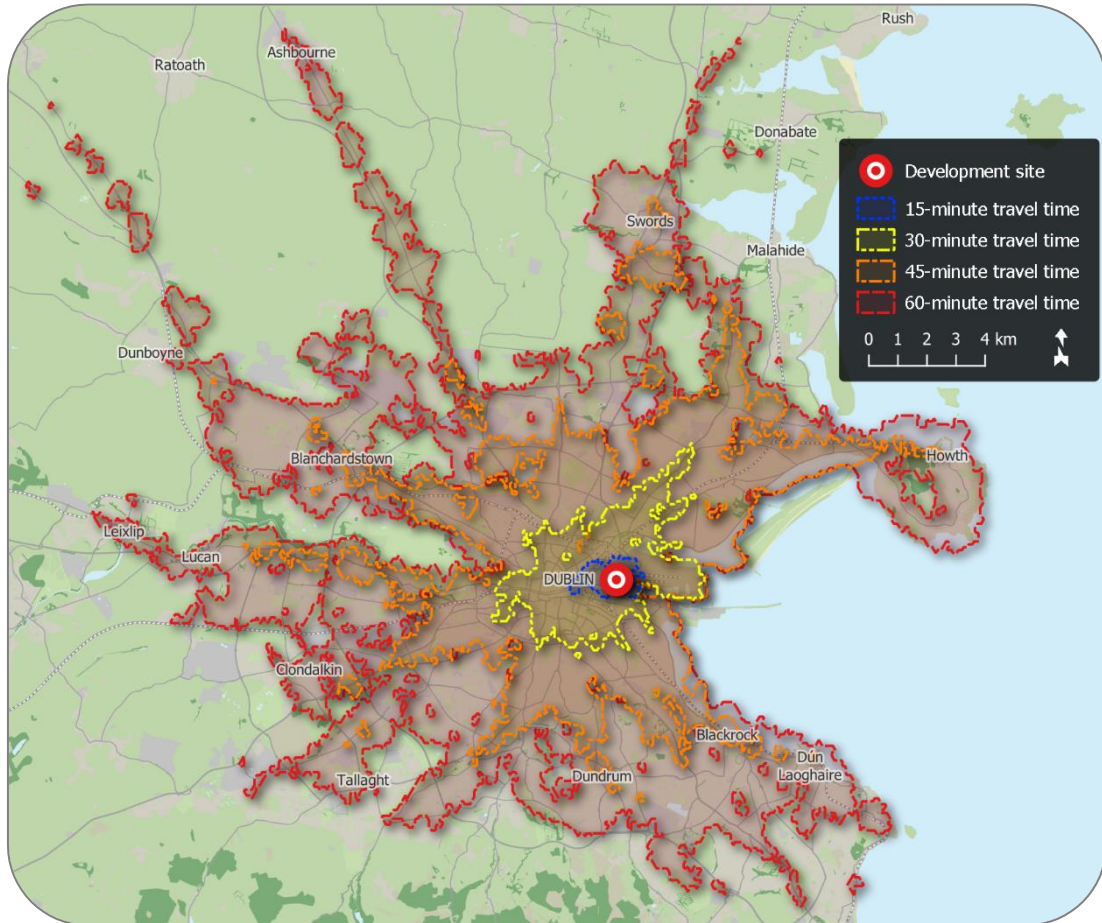


Figure 4 – Public transport travel time reaches from development location
(map data sources: NTA, OSi, OSM Contributors, TravelTime platform)

4.4 Bicycle Infrastructure

Segregated eastbound and westbound cycle lanes are present along the North Quays in the vicinity of the subject site. Two DublinBikes bicycle sharing stations, with spaces for 80no. bicycles in total, are located on North Wall Quay within approx. 230m of the subject site.

As shown in Figure 5, the entirety of Dublin city centre is easily accessible by bicycle from the development site, as are most inner suburbs. Docklands, Connolly, and Pearse Street railway stations are within a 5-minute cycle, as are numerous Luas tram stops, and Heuston railway station is within 15 minutes'

cycle. As shown in Figure 3, several DublinBikes bike-sharing stations are located within a 5-minute walk of the development site.

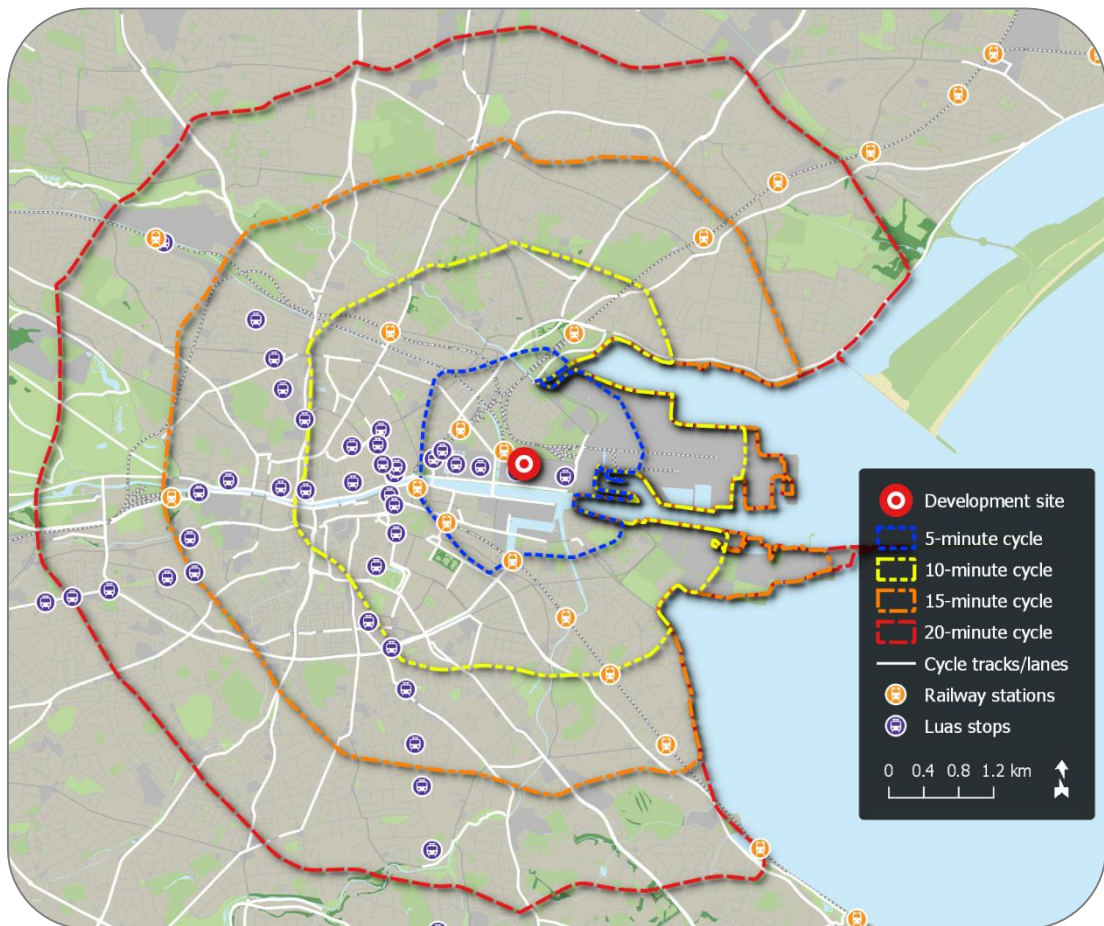


Figure 5 – Cycling isochrones from development location
(map data sources: NTA, OSi, OSM Contributors, openrouteservice)

5.0 PROPOSED FUTURE TRANSPORT IMPROVEMENTS

5.1 MetroLink

The TII/NTA MetroLink project, which is now entering a second phase of public consultation, provides for the construction of a metro line between Dublin city and Swords by the year 2027, much of which shall be underground. It is proposed to locate future MetroLink stations at Tara Street, within 20 minutes' walk of the development site, and at O'Connell Street, within a 25-minute walk and connected to the development site by the Luas network. The development shall therefore benefit in future from the availability of a further high-frequency direct rail connection to Dublin Airport. See Appendix A for details.

5.2 BusConnects

The NTA BusConnects project, which is currently undergoing public consultation processes, proposes to improve dedicated bus facilities and to reorganise the Dublin Bus network in order to improve its flexibility and performance. Radial Core Bus Corridors shall be created, primarily along the routes of the existing Quality Bus Corridors; bus lanes and cycle facilities are to be improved along these corridors, which will reduce bus journey times and improve cyclist safety. In addition, it is proposed to create new Orbital Bus Corridors, which shall link the radial corridors around the city. Details of the scope of these proposals are included in Appendix A. Core Bus Corridor no. 16 is proposed to run along North Wall Quay and Sir John Rogerson's Quay; the existing concept design drawings for this route (included in Appendix A) do not require any changes to the development site boundary.

5.3 Bus Rapid Transit

Swiftway Bus Rapid Transit (BRT) proposals include a route between Clongriffin and Tallaght; a proposed future BRT stop on this route is located at Connolly Station. See Appendix A for details of this proposed BRT route.

5.4 Cycle Network Improvements

The Greater Dublin Area Cycle Network Plan provides for the consolidation of existing cycling infrastructure in the vicinity of the development site: an east-west primary cycle route (no. 5) is proposed along North Wall Quay, connecting to a north-south primary cycle route (no. NO1) along Guild Street. In addition, a new secondary cycle route is proposed to run along New Wapping Street and East Road. Maps of existing and proposed cycling facilities are included in Appendix A. No further information is available at present regarding the delivery timeframe or detailed design for these proposed cycle network improvements.

5.5 DART Underground

The expansion of the DART to the greater Dublin region, possibly including DART Underground, has been allocated funding in the new National Development Plan.

The DART Underground scheme originally envisaged the construction of a 7.5km tunnel from Inchicore in the southwest to the Docklands in the northeast, with new underground stations at Christchurch, St. Stephen's Green and Spencer Dock, as well as underground interchanges at the existing Heuston and Pearse Street stations. This tunnel would connect with the southern Kildare railway line (towards Newbridge), along which DART services would run as far as Hazelhatch, and with the existing Malahide/Howth DART line to the north. The proposed Spencer Dock underground station is to be located beneath Central Square, adjacent to the existing Spencer Dock LUAS stop and immediately to the southwest of the subject development site.

Review of these plans in 2015 outlined a number of possible cost-saving alterations to the original scheme, involving a reduction in length of the proposed tunnel (which might terminate at Heuston to the west or at Pearse Street to the east) and/or a reduction in the number of underground stations. The final layout of the scheme has yet to be decided.

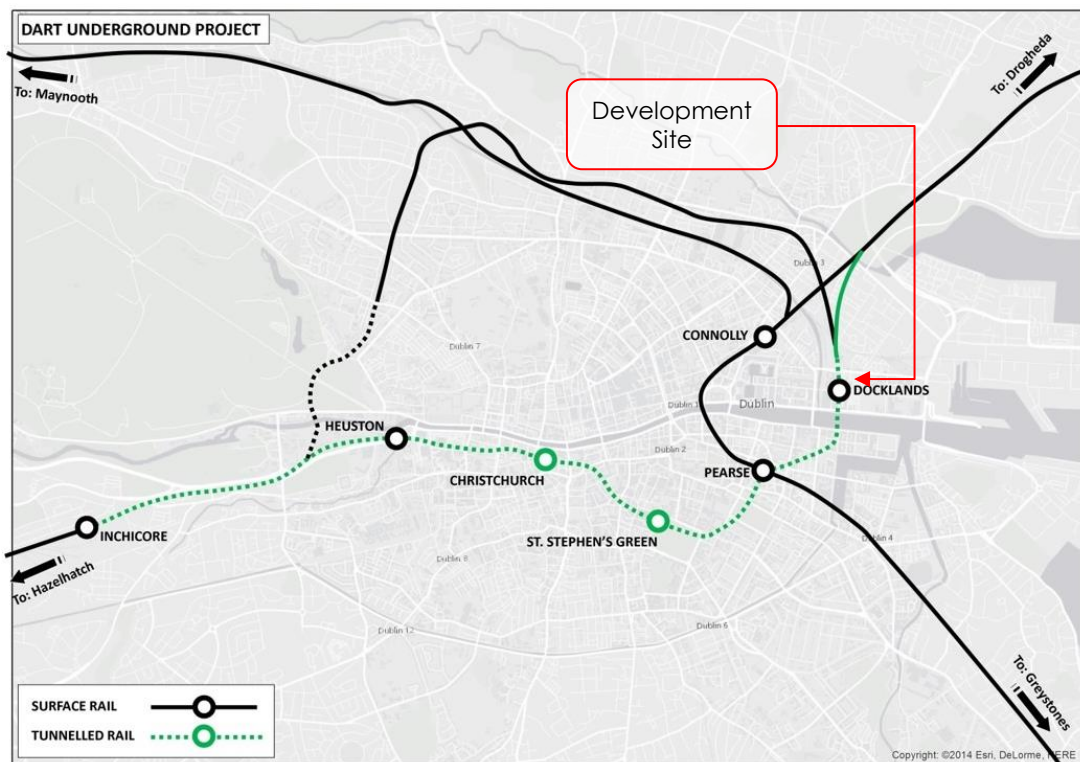


Figure 4 – DART Underground project (original proposal)
(base image source: National Transport Authority)

As shown in Figure 6, the subject development is well positioned to benefit from the DART Underground project, should this be undertaken as first proposed, but shall not interfere with the proposed tunnel alignment or the proposed underground station location at Spencer Dock.

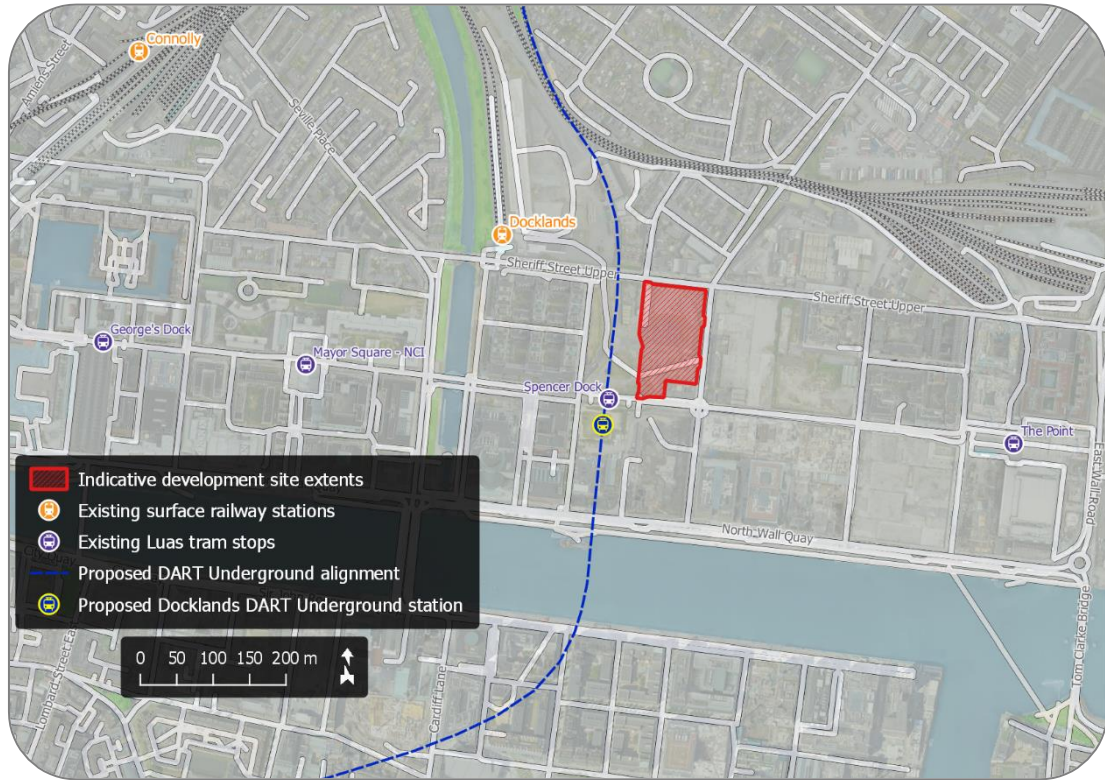
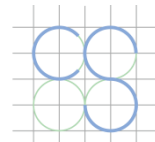


Figure 6 – Original DART Underground proposal in Dublin Docklands
(map data sources: NTA, OSi, OSM Contributors, Google)

6.0 CONTENT OF THE MOBILITY MANAGEMENT PLAN

- 6.1 This MMP is a management tool that brings together occupant, visitor and site management issues in a coordinated manner. This report sets out the objectives and specific measures required to establish an effective MMP at this initial stage.
- 6.2 This plan's aim is to provide more sustainable transport choices that will lead to the development operating with the lowest possible level of private car use.
- 6.3 The plan will set out specific targets and objectives, including measures to be implemented to establish a sustainable modal split in transport to and from the development. The plan will require regular monitoring to develop an effective implementation of mobility management measures.
- 6.4 Within Ireland, travel demand management is becoming well established through the initiatives and strategies identified in the document *A Platform for Change*, which was published by the Dublin Transportation Office (DTO) in 2001. Within this document, the first steps for travel demand management in Ireland are described as seeking “*to reduce the growth in the demand for travel while maintaining economic progress, [through measures] designed to encourage a transfer of trips to sustainable modes*”.
- 6.5 Building on the policies set forth in *A Platform for Change*, further progress in the Irish context was made with the publication of the document *Smarter Travel: A Sustainable Future – A New Transport Policy for Ireland 2009-2020* and, more recently, the publication of the *Transport Strategy for the Greater Dublin Area 2016-2035*. Within these documents, numerous actions have been proposed which aim to foster improved sustainable travel habits for Ireland. The *Transport Strategy for the Greater Dublin Area 2016-2035* pertains to an area encompassing the counties of Dublin, Meath, Kildare and Wicklow. A

complement to this document is the *Greater Dublin Area Cycle Network Plan* (2013).

6.6 In order to establish an effective mobility management plan, the development – once occupied – should gather the following information:

- A travel survey of development occupants, to establish the origin and destination of trips to and from the development;
- An outline of specific schemes/measures implemented to discourage car-dependent transport to and from the site;
- Any comments/suggestions on travel that have been offered by development occupants;
- A set of targets, to be set out in accordance with approved DTO guideline documents;
- An outline of the specific schemes that the development plans to make available to its occupants, in order to encourage the desired travel patterns to and from the site. These might include, for example: additional cycle facilities, public transport subsidies, walking groups, cycle groups, communication and consultation, etc.

It is intended that this Mobility Management Plan will follow the above guidelines. The success of the MMP depends on the co-operation of all parties; the appointment of a co-ordinator and a steering group is vital for the success of the plan. This MMP will need to be reviewed on a regular basis by the steering group, with updates implemented as improvements to the transport network in the vicinity of the development site are carried out.

7.0 OBJECTIVES OF THE MOBILITY MANAGEMENT PLAN

The objectives of the Mobility Management Plan for the proposed development are as follows:

- To promote and increase the use of public transport, walking and cycling for development occupants and visitors, and to facilitate travel by bicycle, bus and light rail;
- To integrate mobility management into the development decisions, policies and practices; to work closely with governing bodies on matters of access to – and use of – transport services around the vicinity of the development site;
- To provide information on sustainable modes of travel and to have resources readily available to increase awareness of these amongst development occupants and visitors.

7.1 Implementation of a Mobility Management Plan (Residential Travel Plan)

A Residential Travel Plan is a document that evolves over time and depends upon ongoing implementation, management and monitoring. Its successful implementation requires organisational support, an internal Mobility Manager and financial resourcing.

The Mobility Manager will be responsible for the following:

- Overseeing the development and implementing the Residential Travel Plan;
- Obtaining and maintaining commitment and support;
- Acting as a point of contact for all residents requiring information;
- Organising data collection between residents and visitors so the Residential Travel Plan can be monitored and targets set;

- Liaising with external organisations e.g. local authorities, transport operators etc. to update information on infrastructure and service improvements in Dublin.
- Co-ordinating all aspects of the Residential Travel Plan.

In a residential development of the type proposed, the Management Company is ideally placed to promote the Residential Travel Plan to residents. This will involve:

- Appointing the Mobility Manager;
- Maintaining and updating online travel information;
- Establishing a point of contact for all residents requiring travel information;
- Ensuring each resident has knowledge of realistic options to travel by non-car modes.

7.2 Residential Travel Plan Targets

The Residential Travel Plan should identify specific targets against which the effectiveness of the plan can be assessed at each review. These will typically take the form of target modal splits for journeys to and from a site.

An initial target modal split should be set by the first iteration of the Residential Travel Plan, when the development is first occupied by residents. This will be informed by factors such as parking provision, car ownership among residents, and the proximity and frequency of public transport services.

7.3 Consultation and Monitoring

As described above, effective implementation and maintenance of a Residential Travel Plan depends upon input from site occupants. The Mobility Manager will need to gather data on travel patterns, for instance by conducting periodic travel surveys of residents.

In a residential development, residents should also be encouraged to suggest or request measures that facilitate sustainable transport modes. The active participation of residents is essential to changing travel patterns and reciprocity on the part of the Mobility Manager (e.g. by acting on residents' suggestions) will help to foster this.

7.4 Residential Travel Plan Measures

The following are examples of specific measures that could be implemented within a Residential Travel Plan for the proposed development.

7.4.1 Marketing and Communications

- Travel Welcome Pack

A travel welcome pack should be prepared and distributed to all residents prior to their taking up residence within the development. It will make residents fully aware of their range of travel options available to and from the development. The welcome pack will include:

- Information on personalised travel planning, such as the transportforireland.ie journey planner;
- Information on bus, rail and LUAS services, including late night travel options;
- Information on cycle facilities and on car and bicycle sharing schemes (i.e. GoCar and DublinBikes);
- Details on the operation of the proposed development car park and other local car parks.

- Development Site Website

A key means of communicating travel information to both residents and visitors is the creation of a website hub for the development, which should contain a travel section that provides all of the information contained in the Travel Welcome Pack, as well as direct

links to transport providers' websites and travel news alerts covering service disruptions/alterations, new routes, special offers, and so on.

7.4.2 Walking and Cycling

All pertinent safe walking and cycling routes should be identified within a radius of at least 5km around the development site. These routes will be selected with regard to:

- the presence/condition of footpaths and cycle paths;
- safety at crossings;
- signage; and
- lighting.

7.4.3 Public Transport

It must be ensured that the information supplied in the Travel Welcome Pack and on the travel hub website includes the location of stops, routes, timetables, walking times to main public transport facilities, etc. Changes and improvements to public transport provision must be publicised as well.

In addition to this information, the Mobility Manager should encourage uptake amongst residents of incentivised travel programmes such as Taxsaver commuter passes.

7.4.4 Residential Car Club

The proposed development is a highly suitable candidate for the establishment of a residential car sharing club, allowing residents the common use of a small vehicle pool based permanently within the development. Private cars are parked for the vast majority of the time, whereas shared cars are in use far more frequently and therefore make more efficient use of parking spaces: a single shared car may make as many trips in a day as 14 private cars.

The Build-to-Rent element of the proposed development shall be operated by LIV Group, which intends to supply a dedicated fleet of 22no. shared vehicles for the sole use of the development's residents. LIV Group shall control and maintain these vehicles, the use of which residents shall be able to book through a development-specific app. A similar model of residential car club is already operated by LIV Group at Kilnwood Vale in Faygate, Sussex (UK). An *Amenity Provision and Car Pool Narrative* document prepared by LIV Group is included as Appendix B to this report.

It is intended that this shared car fleet shall meet the majority of residents' needs for car use. If required, however, residents shall also be able to supplement this through use of other car-sharing services operating in Dublin city; GoCar and Yuko both have established networks in Dublin, with a number of car bases in proximity to the development site, while Green Mobility has announced plans to begin operating a car-sharing service in Dublin in the course of this year.

A total of 78no. car parking spaces shall be provided within 2no. basement-level car parks within the development (42no. car parking spaces below Block 1 and 36no. car parking spaces below Block 2). Of these, 22no. spaces shall be reserved for the development's 22no. shared cars. The remaining car parking spaces shall be let separately.

8.0 CONCLUSIONS

8.1 The proposed development site is located on New Wapping Street, Dublin 1, within Block 2 of the North Lotts and Grand Canal Dock Strategic Development Zone.

8.2 The proposed development site is located in proximity to existing high-quality bus, rail and light rail services through Dublin City, as well as proposed future transport infrastructure. The site benefits from a location close to numerous amenities and centres of employment and is within approximately 20 minutes' walk of O'Connell Bridge, at the heart of the city centre.

It is therefore an objective under this MMP that a minimal proportion of the trips generated by this development be made by private car.

8.3 The MMP targets are summarized as follows:

8.3.1 General

- Put in place a formal travel plan.
- Appoint a Mobility Management coordinator.
- Create an Access Map.
- Provide travel information to development occupants, in the form of Sustainable Travel Welcome Packs and a travel hub website.
- Monitor the operation of the plan by development occupants, by carrying out travel surveys.
- Revise and update the plan as required.

8.3.2 Walking and Cycling

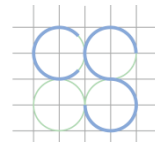
- Identify safe walking and cycling routes.

8.3.3 Public Transport

- Provide information on locations of stops, routes, timetables, walking times to main public transport facilities, etc.

8.3.4 Residential Car Club

- Establish a residential car sharing club, allowing residents the common use of a small vehicle pool based permanently within the development.



CS CONSULTING
GROUP
DUBLIN - LONDON - LIMERICK

Appendix A

Details of proposed local transport infrastructure improvements
















CS CONSULTING
GROUP

DUBLIN - LONDON - LIMERICK

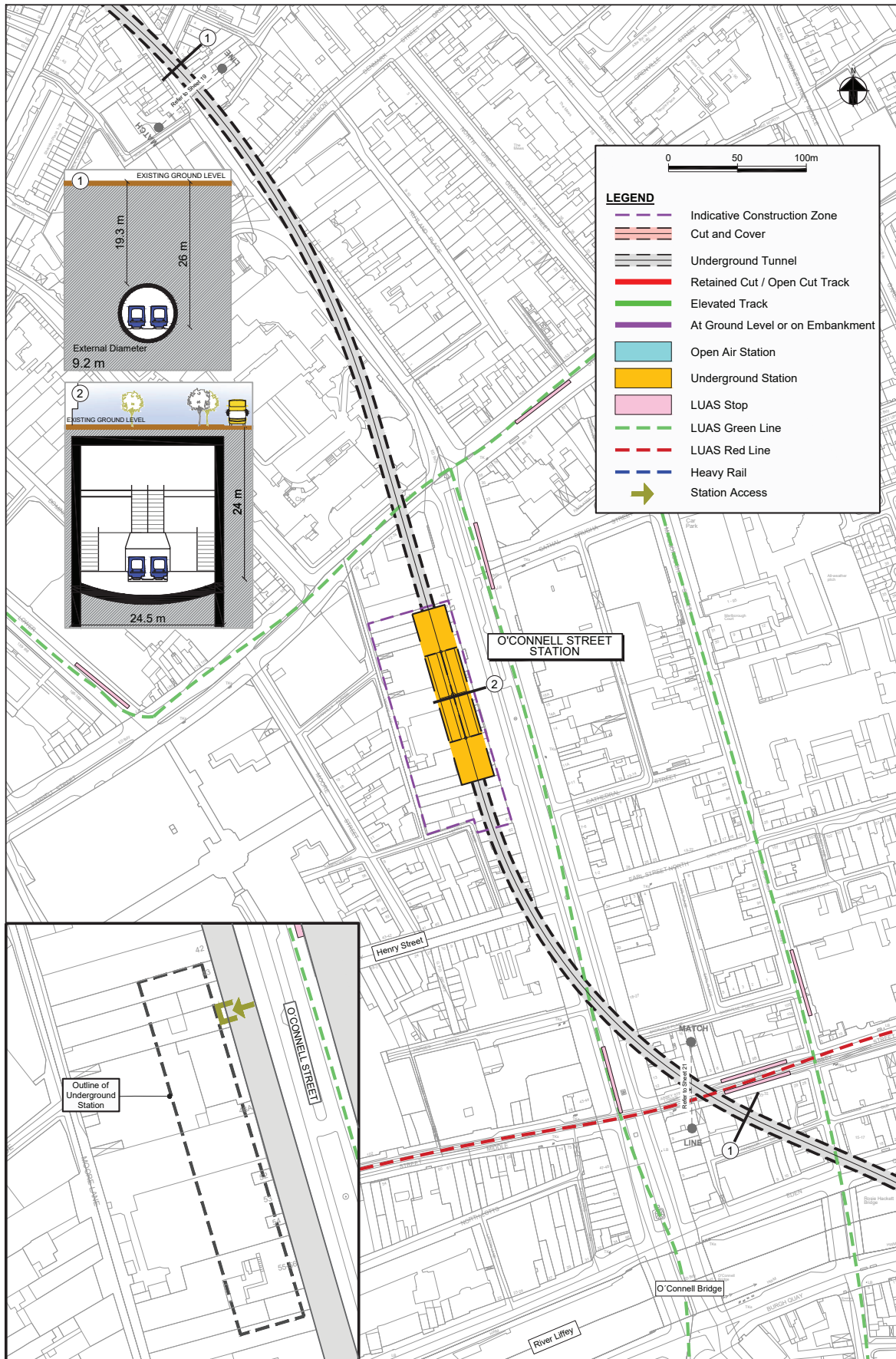
METROLINK

SWORDS - CHARLEMONT

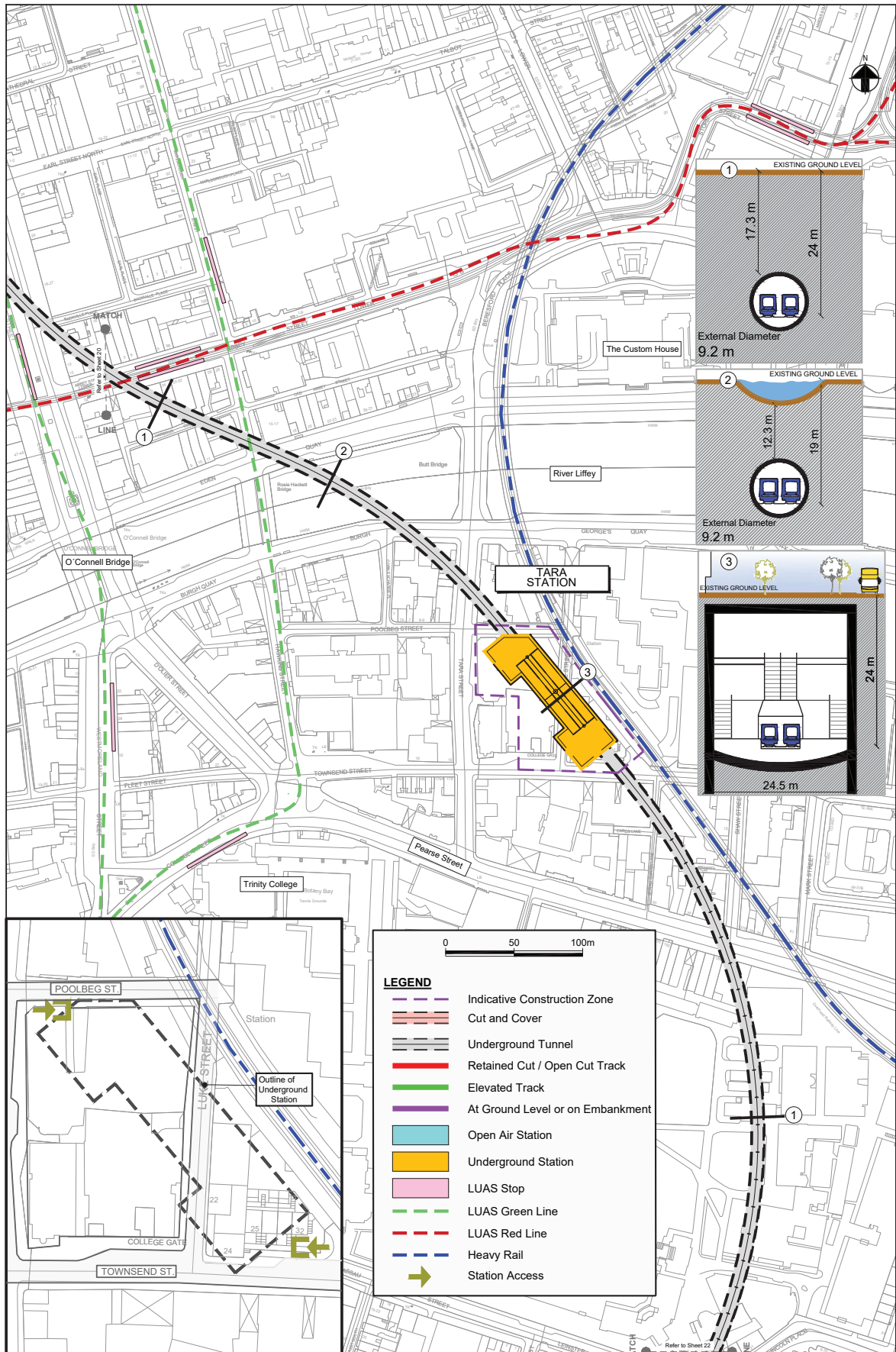
-  MetroLink Station
-  MetroLink Interchange
-  Park & Ride
-  End of Tunnel
-  Bridge
-  Embankment
-  Cutting
-  Surface Level
-  Tunnel
-  DART
-  Commuter Rail Services
-  LUAS - Red Line
-  LUAS - Green Line



20. O'Connell Street



21. Tara

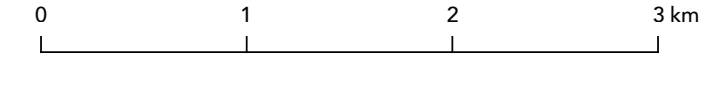


MAP 1: Existing Network: Big Picture

BUS CONNECTS

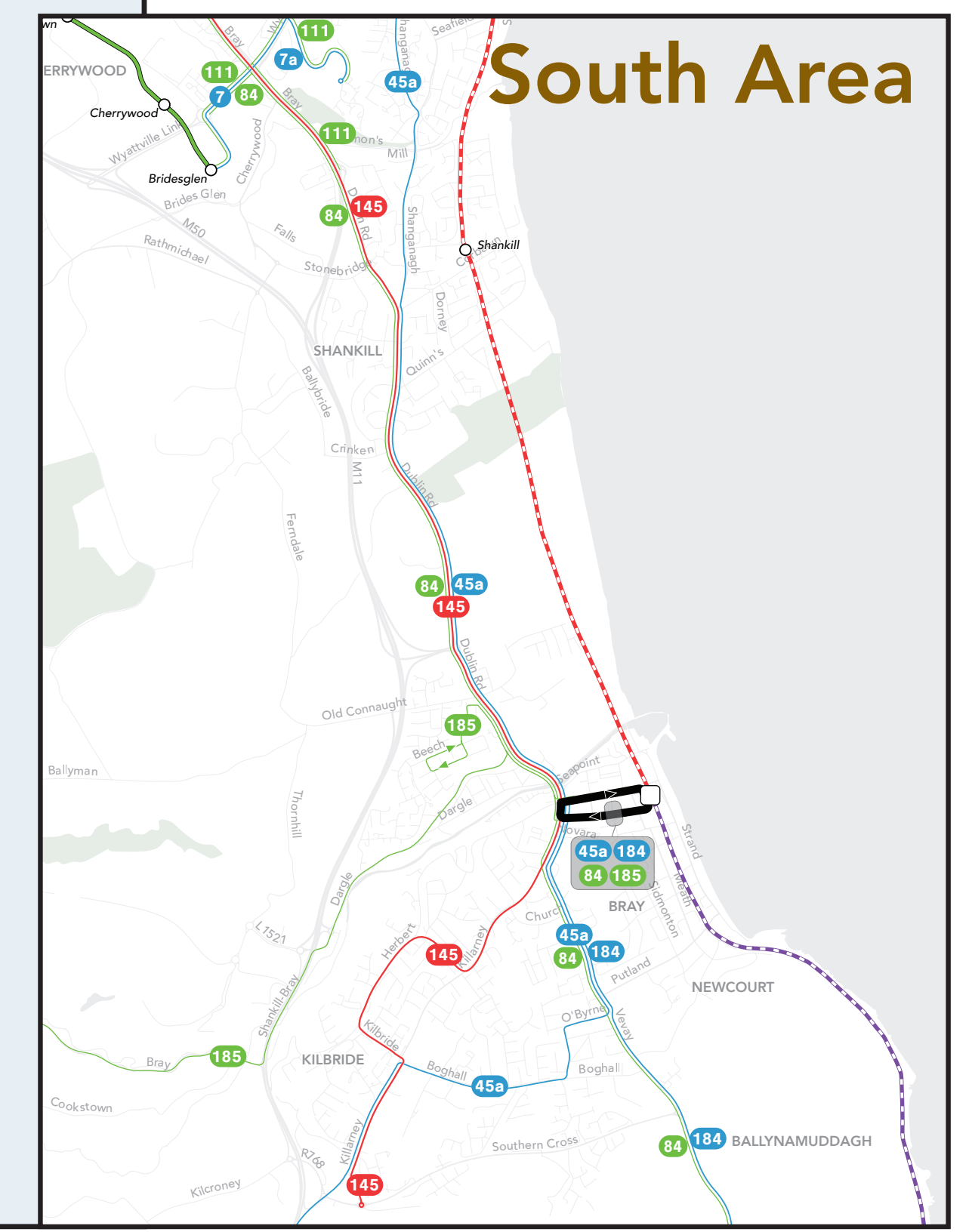
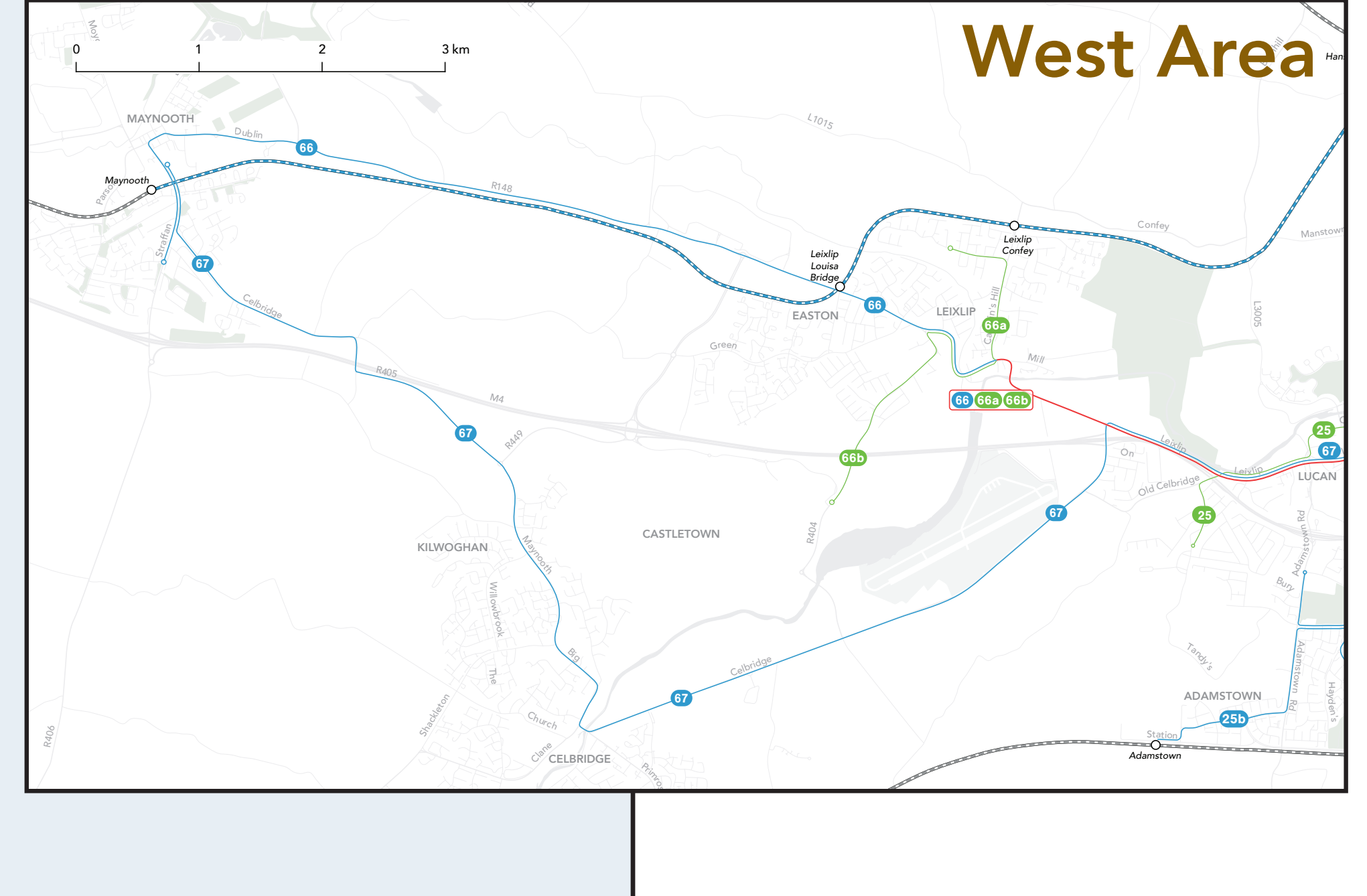
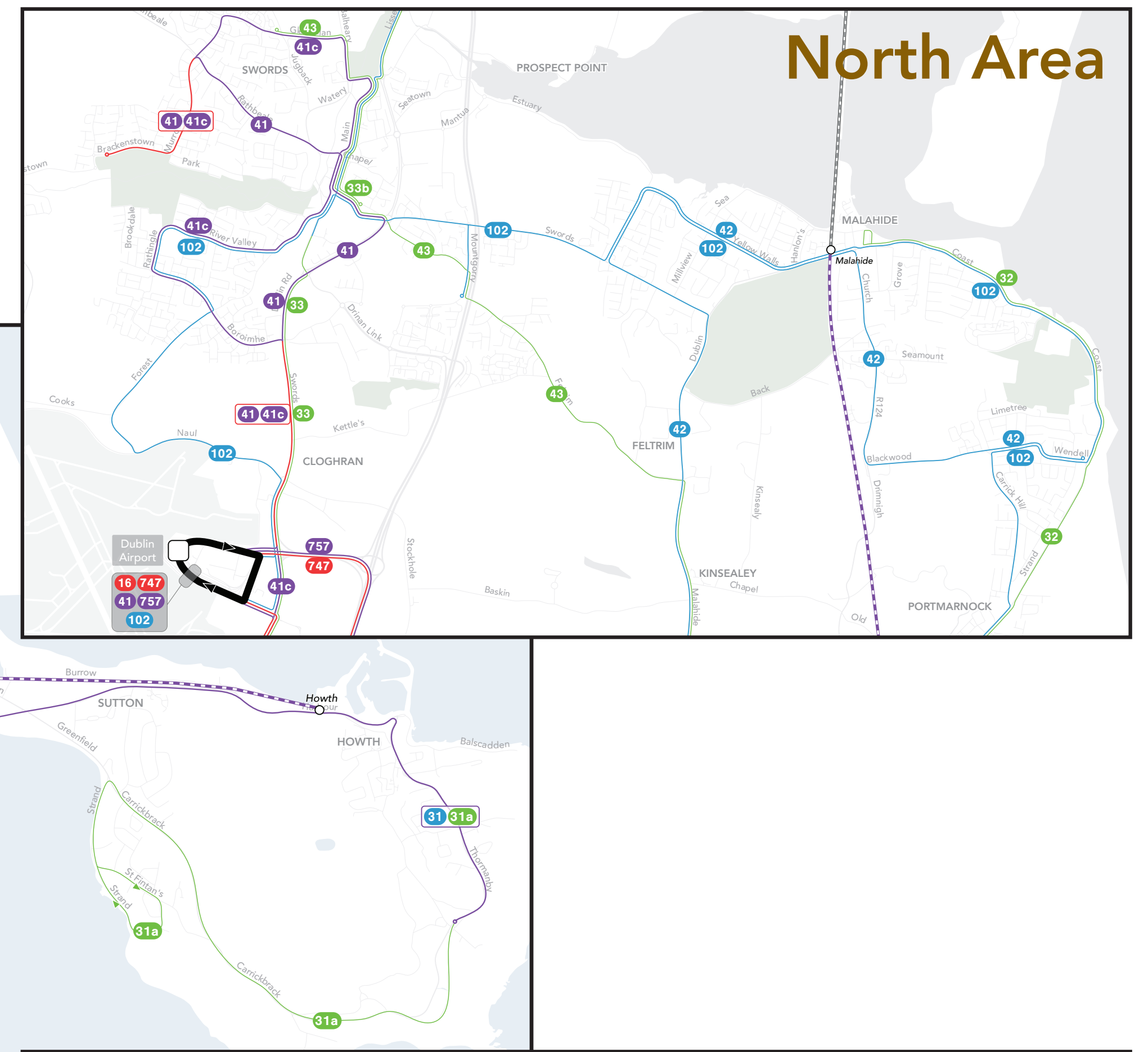
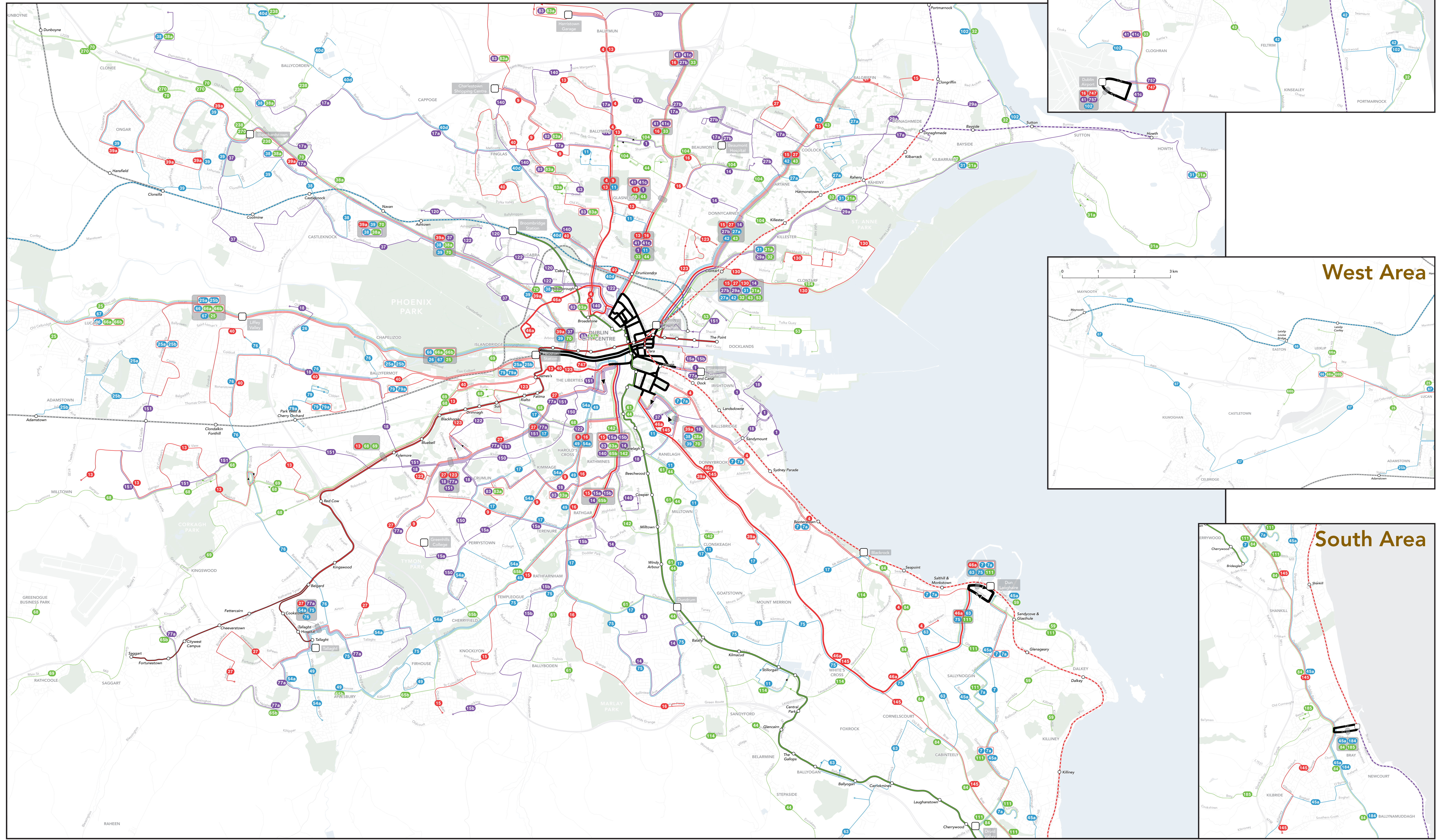
TRANSFORMING CITY BUS SERVICES

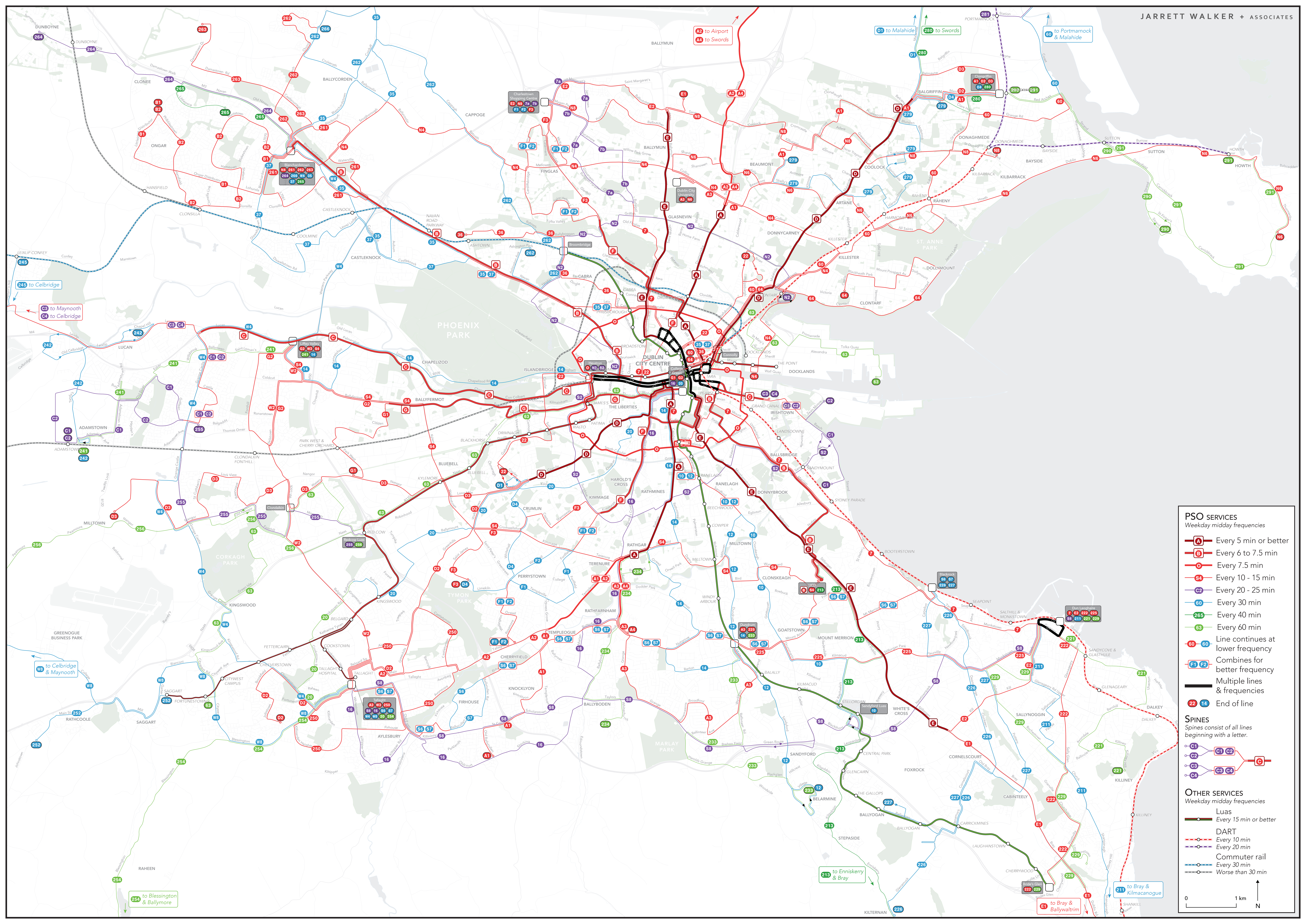
EXISTING PUBLIC TRANSPORT SERVICES
Weekday midday frequencies



Every 5 min or better	Every 40 min	Luas Every 15 min or better
Every 6 to 7.5 min	Every 60 min	DART Every 10 min
Every 7.5 min	Line continues at lower frequency	Every 20 min
Every 10 - 15 min	Combines for better frequency	Commuter rail Every 30 min
Every 20 - 25 min	Multiple lines & frequencies	Worse than 30 min
Every 30 min		

Note: does not include peak-only services, and bus routes that run less than every 60 minutes in the middle of the day.





PSO SERVICES
Weekday midday frequencies

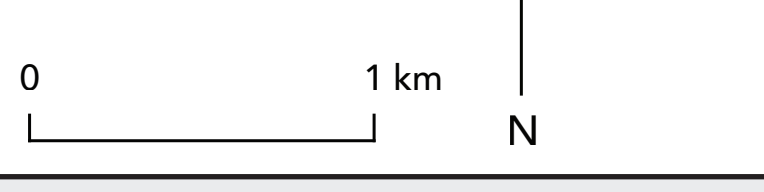
- A Every 5 min or better
- B Every 6 to 7.5 min
- C Every 7.5 min
- S4 Every 10 - 15 min
- C2 Every 20 - 25 min
- 60 Every 30 min
- 265 Every 40 min
- 63 Every 60 min
- 60 Line continues at lower frequency
- E1 F2 Combines for better frequency
- Multiple lines & frequencies
- 22 14 End of line

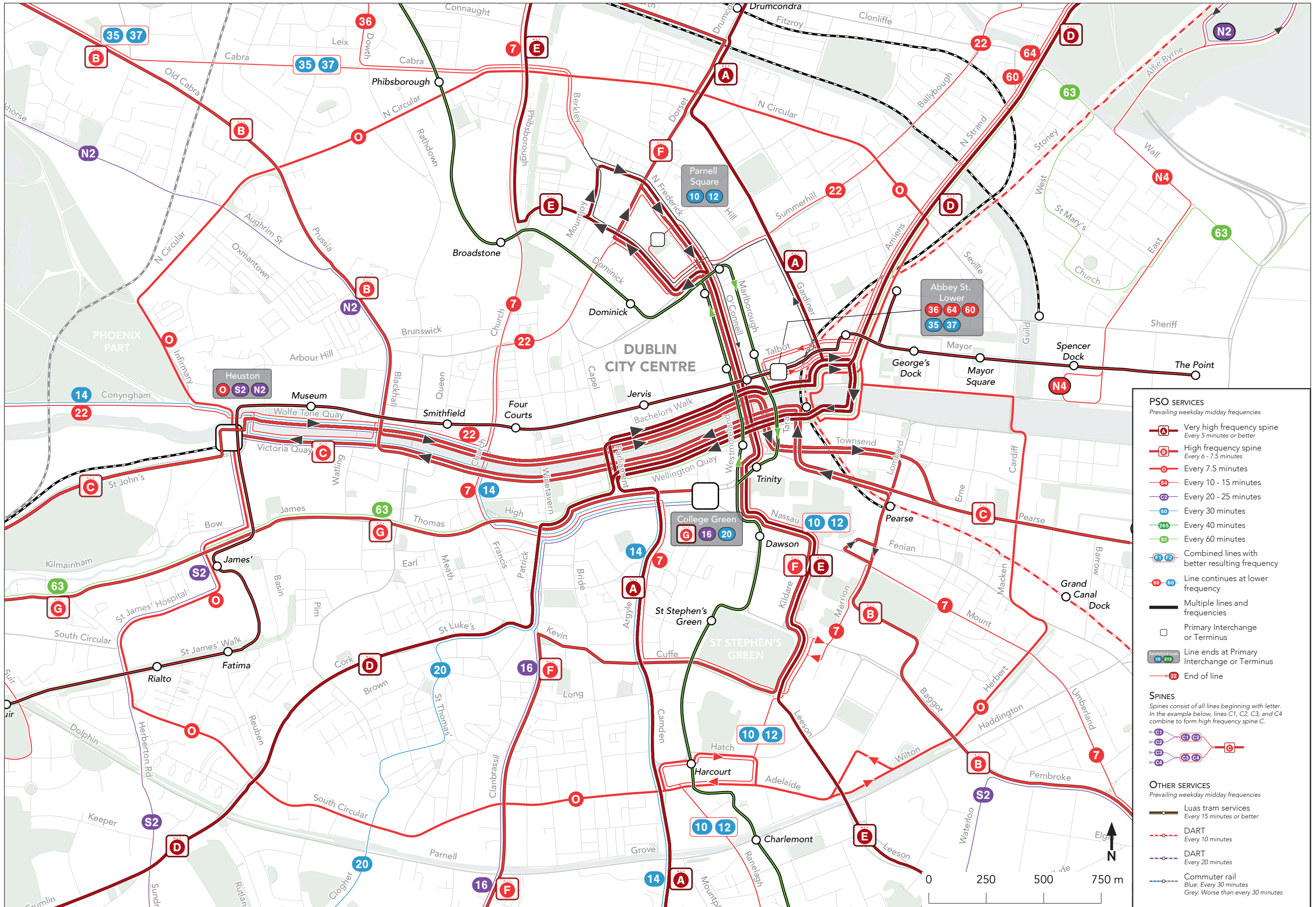
SPINES
Spines consist of all lines beginning with a letter.

- C1 C2
- C2
- C3 C4
- C3 C4

OTHER SERVICES
Weekday midday frequencies

- Luas
- Every 15 min or better
- DART
- Every 10 min
- Every 20 min
- Commuter rail
- Every 30 min
- Worse than 30 min





PSO SERVICES
Prevailing weekday midday frequencies

- A Very high frequency spine
Every 5 minutes or better
- B High frequency spine
Every 6 - 7.5 minutes
- O Every 7.5 minutes
- S4 Every 10 - 15 minutes
- C2 Every 20 - 25 minutes
- 60 Every 30 minutes
- 265 Every 40 minutes
- 63 Every 60 minutes
- E1 E2 Combined lines with better resulting frequency
- 60 60 Line continues at lower frequency
- Multiple lines and frequencies
- Primary Interchange or Terminus
- 10 219 Line ends at Primary Interchange or Terminus
- 22 End of line

SPINES
Spines consist of all lines beginning with letter.
In the example below, lines C1, C2, C3, and C4 combine to form high frequency spine C.

- C1 C2 C3 C4 C

OTHER SERVICES
Prevailing weekday midday frequencies

- Luas tram services
Every 15 minutes or better
- DART
Every 10 minutes
- DART
Every 20 minutes
- Commuter rail
Blue: Every 30 minutes
Grey: Worse than every 30 minutes

Radial Core Bus Corridors Emerging Preferred Routes Phases

Phase 1:
14th November 2018
to 15th February 2019

1. Clongriffin to City Centre
 2. Swords to City Centre *
 5. Blanchardstown to City Centre *
 6. Lucan to City Centre
- * extended until 1st March 2019

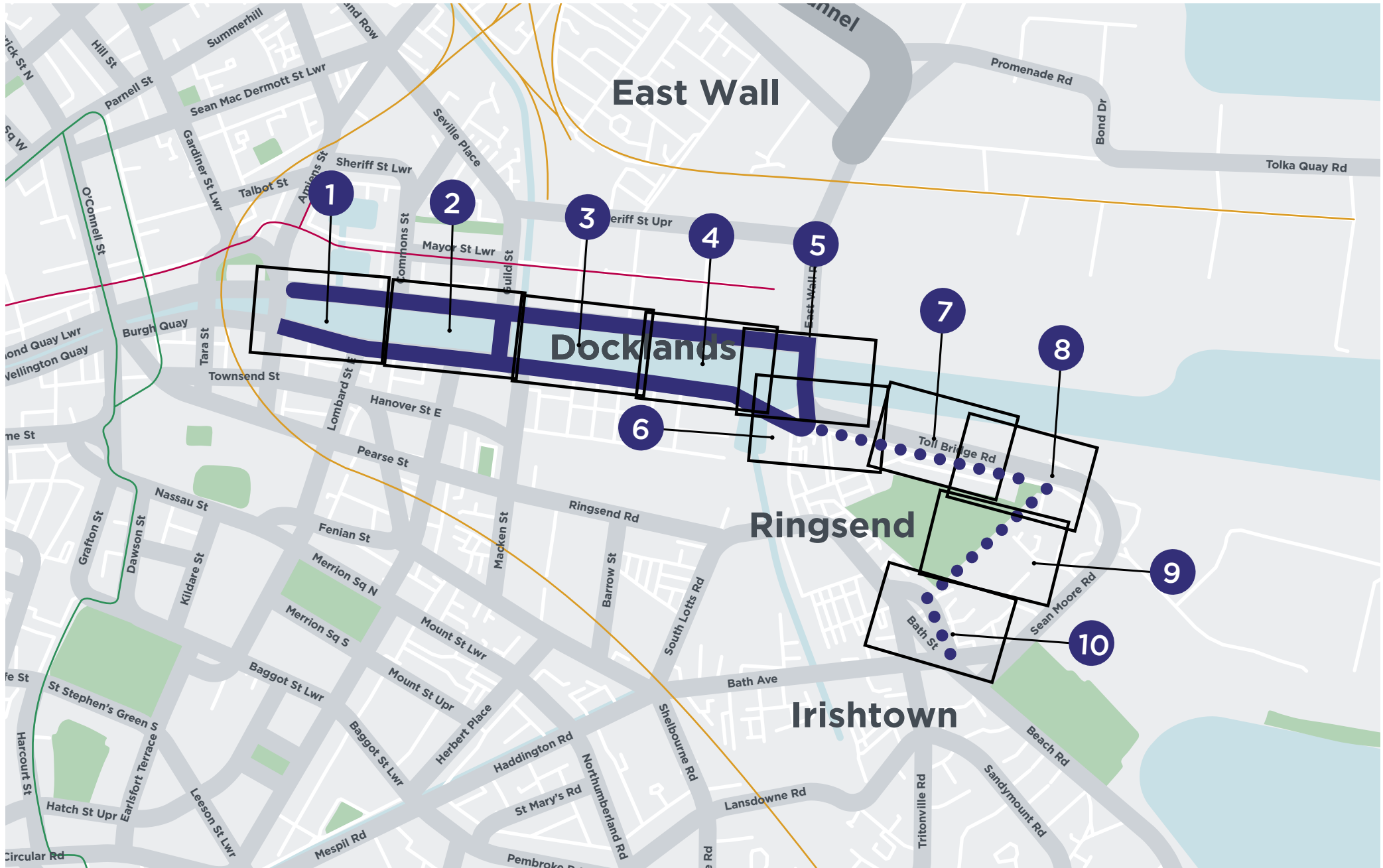
Phase 2:
23rd January 2019 to 29th
March 2019

7. Liffey Valley to City Centre
8. Clondalkin to Drimnagh
9. Greenhills to City Centre
10. Tallaght to Terenure
11. Kimmage to City Centre
12. Rathfarnham to City Centre

Phase 3:
Mid-February 2019
to End April 2019

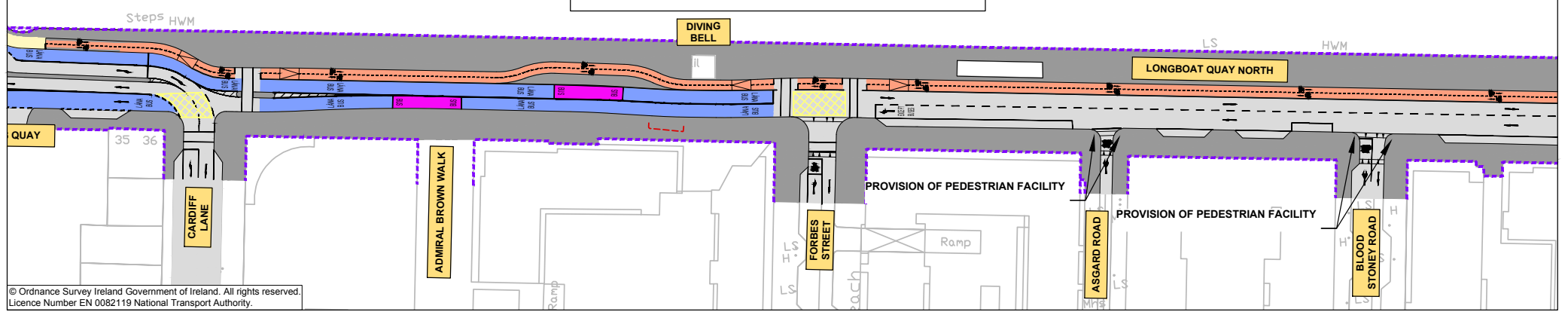
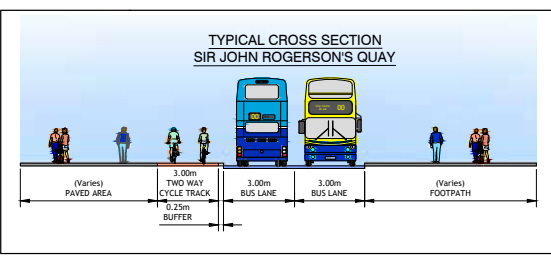
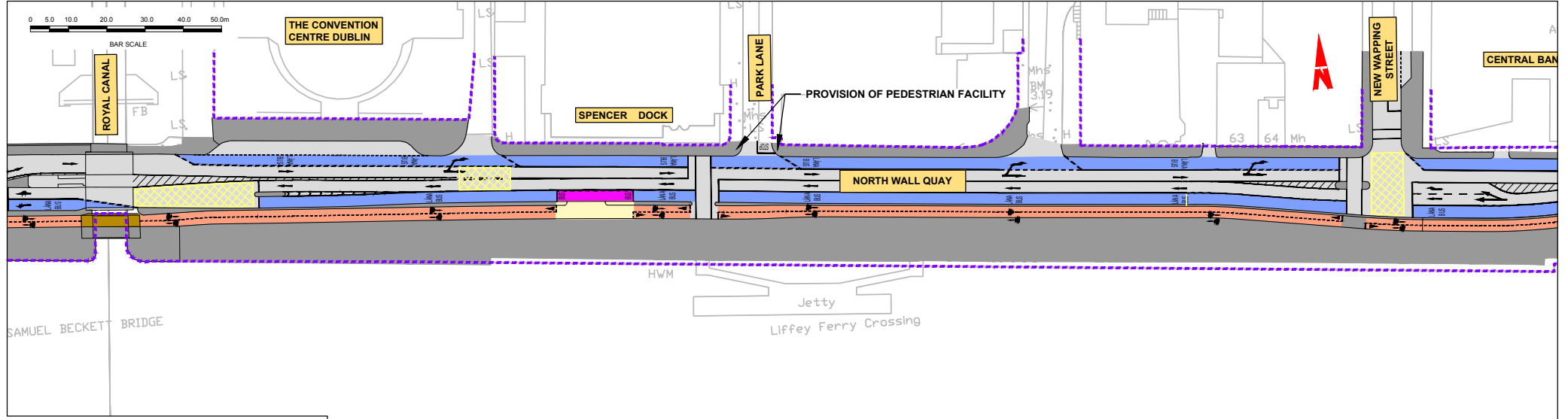
3. Ballymun to City Centre
4. Finglas to Phibsborough
13. Bray to City Centre
14. UCD Ballsbridge to City Centre
15. Blackrock to Merrion
16. Ringsend to City Centre.



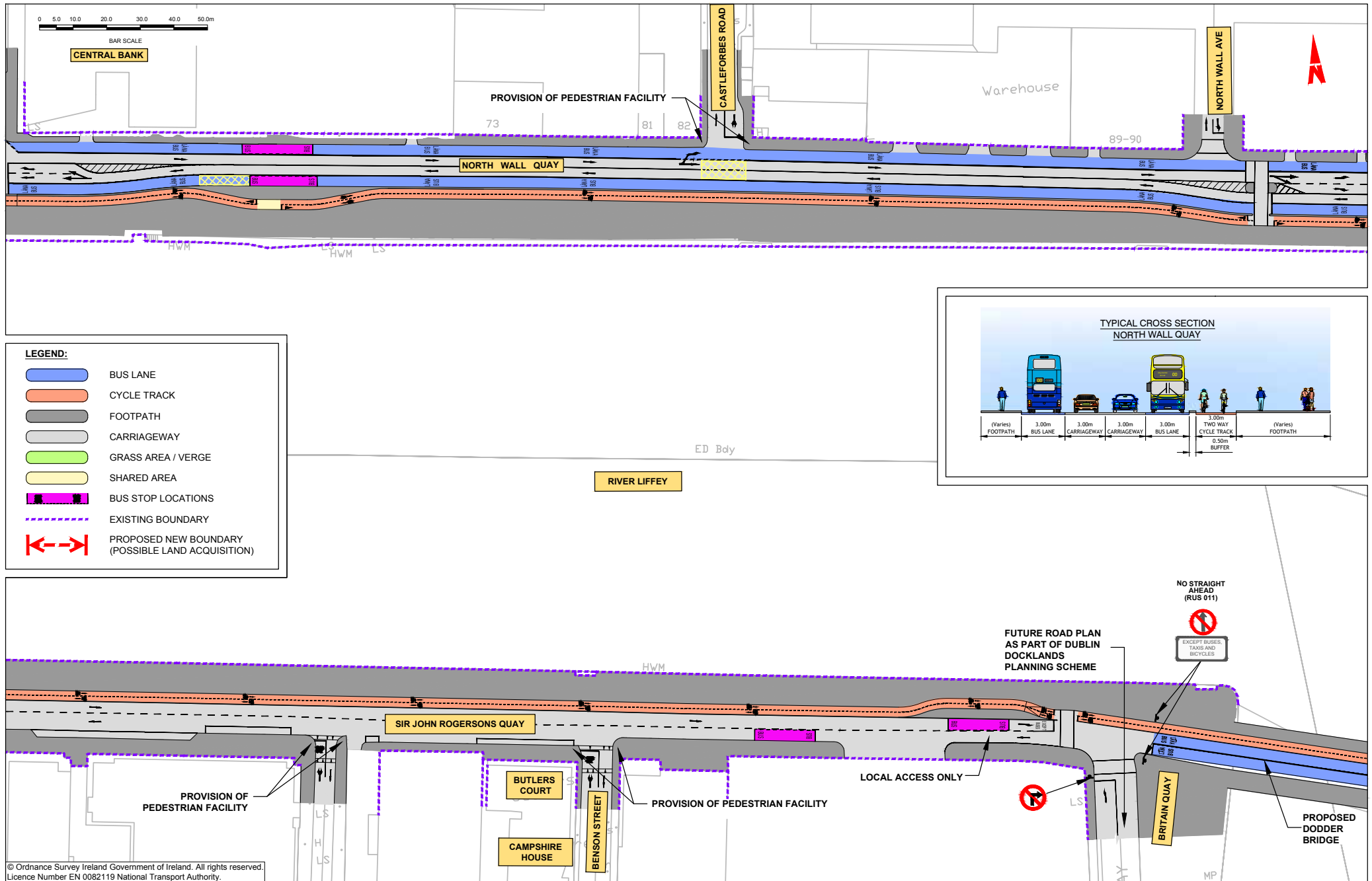


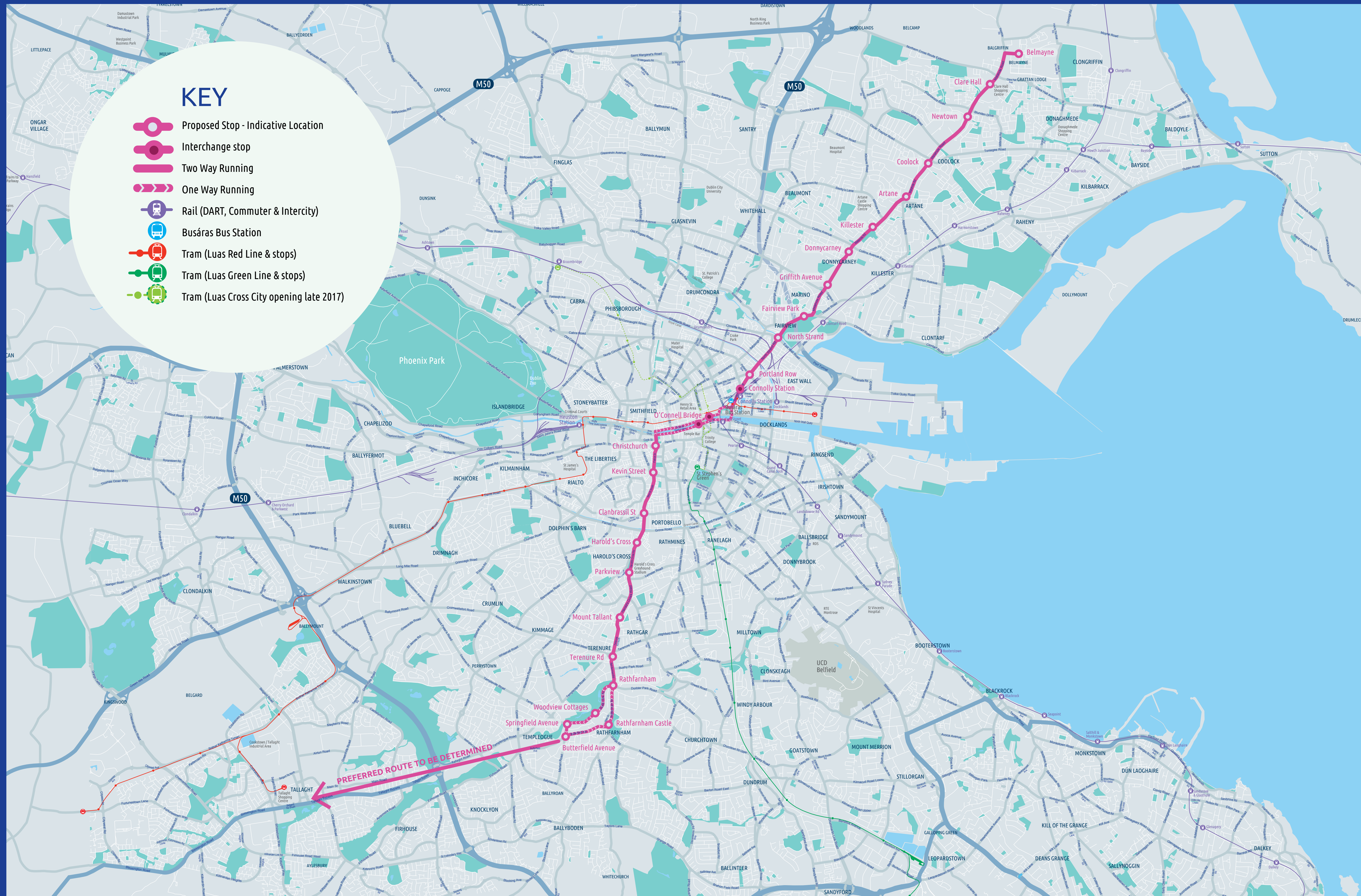
NOTE: The Emerging Preferred Route shown on the following drawings is indicative only and is subject to change following consultation and as part of the design development process.

BusConnects Core Bus Corridors
16: Ringsend > City Centre
MAP 3: Emerging Preferred Route



© Ordnance Survey Ireland Government of Ireland. All rights reserved. Licence Number EN 0082119 National Transport Authority.

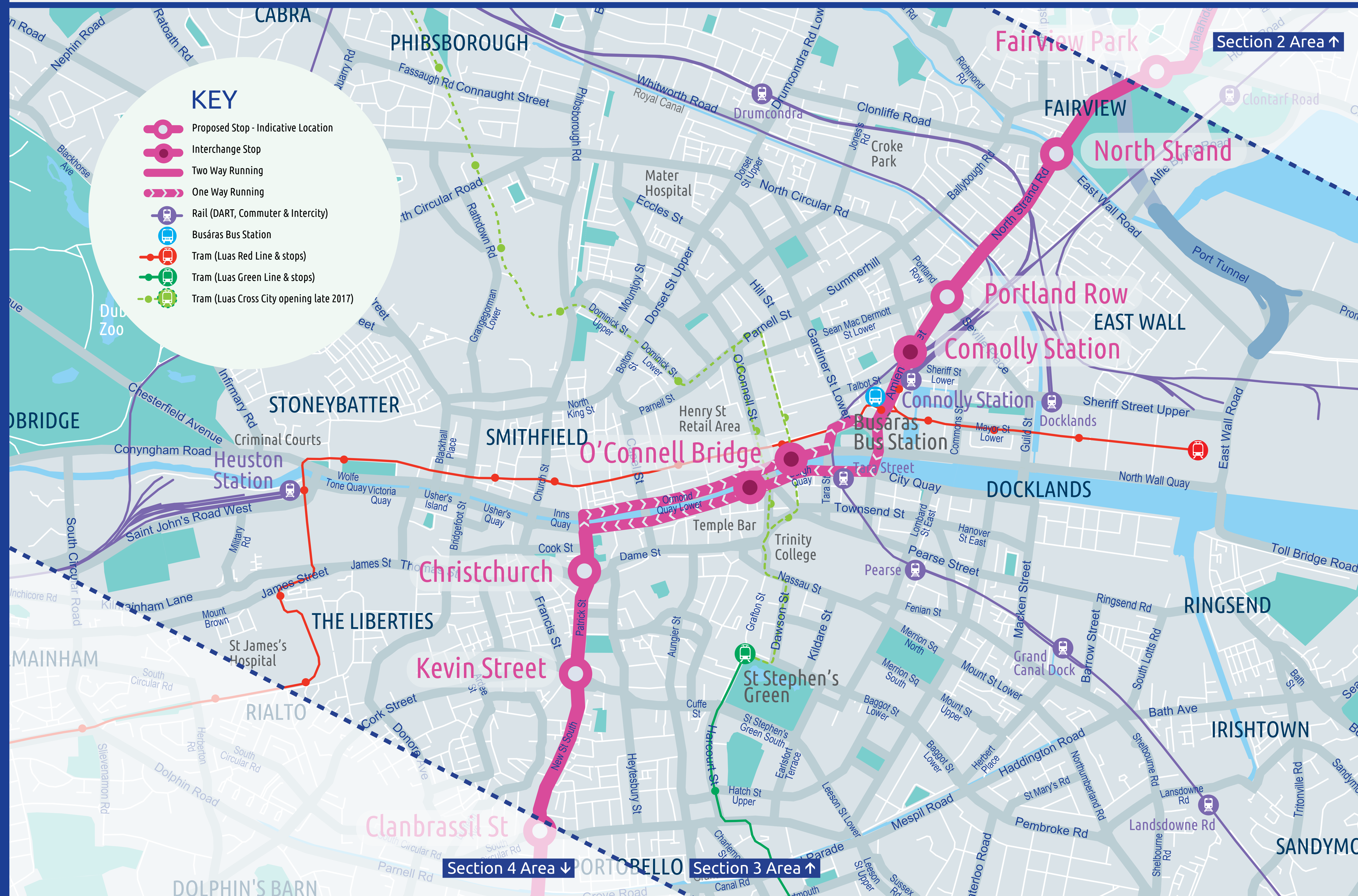





KEY

-  Proposed Stop - Indicative Location
-  Interchange stop
-  Two Way Running
-  One Way Running
-  Rail (DART, Commuter & Intercity)
-  Busáras Bus Station
-  Tram (Luas Red Line & stops)
-  Tram (Luas Green Line & stops)
-  Tram (Luas Cross City opening late 2017)

PREFERRED ROUTE TO BE DETERMINED



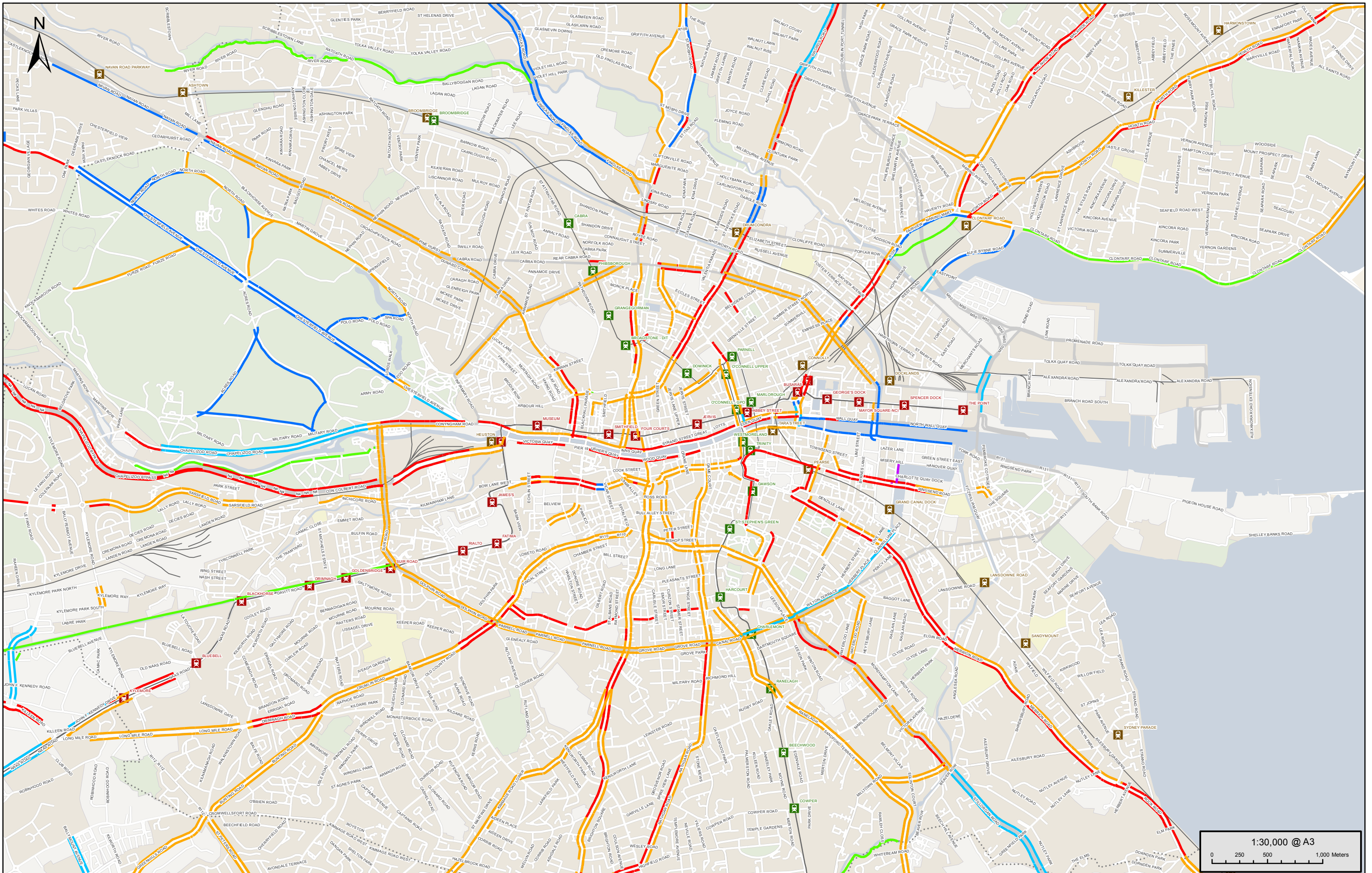
KEY

-  Proposed Stop - Indicative Location
-  Interchange Stop
-  Two Way Running
-  One Way Running
-  Rail (DART, Commuter & Intercity)
-  Busáras Bus Station
-  Tram (Luas Red Line & stops)
-  Tram (Luas Green Line & stops)
-  Tram (Luas Cross City opening late 2017)

Section 2 Area ↑

Section 4 Area ↓

Section 3 Area ↑



Project:
CYCLE NETWORK PLAN FOR THE GREATER DUBLIN AREA

Title:
EXISTING CYCLE FACILITY TYPE DUBLIN CITY CENTRE SHEET E1

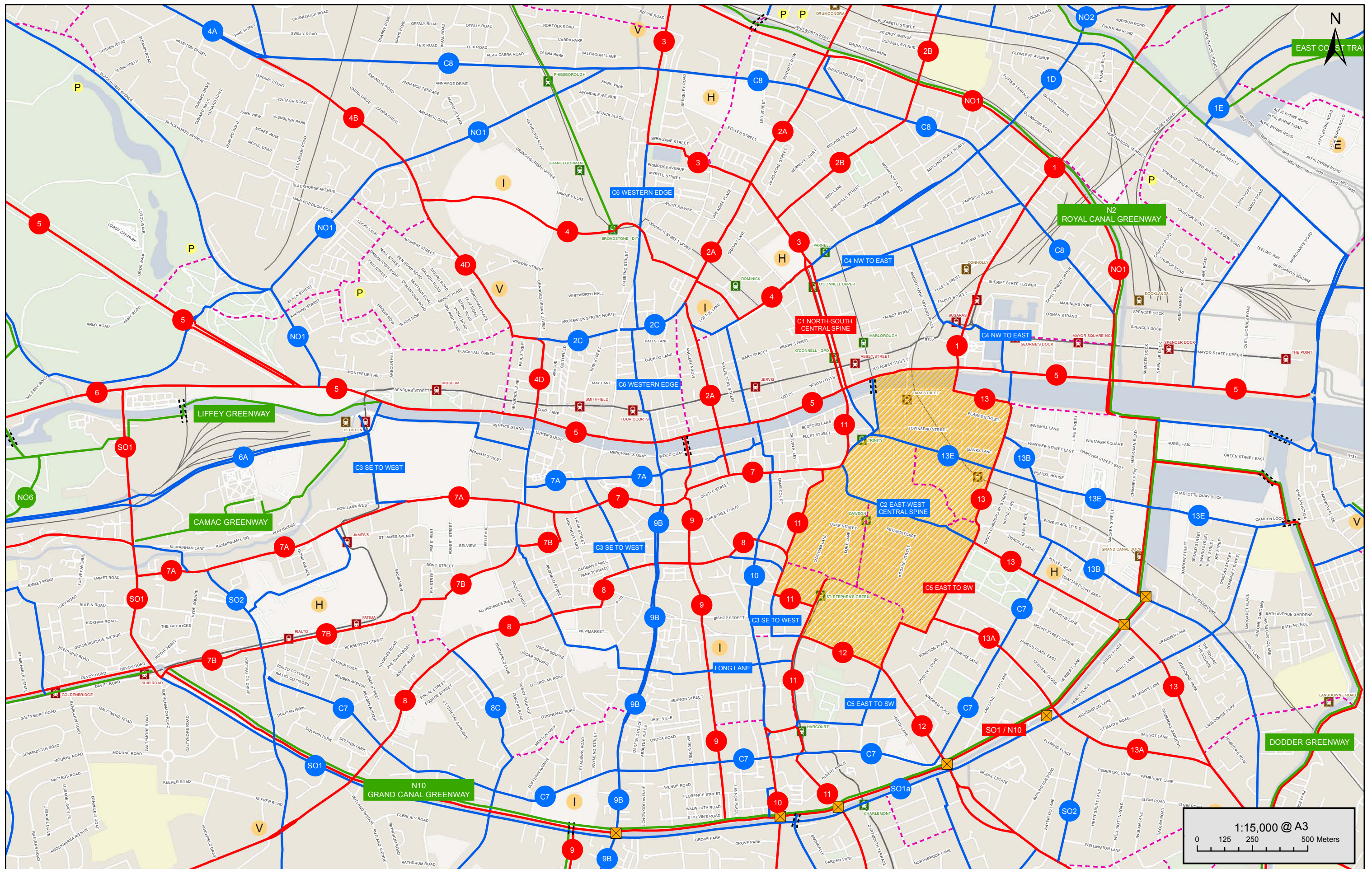
- Legend:
- B1 - Bus Lane (no cycle lane)
 - C1 - Cycle Track - separated from road
 - C2 - Cycle Track - immediately adjacent
 - C3 - Cycle Lane (even within Bus Lane)
 - G1 - Cycle Trail or Greenway
 - S2 - Shared Walking & Cycling
 - Study Area
 - County Council Boundaries
 - Greenline Tram Stops
 - Redline Tram Stops
 - Stations

Udarás
Náisiúnta Iompair
 National Transport Authority

AECOM

Roughan & O'Donovan

Grand Canal House,
 Upper Grand Canal Street,
 Dublin 4
 Tel: +353 (0)1 238 3100
 Fax: +353 (0)1 238 3199
 www.aecom.com



Project:
**CYCLE NETWORK PLAN FOR
 THE GREATER DUBLIN AREA**

Title:
**PROPOSED CYCLE NETWORK
 DUBLIN CITY CENTRE
 SHEET N1a**

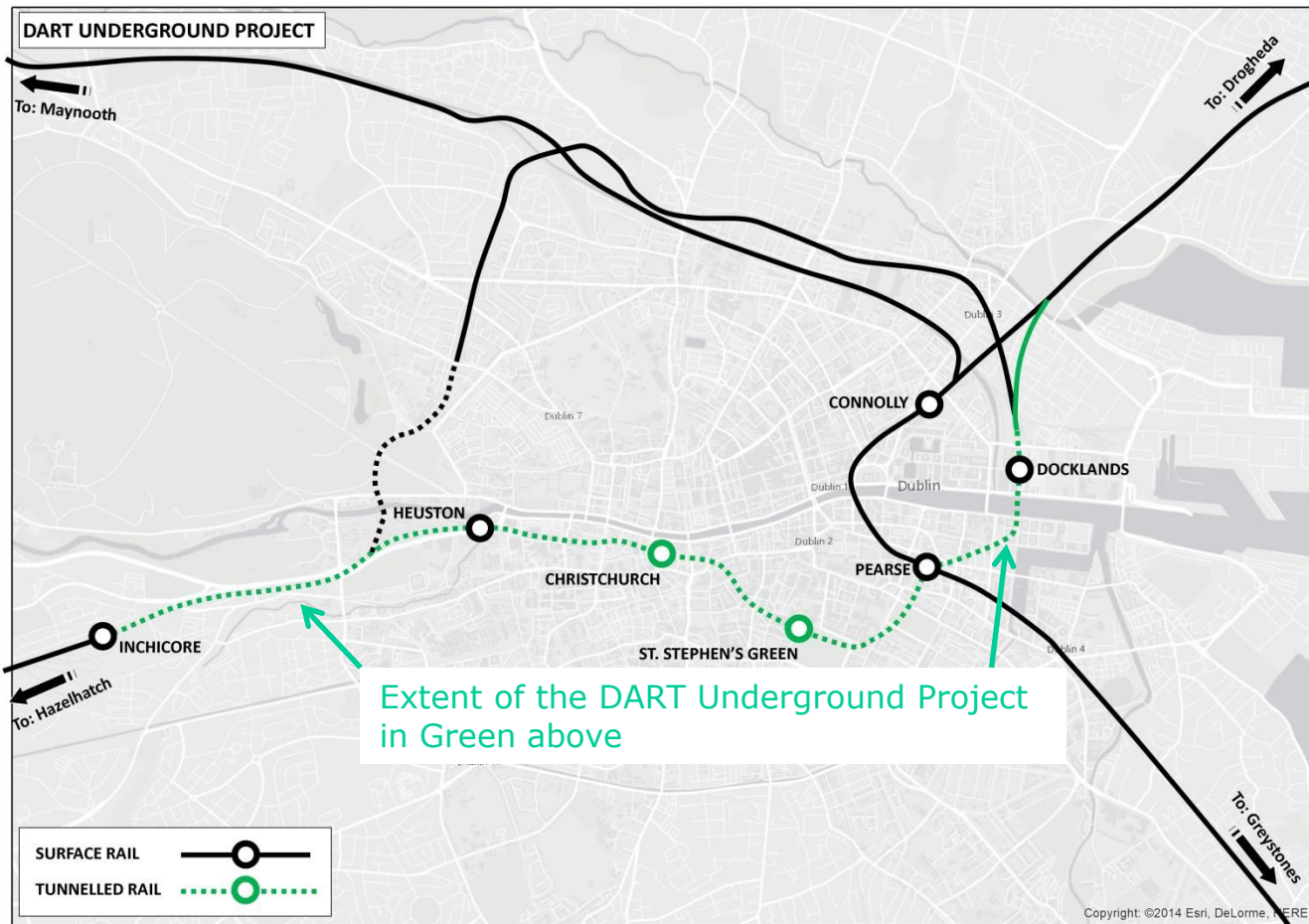
- Legend:
- Primary
 - Secondary
 - Greenway
 - Primary/Secondary
 - Inter-Urban
 - Feeder
 - Minor Greenway
 - New Cycle Bridge
 - P Permeability Link
 - X Gateway
 - S South Core City Centre (Trinity / Graffton)
 - E Employment Zones
 - H Hospitals
 - I Institute of Technology
 - S Shopping Centre
 - T Town Centre
 - U University
 - V Village Centre
 - G Greenline Tram Stops
 - R Redline Tram Stops
 - S Stations

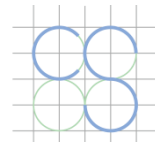
Udarás
Náisiúnta Iompair
 National Transport Authority

AECOM
 Roughan &
 O'Donovan

Grand Canal House,
 Upper Grand Canal Street,
 Dublin 4
 Tel: +353 (0)1 238 3100
 Fax: +353 (0)1 238 3199
 www.aecom.com

DART Underground Project





CS CONSULTING
GROUP
DUBLIN - LONDON - LIMERICK

Appendix B

Liv Consult Amenity Provision and Car Pool Narrative



CS CONSULTING
GROUP

DUBLIN - LONDON - LIMERICK

Spencer Dock North

Amenity Provision and Car Pool Narrative for Planning

January 2019

liv consult



**RONAN
GROUP**

Community Space

Recent movements within the rental landscape have been towards institutionally owned single blocks that are managed and operated under one landlord. Like Spencer Place North, these buildings are set apart from the standard PRS offer through offering a more streamlined resident experience with a bespoke onsite management service and high level amenity.

The design amendments for Spencer Place North include additional communal amenity and infrastructure such as a resident's lounge, outdoor terrace, gym and bridge link which will serve to enhance the collective resident experience. Actively encouraging residents to engage with and utilise these spaces helps to enliven a scheme by making people more connected with their surroundings and each other. Hence the provision of well designed, high quality communal amenity spaces, as demonstrated within the amended proposal, is a key consideration for making Spencer Place North a more attractive and liveable BTR proposition.

The Ground Floor Reception will have a well-defined and inviting exterior leading into modern, spacious interior inclusive of a seating area/meeting space and 24 hour concierge desk. From the main entrance, residents will enter a large, open space with a refreshing view of the central landscaped courtyard. This will be furnished with sofas, small tables and potentially a tea and coffee point to act as a relaxed space in which to meet friends, have a coffee or wait for a taxi. It is here that the residents will be able to collect parcels (notified by management through the Residents App) and also approach onsite management staff to handle any internal queries. The concierge desk concierge will be immediately at hand to greet and offer any assistance residents may require. The combination of these features are important for setting the tone for the practical, resident-friendly design of the scheme, and the sharp contemporary finishes are important to reflect the standard of design throughout.



The proposed residents gym located at the centre of the 6th floor of Block 1 is ideally located as a convenient spot in which to exercise, socialise and unwind. The addition of a bridge connecting Block 1 and 2 at the south mid-section of the scheme will serve to unify the two blocks and streamline movement to the core amenity assets (gym, rooftop terraces, residents lounge). When thinking about both the mental and physical wellness of residents at Spencer Place North it is important to establish a place in which to be active, healthy and sociable. This has an immeasurable impact on community cohesion which of course significantly enhances the value of the scheme from the perspective of prospective residents.



The designated space for a gym would provide a state of the art fitness facility with sharp, modern interiors and mix of fixed equipment, free weights and open space to host a variety of spin, yoga or general fitness classes. The adaptability of a multipurpose space ensures maximum resident usage as it is able to accommodate a variety of activities. Moreover, this would also help to establish the gym as a popular sociable space in which to meet fellow residents.



Residents will enjoy the benefits of two roof terraces on the eighth and ninth floor, respectively, overlooking the central courtyard and offering scenic views of the surrounding skyline extending over the River Liffey. The rooftop terraces are designed to function throughout the year with hardwearing seating /dining furniture, a walled garden area to keep out the elements, covered seating space (non-smoking) and bookable BBQ facilities for private functions or communal rooftop dining that can be reserved through a white-labelled Residents App.



The terraces and lounges will be designed to allow residents to move seamlessly between the two, essentially making the terraces an outer-extension of the residents lounge. For the internal layout, the lounge will take an open plan approach to a versatile work/lounge/dining space. The design precedents illustrated below and overleaf will create a comfortable and inclusive atmosphere in which residents can effortlessly manoeuvre between dining facilities, meeting rooms, co-working spaces and coffee points. An eclectic and stylish visual aesthetic will serve to loosely define these separate spaces and add a unique look that reflects the overall character of the scheme. Essentially, this will work as a large composite of smaller embedded spaces, making it a more pragmatic and valuable space in being able to accommodate a broad range of residents uses.





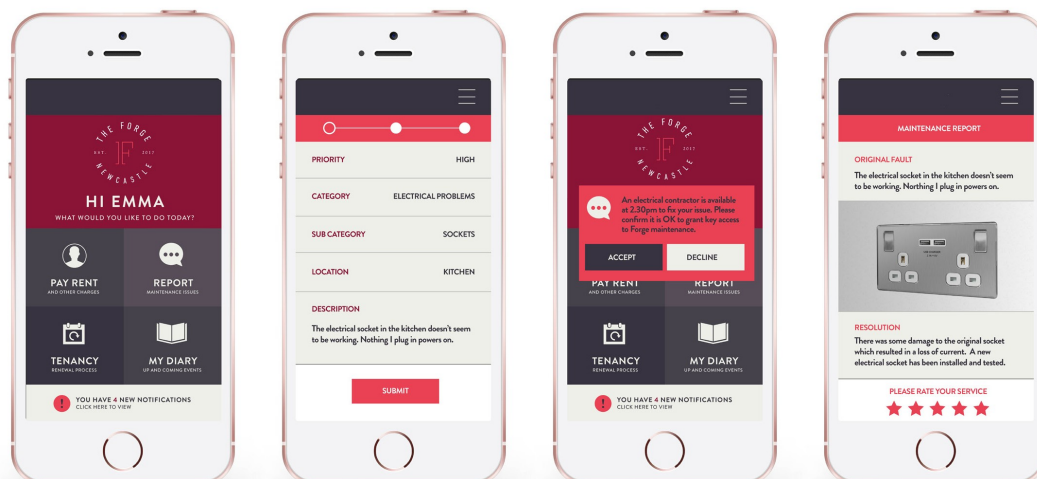
As illustrated overleaf, the provision of larger general-purpose space will sit alongside fixed and dropdown desks which may be used by residents as a temporary, or in deed long-term, solution to working from home. Having no definitive boundaries separating these areas ensures that they work harmoniously to create a healthy formal/informal balance to suit all communal usage. Tea and coffee points will also be situated throughout to achieve this balance.



Private dining spaces furnished with full kitchen facilities will also be available as separate from the resident's lounge, which can be booked for private functions through our white-labelled mobile Smart App. The dining facilities are an excellent resource for residents looking to host events with the convenience of still being within their building.



Our App has been specifically designed to keep residents connected with their building by giving them complete control of their tenancy. From the App, residents can directly book amenity space, reserve one of the cars as part of the onsite car sharing scheme, pay their rent or report any issues to onsite management. They can also receive notification from onsite management regarding parcel collections, upcoming activities and events or important maintenance issues (if a lift breaks down, for example) as well as sending reminders about late payment or tenancy renewals.

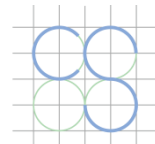


Car Sharing

We propose implementing a long term car sharing strategy that provides an effective and sustainable solution for residents' flexible commuting needs. We recognise that there are car sharing schemes actively operating within Dublin – GoCar, YUKO Toyota Car Club – however, to ensure that this would be a secure and reliable long term strategy we suggest implementing an electric car pool model that would be owned and operated by LIV. We currently operate a similar model at Kilnwood Vale in Faygate, Sussex where residents can reserve the car through their Smart App. It has proved an incredibly popular asset that has received consistent demand since its inception, with residents even requesting that we enlarge the service. Operating this kind of service aligns Spencer Place North with the changing perspective on car ownership and the growing culture of ad hoc car usage that major cities such as Dublin are beginning to see.



Spencer Place North will provide secure underground car parking and cycle storage that residents will be able to reserve at any time through the Smart App.



CS CONSULTING
GROUP
DUBLIN - LONDON - LIMERICK

Appendix C

Links to relevant guidance documents concerning Mobility Management



CS CONSULTING
GROUP

DUBLIN - LONDON - LIMERICK

Appendix 15 – Useful Links and Resources

Please note that the National Transport is not making recommendations for any of the suppliers listed below, and your organisation will find other suppliers beyond the list given below. The links listed are just to give a flavour of the type of products/ services that are available.

Workplace Travel Plans

www.smartertravelworkplaces.ie
www.ways2work.bitc.org.uk

Sustainable Travel

www.smartertravel.ie
www.sustrans.org.uk
www.nationaltransport.ie
www.dttas.ie
www.eltis.org
www.mobilityweek.eu

Getting Active

www.getirelandactive.ie

Public Transport Information

www.transportforireland.ie
www.taxesaver.ie

Cycle to Work Scheme

www.revenue.ie

Walking challenges

www.pedometerchallenge.ie
www.irishheart.ie

Cycling

www.cyclechallenge.ie
www.dublinbikes.ie
www.irishcycling.com

Cycle to Work scheme

www.revenue.ie
www.bikescheme.ie

Designing and Planning for Cycling

www.cyclemanual.ie
 Transport for London Workplace Cycle Parking Guide
 See p16 for technical guidance on space allocations for cycle parking
<http://www.tfl.gov.uk/assets/downloads/businessandpartners/Workplace-Cycle-Parking-Guide.pdf>

Walking/ Cycling Routes

www.mapmyride.com
www.mapmyrun.com

Car Sharing

www.carsharing.ie

Misc.

Copenhagen Cycle Chic - Bikes, style and Copenhagen

