



SYSTRA

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CORK METROPOLITAN AREA

DRAFT TRANSPORT STRATEGY 2040 - PUBLIC CONSULTATION DOCUMENT



PUBLIC CONSULTATION

We would like to know your views on the draft Cork Metropolitan Area Transport Strategy and any items of interest or concern. All comments will be considered and will inform the finalisation of the Cork Metropolitan Area Transport Strategy. The public consultation will run from 15th May - 28th June 2019.

Full details of the draft Cork Metropolitan Area Transport Strategy can be found at the following link:

www.nationaltransport.ie/public-consultations/current

Consultation material will be available to view at Cork City Hall and Cork County Hall for the duration of the consultation period.

The complete set of CMATS background reports area as follows:

- Baseline Conditions Report;
- Planning Datasheet Development Report;
- Demand Analysis Report;
- Transport Modelling Report;
- Transport Options Development Report;
- Supporting Measures Report;
- Strategic Environmental Assessment (SEA); and
- Appropriate Assessment (AA).

Submissions

Submissions are welcomed from the public up until 5pm, Friday 28th June 2019, send your submission online, by email or post.

Website:

www.nationaltransport.ie/public-consultations/current

Email:

corktransport@nationaltransport.ie

Post:

Cork Metropolitan Area Transport Strategy,
National Transport Authority,
Dún Scéine,
Harcourt Lane,
Dublin 2,
D02 WT20.

Public Information Events

Public Information Events will be held between 3pm - 8pm at the following locations on the following dates:

- **Wednesday 5th June**
Imperial Hotel, Cork City
- **Thursday 6th June**
Oriel House Hotel, Ballincollig
- **Wednesday 12th June**
Radisson Hotel, Little Island
- **Thursday 13th June**
Carrigaline Court Hotel, Carrigaline
- **Wednesday 19th June**
Blarney Castle Hotel, Blarney.

Submissions will not be individually responded to but will be summarised in a consultation report which will be published on www.nationaltransport.ie/public-consultations/current

All submissions made on the draft Cork Metropolitan Area Transport Strategy will be reviewed and relevant feedback incorporated into the final Strategy as appropriate. Submissions from individuals will be reported anonymously and feedback from organisations will be attributed to them.

The NTA is committed to protecting the rights and privacy of individuals in compliance with the General Data Protection Regulation and the Data Protection Acts 1988 to 2018. By making a submission under this public consultation exercise, you are indicating your acknowledgement of and consent to the above.



INTRODUCTION

Cork already performs well as a major urban centre in Ireland and **the City has positioned itself as an emerging medium-sized European centre of growth and innovation.** Building on this potential is critical to further enhancing Ireland's metropolitan profile.

National Planning Framework 2040

The Cork Metropolitan Area Transport Strategy (CMATS) 2040 (the "Strategy") has been developed by the National Transport Authority (NTA) in collaboration with Transport Infrastructure Ireland (TII), Cork City Council and Cork County Council.

The Cork Metropolitan Area (CMA) is in the midst of an exciting phase of development. The recently-published National Planning Framework (NPF) 2040 envisages that Cork will become the fastest-growing city region in Ireland with a projected 50% to 60% increase of its population by 2040.

This projected population and associated economic growth will result in a significant increase in the demand for travel. This demand needs to be managed and planned for carefully in order to safeguard and enhance Cork's attractiveness to live, work, visit and invest in.

CMATS represents a coordinated land use and transport strategy for the Cork Metropolitan Area to cover the period up to 2040. The Strategy is considered to be flexible with the ability to scale up public transport capacity and frequencies as necessary along CMATS agreed transport corridors.

The Strategy takes its lead at national level from the National Planning Framework 2040 and the National Development Plan 2018-2027 and builds upon previous transport studies including Cork City Centre Movement Strategy, Cork Area Strategic Plan (CASP) and the Cork Metropolitan Cycle Network Plan. The Strategy will provide a coherent transport planning policy framework and implementation plan around which other agencies involved in land use planning, environmental protection, and delivery of other infrastructure such as housing and water can align their investment priorities.

It will inform the development of regional and local planning, and associated investment frameworks, including providing inputs to the Southern Assembly's Regional Spatial and Economic Strategy (RSES), the forthcoming Cork Metropolitan Area Strategic Plan (MASP) and the statutory Development Plans of both Cork City Council and Cork County Council.

CMATS will deliver an integrated transport network that addresses the needs of all modes of transport, offering better transport choices, resulting in better overall network performance and providing capacity to meet travel demand and support economic growth. To achieve this vision, the guiding principles upon which CMATS is based is depicted in the graphic below.



Principle 01

To support the future growth of the CMA through the provision of an efficient and safe transport network.



Principle 02

To prioritise sustainable transport and reduce car dependency within the CMA.



Principle 03

To provide a high level of public transport connectivity to key destinations within high demand corridors.



Principle 04

To identify and protect key strategic routes for the movement of freight and services including the provision of a high level of freight access to the Port of Cork



Principle 05

To enhance the public realm through traffic management and transport interventions.



Principle 06

To increase public transport capacity and frequencies where needed to achieve the strategy outcomes.

National Policy

CMATS is a Regional Level plan and is directly informed by National Level (Tier-1) policies. The most important and recent of these documents are the NPF 2040 and the National Development Plan (NDP) 2018-2027.

Some of the key transport growth enablers relevant to the development of the Strategy include:

- Delivery of large-scale regeneration projects for the provision of new employment, housing and supporting infrastructure in Cork Docklands (City Docks and Tivoli);
- Progressing sustainable development of new greenfield areas for housing on public transport corridors;
- Intensifying development in inner-city and inner suburban areas;
- Development of a new science and innovation park to the west of the city accessible by public transport;
- Development of enhanced city-wide public transport to incorporate proposals for an east-west corridor from Mahon, through the City Centre to Ballincollig and a north-south corridor with a link to the Airport;
- M8/N25/N40 Dunkettle Junction upgrade and improved Ringaskiddy Port access;
- Enhanced regional connectivity through improved average journey times by road; and
- Improved traffic flow around the City, which, subject to assessment, could include upgrades of the N40, and/or alternatives which may include enhanced public transport.

Some of the core principles of the NPF that have informed the development of CMATS are:

- NSO 1 – Compact Growth;
- NSO 2 – Enhanced Regional Accessibility Road Network;
- NSO 3 – Public Transport;
- NSO 4 – Sustainable Mobility;
- NSO 5 – A Strong Economy supported by Enterprise, Innovation and Skills;
- NSO 6 – High-Quality International Connectivity;
- NSO 7 – Enhanced Amenity and Heritage;
- NSO 8 – Transition to a Low Carbon and Climate Resilient Society; and
- NSO 10 – Access to High-Quality Childcare, Education and Health Services.

Other key national level Policy and Guidelines that CMATS must align with include:

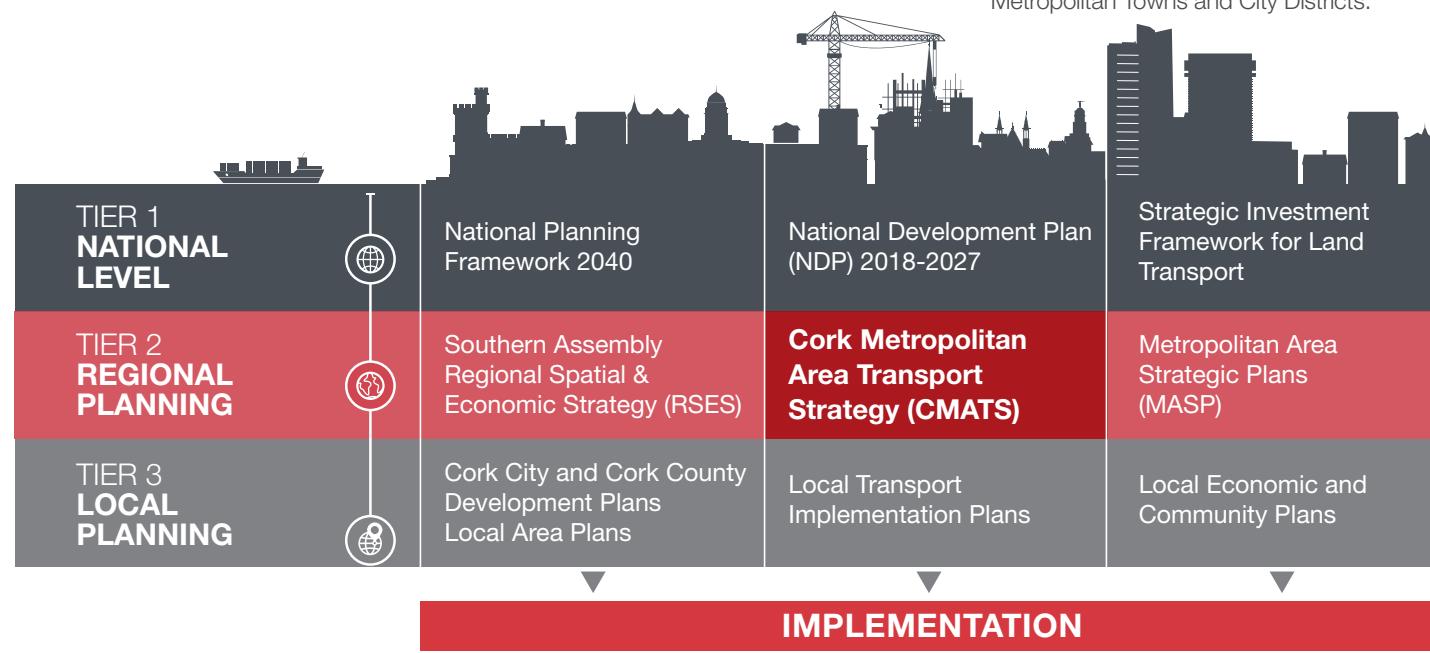
- National Mitigation Plan;
- Investing in our Transport Future - Strategic
- Investment Framework for Land Transport;
- Spatial Planning and National Roads;
- Design Manual for Urban Roads and Streets;
- Smarter Travel - A Sustainable Future; and
- Sustainable Urban Housing: Design Standards for New Apartments Guidelines for Planning Authorities.

Regional Policy

At a regional level, the NPF 2040 recommends the development of RSESs and MASPs. The RSESs are to ensure better co-ordination in planning and development policy matters across local authority boundaries. As part of the RSES process, MASPs are required to provide more specific focus on city and metropolitan issues. The draft RSES for the Southern Assembly Region was published in December 2018.

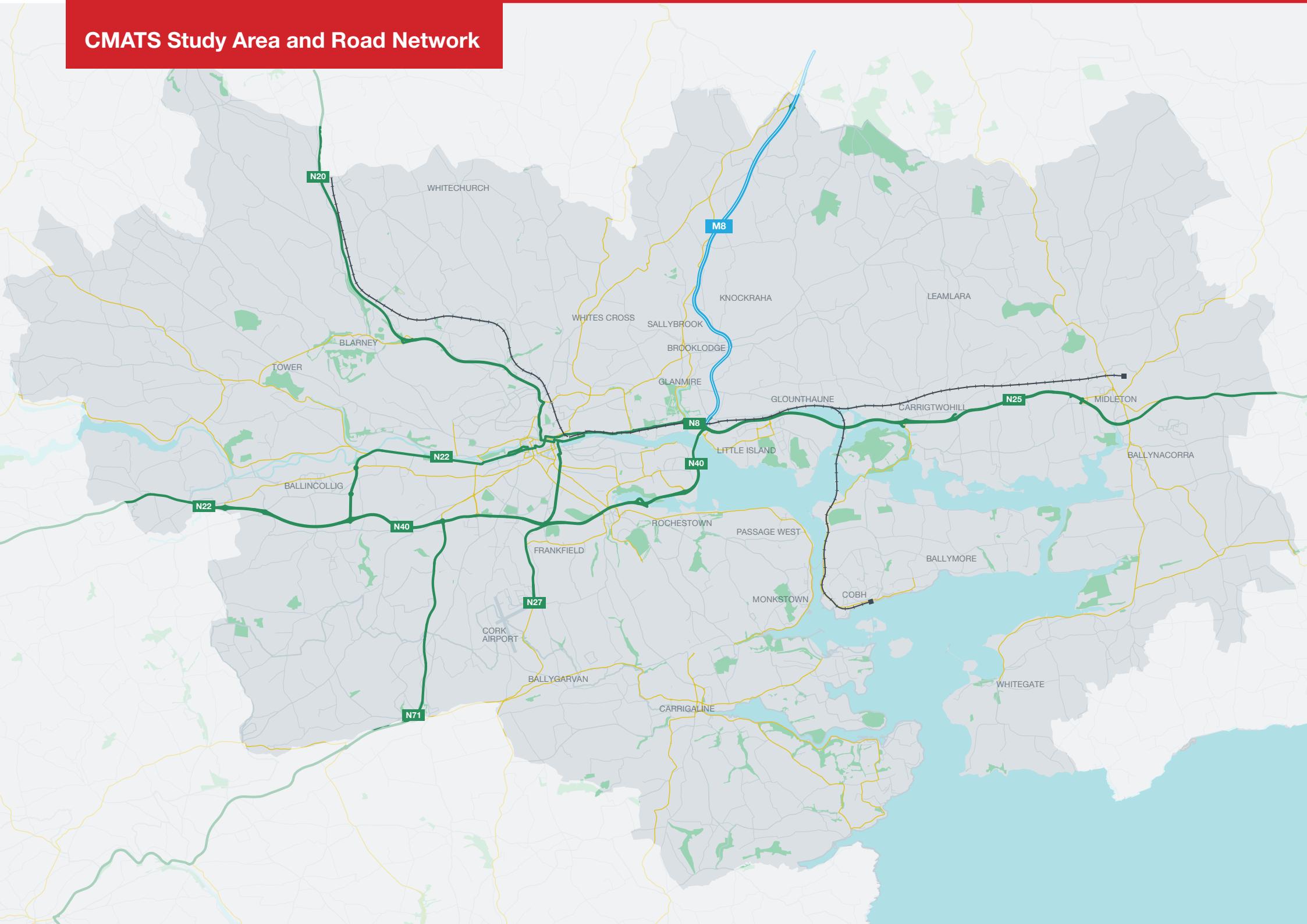
Local Policy

The third tier in the planning and policy hierarchy is local planning, which involves the planning framework for the implementation of national and regional guidance at the local level. CMATS will inform the future update of Cork City and County Development Plans and the future development of Local Transport Implementation plans/ Sustainable Urban Mobility Plans (SUMPs) for Metropolitan Towns and City Districts.



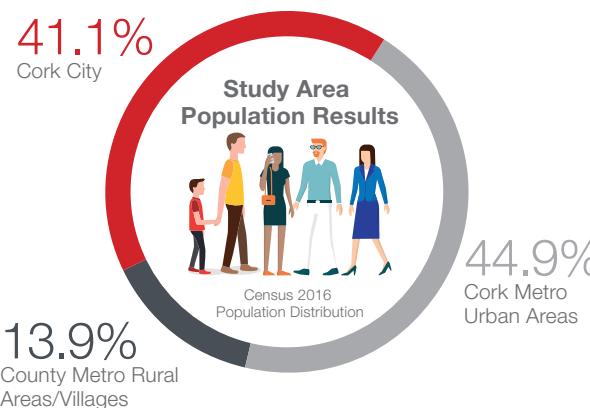


CMATS Study Area and Road Network





EXISTING TRANSPORT CONTEXT



The Cork Metropolitan Area was previously defined by the Cork Area Strategic Plan (CASP) and includes Cork City, its suburbs and the towns and rural areas in the immediate hinterland of the City of Cork as a single integrated unit.

The CMA covers 820km² and has a population of just over 305,000 (CSO 2016). This is made up of approximately 126,000 residents within the Cork City boundary, with the remaining located within the surrounding metropolitan area.

The Study Area encompasses Cork Harbour and Port of Cork. The River Lee runs directly from the harbour through the centre of the metropolitan area splitting into two channels which form the centre island of Cork City.

There are approximately 820,000 trips originating within the CMA on average each weekday (over 24 hours) with the morning peak and late afternoon being the busiest periods.

There is a dispersed pattern for journeys to work generally within the Metropolitan area. The private car tends to be used for radial trips into/out of the City as well as for trips on orbital routes.

Mode Share

The current limitations of the public transport provision in the CMA are reflected in the low mode share for public transport of 5% across the whole day and all trip purposes. Only 7% of journeys to work in Cork City are by public transport.

By comparison, walking has a 20% mode share, while the dominant mode is car which is used for 74% of trips. Cycling makes up the remainder of trips, with 1% of all trips made by bike.

Cork's transport network is coming under increasing strain and the existing network will not support the future transport needs of a growing City and Metropolitan area.

Cork has a very high mode share for car and unless the attractiveness of alternative modes of transport are enhanced, CMA will continue to have high levels of car dependency, journey delays, congestion and pollution, which all negatively impact on quality of life.

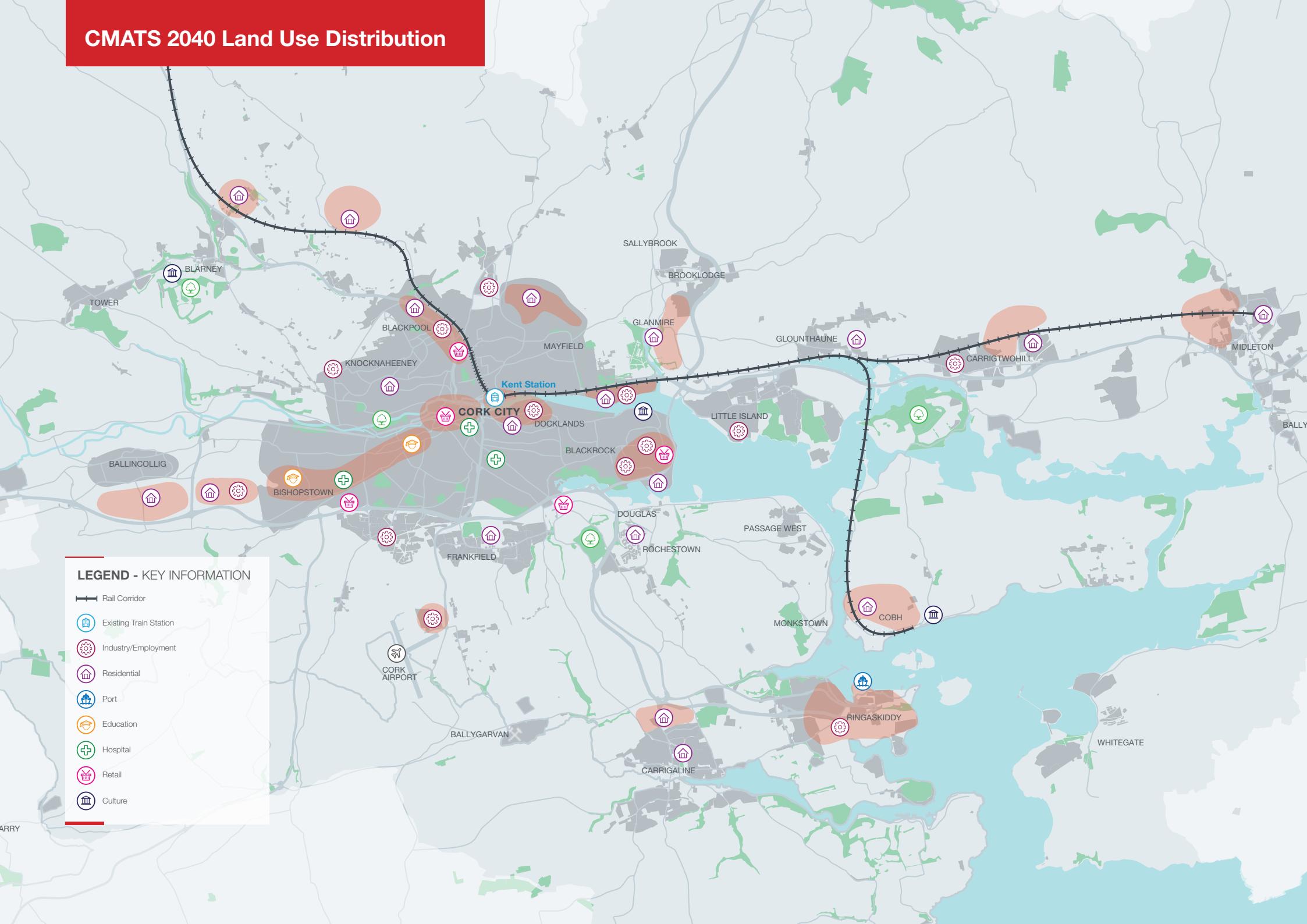
Key Challenges

To provide for a better, more efficient and sustainable transport network, there are a number of key challenges that must be addressed by CMATS. These include:

- Supporting the vibrancy, accessibility and liveability of Cork City Centre and Metropolitan centres;
- Ensuring that future development is located and designed in a fashion that prioritises walking, cycling and public transport and reduces the need to travel by car;
- Improving the public transport offering through higher frequency services operating with greater speed, directness and journey time reliability;
- Increasing residential density levels on the basis of centrality within centres and public transport accessibility;
- Accommodating a greater number of trips more efficiently by maximising connectivity by walking, cycling and public transport to major employment and education centres;
- Supplementing the public transport network with complementary facilities such as Park and Ride for the benefit of people accessing the city from the surrounding rural areas;
- Prioritising active modes (walking and cycling) to improve health benefits; and
- Reducing the impact of transport on the environment through targeted measures to limit the negative impact of air and noise emissions.

- Ensuring that the transport network can support the population, employment and educational growth as envisaged by the NPF 2040;

CMATS 2040 Land Use Distribution





CMATS 2040 LAND USE

The NPF recognises the role that Cork and the other regional cities must play in providing a counter-weight to Dublin and assigned a population growth forecast of 50-60% to each regional city.

This growth will be translated at a regional, metropolitan and local level through the production of the RSES, MASP and the forthcoming Development Plans and Local Area Plans of both Cork City Council and Cork County Council.

The draft RSES and MASP was open for consultation between December 2018 and March 2019. These provided population projections to the horizon year of 2031 for both Cork City and Suburbs (283,669) and the Rest of the Cork Metropolitan Area (125,157). In the absence of a definitive land use distribution for the CMA, assumptions have been made considering the NPF National Planning Objectives and the statutory development plans of both Cork local authorities.

Additionally, the Strategy's transport measures have been developed to be scalable, flexible and have adequate reserve capacity to allow for any changes in growth that may arise from the RSES and MASP processes to be catered for by the proposed strategy network.

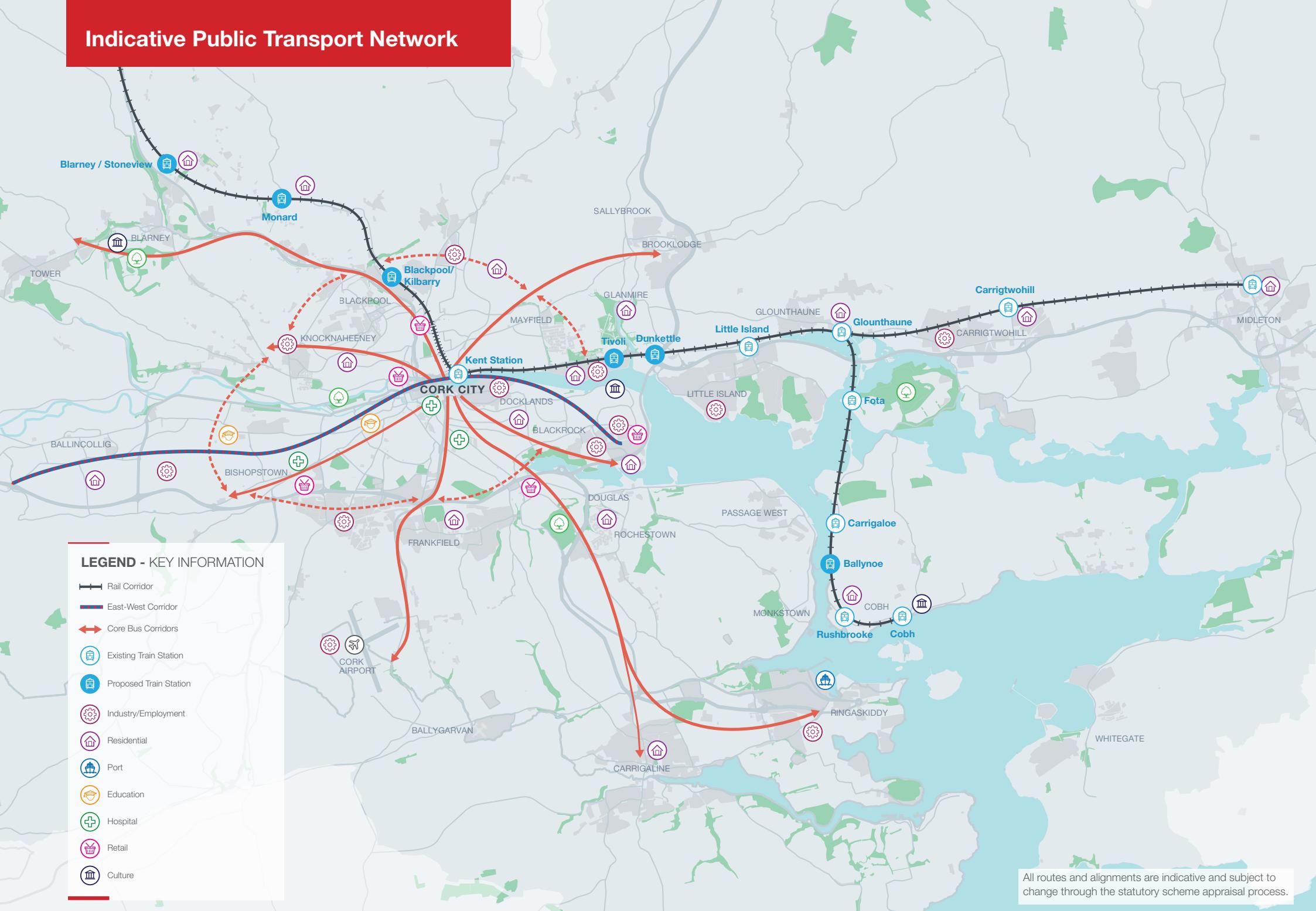
To support the compact growth aspiration of the NPF 2040, Cork City will become the focus for significant regeneration opportunities at brownfield locations.

In terms of employment and education, CMATS prioritises development along its identified high capacity public transport corridors.

Guided by the principles of the NPF, the following strategy development priorities for the distribution of land-use have been identified for the CMA:

- Ensure effective integration between transport and land-use through the delivery of Public Transport Orientated Development, which provides higher density, a balanced mix of land uses and compact settlements that reduce trip distances and are of a magnitude that supports the viability of high capacity public transport;
- The application of this principle in Cork will result in a high-intensity, mix of uses being directed to locations at existing or planned stations along the suburban and light rail lines and along the high frequency bus corridors;
- The density of future residential and employment developments such as the Tivoli Docks and existing, centrally located and accessible settlements will be increased. Higher densities contribute to a more compact urban footprint that brings more people closer to destinations and public transport services with easy walking and cycling distance;
- Deliver consolidated development in a manner that can avail of existing transport infrastructure, nearby amenities and facilities in the short term to deliver a critical mass of growth in population and employment which can support the transition and sequencing of investment to higher capacity public transport infrastructure and services;
- Land use policies that minimise the requirement to travel longer distances by encouraging mixed-use development. This should include ensuring areas are developed in tandem with the delivery of schools and other amenities to maximise the use of more sustainable modes of transport; and
- Land use policies that support the provision and design of new development in locations, layouts and at densities which prioritise walking and cycling and enable the efficient provision of public transport services.

Indicative Public Transport Network



STRATEGY DEVELOPMENT & OUTCOMES

Accommodating the scale of projected growth within the CMA will mean increasing pressure on the existing transport network. This Strategy has been developed and assessed in the context of the following notional scenarios:

- A Business as Usual case that incorporates committed investment in the road network only;
- A second scenario that substantially increases Public Transport Investment; and
- A third scenario, building on the second, that represents the optimal outcome for Land-Use and Sustainable Transport Integration.

The likely outcomes of the third scenario are that the demand for car travel will reduce as people live closer to their workplaces and places of study. Longer distance trips across the CMA will be undertaken, in greater numbers, by public transport and will be supported by linked cycling and walking infrastructure. The business case for continued investment in public transport infrastructure will be enhanced as patronage continues to grow.

The sustainable transport measures proposed in CMATS have been developed in line with Scenario 3, which aligns with the overarching national, regional and local policy objectives for sustainable transport provision in Ireland.

Cork Metropolitan Area Transport Strategy Methodology





WALKING

90m annual walking trips



63% increase
in walking trips between
2011 and 2040



250% increase
in footfall on
St. Patrick's Street



Additional **24,000**
daily car trips potentially
transferable to walking



>200km new and upgraded footpaths

Estimated **€50m** investment including elements of BusConnects



Enhanced **Wayfinding System**



140km of Greenways



69,000 walking trips made in the **AM peak period**



Age-Friendly
Town Centres

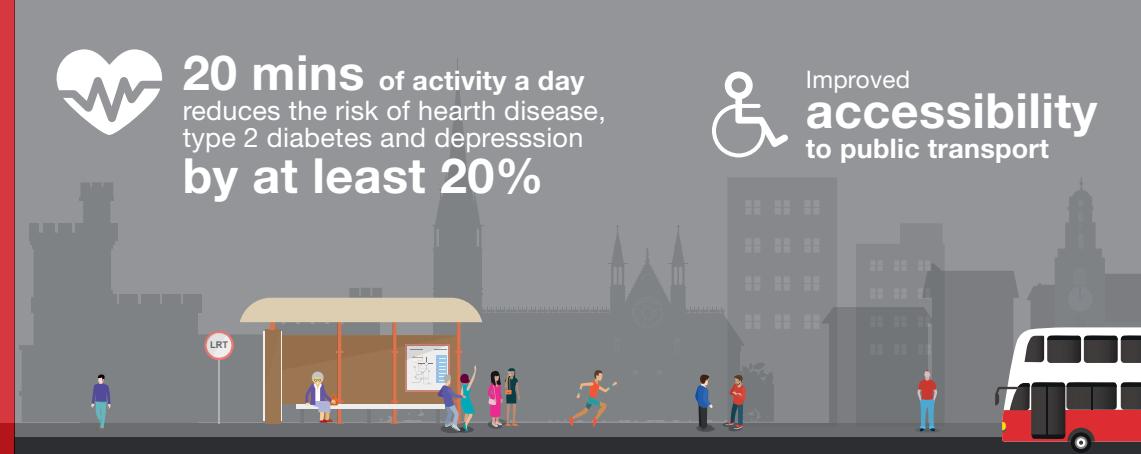
Safer
Routes to school



20 mins of activity a day
reduces the risk of heart disease,
type 2 diabetes and depression
by at least 20%



Improved
accessibility
to public transport





CYCLING

 19.5m annual cycling trips



Additional **56,000** daily car trips potentially transferable to cycling

13,000 cycling trips made in the **AM peak period** easing congestion

 **200km Primary**
Cycle Network

 **150km Secondary**
Cycle Network

 **60km Inter-Urban**
Cycle Network

 **140km Greenway**
Network

 **Expansion**
of Bicycle Sharing
Systems

 **Enhanced End-of-Trip**
facilities

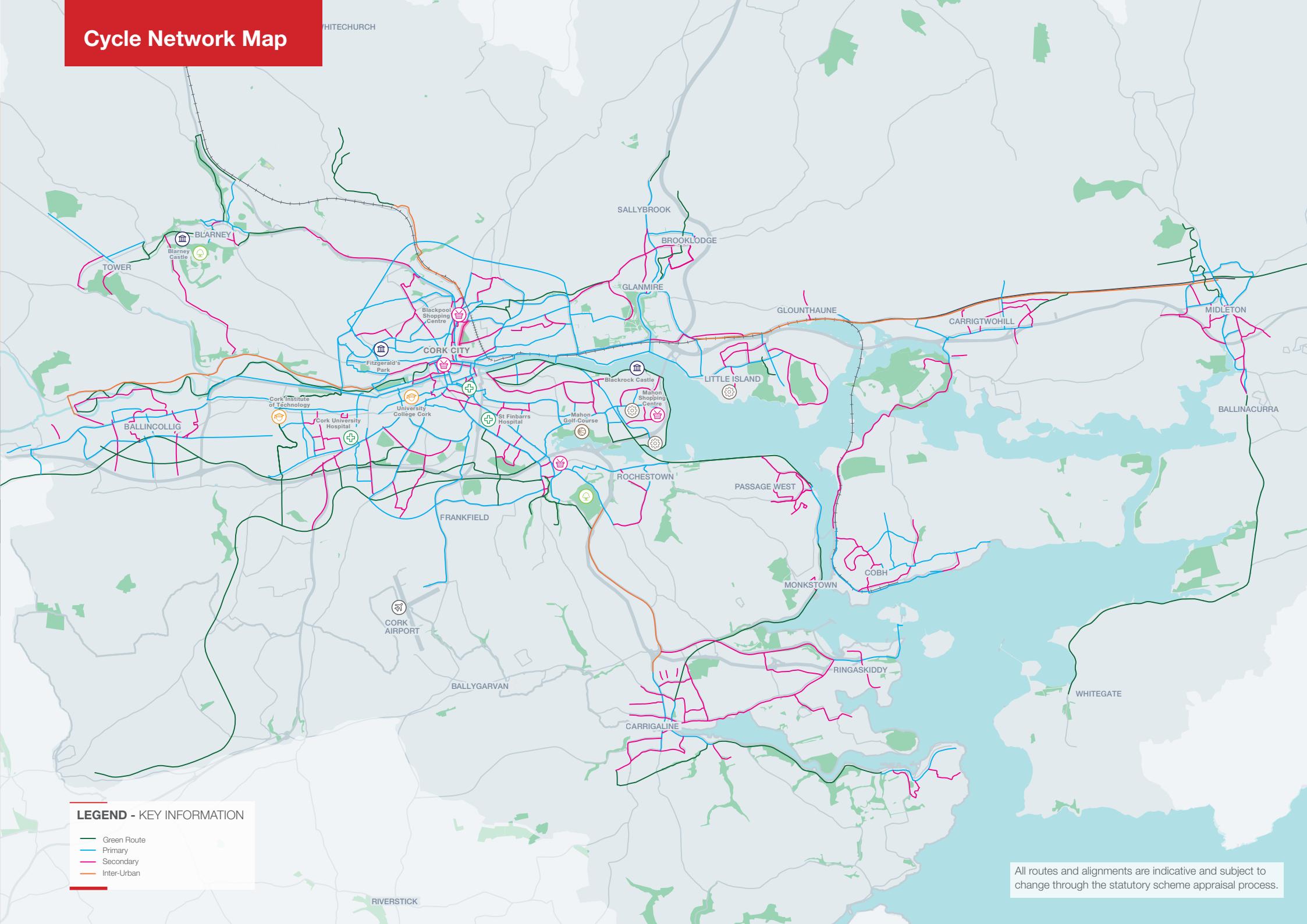
 **20 mins** of activity a day
reduces the risk of heart disease,
type 2 diabetes and some cancers
by at least 20%

 **positive impact**
on mental health

 Strategy cost estimate
is approximately
€230m
(+BusConnects
cycle elements)



Cycle Network Map



LEGEND - KEY INFORMATION

- Green Route
- Primary
- Secondary
- Inter-Urban

All routes and alignments are indicative and subject to change through the statutory scheme appraisal process.



BUS CONNECTS

BUS PASSENGERS



Carrying
49,000
passengers in
the AM peak
hour

Carrying
85m
passengers
per annum

BUS CORRIDOR PERFORMANCE

Douglas Corridor
AM Peak Bus frequency
3 mins
Patronage
1,700



Summerhill North
Corridor AM Peak
Bus frequency
3 mins
Patronage
2,061

BUS NETWORK & VEHICLES

200km
of cross city
routes

50km
orbital routes

150km
radial routes



100km
of bus lanes and
bus priority measures



220 double deck bus
fleet required



6 Strategic
Park & Ride
sites

CONNECTING CITY & SUBURB



Connecting with Cork Suburban Rail Network
at Kent Station, with Cork Light Rail and Park
and Ride Network and providing **interchange**
between radial and orbital bus services



4,800
passengers interchanging
between Cross City, Radial
and Orbital bus services in
AM peak hour



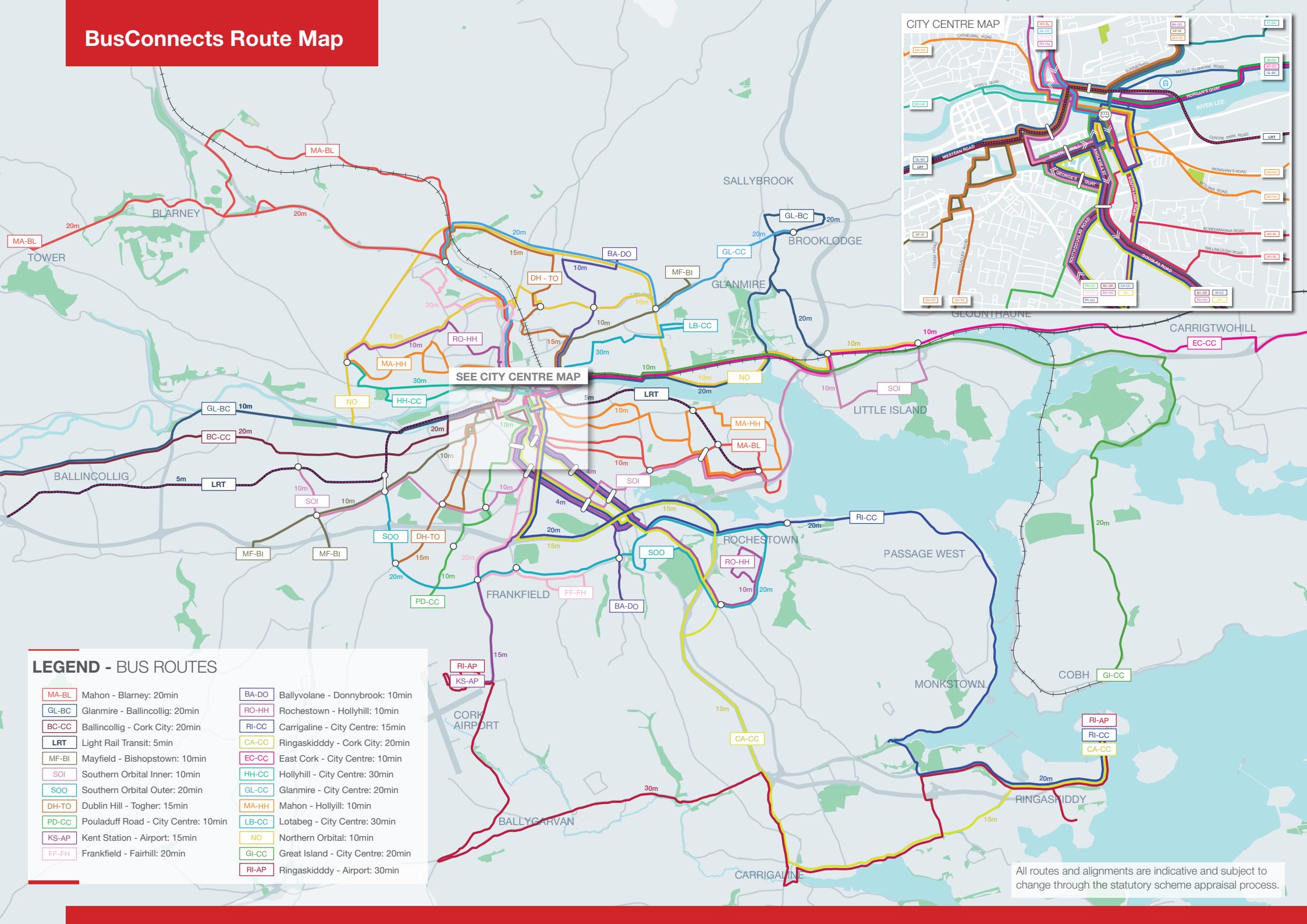
COST ESTIMATE



Strategy cost
estimate is
approximately
€545m



BusConnects Route Map





ARDARA
HOUSE
B&B
ROOMS
SUITE
TV

Walking

All journeys begin and end by walking irrespective of other modes used. A range of high quality, public realm improvements have been implemented in recent years to include pedestrian priority areas, wider footways and improved crossing facilities in Cork City Centre and Ballincollig Town Centre and resulted in a reasonably high-quality walking environment and increased footfall and vitality in many of its streets. However, the quality of the pedestrian environment is inconsistent across the CMA with a range of barriers to walking including street clutter, insufficient footpath widths and crossing opportunities. Cork, with its relatively compact city centre and reasonably self-sufficient metropolitan towns, has significant potential to enhance the pedestrian experience.

Key outcomes for walking in the Strategy include;

- An increase in walking levels for work, education and leisure across the CMA, particularly for short journeys (less than 2-3km);
- Addressing the safety issues and barriers that prevent citizens and visitors from walking more in Cork;
- Supporting a high quality and fully accessible environment for all abilities and ages by continuing to develop a safe, legible and attractive public realm;
- Facilitate walking's role as part of linked trips, particularly with rail and bus journeys;
- Promote a far higher standard of urban design in new developments, and in highway design, in a fashion that consistently prioritises pedestrian movement and safety over that of the private car; and

- Upgrade walking provision in tandem with BusConnects corridor improvements, light rail stations development and Cycle Network Implementation.

The over-arching objective for walking is to ensure that the pedestrian environment is significantly enhanced, more attractive and safer than at present. Walking will be an instinctive choice for short trips across the CMA including school trips, leisure trips and as part of linked trips with public transport.

Cycling

Cycling is a low cost, sustainable and growing mode of transport in the Cork Metropolitan Area. The NDP 2018-2027 commits to the delivery of walking and cycling networks for all of Ireland's cities.

Key priorities for development of Cork's Cycle Network Plan include:

- Designating a coherent network of east-west and north-south cycle routes across the area which will provide access to all major trip generators;
- The first priority in terms of access will be employment areas and third level education followed by schools. These priorities have been established to support proposed modal shift targets. Cycle links to new development areas have also been prioritised;
- Providing the highest possible Level of Service on identified corridors of high demand;
- Identifying and maximising opportunities for high quality greenways; and
- Responding to feedback from key stakeholders and the public.

Based on the recommendations within the National Cycle Manual a number of different infrastructure types are proposed at various locations within the network, including:

- **Cycle Lanes:** Incorporates a dedicated space adjacent to the kerb or car parking and can take the form of mandatory or advisory cycle lanes;
- **Mixed Streets:** Suitable in low traffic environments where the cyclist shares the road space with motorists;
- **Cycle Tracks:** Cycle tracks are different from cycle lanes in that they are physically segregated from motorised traffic in some way whether by a barrier or through a level change; and
- **Cycle Trails or Greenways:** Roads and paths through green areas and parks.

Other supporting infrastructure measures to further develop a cycling culture in Cork will include the further roll out of bike share schemes including consideration of dockless bikes, shower and changing facilities, and a significant uplift in residential, visitor and workplace cycle parking.

The objective for cycling is to develop a comprehensive network of safe primary, secondary inter-urban and greenway cycling routes across the CMA. Cork will build upon recent increases in cycling levels to significantly increase the number of utility trips including those to school, work and as part of linked trips with public transport. Cycling will be prioritised in all new road projects, local traffic management schemes and permeability measures and given prominence within Local Authority structures.

BusConnects

Buses are an extremely efficient mode of transport and will remain the work horse of the public transport system in Cork. Their flexibility means that routes and frequencies can be adapted to support phases of new development or as circumstances dictate.

Buses will provide an increasingly important interchange service between the InterCity, suburban rail and light rail stations and the Park and Ride network. Enhancing the bus network is consistent with the National Development Plan 2018-2027 which envisages a significantly enhanced BusConnects service for Cork by 2027. This Strategy envisages that the realigned bus network will carry around 45 million passengers per annum and 32,000 passengers during the AM peak.

An over-arching objective is to prioritise the early delivery of bus services and bus priority. Prioritising bus services over general traffic will be critical to the delivery of an efficient, frequent and reliable bus system and forms a major part of the overall BusConnects programme.

The existing bus priority measures through Cork City are particularly limited with 14km of bus lanes. The proposed bus priority measures include approximately 100km of new bus lanes, representing an increase in bus lanes by a factor of 700%. The proposed bus lanes align with the proposed Core Bus Network, ensuring efficient, reliable and frequent services and enable interchange with rail and light rail stations and Park and Rides facilities.



SUBURBAN RAIL

PASSENGERS

Catering for up to
2,500
passengers
per direction
per hour

16m
passengers
per annum



JOURNEY TIMES AND DISTANCE

25 mins
from Midleton to
Kent Station

12mins
from Blarney to
Kent Station

25mins
from Cobh to
Kent Station

50mins
from Midleton /
Cobh to Mallow

62km
of suburban rail network between
Midleton, Cobh and Mallow

RAIL NETWORK & VEHICLES

8 new stations
plus improvements to Cobh,
Mallow and Kent Stations.

**62km suburban
rail network**
between Midleton, Cobh and Mallow.

10 km
of dual track to Midleton.

Electrification
of suburban rail network.

22
new two-car
trains required

CONNECTING CITY & SUBURB

Connecting with Cork Light Rail
Network at Kent Station and the
Cork suburban bus network

>3,000
passengers
interchanging
between
Rail, Bus and Luas at
Kent Station in AM Peak.

4,000
2-way through-
running through
Kent in AM
peak hour



COST ESTIMATE

Strategy cost
estimate is
approximately
€274m



Proposed Suburban Rail





LIGHT RAIL

PASSENGERS



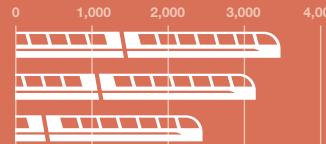
11,400 or **4,600**
passengers per direction per hour at 2 min headway
or passengers per direction per hour at 5 min headway

AM Peak Hour Passengers

Cork Light Rail 2040

Dublin Luas Green Line 2012

Dublin Luas Red Line 2012



JOURNEY TIMES AND DISTANCE

27mins
from Ballincollig to St. Patrick's Street

20mins
from Mahon Point to St. Patrick's Street

47mins
from Ballincollig to Mahon Point

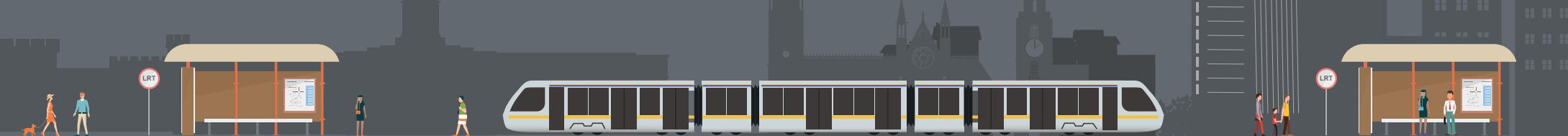
BUS NETWORK & VEHICLES

25 stops
along the route.
Similar Light Rail vehicle to Dublin Luas fleet.

17km Light Rail Network

between Ballincollig Cork City Centre, Kent Station, Cork Docklands and Mahon Point.

27 trams
required for 5 minute frequency



CONNECTING CITY & SUBURB

Connecting with Cork Suburban Rail Network at Kent Station, with Cork Light Rail Network and providing interchange between radial and orbital bus services

>3,200
passengers interchange to/from Light Rail in am peak hour.

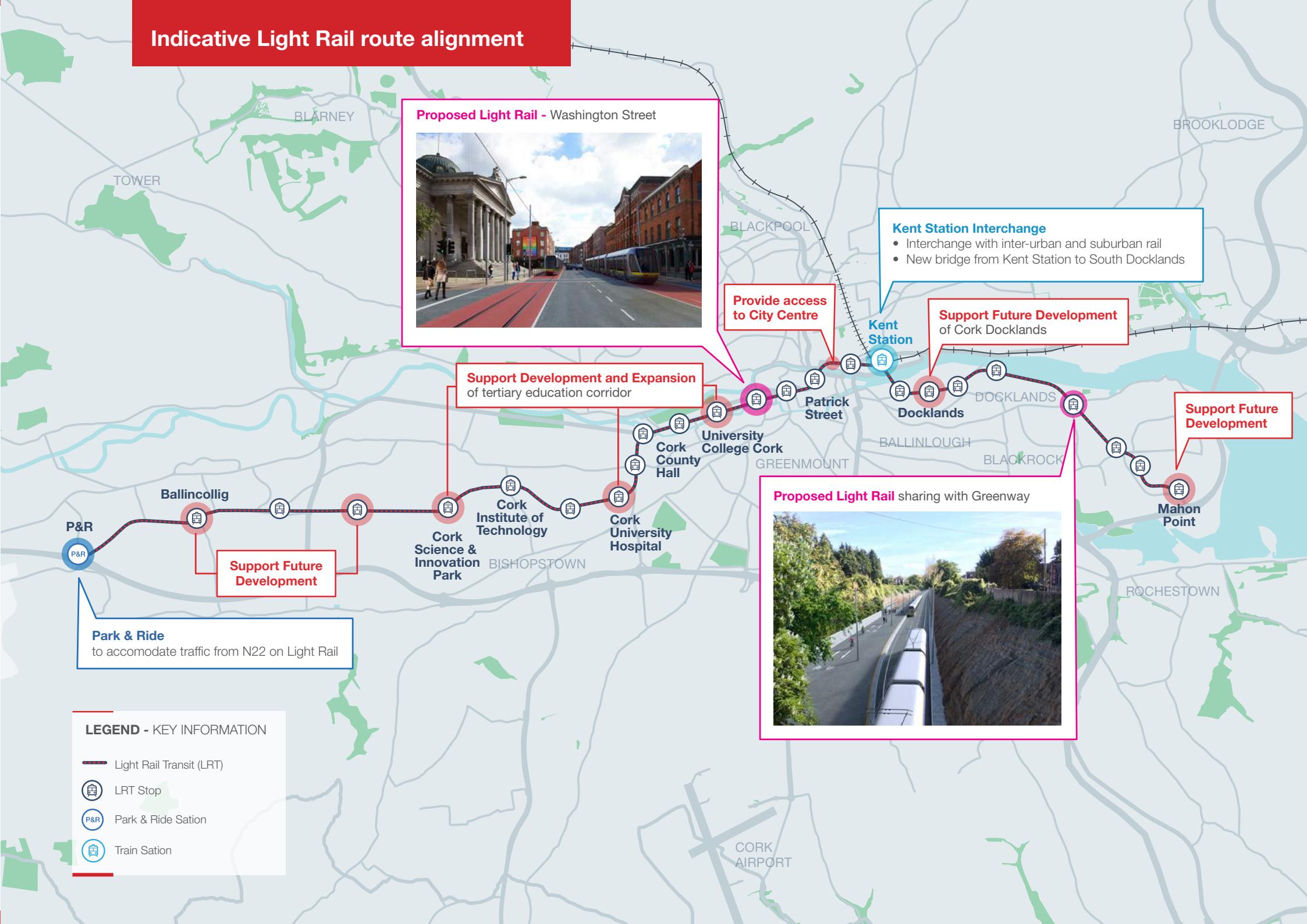


COST ESTIMATE

€1bn
Strategy cost estimate is approximately

€1bn
Strategy cost estimate is approximately

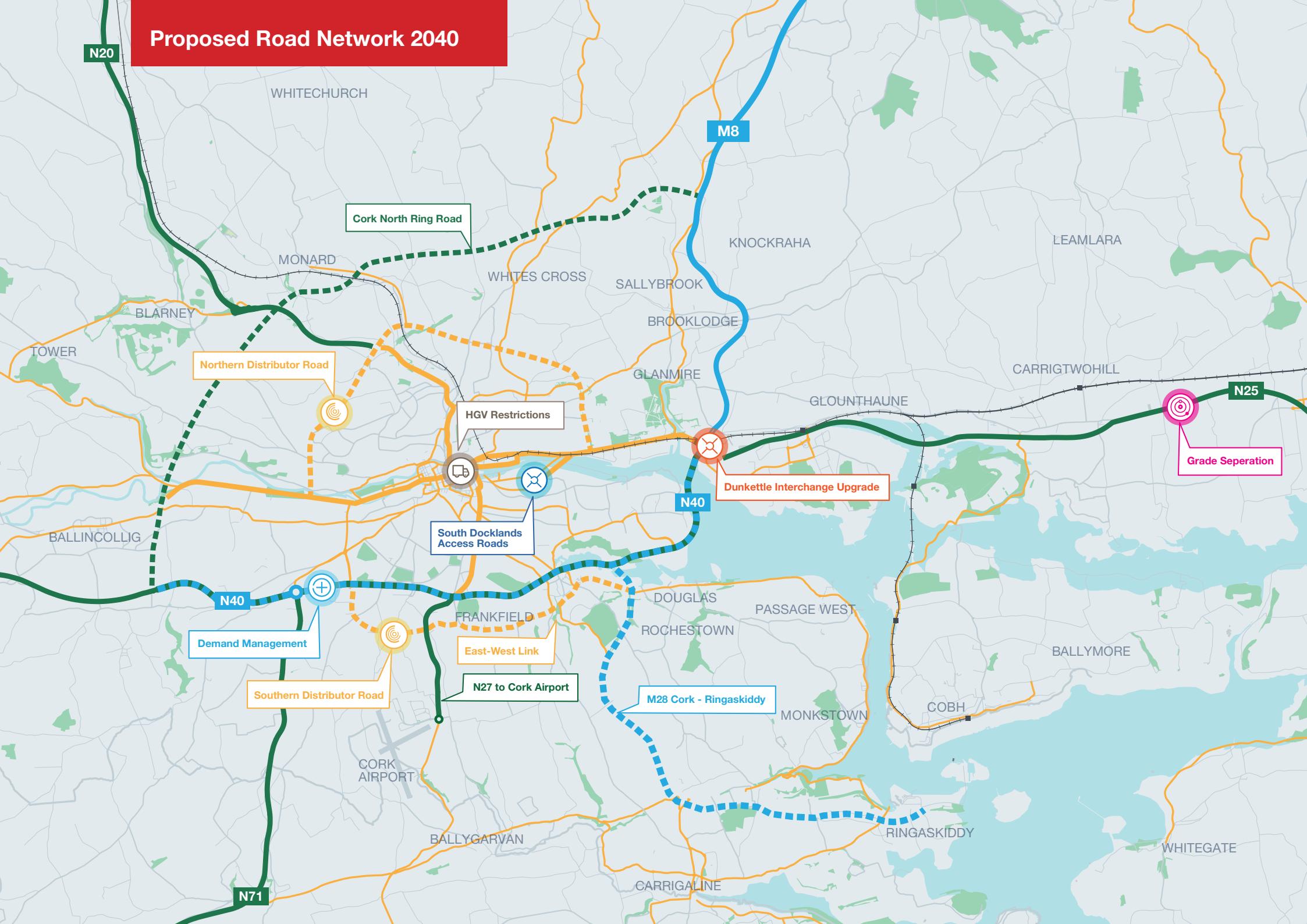
Indicative Light Rail route alignment



ROADS



Proposed Road Network 2040



Suburban Rail

The rail network provides direct and reliable access to Cork City Centre from a significant portion of its east and northern Metropolitan Cork catchment area. This Strategy proposes to maximise opportunities offered by the existing suburban rail network to support the travel needs across the CMA. Maximising the potential of the rail corridor will support better integration of land use planning and public transport.

A key element of this Strategy will be to enable through services at Kent Station. This will increase connectivity between the Mallow - Cork lines and the Midleton/ Cobh - Cork lines without the need to change platforms at Kent Station.

The availability of an existing passing platform at Kent Station means that this objective can be achieved relatively quickly within the short term. Future-proofing the ability of Kent Station and its environs to support significantly enhanced multi-modal accessibility will also be a key consideration.

The Strategy rail proposals include the development of 8 new rail stations, the creation of a suburban network between Midleton, cobh and Mallow, the electrification of the suburban rail network and the provision of new rail fleet.

Light Rail

The development of an east-west mass transit, rapid transport corridor has been a long-term objective for the CMA articulated by the joint Cork Area Strategic Plan (CASP) and a number of statutory development plans and local area plans of both local authorities.

Following detailed analysis of projected travel demand within the CMA, this Strategy proposes that the East-West Transit Corridor is best served through the provision of a new Light Rail Transit (LRT) tram system. This analysis marks a departure from previous proposals for a lower capacity Bus Rapid transport (BRT) system to reflect the more ambitious growth targets of the NPF and the requirement to future-proof such a route up to and beyond, the 2040 horizon year.

The provision of LRT system will be a focal point to enable the growth of population, employment health and educational uses as envisaged by the NPF 2040. The LRT system will unlock strategic development opportunity sites and windfall sites in its catchment areas.

The route shown is indicative only, further feasibility work is required to examine alternatives to this high level indicative route. During the early years of the Strategy, it is intended identify and protect an alignment for the scheme, allowing development consolidation along the corridor.

The over-arching objective of the LRT is to enable the Cork Metropolitan Area to consolidate land-use and transport along a high frequency, high-capacity public transport corridor. The early finalisation of the preferred route will provide greater certainty for future planning and development to pursue the higher densities required to meet NPF 2040 population and employment targets for Cork and the planned expansion of third level educational institutions.

Parking

The NPF 2040 has set out that, in general, there will be no car parking requirement for new development in or near the centres of the five cities, including Cork, and a significantly reduced requirement in the inner suburbs. There will also be a general reduction in on-street parking levels in city and town centres over the lifetime of the Strategy to accommodate a wide range of sustainable transport measures including bus priority, laybys, safer crossing facilities, seating, contra-flow cycle lanes, bicycle share schemes and cycle parking.

Cork has a high proportion of motorised trips that originate outside the city centre and other strategic employment areas that contribute to local congestion, noise and air pollution. The Strategy seeks to reduce this through the provision of Park and Rides. Park and Rides are the provision of high capacity, car parking facilities at designated public transport interchanges to provide onward access to the City Centre and other key destinations via high frequency public transport, walking or cycling. Park and Rides as a component of the CMATS is a means of increasing the accessibility of the transport network to a population that might not otherwise have access by walking, cycling or bus transfer.

The strategic park and rides will be complemented by a number of smaller, local parking facilities known as 'mobility hubs (points)'. Mobility Hubs will contribute to significantly lower car parking standards than at present, will be served by public transport, walking and cycling routes and will provide a wider range of functions including waste collection points and consolidated delivery points.

Public Transport Interchange and Integration

The National Development Plan aims to deliver a Public transport network that will provide high-quality passenger interchange points, which facilitate convenient transfer between efficient and integrated public transport services.

Modern transport infrastructure must be accompanied by an efficient, integrated and appropriate network of transport services. Focusing specifically on public transport, that network needs to:

- Provide appropriate coverage of the region;
- Increase opportunities to transfer between modes and services;
- Provide fast and convenient access to major travel destinations throughout the region;
- Be easily understood to both local and visiting passengers;
- Deliver reliable and predictable journey times;
- Charge simple, affordable fares which enable transfers between services without unnecessary penalty;
- Provide easy-to-use cashless payment systems, where feasible;
- Be accompanied by comprehensive information, both during and prior to the journey; and
- Provide comfortable and convenient journeys to the maximum amount of people.



Roads

The Cork Metropolitan Area has an extensive network of national, regional and local roads and streets. The road network includes not only the carriageway itself but other highway infrastructure including bridges, the Jack Lynch Tunnel, footpaths, signposting, markings, traffic signals and sophisticated traffic management systems. The street network, particularly within Cork's urban areas, are public spaces in their own right, providing a focus for economic, social and cultural activity.

The first priority for road investment in the Strategy will be to maintain, renew, manage and operate the existing road infrastructure in a more efficient manner. Other priorities reflect a need to provide multi-modal travel particularly on new roads within urban areas, increasing the liveability and place-making functions of the urban street network and manage the network to discourage through traffic in built up areas.

The Strategy will seek to deliver on strategic development priorities for the distribution of a more compact settlement pattern based on ensuring effective integration between transport and land-use through the delivery of Public Transport Orientated Development. This will provide a sustainable economic, environmental and social case for reliable public transport, permeable, high quality safe walking and cycling routes and a people-centred public realm. This represents a marked departure from previous forms of transport planning over recent decades, where the provision of new road capacity for the private car was paramount.

CMATS proposes a limited number of new road-based projects required to facilitate the sustainable movement of people, goods and services, and to complement public transport, walking, cycling and traffic management objectives.

This includes a new east-west link on the northern side of Cork City in the short-medium term required to facilitate orbital bus and active travel movements and to reduce travel through the city centre and N40 South Ring Road by HGVs and private vehicles.

Freight, Delivery and Servicing

To meet NPF 2040 projections for Cork, construction of new homes, offices, social infrastructure and places of education will require more movement of HGVs and lorries. Ireland is an export-led economy, and that is reflected in increased demand for the development of improved access routes to the Port of Cork- particularly considering Brexit. While presenting challenges in terms of increased trips, safety, congestion, air and noise pollution, the clustering of activities allied to an improvement in the strategic transport infrastructure offers the possibility of innovative approaches to mitigate impact of freight activity in Cork.

Over-arching objectives for the management of freight movement include:

- Re-directing the through movement of freight from densely populated areas and unsuitable local roads to the strategic road network;
- Examining the feasibility of consolidation centres and break-bulk facilities outside of the national road network in the medium term, to facilitate smaller vehicles delivering to the City Centre;
- Requiring area-based construction, and delivery and servicing plans as part of new development with a view to consolidating deliveries where practical;
- Re-timing freight trips to out-of-hours wherever practicable; and
- Ensuring that delivery, servicing and waste management trips are made as green and quiet as possible through the use of zero or low emission vehicles where appropriate.

Supporting Measures

A key principle for CMATS is to reduce dependency on the private car within the CMA while increasing the attractiveness of sustainable transport options. Another fundamental principle of the Strategy is to support the future growth of the CMA through the provision of an efficient transport network. Supporting measures have an important role to play in providing a future transport network that matches up to these principles. The full benefits of the significant investment that will be delivered under CMATS cannot be achieved through the provision of infrastructure alone and must be combined with the implementation of measures that support best use of that infrastructure.

The Strategy's supporting measures will be essential to the creation of physical, social and cultural environments where walking, cycling and public transport are attractive, practical and logical alternatives to the private car. It will take a wide range of supportive initiatives to:

- Create communities that support sustainable transport;
- Improve public awareness and educate users on available options to help them make the best choices;
- Prioritise sustainable transportation options; and
- Improve end to end trip facilities and integration.

Other measures include the implementation of Local Transport Plans, urban design and place-making schemes, behavioural change programmes, and embracing technology for sustainable transport.

Implementation

The overall cost of the Strategy is approximately €3.5 billion (2018 prices), and its delivery will be subject to the availability of funding. It is acknowledged that each of the major elements of CMATS will require an individual appraisal based on its own merits, in terms of feasibility, design, planning, approval and funding.

A phased implementation plan has been developed that incrementally builds the transport infrastructure, services and investment over time to align with the continued growth of the CMA. CMATS however is intended to be scalable, flexible and future-proofed enough to meet changes in population and employment growth. Any changes in the proposed land use distribution however, must be consistent with the principle of Public Transit Oriented Development (PTOD) CMATS is a live document, subject to periodic review (every 5 years).

The challenge of implementation will now be addressed by the Cork City Council and Cork County Council, working in conjunction with the National Transport Authority, Transport Infrastructure Ireland and other key stakeholders, to deliver on the necessary land use consolidation, securing capital investment under the National Development Plan, and the implementation of CMATS' transport infrastructure, supporting measures and demand management measures, to enable the full benefits of CMATS to be achieved.

Strategy Outcomes

The Cork Metropolitan Area Transport Strategy 2040 (CMATS) will result in several positive social, economic and environmental outcomes. It will deliver an accessible, integrated transport network that enables the sustainable growth of the Cork Metropolitan Area as a dynamic, connected, and internationally competitive European city region as envisaged by the National Planning Framework 2040.

The Strategy is heavily predicated on sustainable transport investment and provision. The Light Rail Transit system is envisaged to serve 32% of the CMA's population and 60% of its jobs by 2040. The suburban rail network will serve almost 20% of its population and 30% of its jobs.

BusConnects is the work-horse of the public transport system covering CMA wide coverage and carrying 85m passengers per annum.

The combined network will provide seamless interchange between bus, rail, light rail, Park and Ride services. Walking and cycling will play a significant role for shorter trips through the delivery of an enhanced metropolitan cycling network and vastly improved public realm and strategic walking network.

Overall it is considered that the Strategy will enable the Cork Metropolitan Area to grow in a successful, sustainable manner, delivering an efficient, effective transport system to underpin its ambitious growth targets and increase the attractiveness of the CMA as a region to live, work, visit, play and invest in.

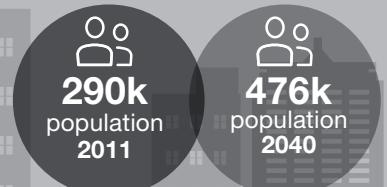
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Timeframe	SHORT TERM	MEDIUM TERM	LONG TERM
2026	2031	2040	
Cork Suburban Rail Network			
Through Running at Kent Station			
Increase service frequency to 3tph from Midleton and Cobh			
Kent Station Platform Improvements			
Bypass loops at new stations on line north of Kent Station			
Mallow platform improvements			
Cobh platform improvements			
New Rail Stations (as required by land use development)			
Dual Track to Midleton			
Increase service frequency to 6tph from Midleton and Cobh			
Electification			
Purchase of Rolling Stock			
Light Rail			
Route Alignment Reservation and Interim Bus route			
Interim Bus Service O&M			
Planning and Design of LRT			
Construction and Implementation of LRT			
Bus			
Bus Network Implementation			
Park & Ride			
New Park & Ride Sites			
Cycling			
Primary Network			
Secondary Network			
Feeder Network			
Inter Urban			
Greenways			
Walking			
Footpaths and Walking Provision			
Road Network			
North & Southern Distributor Roads Appraisal			
Delivery of both NDR & SDR			
Appraisal of Northern Ring Road (NRR)			
Delivery of NRR			
Dunkettle Interchange			
M28 Cork to Ringaskiddy Motorway			
M20 Cork to Limerick			
Delivery of Cork Distributor Roads			
N27			
N40 Demand Management			
Docklands and Tivoli Road Network and Bridges			
Regional Roads			
Operation and Maintenance			
Parking Management			
Integration & ITS			



STRATEGY OUTCOMES

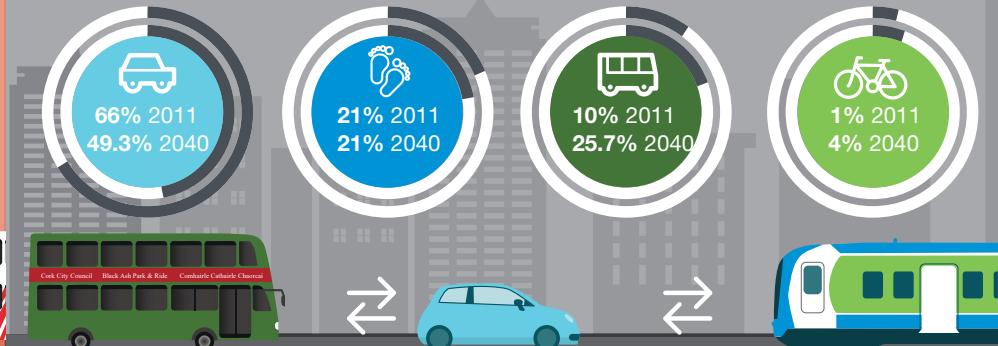
FUTURE GROWTH



DAILY DEMAND FOR TRAVEL



AM PEAK MODE SHARE 2011 - 2040



ACCESSIBILITY AND SOCIAL INCLUSION



Suburban Rail Catchment
19% of population
30% of jobs



Light Rail Catchment
32% of population
60% of jobs

Social Inclusion:

up to 10.9%
increase in PT mode share
for disadvantaged and very
disadvantaged areas

SAFETY & ENVIRONMENTAL

Over a 30 year strategy period

Reduction in
15 fatal
casualties

Reduction in
68 serious
casualties

Reduction in
1,700 slight
casualties

Environmental:
46,000
tonnes pa reduction in
vehicular emissions

ECONOMY & COST ESTIMATE



Present Value of Costs: €2.3bn
Present Value of Benefits: €5.7bn
Net Present Value: €3.7bn
Benefit to Cost Ratio: 2.48



List of Acronyms

AA	Appropriate Assessment	HGV	Heavy Goods Vehicle
AV	Automated Vehicle	ITS	Intelligent Transport System
BSS	Bicycle Sharing Scheme	MaaS	Mobility as a Service
CASP	Cork Area Strategic Plan	MASP	Metropolitan Area Strategic Plan
CCMS	City Centre Movement Strategy	NPO	National Policy Objective
CIT	Cork Institute of Technology	NSO	National Strategic Outcome
CLC	Construction Logistics Centre	NTA	National Transport Authority
CMA	Cork Metropolitan Area	PAG	Project Appraisal Guidelines
CMATS	Cork Metropolitan Area Transport Strategy (the Strategy)	PT	Public Transport
CNDR	Cork Northern Distributor Road	PTOD	Public Transport Oriented Development
CNRR	Cork North Ring Road	RSES	Regional Spatial and Economic Strategy
CSIP	Cork Science and Innovation Park	RTPI	Real Time Passenger Information
CSO	Central Statistics Office	SEA	Strategic Environmental Assessment
CUH	Cork University Hospital	SFILT	Strategic Framework for Investment in Landside Transport
DMURS	Design Manual for Urban Roads and Streets	SWRM	South West Regional Model
DTTaS	Department for Transport, Tourism and Sport	TII	Transport Infrastructure Ireland
EU	European Union	UCC	University College Cork
EV	Electric Vehicle	UEA	Urban Expansion Area
EVCP	Electric Vehicle Charging Point		

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