Supporting documents

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Introduction

This document contains the Supporting Documents and evidence base for the West Edinburgh Spatial Strategy for Inclusive and Sustainable Growth.

The information and supporting documents are presented under the following headings:

1 Socio-Economic Update and Case Study Analysis

2 Summary of Phase 1 of Study

3 Stakeholder Consultation Report

4 Background Context mapping

5 20 Minute Neighbourhood Mapping

6 Transport Baseline Mapping

7 Case Studies

Socio-Economic Update

The attached report provides background evidence of the socio-economic context for West Edinburgh to support the Main Report and Strategy.

This is presented under four key headings:

- Economic context
- Vision for Growth
- Sector Outlook
- Assets and Resources

These are followed by a Case Studies Summary entitled ‘European Regional Growth’ which analyses five key areas that resonate with the aims and objectives of the study. These summarise Key Facts about each align with Principles, Vision and Timeline.

1

‘Higher urban densities create vibrant neighbourhoods capable of supporting local businesses, employment and services.’

Socio Economic Update, Rettie and Co. May 2021

West Edinburgh Spatial Strategy

Socioeconomic Update

May 2021

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Executive Summary

West Edinburgh is the next direction of major expansion for the City, and creating a vision and plan for this expansion provides major opportunities for the city.

Economic Context

- Edinburgh has a diverse and dynamic economy and is a centre for politics, finance, education, bio-sciences and, increasingly, emerging tech and innovation industries.
- Edinburgh has had a robust response to the Covid-19 pandemic, with a smaller fall in GVA compared to many other UK cities. Economic forecasts predict a return to pre-pandemic GDP between 2022 to 2025.
- West Edinburgh has seen income growth rise faster than the city as a whole, with average earnings 1.4% above the city.
- West Edinburgh is not overly exposed to industries affected by Covid compared to the city as a whole.

Vision for Growth

- Edinburgh needs to deliver 47,000 homes in the next 12 years and West Edinburgh is key to delivering part of this requirement.
- The new housing will need to utilise a range of tenures to address need within the city.
- High urban densities will be crucial in delivering the vision for 20-minute neighbourhoods.
- Developments such as Edinburgh Park point towards a high density urban setting with mixed uses and strong transport connectivity.

Sector Outlook

- Build to Rent offers the potential to deliver a volume of new housing and rapid placemaking. This model is growing across Scotland and is attracting a weight of investment in a post pandemic context.
- The office sector has faced challenges due to Covid, with commentators expecting a move towards flexibility and high quality office space moving forward.
- West Edinburgh is well positioned to attract emerging sectors, such as technology and science sectors.

Assets & Resources

- West Edinburgh has extensive blue green resources.
- Parts of West Edinburgh are very deprived in a national context. Tacking the most acute deprivation means improving links to employment and learning.
- West Edinburgh has major employers as well as education facilities. Improving the connectivity and access to these opportunities is key to any development strategy based on inclusive growth.

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Economic Context

Opportunity for growth & improvement

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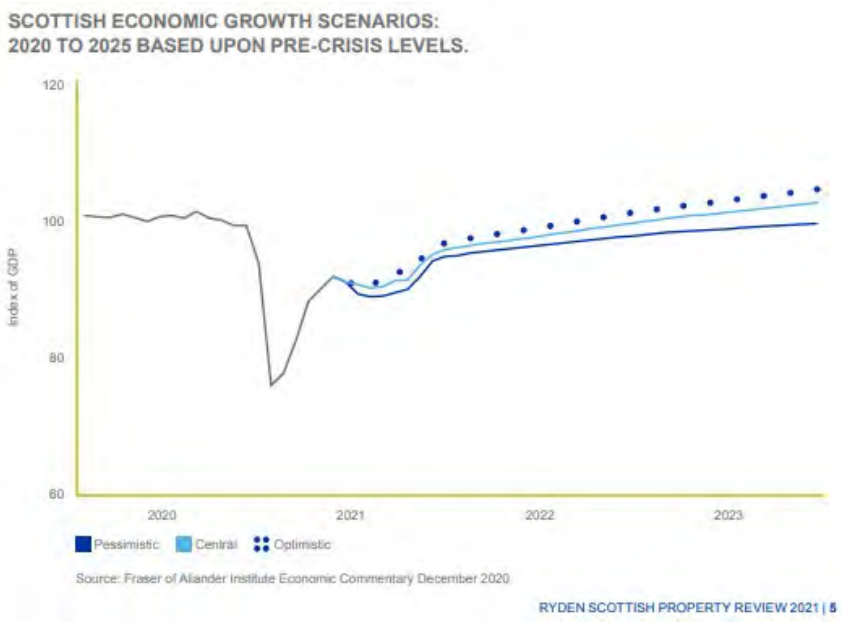
Economic Outlook

Covid-19

Edinburgh has had a robust economic response to the pandemic

- The Irwin Mitchell Powerhouse Tables show that Edinburgh has had a robust response to the pandemic with a -5.6% fall in GVA, one of the lowest falls across the UK. Edinburgh also recorded one of the higher employment forecast growth rates at 2.1%
- The Fraser of Allander Institute forecasts Scottish GDP to recover to pre-pandemic levels over 2022 to 2025 depending on the scenario.
- Other economic forecasts expect the UK economy to recover over the course of 2021 with a return to pre-pandemic levels in 2022.
- There is the risk of sustained damage ('scarring') to certain sectors such as hospitality, retail, tourism and aviation.



City tracker forecast: Employment, Q4 2021

		Employment Level, Q4 2021	Growth (YoY)
1	**Cambridge**	153,100	2.90%
2	**Cardiff**	255,100	2.50%
3	**Swansea**	116,300	2.20%
4	**Swindon**	117,400	2.10%
5	**Edinburgh**	365,000	2.10%
6	**York**	122,900	2.00%
7	**Exeter**	104,800	1.90%
8	**Oxford**	144,700	1.50%
9	**Rotherham**	97,500	1.50%
10	**Doncaster**	128,100	1.50%

City tracker ranking: GVA, Q4 2020

		GVA Q4 2020, £mn (annualised, CVM constant prices)	**Growth** (YoY)
1	**Sunderland**	6,700	-5.00%
2	**Coventry**	8,500	-5.60%
3	**Exeter**	4,900	-5.60%
4	**Edinburgh**	22,200	-5.60%
5	**Bournemouth**	8,200	-5.60%
6	**Huddersfield**	6,800	-5.70%
7	**Derby**	6,400	-5.70%
8	**Rotherham**	4,400	-5.90%
9	**Cardiff**	12,700	-5.90%
10	**Bradford**	8,500	-5.90%

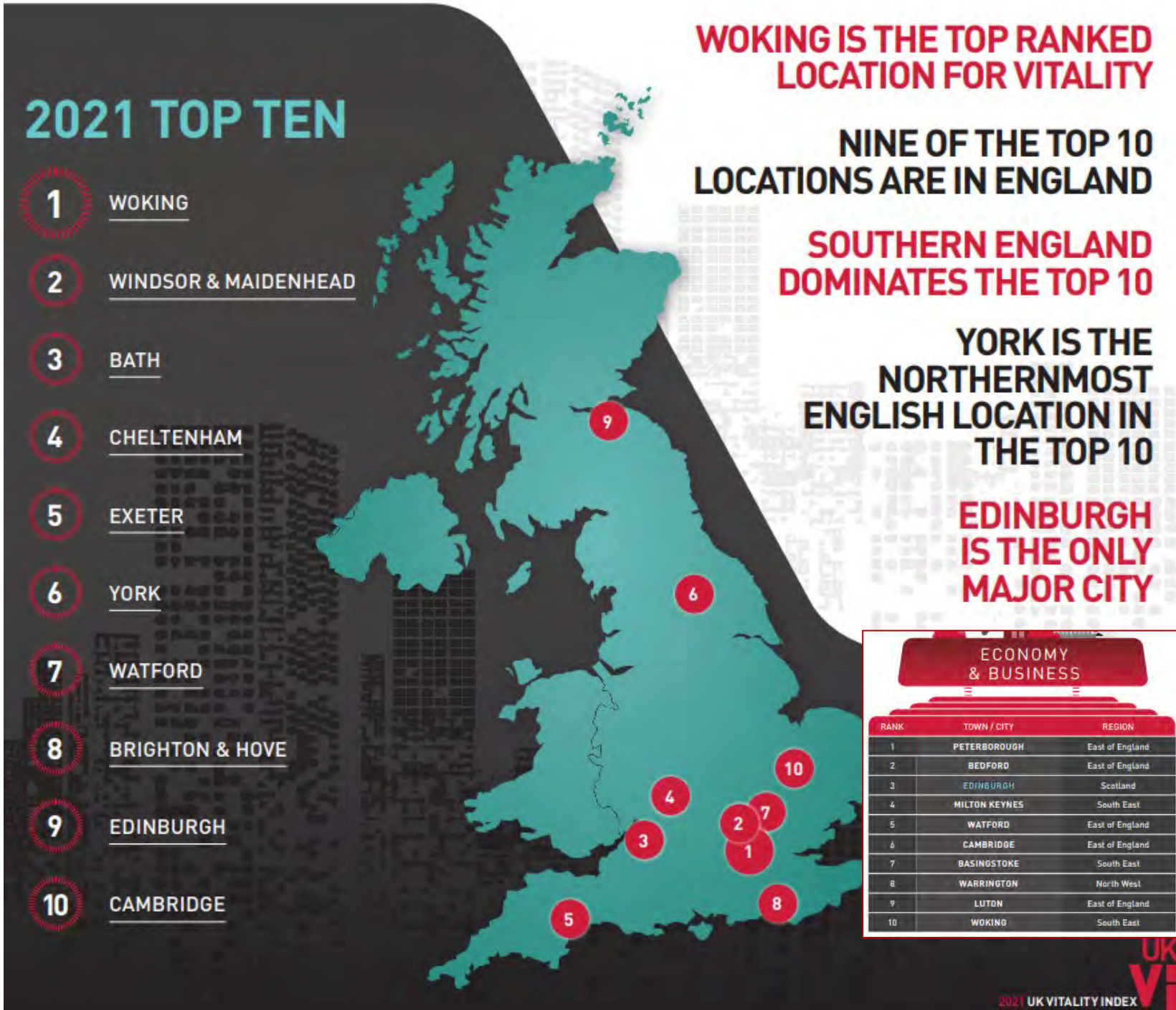
One of the lower falls in GVA

Economic Outlook

Covid-19

LSH Vitality Index 2021

- The largest and only location outside England to feature in the main index Top 10 was Edinburgh. A third place ranking on the Economy & Business pillar cemented Edinburgh's Top 10 spot, with top scoring for wage growth, professional jobs growth, new enterprises, GVA per capita and investment in commercial property.

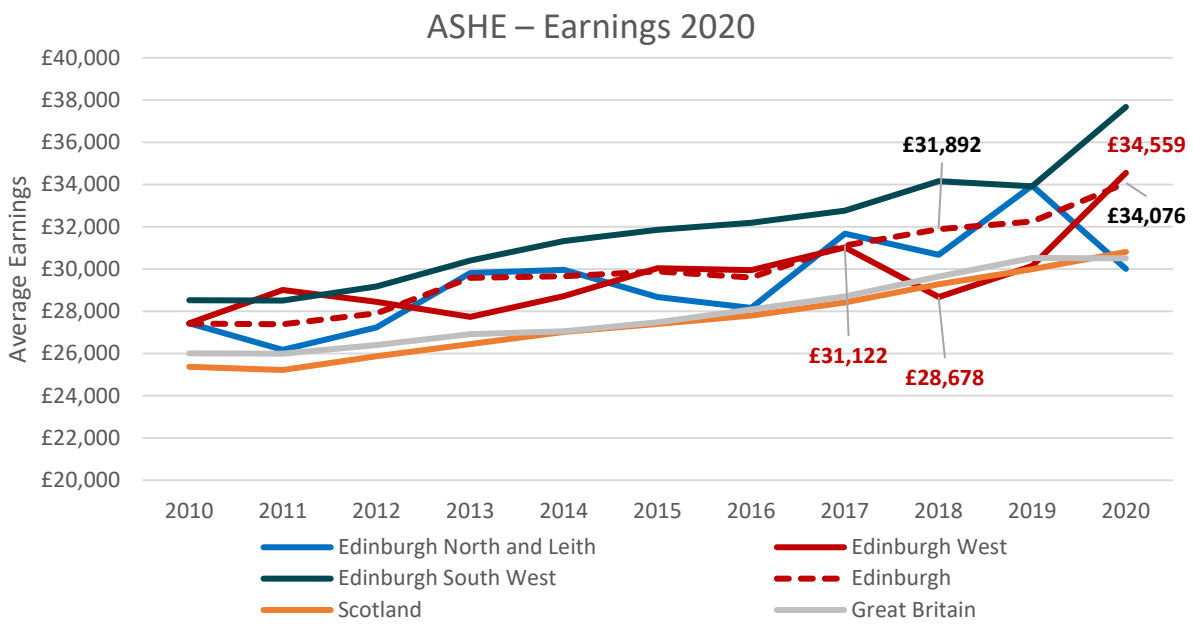


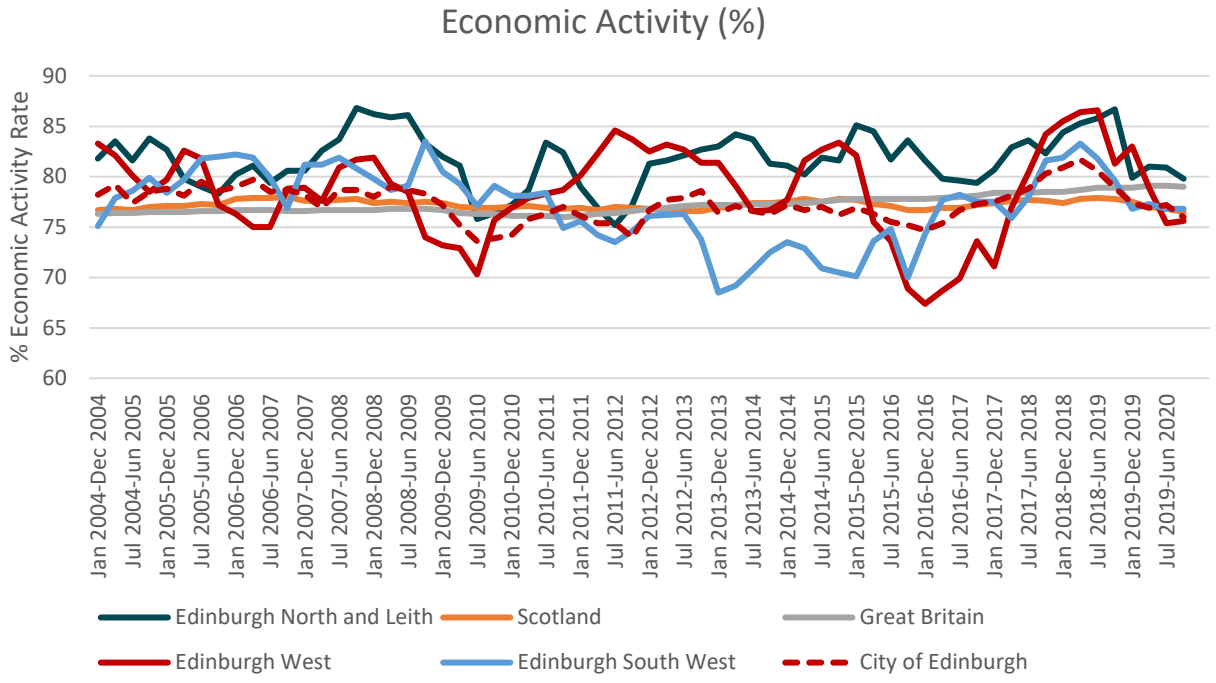
Economic Outlook

Covid-19

West Edinburgh has seen rising earnings in recent years

- The average earnings in Edinburgh West in 2020 was £34,599, around +1.4% above the city average as a whole.
- The average earnings in Edinburgh West has been risen by around 11% since 2017.
- Economic activity rates in Edinburgh West have fluctuated in recent years. More recently, rates have been below other regions in the city having been higher previously.

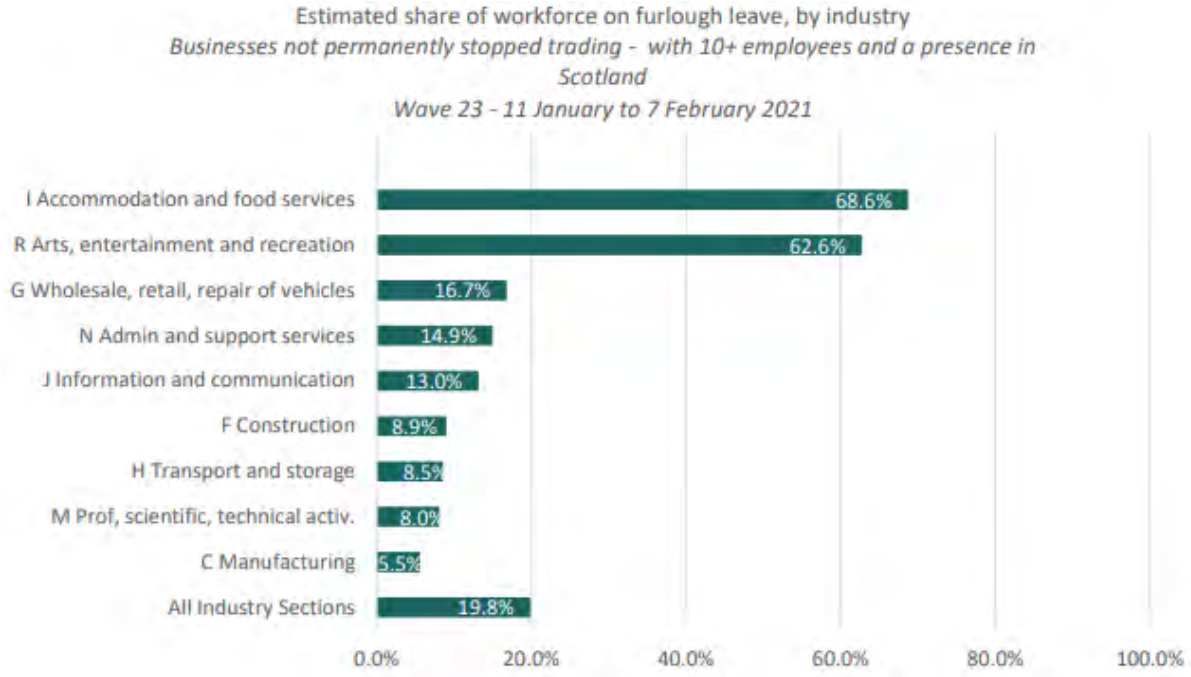


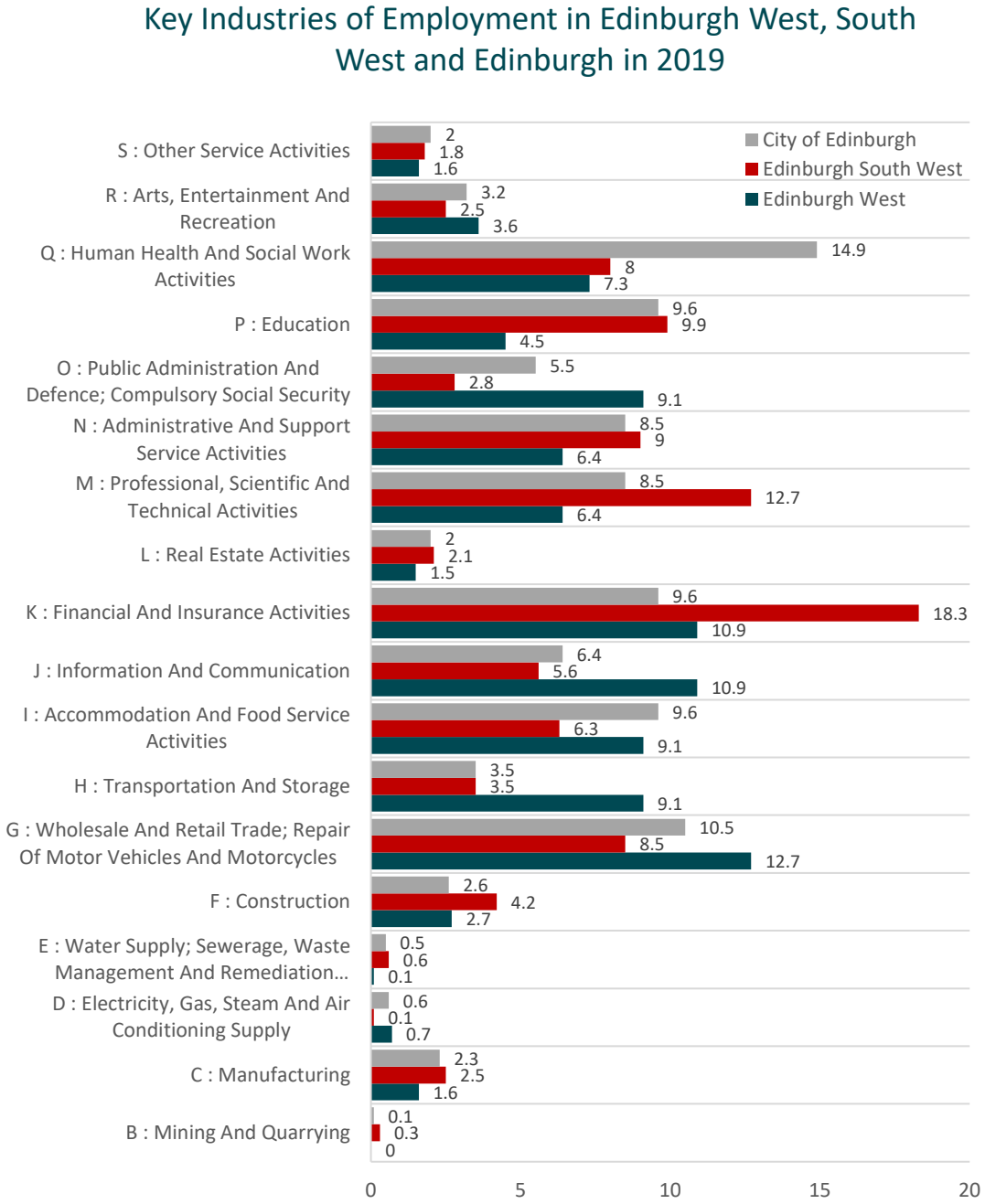


Economic Outlook

Covid-19

Impact of furlough in Scotland and Edinburgh West





Vision of development

Mixed Use, Residential Led, Multi Tenure

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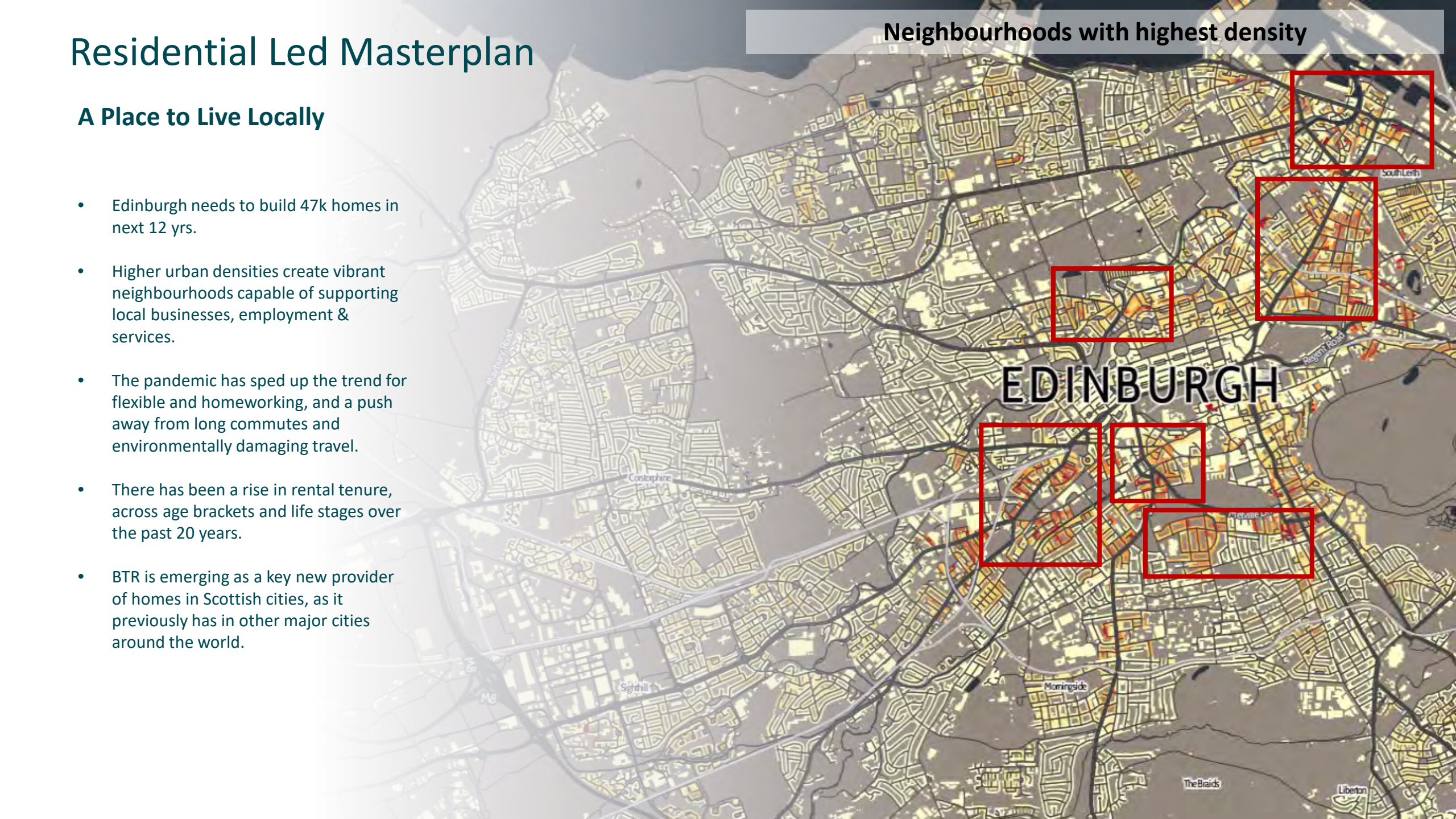
Residential Led Masterplan

A Place to Live Locally

- Edinburgh needs to build 47k homes in next 12 yrs.
- Higher urban densities create vibrant neighbourhoods capable of supporting local businesses, employment & services.
- The pandemic has sped up the trend for flexible and homeworking, and a push away from long commutes and environmentally damaging travel.
- There has been a rise in rental tenure, across age brackets and life stages over the past 20 years.
- BTR is emerging as a key new provider of homes in Scottish cities, as it previously has in other major cities around the world.



20 Minute Neighbourhoods

Requirements of 20 Min Neighbourhood

1. A sufficient population.
2. Local shops and services within walking distance.
3. Access to public transport links.

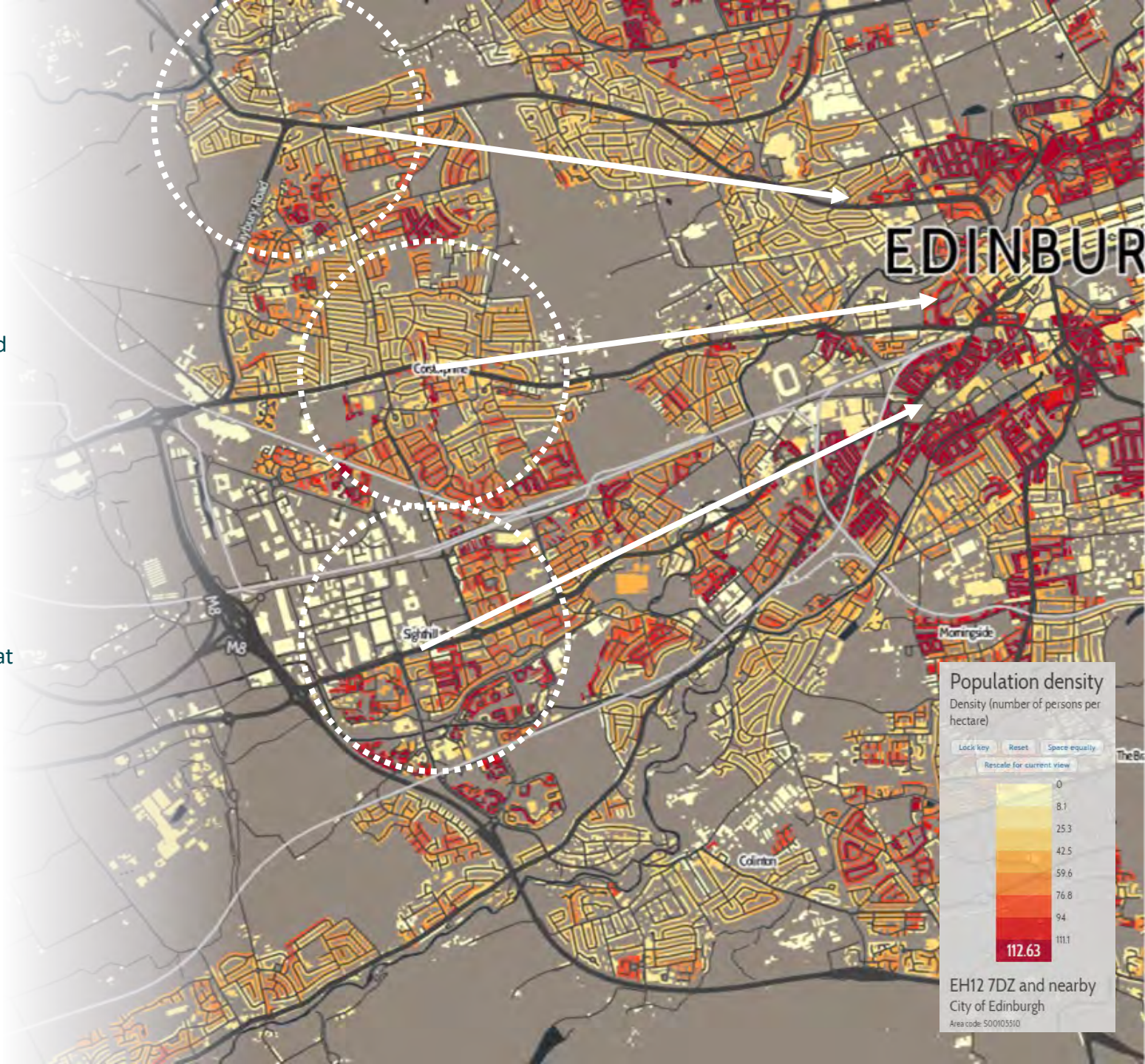
Using a 1km 10 minute walking radius, neighbourhoods are outlined from retail / services centres in the likes of Barnton, Corstorphine, Sighthill etc.

Neighbourhoods with retail and services centred are surrounded by areas of higher density living and are located on main arterial transport routes. These characteristics provide the conditions for success for a 20 minute neighbourhood.

The pandemic has increased the appeal of
20 Minute Neighbourhood Principles. This approach prioritises the following at human scale, emphasising the quality and efficiency that is gained through the removal of commuting and centralisation.

1. Ecology
2. Proximity
3. Solidarity
4. Participation

- Rhythm & space - prioritising people not cars.
- Each sqm should serve different principles.
- Neighbourhoods should allow people to live, work, access services and participate in community.



Edinburgh Park

A New District Vision

Edinburgh Park Mixed Use Model

- Sustainable Housing
- Mixed Tenure
- Energy Efficient Homes
- Office Space
- Recreational Space
- Medical & Leisure Facilities
- Active Travel Routes & Connectivity

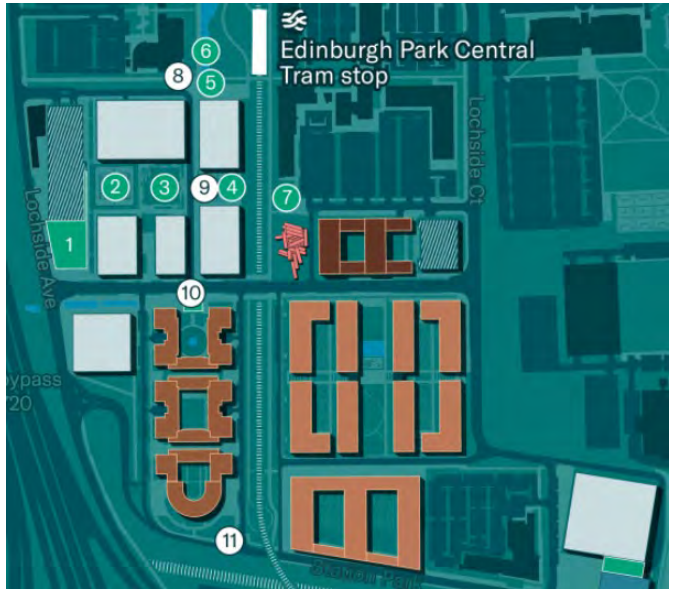
Houses should accommodate living, homeworking/study and play.

Key Elements

- Up to 1,000,000 sq ft of commercial space
- Civic square at its heart and adjacent landscaped parkland
- Recreational area for sports
- Medical facility and leisure suite for pilates, yoga and fitness
- Up to 1,800 homes, including for sale, rent and affordable
- Amenities to include a 200-seat conference facility, café, bar and restaurant.

Key Challenges

- Placemaking costs
- Financial Vvability
- Balancing costs vs aspiration
- Establishing price and market demand



Amenities:

1. Lido swimming pool and gym
2. Multi-court recreation area
3. Landscaped square
4. New Park Square (cafe, bar, and restaurant)
5. Water cascade
6. Loch Ross
7. Marketing and event space, 'Mach1' by artist David Mach

Art trail:

8. 'The Vulcan' — Sir Eduardo Paolozzi
9. 'Dancer after Degas II' — William Tucker
10. 'Past, Present and Future' — Geoffrey Clarke
11. 'Reach for the Stars' — Kenneth Armitage

Key Sectors

Development & Regeneration Outlook

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Key Sectors Outlook

Residential Investment

"Because of its ... strong long-term fundamentals, we expect residential investment to break records almost every year of our forecast period to 2025."

Built to Rent

The Scottish Pipeline continues to grow despite the pandemic

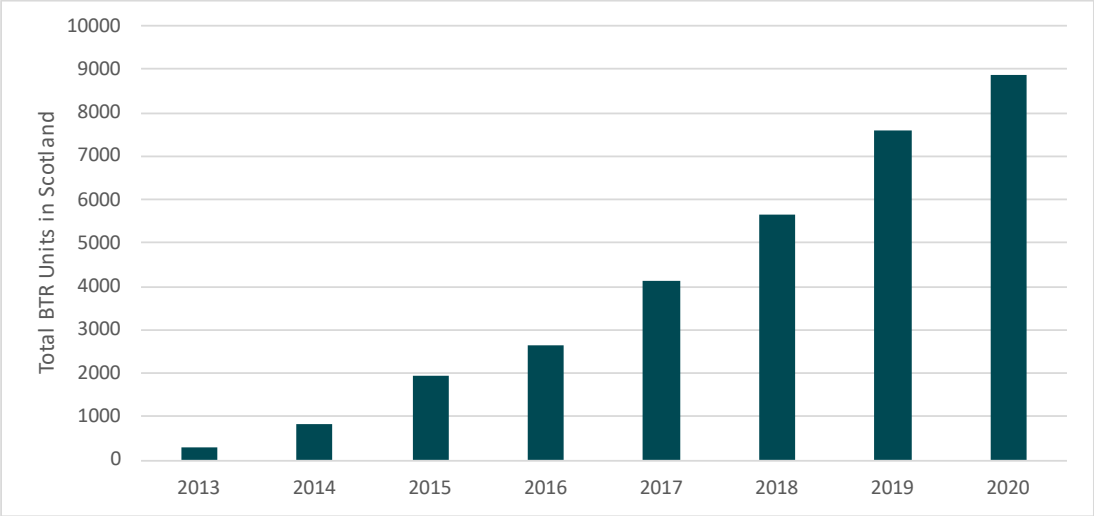
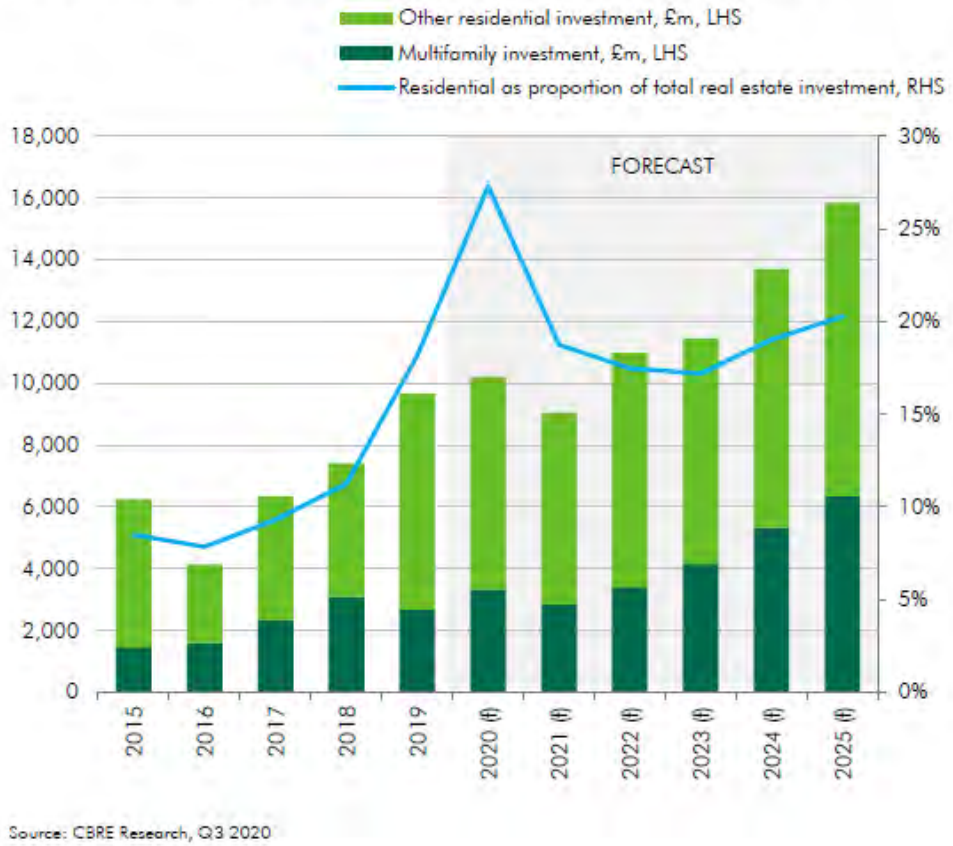


FIGURE 10: UK RESIDENTIAL INVESTMENT, 2015 – 2025(F)



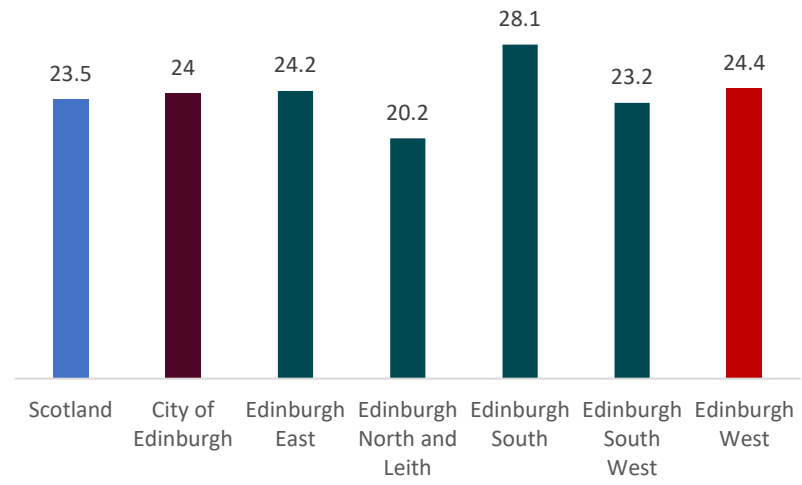
Source: CBRE Research, Q3 2020

Employment

Providing Work and Opportunity

- West Edinburgh is a regional employment hub at Edinburgh Park, The Gyle, RBS, Hermiston Gait and the Airport.
- Development of new, flexible workspace is a critical issue for the city. This is particularly the case for emerging growth companies in new sectors whose needs do not fit easily into traditional property models.
- Edinburgh is home to an estimated 32,000 non-UK EU national residents, more than any other city in Scotland.
- Some 5% of all jobs in the city are filled by workers from EU countries, with this ratio much higher in many of the city's key sectors and institutions across Tourism, Hospitality, Health and Social Care, Higher Education, and Financial Services.
- According to some studies, up to 47% of all jobs in developed economies are vulnerable to new technologies over the next 20 years.

Regional Employment Hub



Regional Regeneration

Extending Edinburgh Dynamic Economy to the West

Edinburgh's Economic Strategy focuses on the priorities of Inclusion, Innovation & Collaboration.

- Edinburgh has a strong base of already-digital and data-ready businesses, including 2 'unicorns'; employs 21,335 Digital Technology jobs in the city; and accounts for 25% of all business R&D spend made in Scotland.
- 3,000 businesses start up in Edinburgh every year, a rate per capita higher than any other area in Scotland.
- Edinburgh attracted 39 major known Foreign Direct investment projects in 2017, accounting for around one-third of the FDI projects in Scotland.

Other city strategies, plans, and programmes with key actions critical to enabling good growth

Edinburgh and South East Scotland City Region Deal	Edinburgh Partnership	Spatial and Placemaking strategies	Key Agency Business Plans
£1.1bn programme of region-wide investment in innovation, skills, culture, housing and transport.	Community Plan Strategic Partnership Plans Locality Improvement Plans	Strategic Development Plan Local Development Plan City Housing Strategy Local Transport Strategy	City of Edinburgh Council Business Plan Scottish Enterprise, SDS, and other agency plans

Innovation & Employment

Edinburgh, Innovation & Technology

- In their Active Capital Report 2020, Knight Frank reported the Scottish capital placed behind only the 'golden triangle' of research university cities – London, Cambridge, and Oxford – in the UK and, globally, positioned ahead of the likes of Amsterdam, Brussels, and Oslo.
- With 161 research institutions – third in the UK behind London and Cambridge – Edinburgh was found to be a hub of research and development activity. The city was also buoyed by an active tech community, with only Cambridge having more tech meet-ups per 100,000 population.
- Edinburgh employs more than 48,000 people in the digital tech sector, who make an average salary of £42,500 - almost 15% higher than the overall average salary in the city. 4% of Edinburgh's working population are active in digital technology, which is only slightly lower than London's 6%.
- Edinburgh has been strong location for start-up relocation due to quality of life, driving demand for space in the city from across the UK and overseas.
- A report from leading global developer community, Stack Overflow, found that Edinburgh's developer population grew by 8% in the second half of 2017, bringing the developer population to nearly 20,000 – or seven developers per 100 people in the labour force.
- The number of crucial data scientists working in the city also grew, by 19% over the same period, according to the report, which is a sign that Scottish Government-backed institutions, such as The Data Lab, are succeeding in improving the data science sector. Edinburgh was identified in the top five of the UK's most active tech and data innovation cities.

Edinburgh is ranked as the 3rd research hub in the United Kingdom behind London and Cambridge

According to Tech Nation's 2018 Report, digital jobs in Edinburgh increased over three times the UK average between 2014 and 2017.

Tech Sector: Skyscanner, Ice Robotics, Rockstar North, Fanduel, Agenor Technology, Zonefox, Craneware, Zonal, FreeAgent, Petroleum Experts. CodeBase, the UK's largest technology incubator

Multiple blue chip international technology companies have a base in Edinburgh, including Microsoft, Apple, IBM, Fujitsu, Adobe, and Smartsheet. The Amazon Development Centre Scotland in Edinburgh is one of Amazon's flagship research facilities. The city is also home to the technology operations of companies including Tesco Bank, Canon Medical, Deliveroo, TSB, Natwest Group, Computershare, Lloyds Banking Group, and Deloitte.

Sector Outlook

Post Covid Outlook

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Key Sectors Outlook

Investment

Changes to society have highlighted the need to adapt and property is again at the forefront of this change. In addition to the established Purpose Built Student Accommodation (PBSA) sub sector and the fast emerging Build to Rent (BTR) sector, COVID-19 has brought Care, Health, Medical Sciences and Technology to the fore. The shift of activity and investor interest is set to escalate.

By year end, investment volumes of c.£1 billion represented a fall of 50% compared to 2019, but this masks a significant rise in trading volumes in Q4. Once again, overseas and private equity investors were dominant in the buying arena when large, prime assets came to the market.

(Rydens, 2021 Review)

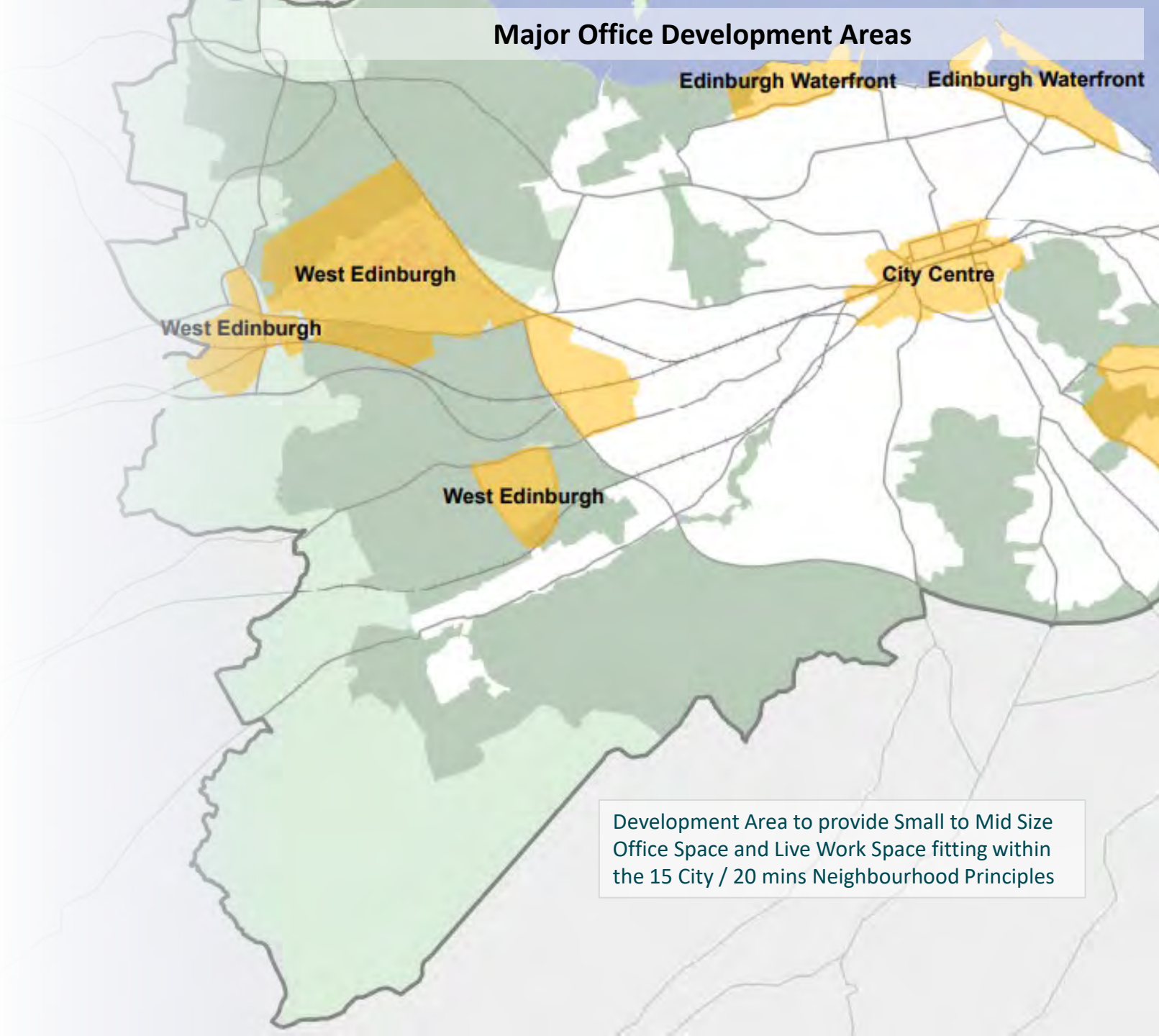
Office

- The current city development pipeline will deliver much needed Grade A supply through 2020–22.
- During the first half of 2020, Scotland saw total commercial investment volumes of £331 million, reflecting a 73% decrease from the same period the previous year and a 59% decrease on the H1 10-year average. The majority of office investment occurred within Edinburgh (75%),
- Most occupiers are still reviewing the effects of COVID-19, however, some have already reduced their density of occupation and footprint, embracing a more agile style of working.
- ‘Grey’ space release within city centre buildings is expected and in West Edinburgh has already started with 60,000 sqft released by Sainsbury’s Bank at Edinburgh Park.
- There is confidence that once post covid certainty is restored to the market, occupier activity in Edinburgh will return to normal levels.
- Demand is expected to move towards quality accommodation.

Commercial

A Place to Work Locally

- The current city development pipeline will deliver much needed Grade A supply through 2020–22.
- Most occupiers are still reviewing the effects of COVID-19, however, some have already reduced their density of occupation and footprint.
- Key drivers affecting future demand:
    - Quality / high tech / flexible space
    - Trends likely to see lower density and flexible leases
    - ‘Hotelization’ of office space continuing with home comforts and relaxed dress codes
    - Co-working space
    - Impact for ongoing demand for existing office space – alternative use?
    - Suburban campus appeal?



Key Sectors Outlook

Industrial

- Take up of industrial property in Edinburgh and East Central Scotland has been gradually reducing over the past few years. This is largely due to diminishing supply, which is not being replenished, rather than lack of demand.
- In Edinburgh, there is now a significantly reduced industrial supply due to the increased demand from developers seeking higher value uses, particularly to meet the city's growing residential market.
- The popularity of single-let distribution sheds increased significantly during the year as logistics operators benefited from lockdown retailing restrictions. Several properties transacted round the Central Scotland motorway network. South Korea's KB Securities acquisition of Amazon's Scottish Fulfilment Centre in Dunfermline was the standout deal at a price of £65 million, reflecting a yield of 4.8%.
- Market commentators point towards a shortage from 20,000 sqft upwards and the market is seeing rental growth within existing stock.

LOGISTICS

The already-surging UK logistics sector will be given a 'second wind' by the pandemic's permanent effect on online retail. With strong demand and weaker supply, rents will rise further, especially for well-located property in peri-urban areas. Yields are expected to fall even further as less specialised investors find ways to access the market, including through M&A and joint ventures.

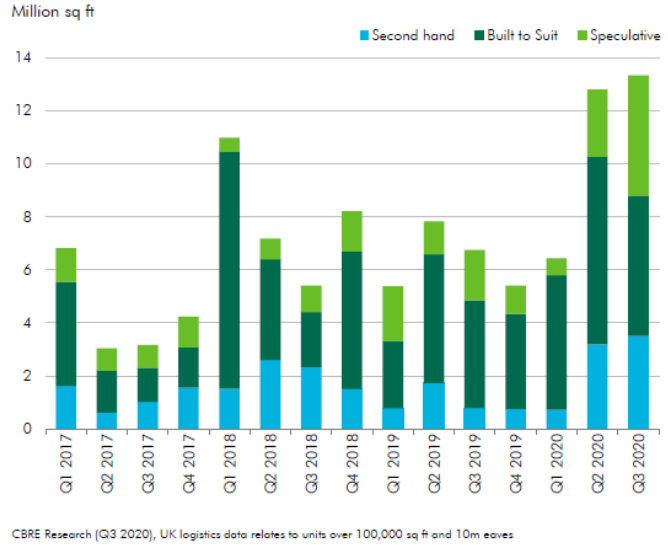
INTENSIFIED DEMAND DRIVERS ARE NOT FADING

The pandemic has evidenced the elemental role of the logistics sector to keep food and goods moving. We expect 2021 to bring further focus on building more resilient supply chains, increasing safety stocks and diversifying suppliers to prevent future disruptions. This restructure of logistics networks will require additional warehousing space in the UK.

These pressures will be overlaid on expanding demand from online retailers who are benefiting from the lasting effects of COVID-19 in consumer behaviour. Retailers wanting to preserve market share will need to continue to secure warehouse space to expand their online channels.

(Source: LSH)

FIGURE 07: UK LOGISTICS QUARTERLY TAKE-UP



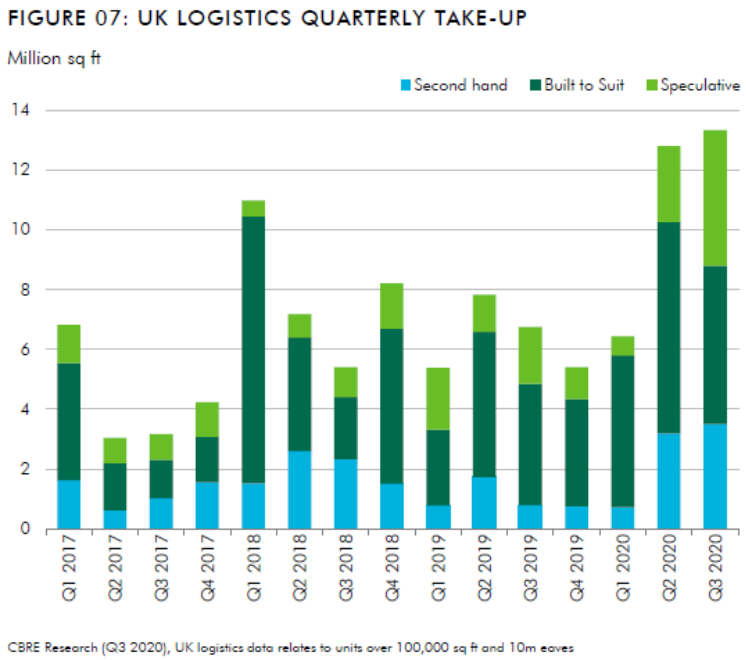
CBRE Research (Q3 2020), UK logistics data relates to units over 100,000 sq ft and 10m eaves

(Source: CBRE)

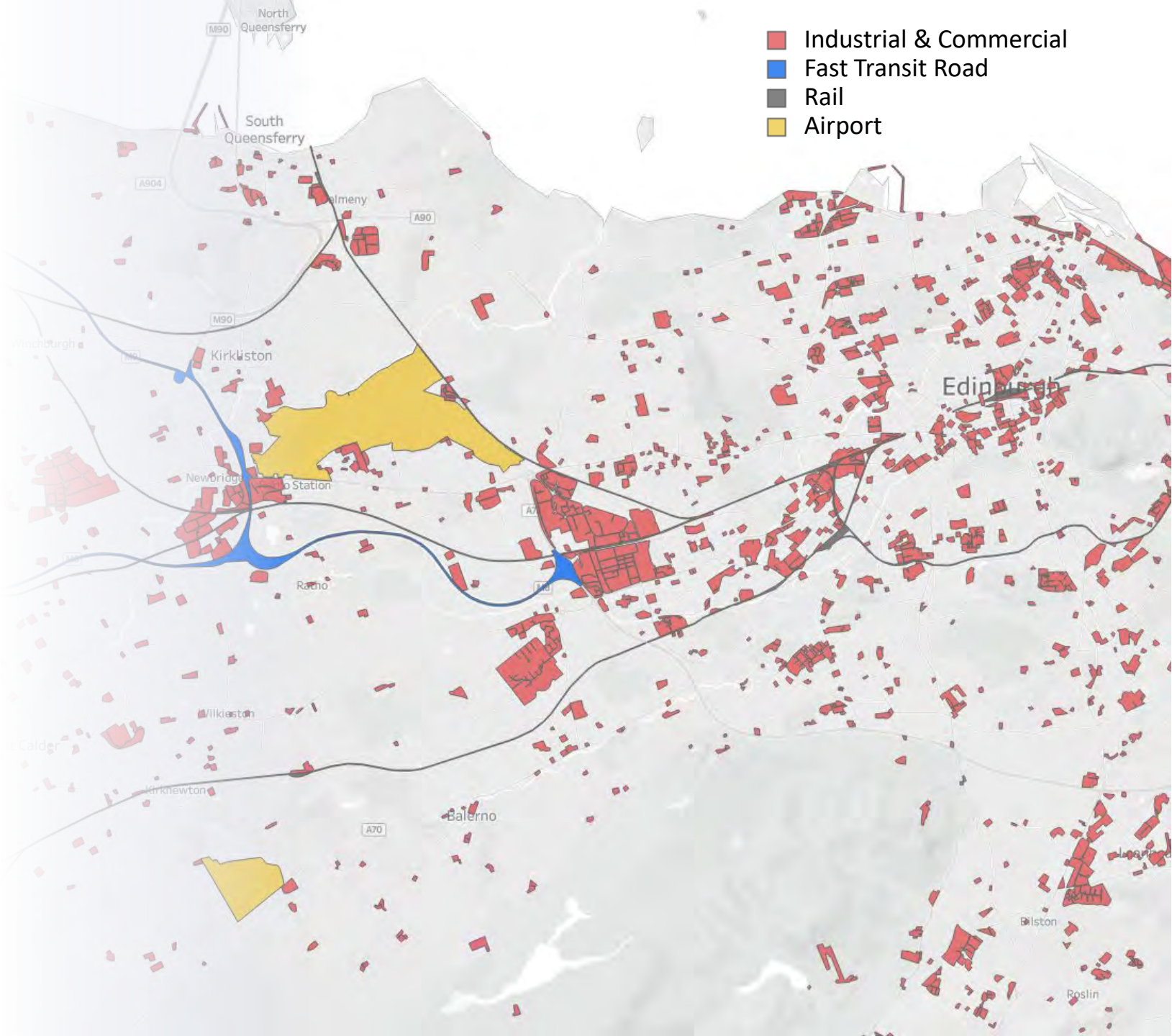
Industrial Space

The Infrastructure for the City

- West Edinburgh is a major transport hub with freight and commercial connectivity via air, road & rail.
- The rise of online commerce has seen rising demand for industrial space related to Logistics & Distribution.



CBRE Research (Q3 2020), UK logistics data relates to units over 100,000 sq ft and 10m eaves



Key Sectors Outlook

Retail

- The retail and leisure sector has been the most volatile part of the market over the past 12 months, as it was particularly affected by the pandemic's restrictions for all but essential retailers.

- Looking forward, the market will remain volatile but there will be value to be found within the sector. Pricing has already moved out, especially on the High Street, and canny investors should pick up some bargains in the coming months.

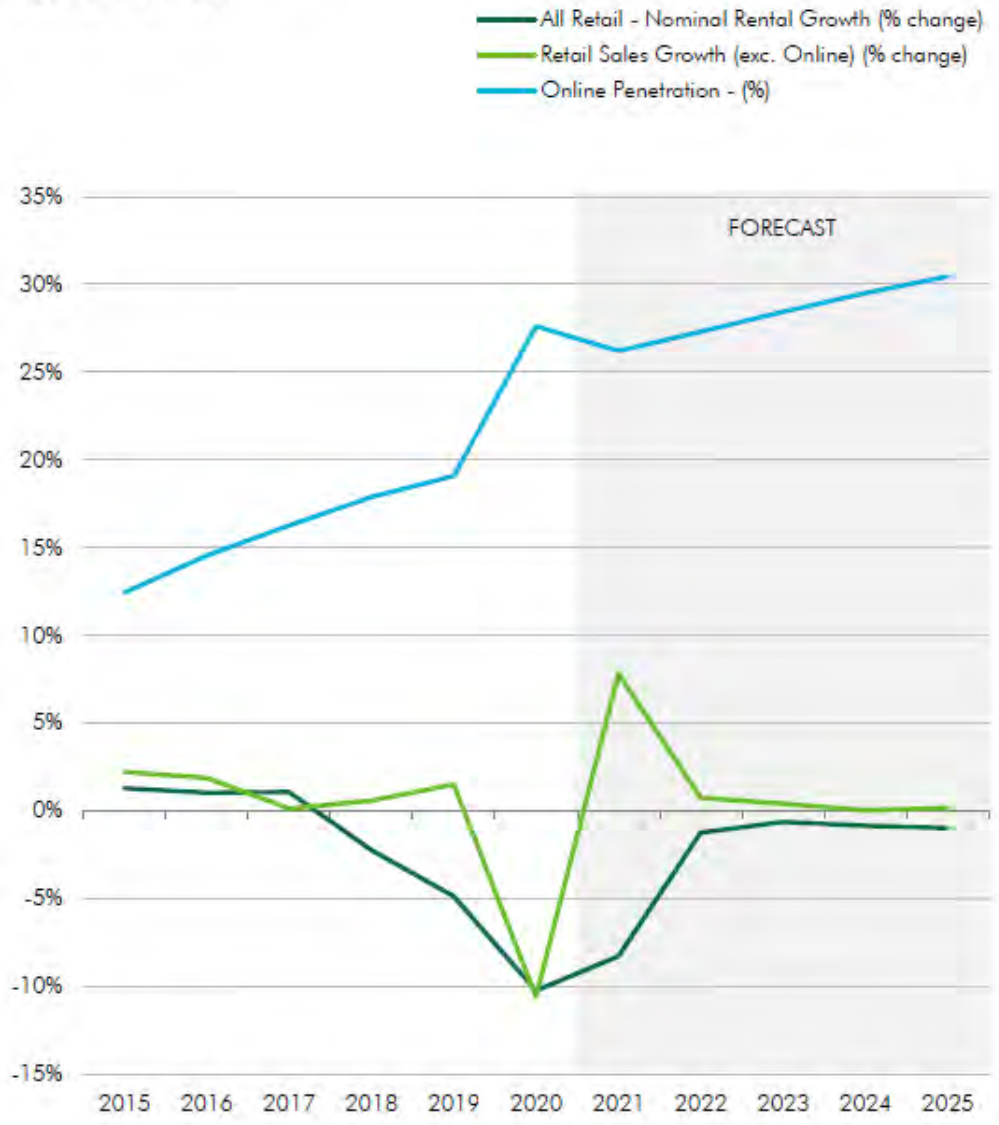
(Source: Rydens)

A STEP CHANGE IN ONLINE RETAIL – SUSTAINED PERMANENTLY

The rise in online penetration levels, driven by the UK-wide lockdown, will continue throughout 2021, as retailers continue to invest in their online platforms and move a larger proportion of their sales online. CBRE forecasts that online penetration will reach 26% in 2021 and 30% in 2025.

This one-off step change disguises further change within retail sub-sectors. Online penetration levels for all food retail doubled to around 10% as a result of the pandemic, whereas all non-food retail increased from 22.7% before the March lockdown to around 40% during the lockdown, settling at around 25% once non-essential retail stores reopened (ONS, Nov 2020).

FIGURE 05: UK RETAIL SALES GROWTH, NOMINAL RENTAL GROWTH AND ONLINE PENETRATION (%) 2021 – 2025)



Source: CBRE Research, MSCI, Q3 2020

Key Sectors Outlook

Hotel

- Accountancy firm PricewaterhouseCoopers' UK hotels forecast report predicts an occupancy rate of 55% across the UK in 2021. This would be an improvement on 42.2% for the year to July 2020. PwC flagged the situation faced by the hotel sector as the "bleakest" since benchmarking began in the 1970s. Its report concludes that it could take four years for occupancy to return to pre-pandemic levels.

- Edinburgh suffered the sharpest fall in revenue per available room of any of the 24 UK cities covered by the PwC survey, as the pandemic hammered international travel. Hotels in the Scottish capital are heavily reliant on international tourists. And Edinburgh's traditional summer festivals were cancelled this year amid the coronavirus crisis.

- Revpar is a key industry measure, calculated by multiplying occupancy by the average daily room rate achieved. Revpar in Edinburgh fell by 63% in the year to July to £28.32, from £77.37, as occupancy nearly halved to 40.3% from 79.8%. However, although the average cost of an overnight stay in Edinburgh fell to £70.36 during the period – a reduction of around one-third – the Scottish capital remained the third most expensive city in the UK in which to spend the night, behind London and Brighton, as room prices fell across the country.

- The outlook over the next four years is bleak. This is a stark reality for a once optimistic industry, which had seen a decade of growth post the global financial crisis.

- Business travel will remain muted. Key gateway cities relying heavily on international leisure, or corporate and events driven demand, including London and Edinburgh, are forecast to experience lower occupancy rates in 2021 compared to coastal and country locations.

(Source: PwC)

Key Areas

Assets & Challenges

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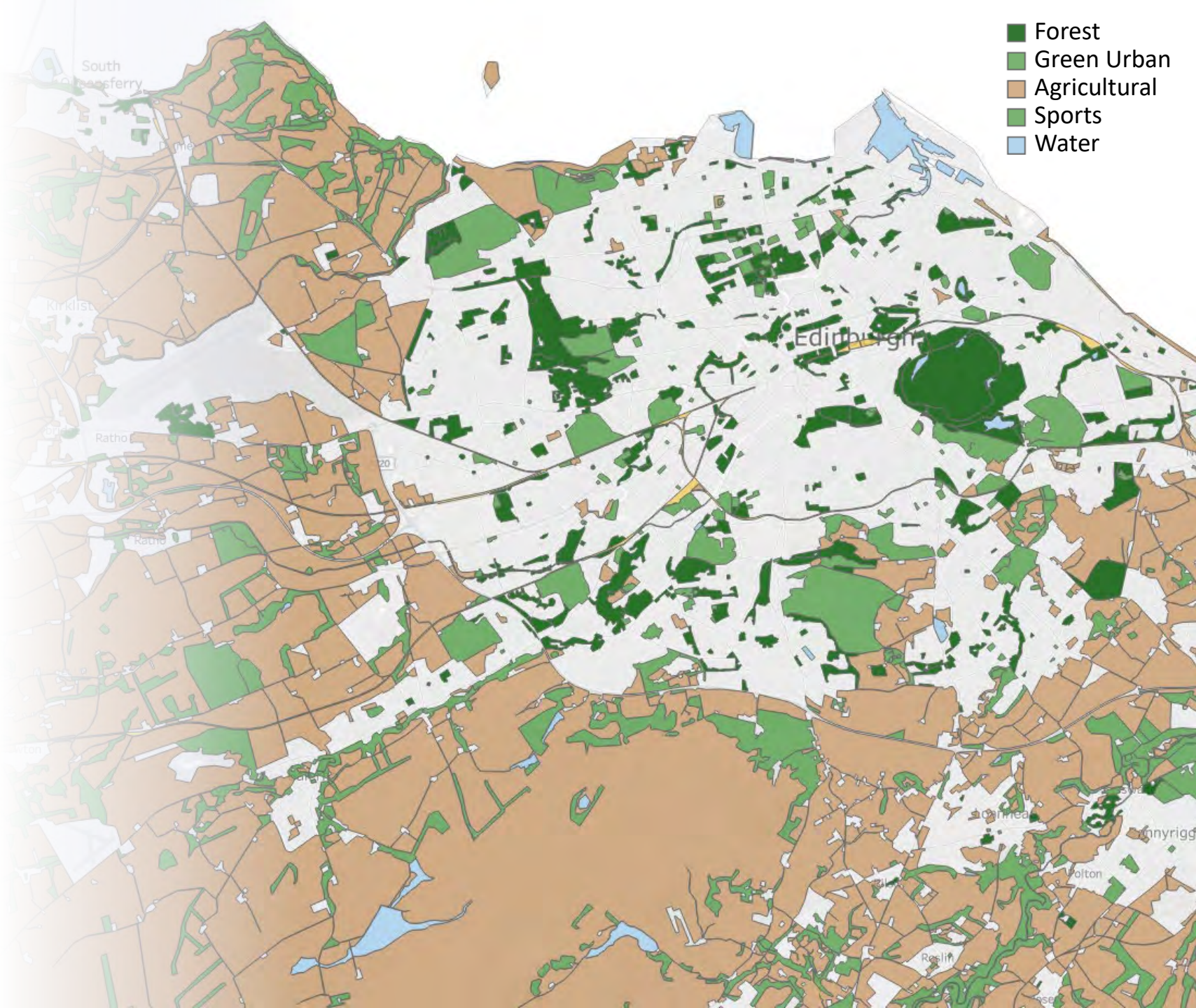
Natural Infrastructure

Blue Green Resources

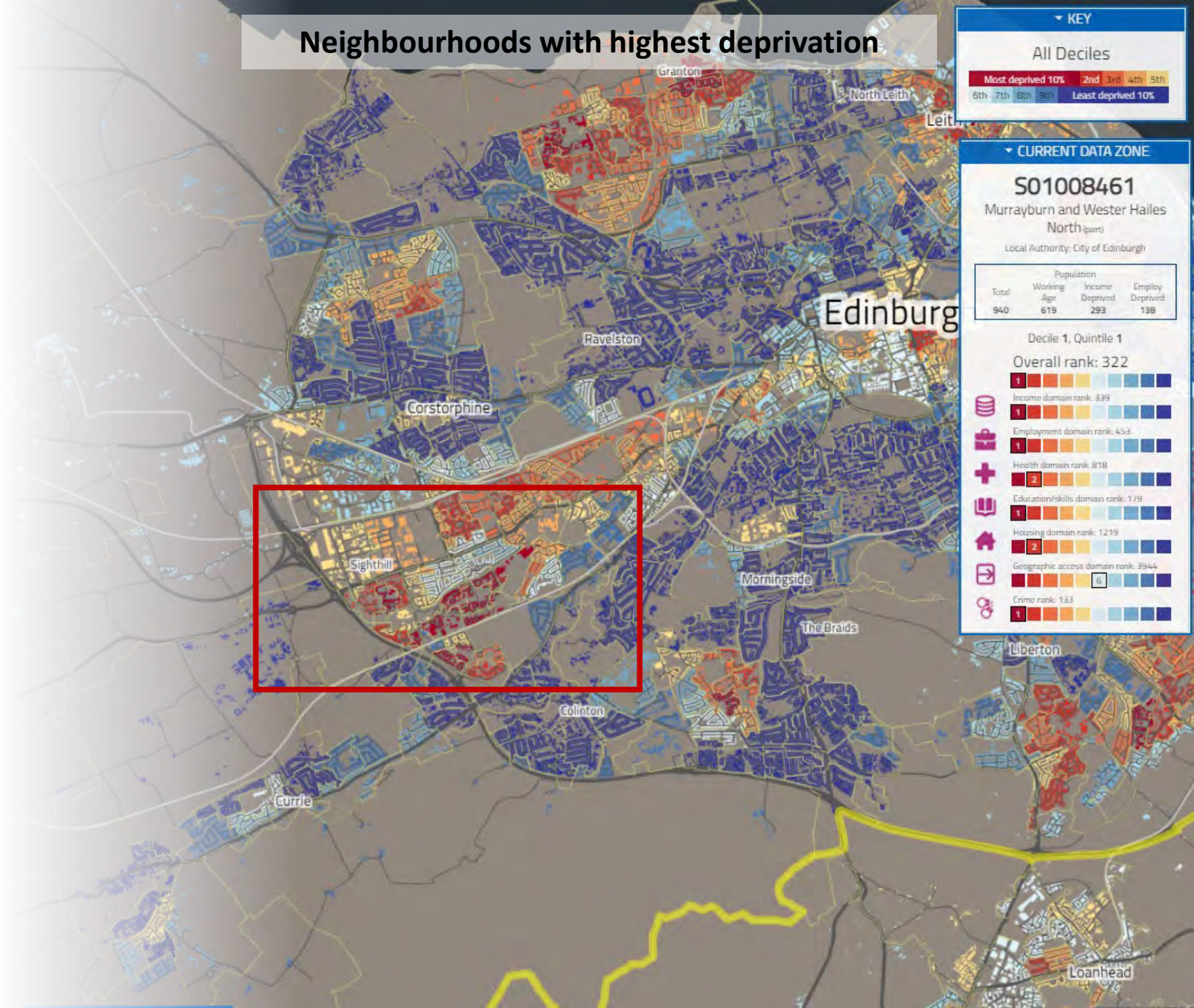
- 2030 Net Zero Carbon Target.
- West Edinburgh has extensive blue green resources.
- Development should protect while enhancing the productivity of the natural resources of the region.
- Agricultural land should be maximised to be productive.
- The region should use its natural resources to maximise the areas potential for tourism & leisure.



A Social Place

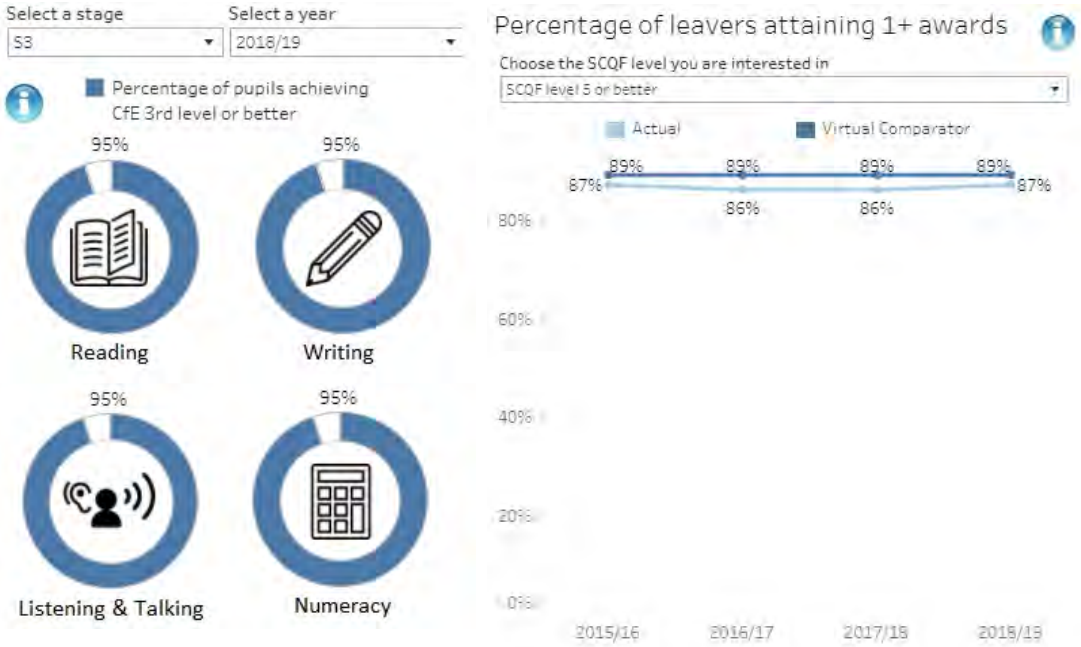
Developing Communities

- Parts of West Edinburgh are very deprived in a national context.
- This is particularly the case on income, employment, education and crime domains.
- Tacking the most acute deprivation means improving links to employment and learning.
- West Edinburgh has major employers as well as education facilities. Improving the connectivity and access to these opportunities is key to any development strategy based on inclusive growth.
- Development can only be part of the response. Community engagement vital.

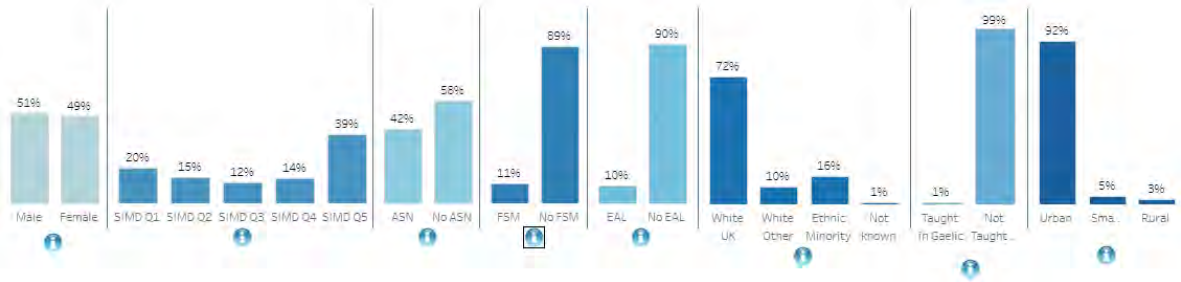


Access to Education

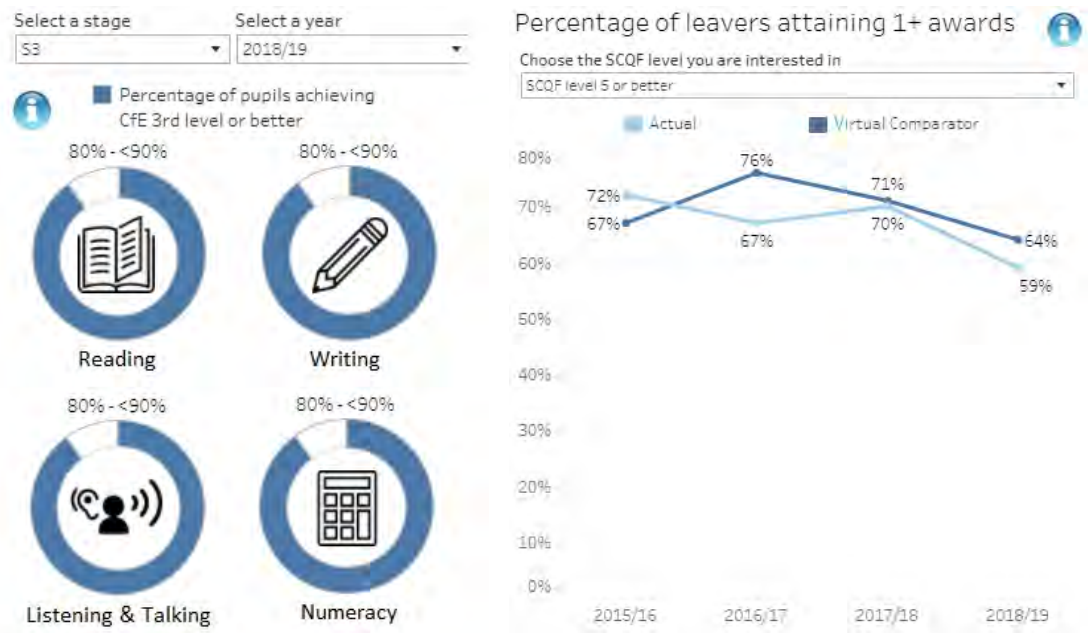
Edinburgh Average



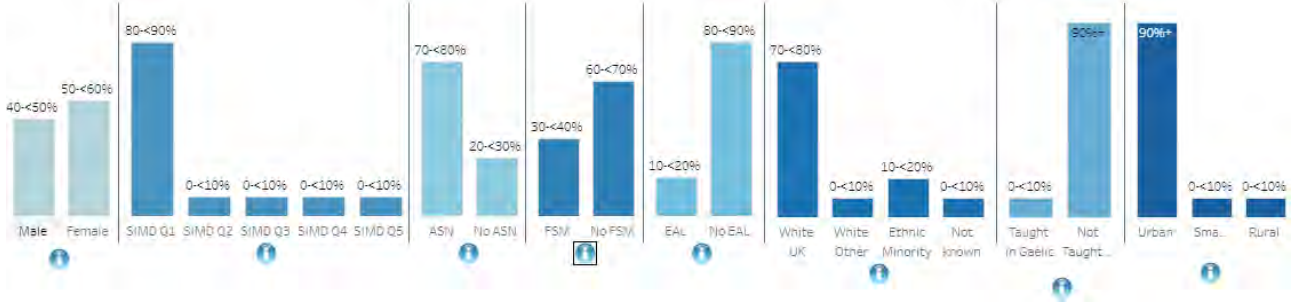
Pupil Characteristics



Wester Hailes Education Centre



Pupil Characteristics



Case Studies Summary

European Regional Growth

- VISION 2030 ALMERE, NETHERLANDS
- KALASATAMA, HELSINKI, FINLAND
- NORDHAVN, COPENHAGEN, DENMARK
- VAUBAN, FREIBURG, GERMANY
- EMSCHER – RUHR VALLEY

RETTIE

Case Study – Planned Expansion

VISION 2030 ALMERE, NETHERLANDS

Key Facts

- Almere was a planned city from the 1970s
- Netherlands 4th largest city
- Vision 2030 sets out plan for next phase of growth
- Poly-nuclear concept
- Population of 200,000 and 14,500 businesses

Principles, Vision & Timeline

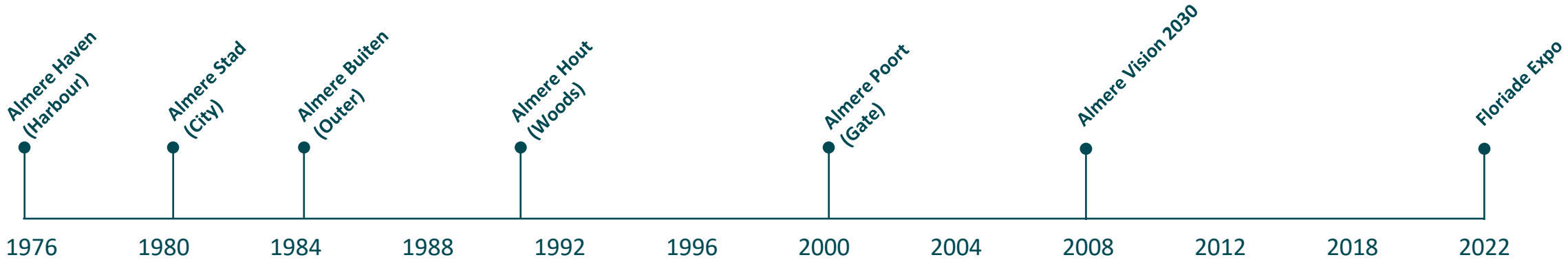
- Plan to expand to population 350,000
- New Vision to 2030 outlined in 2008

1. Cultivate Diversity - Diversity of ecological, social & economical systems.
2. Connect Place - Connect city to surrounding communities
3. Combine City & Nature - Lasting connection between urban & nature.

Conditions of Growth, Success & Challenges

- Strong emphasis on green and eco issues from the inception of the city.
- Focus on energy and infrastructure. Central sustainable water management systems, solar island, supply from wind farms, electric car use, efficient public transport, smart public lighting etc
- Space and flexibility for housing development, including flexibility in design. Including larger plots and self construction options. Sustainable and flexible planning.
- Polycentral urban design allowing for more flexible design and development.
- Experimental and innovative approach from city, open to new technologies and innovations relating to development, environment and socioeconomics.
- Focus on education and employment opportunities with school, college and university opportunities.

- Challenges with long distances between neighbourhoods, sustaining a reliance on car use which impact green ambitions.
- Some green blue spaces underused and there is no holistic policy for the city as a whole
- City planning focuses on individual spaces with unattractive public space and some facilities have restrictive access.
- High numbers of commuters with a lack of focus on economic sectors or innovation .
- Lack of identity of Almere where residents do not feel attached to the city.



Case Studies – Technology & Smart Cities

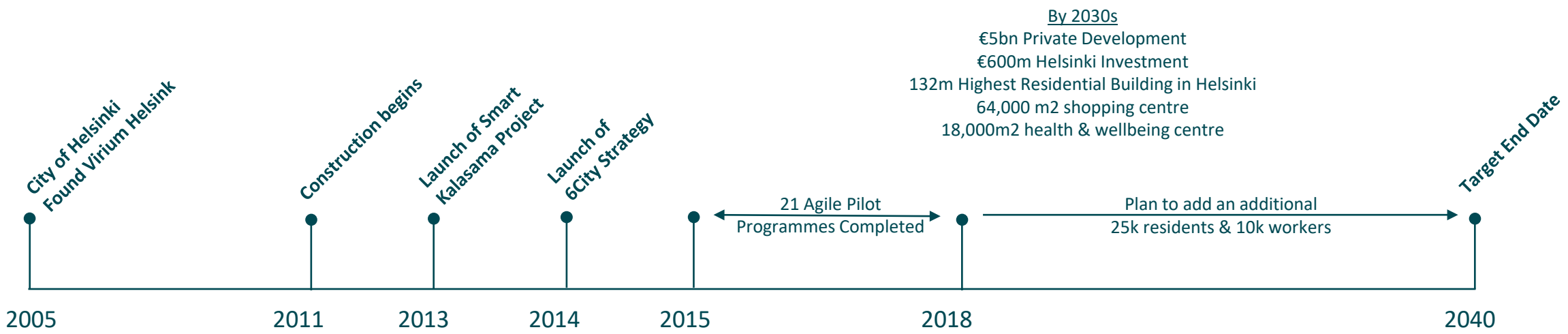
KALASATAMA, HELSINKI, FINLAND

Key Facts

- Finland, the third most innovative country globally as per the Bloomberg Innovation Index 2019, with Helsinki ranked behind New York and London for tech entrepreneurship (Citie 2015).
- Helskinki established an innovation unit Forum Virium Helsinki. A non-profit limited liability company fully owned by the City of Helsinki. Focus on smart mobility, robotics, artificial intelligence, data and the Internet of Things
- Smart Kalasatama (a former brownfield district near Helsinki inner city) is serving as an urban laboratory for innovation and services.

Principles, Vision & Timeline

- About 175 hectares are being re-developed comprising a total of 1.3 million sqm of homes, offices, and service areas. The process began in 2011 and will continue until 2040, when it is expected to have around 25,000 residents and 10,000 workers, up from 5,300 and 2,400 in 2019.
- Using technology to give a 25/7 city where residents gain time in a day.



Case Studies – Technology & Smart Cities

KALASATAMA, HELSINKI, FINLAND

Successes & Challenges

- Placing emphasis on technology and collaboration with local stakeholders, start-ups, SMEs, businesses, educational institutions, and community.
- Citizens are the priority with engagement key in the process.
- Concept of co-creation, open innovation, open data (making data from experiments, research, pilot projects for the strategy publicly available) is the background for the smart city strategy.
- Pilot system for new solutions from citizens.
- Open data initiatives allowing innovation. Urban laboratory, where ideas are tested quickly.
- Smart grid and power. First estates are already connected to the smart grid. Real-time smart monitoring, electric vehicle network and electricity storage.
- Challenges in managing large consortiums with Open Innovation process consisting of different stakeholders with own processes.

Case Studies – Sustainability

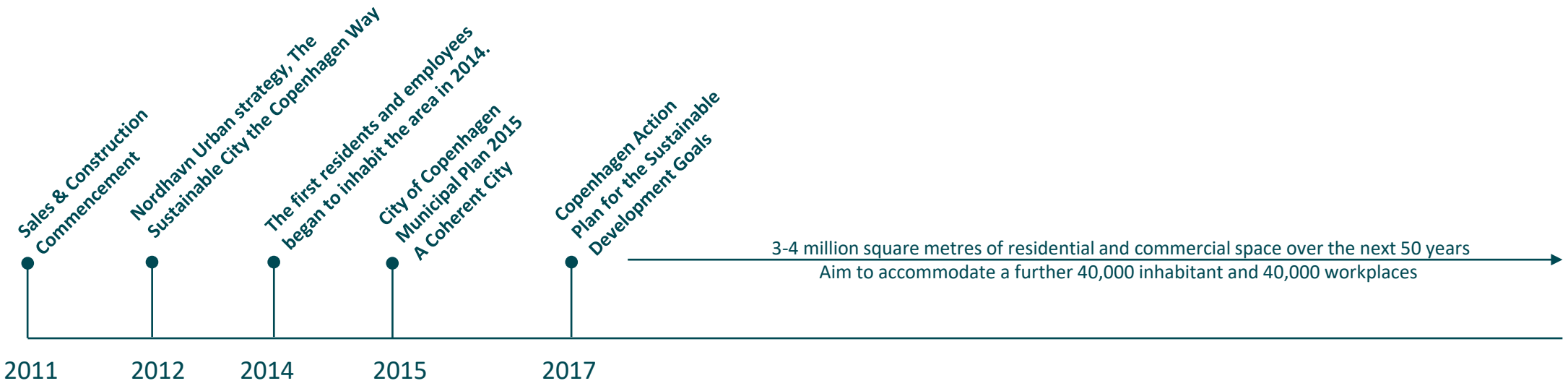
NORDHAVN, COPENHAGEN, DENMARK

Key Facts

- The City of Copenhagen has an ambition to become one of the most sustainable cities in the world (Københavns Kommune, 2017).
- Nordhavn is the only new urban district to receive DGNB's highest gold certification for sustainability and is planned to be carbon neutral.
- The area contains 165,000 m² of residential space and 140,000 m² of commercial space.

Principles, Vision & Timeline

- Gold status of the German Sustainable Building Council (DGNB) certification
- Test bed for urban green growth
- It is designed as a '5 minute city', making it possible to reach all amenities within 5 minutes walk.



Case Studies – Sustainability

NORDHAVN, COPENHAGEN, DENMARK

Successes & Challenges

- The master developer for the area is CPH City and Port, of which the City of Copenhagen owns

- CPH City and Port operates as a business and generates revenue from maritime activities in Nordhavnen and elsewhere in Copenhagen and from land sales. Sales and construction commenced in Nordhavnen in 2011.

- New local plans in other areas of Nordhavn offer options for residential and commercial buildings. In order to create more space for the development of Copenhagen, CPH City & Port Development is expanding Nordhavn on 100 hectares over the next 10 to 20 years.
- This project is being developed to, among other things, create space for a 1,100-metre long dock.

Principles.

- Variety of Urban Space: The plan is designed with a special focus on public spaces.
- Compact Development: Dense urban structure and contains relatively small plots.
- Vibrant Neighbourhoods: The development plan includes public access promenades.
- Different Sizes & Building Types: buildings are intended to appear as a complex, small-scale neighbourhood.
- Green, Efficient Public Transport: Train, bus and bike with green circuit. Efficient and environmentally friendly transport. Vehicle traffic is planned prioritizing vulnerable road users.

Case Studies - Sustainability

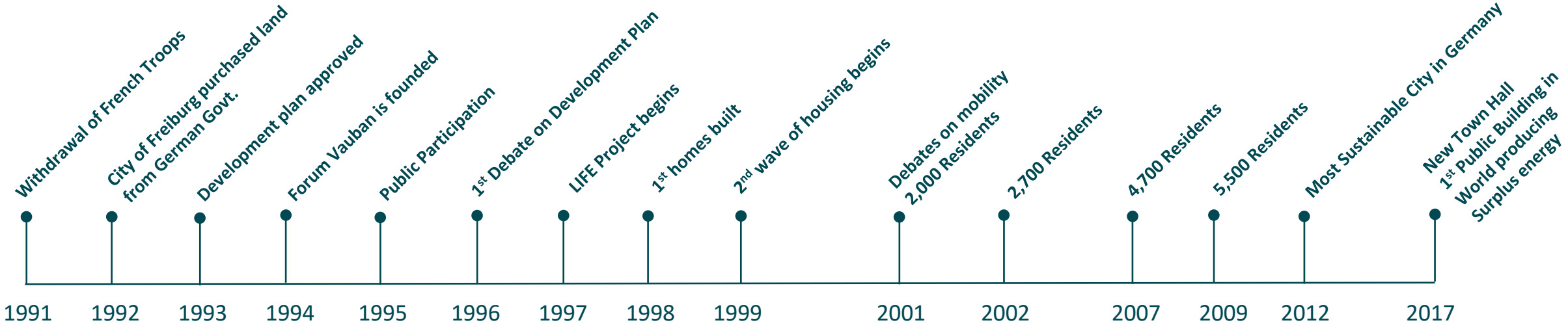
VAUBAN, FREIBURG, GERMANY

Key Facts

- City of Freiburg has a population of 250,000 and occupies 15,306 hectares of which 6,533 (43%) are forest.
- Vauban is a district within Freiburg that is a model for sustainable ecological collective planned development.
- The association/NGO 'Forum Vauban' was founded in 1994. In 1996, it was chosen as a best practices project at the UN Habitat Conference in Istanbul. Construction of this intentional community began in the mid-1990s and it opened in 2000.

Financing

- The initial budget allocation from the City of Freiburg amounted to U.S.$85m. The budget for cleaning and decontamination of the area and creating some of the facilities (including the primary school, the community centre, and some nurseries) came from the Redevelopment Fund of the Federal State of Baden-Württemberg (U.S.$5m) and loans granted to the city authorities. Many of these loans were repaid by selling land for homes (construction groups were eligible for grants and tax rebates from both the central government and the federal state government of Baden-Württemberg).
- The participation and community work process had the following budgetary support, reflecting the commitment from Government:
  - Government of Freiburg: U.S.$200,000
  - German Environment Foundation (Deutsche Bundesstiftung Umwelt, DBU): U.S.$200,000 (1996-2002)
  - European Union LIFE Programme: U.S.$700,000 (1997-1999)
  - Donations from partners: U.S.$10,000 a year



Case Studies

VAUBAN, FREIBURG, GERMANY

Sustainability Measures

- 57% of the households that previously owned a car decided to let their car go. All in all, 70% of the inhabitants live without a car in Vauban.
- All buildings must meet minimum low energy consumption standards of 65 kWh/m2a (i.e., at least half the average German energy standards).
- Public energy and heat are generated by a woodchip powered combined heat and power generator connected to a district heating grid.
- 42 building units are of the Passivhaus standard, consuming under 15 kWh/m2a.
- 100 houses adhere to a 'plus-energy' standard, producing more energy than they use. Surpluses are sold back to the city grid. Profits split between each household.
- Project is being monitored using lifecycle and regional material flow analysis with the GEMIS software, allowing for these provision figures to be reported.
    - Energy savings per year: 28 GJ (cumulative energy requirements).
    - Reduction of CO2-equivalents per year: 2100 t.
    - Reduction of sulphur-dioxide (SO2-) equivalents per year: 4 t.
    - Saving of mineral resources per year: 1600 t.
- The town of Vauban is virtually absent of all GHG emission producing sources. Vauban is a 'zero-emission' location. Residents of Vauban can own cars and park them in town but it is expensive for a parking spot on the outskirts of town.

Housing & Population

- The Vauban experience has created an extremely diverse range of housing.
- As well as the private promotions, cooperative groups have also emerged. There were 40 cooperative groups in 2006.
- District especially for young families was constructed and developed. In 2002, more than 20% of Vauban inhabitants were under 10 years old. The demand for land was stronger than availability.

Challenges and Lessons Learned

- While housing initiatives made a commitment to internal diversity, the residents in some housing are very uniform (young middle-class students).
- There is a lack of private space in the district.
- Incentives for including people with low incomes disappeared when many of the anticipated grants and subsidies to do so were abolished.
- Implement controversial policies in stages, choosing projects that everyone agrees on first.
- Keep plans flexible and adaptable over time to allow for changing conditions.
- Policies should include both 'sticks and carrots' to encourage people to change behaviour, i.e. making parking more expensive and difficult, but making public transport, cycling and walking much easier.
- Organise land use and transportation on an integrated basis to ensure that travel distances can be kept short.
- Involving the citizens should be an integral part of policy development and implementation.
- Support from regional and national government is vital in helping local policies to work.
- Long-term goals need to be pursued on a consistent basis.
- City leaders have to be committed to long-term engagement, but always with the support and engagement of the people.
- Be creative and tactical in working with a wide range of different investors and other actors.
- Be proud of the achievements and celebrate them with the citizens.
- Continuity is vital.

The Forum Vauban was the official body for participation. The project benefitted from Forum Vauban's creative ideas and legal expertise, it also created cooperation between politicians and civil society.

The 'development site status' enabled the district to stay independent from private developers and take responsibility for the entire planning and building progress.

Case Studies – Green Renewal

EMSCHER – RUHR VALLEY

Key Facts

- In the 1990s, restoration of the 85km stretch of the Emscher river started, gradually creating the New Emscher Valley, also taking into account challenges of climate change.

- It was intended to create a new Regional Park, the Emscher Landscape Park – with a length of 70 kilometres and about 320 square kilometres of land running from west to east through the Emscher Region. The aim is to improve the working and living environment for more than 2 million inhabitants in the region.

Five aims

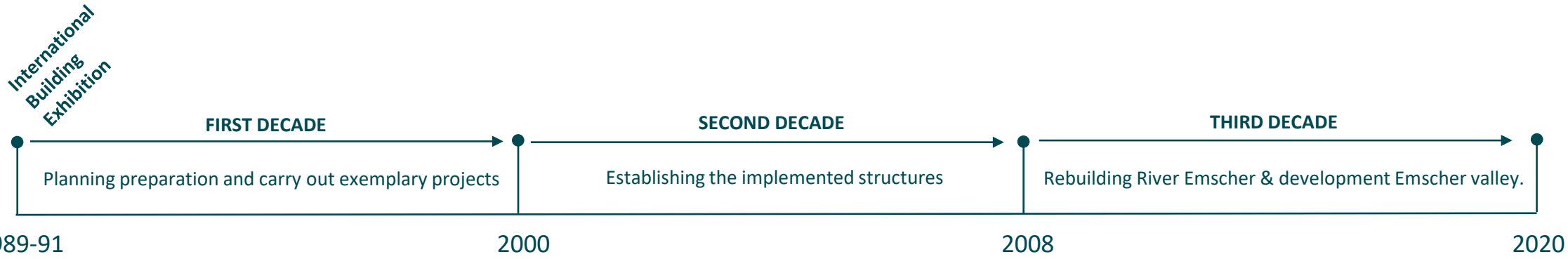
- Preserving the remaining leftover landscape
- Linking up the isolated, separate areas in the agglomeration
- Re-zoning separate areas as parkland
- Reaching agreements both regionally and locally on individual projects with a long-term perspective
- Maintaining and managing the new open spaces in a permanent regional park association.

Financing

- Between 1991 and 2000 (first decade) the government of North Rhine Westfalia and the EU (Aim 2) has financed over 270 projects with a volume of nearly 200 Mill.

- For the second decade, 2000-06 (2008) the Government of North Rhine Westfalia and the EU financed nearly 70m of new projects.

- The holder of the projects are the local authorities and the KVR.



Case Studies

EMSCHER – RUHR VALLEY

Core Success

- The system of open spaces is becoming a new structural framework for the region; the main parts of this framework are:
    - The system of walking and cycle path
    - Several different kinds of open spaces
    - The industrial nature route (as a part of industrial heritage)
    - Route of landmarks

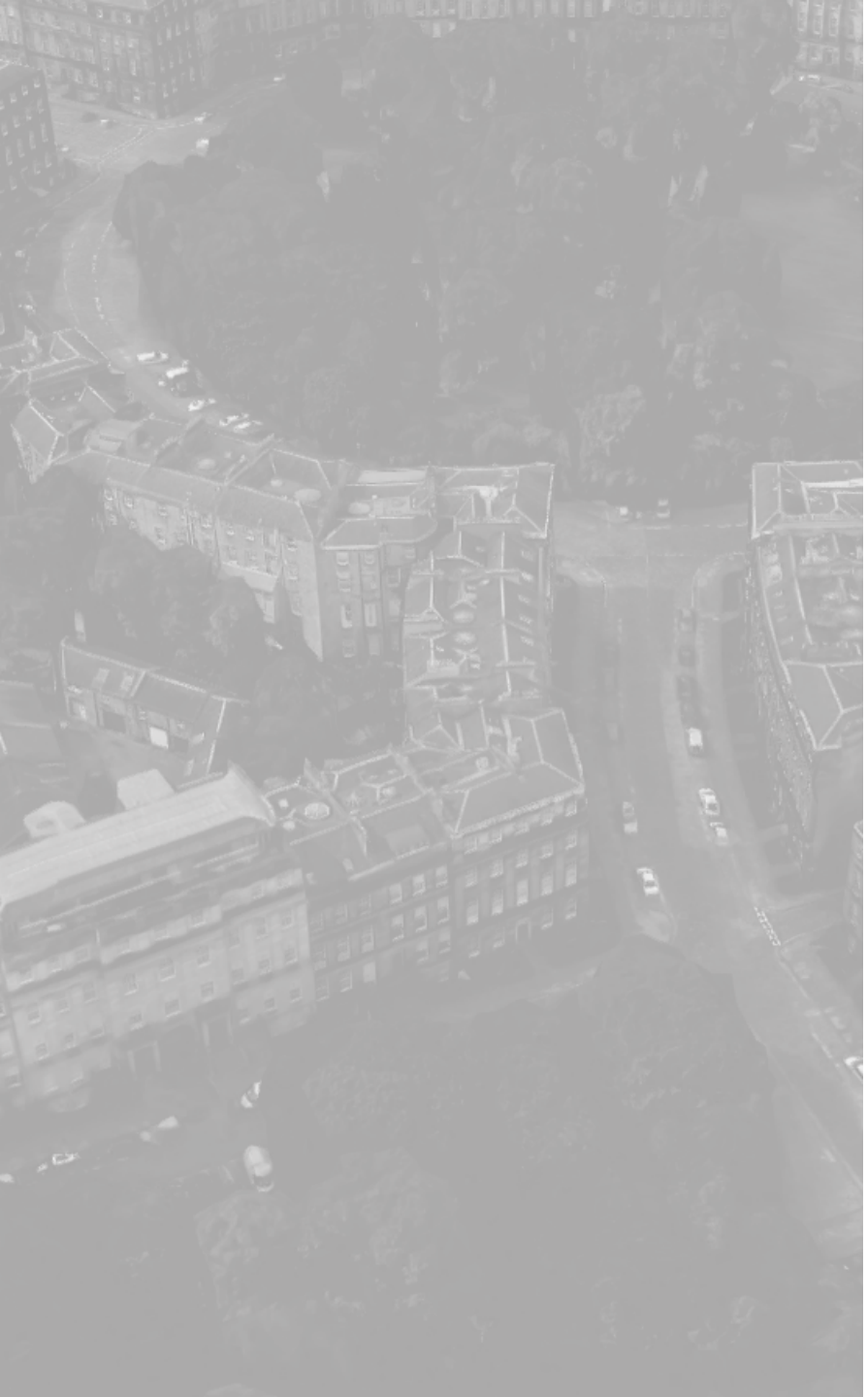
    .
- By 2001, the 17 communities, Emscher Cooperative and KVR has realised more than 300 different projects.
- Learning from experiments. The International Building Exhibition Emscher Park (IBA) from 1989 to 1999 was a unique workshop for the future of old industrial regions. Invitation to 17 cities, with declining industries, to develop their own new perspectives and creative projects.

Lessons Learned

- The development of technical and natural infrastructures has to be carried out together
- Creating resilient regions requires a network including all agents and their knowledge
- A variety of innovations as an impetus for regional transformation
- Infrastructure conversion can become a driver for improved quality of life
- Infrastructure modernisation can create new open spaces. They offer an opportunity for broader participation.
- Acceptance requires participation. Citizen participation in infrastructure projects should be regarded as an opportunity

Challenges and Lessons Learned

Challenge to find a holding entity for Emscher Landscape Park that will manage planning, maintenance and public relation and which is responsible for coordinating the participants and the finance. Change in support and funding over the duration of the project.



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RETTIE

Summary Phase1 of Study

This Study has been carried out in two, distinct phases:

Phase 1: Baseline
Phase 2: Strategy and Vision

The report overleaf provides a summary overview of Phase 1 of the West Edinburgh Spatial Strategy for Inclusive and Sustainable Growth to provide further context into the drivers, barriers and constraints identified.

2

'The notion of inclusive growth first appeared in Scottish policy in the Government's 2015 Economic Strategy which was underpinned by four key priorities: internationalisation, investment, innovation and inclusive growth.'

Summary of Phase 1, Principles of Inclusive Growth, AECOM, May 2021

AECOM Imagine it. Delivered.

West Edinburgh Spatial Strategy for Inclusive Growth

Phase 1 – Summary and Update

On behalf of City of Edinburgh Council, Scottish Government, Scottish Futures Trust and Scottish Enterprise

May 2021

1. The West Edinburgh Spatial Strategy for Inclusive Growth (WE-SSIG) Phase 1

1.1 Introduction

In 2014, National Planning Framework (NPF) 3 established a vision for West Edinburgh as “a successful business-led city extension which fulfils its potential for international investment, new jobs and high quality place”, while also recognising that continued co-ordination and planning would be required in order to achieve this. The policy framework to facilitate sustainable growth in West Edinburgh filtered down from NPF 3 to the adopted Edinburgh Local Development Plan (LDP) through the South East Scotland (SES) Plan (2013) where the area was recognised as a Strategic Development area and a “highly sustainable location in which to focus new development”.

In addition, the Edinburgh and South East Scotland City regional Deal (ESESCRD) has recognised the regional significance of West Edinburgh and has committed to help unlock development delivery through up to £20 million of capital funding on appropriate public transport infrastructure.

Given the various proposals and development being brought forward, and the importance of West Edinburgh locally, regionally and nationally a study was undertaken to look at its inclusive and economic growth potential. Aecom was appointed in September 2019 as the lead partner of a multi-disciplinary team to undertake Phase 1 of this work (known as The West Edinburgh Spatial Strategy for Inclusive Growth (WE-SSIG) Phase 1) . AECOM, in partnership with Rettie & Co. and Collective Architecture (‘the Project Team’) are supporting City of Edinburgh Council (CEC), the Scottish Government (SG), the Scottish Futures Trust (SFT) and Scottish Enterprise (SE) (‘The Delivery Partners’) in investigating the impact of development within West Edinburgh and utilising this to develop a new vision and overarching spatial strategy for inclusive growth in the area: defining the future role of West Edinburgh and identifying measures to unlock and support this vision with targeted investment and a range of appropriate land uses.

1.2 The Principles of Inclusive Growth

The notion of inclusive growth first appeared in Scottish policy in the Government’s 2015 Economic Strategy which was underpinned by four key priorities: internationalisation, investment, innovation and inclusive growth. Since that time the definition of inclusive growth has varied and evolved to allow the principle to be applied across policy thinking and implementation.

> “Growth that combines increased prosperity with greater equity: that creates opportunities for all and distributes the dividend of increased prosperity fairly.”
>
> Inclusive growth, Scottish Government

While the Scottish Government's latest definition of inclusive growth provides an overarching guide from which to frame the WE-SSIG, it was considered essential that this was distilled further to apply directly to the local context of West Edinburgh.

For this reason, our stakeholder questionnaire at Phase 1 of the project included the following key question: What is your understanding of "inclusive growth" and as a key stakeholder, where do you see your role in delivering this objective in West Edinburgh?

The feedback received was varied as outlined in the Phase 1 Report. In general, however; a number of key themes emerged which allowed the Project Team to develop a vision for inclusive growth in West Edinburgh. This was further tested and refined during the Project Partner workshop and has become the overarching sense of mission for the WE-SSIG, truly reflecting the deeply shared vision of key stakeholders and creating a purpose to guide future decision-making in the area.

Figure 1B
Stakeholder feedback on Inclusive Growth

The vision was identified as:

> *"The strategic and cohesive COORDINATION of existing and future assets in West Edinburgh which balances growth in prosperity with social equity and sustainability, CONNECTING opportunities and creating a PLACE which provides CHOICE and promotes DIVERSITY for local, regional and wider communities..."*
>
> A Vision for Inclusive Growth in West Edinburgh

1.2 The Purpose of the West Edinburgh Spatial Strategy for Inclusive Growth (WE-SSIG)

Despite NPF 3 and the adopted Edinburgh LDP setting out a policy framework to facilitate sustainable growth in West Edinburgh economic growth in the area remains largely undelivered. Through Phase 1 The West Edinburgh Spatial Strategy for inclusive growth (WE-SSIG) seeks to do more than just facilitate "a business-led city extension". It offers an exciting opportunity to deliver the benefits of inclusive economic growth in the South East of Scotland and beyond, building upon the strength of Edinburgh and the surrounding regions to balance increased prosperity with greater social equity.

A spatial strategy is foremost a practical tool used to inform future planning policy. It is intended to coordinate strategic change within a defined area, over time, and is nestled between planning policy and design. The overarching aim of the WE-SSIG is to identify mechanisms to maximise inclusive and sustainable growth in West Edinburgh based on sound-based evidence.

It should be noted that the Phase 1 report did not represent a new spatial strategy for West Edinburgh but rather an establishment of the socio-economic baseline and assessment of the pros and cons of different delivery approaches. The study adapted the broad principles of the inclusive growth diagnostic framework in order to identify, characterise and prioritise the fundamental constraints to inclusive economic growth in West Edinburgh. This led to the identification of potential solutions to overcoming these barriers, or 'drivers for inclusive growth'. The study has focussed on the following key outcomes:

- Interrogating, Interrogating, testing and refining the economic, environmental and social baseline of the area to identify the challenges and opportunities relevant to the region;
- Identification and quantification of barriers to inclusive growth in West Edinburgh and proposed drivers to address these;
- Future visioning to understand what West Edinburgh might look and feel like over time;
- Development and assessment of high-level spatial Propositions and associated indicative interventions to stimulate inclusive growth; and
- Assessment of the impact of each Proposition on stimulating inclusive growth objectives when considered against ease of delivery.

These findings were presented to the West Edinburgh APOG on 23 September 2020, and also presented to the Policy and Sustainability Committee, CEC 6th October 2020, and agreement to the Phase 2 work approved.

The full report can be viewed at https://democracy.edinburgh.gov.uk/mgChooseDocPack.aspx?ID=5592

A summary of the Phase the work is included below – an approach and methodology identified in table 1.1.

Table 1.1 – Approach and methodology

Key Outcome	Summary of Approach and Methodology	Section of Phase 1 WE-SSIG Report
Baseline Assessment	The economic, environmental and social baseline has been collated through 3 main sources: (i) Interrogation of publicly available socio-economic data sets, (ii) coordination of key land use designations, development pipelines and environmental constraints and opportunities, and (iii) extensive consultation with key stakeholders recognised as having an interest or specialist knowledge of the area. Stakeholders were asked specifically to consider the current performance of West Edinburgh against the 4 key aspirations of the Scottish Government's 'Successful Scotland' as identified in National Planning framework 3. The data collated was subsequently distilled into a Strengths, Weaknesses, Opportunities and Threats (SWOT) Analysis which was tested further and refined at a 'Project Partners' workshop.	2.0 West Edinburgh Today
Identification of barriers to inclusive growth and associated interventions.	Following the baseline data collation and extensive consultation with key stakeholders, a number of barriers to inclusive growth in West Edinburgh were identified and defined. Again, these were tested and refined through the Project Partners workshop and subsequently prioritised and weighted against 'inclusion', 'growth' and 'low carbon' objectives, leaning on the broad guidance provided in the Inclusive Growth Diagnostic Dashboard published by Scotland's Centre for Regional Inclusive Growth (SCRIG). Inclusive growth drivers (i.e. mechanisms to break down the identified barriers in West Edinburgh) were then identified through the data interrogation and engagement process.	3.0 Inclusive Growth Diagnostic
Future visioning of what West Edinburgh might look like and feel like in the future.	As part of the Project Partner workshop a number of case studies of similar-scale spatial strategies across Europe were presented in order to inspire a creative approach to solutions to inclusive growth in West Edinburgh. This supplemented feedback from the stakeholder questionnaire which challenged respondents to establish a Vision for West Edinburgh across the next 30 years in line with the key themes identified in Edinburgh's City Vision 2050.	4.0 West Edinburgh Could Be…
Development and assessment of spatial options.	With reference to the barriers to inclusive growth and identification of potential drivers to overcome these, a number of options for delivering inclusive growth in West Edinburgh have been identified by the Project Team. These can be summarised as follows: 1. Investment in social resilience. 2. Enhancing local centres, connections and open space. 3. Creation of regional mobility and energy hub. 4. Market-led growth. 5. New city district(s). Each option facilitates a number of drivers for change which have been assessed against site-specific criteria determined using the Scottish Government's '5P's' outcomes framework for inclusive growth (Productivity, Population, Participation People and Place) to establish their significance in delivering key objectives. Data sheets are provided which highlight the key characteristics of each option.	5.0 Delivering Inclusive Growth
Consideration of deliverability of each option versus impact on social inclusion.	The Phase 1 Report culminates in the assessment of each economic driver being considered in terms of deliverability against the predicted effect on stimulating inclusive growth in West Edinburgh.	6.0 Option Deliverability & Impact

1.3 Relationship with Other Plans, Policies and Guidance

West Edinburgh is engrained in the national, regional and local policy frameworks which facilitate and direct future development in the locality, highlighting the area's strategic importance for economic growth.

The following key plans, policies and guidance documents were consulted in Phase 1 of the WE-SSIG to establish the broad direction of national and local government priorities for future growth in the region:

- National Planning Framework (NPF) 3 (2014)
- National Transport Strategy (NTS) 2 (2020)
- National Performance Framework
- SESplan Strategic Development Plan (SDP) (2013)
- South East Scotland Transport Partnership (SEStran) regional Transport Strategy 2015-2025, Refresh (2015)
- Edinburgh and South East Scotland City Region Deal (ESESCRD) (2018)
- Edinburgh Local Development Plan (LDP) (2016)
- West Edinburgh Transport Appraisal Refresh (2016)
- Choices for City Plan 2030 (2020)
- Draft City Mobility Plan (2020)
- Edinburgh Strategic Sustainable Transport Study – Phase 1 (2019)

Since the conclusion of Phase 1 the City Mobility Plan 2021 – 2030 (February 2021) has been adopted and an Interim Regional Spatial Strategy (September 2020) and NPF 4: Position Statement (November 2020) have been published.

1.4 Summary of Findings and Approach

Barriers identified to Inclusive Growth

The barriers to inclusive growth as set out during the Phase 1 assessment, which guided the development of the five Propositions were as follows:

- ***Connectivity and Infrastructure*** (Inclusive Growth Barrier 1)- Options for moving around within West Edinburgh, particularly on a north/south axis remain limited due to physical barriers, active travel routes are fractional and there is a reliance on private car usage which is epitomised by heavy traffic at peak times and issues around air quality.

- ***Character and Identity*** (Inclusive Growth Barrier 2) - West Edinburgh does not have one specific town centre, nor can it be defined by a singular, encompassing identity. Instead it has a number of disparate centres and smaller settlements within the landscape.

- ***Social Infrastructure*** (Inclusive Growth Barrier 3) - Employment levels are generally high in Edinburgh yet within West Edinburgh, there are areas that are ranked within the 5% most deprived areas in Scotland, including The Calders and Wester Hailes. There is also a clear link between education outcomes and deprivation, with relatively deprived areas in the west of the city also having lower concentrations of people with qualifications

- ***Leadership and Clarity*** (Inclusive Growth Barrier 4) and ***Ownership*** (Inclusive Growth Barrier 5) - Disjointed green belt release and a succession of land allocations supported through national and local planning policy which have not been delivered have eroded confidence in West Edinburgh as a regional economic hub. Meanwhile, some speculative developments in the region have been successful in being consented, which has led to a fragmented, piecemeal approach to regional growth with no underlying infrastructure strategy or realistic vision on what West Edinburgh can deliver in a local, regional land national context.

- ***Untapped Potential*** (Inclusive Growth Barrier 6) - Much of West Edinburgh has not benefitted from recent city-wide economic growth, in particular the Calder Road corridor where there is a clear concentration of lower earning households. These areas are also the areas with higher levels of deprivation across a range of other indicators.

- ***Environmental Constraints*** (Inclusive Growth Barrier 7) - There large swathes of open space, woodland and farmland across West Edinburgh which remain largely impenetrable and under-utilised. There are a small number of additional environmental and land use policy constraints, as well as technical delivery constraints (e.g. drainage and water management) which restrict the opportunity for development in West Edinburgh, but this should be balanced against the rich natural and cultural assets which are present throughout the area and remain largely under-utilised and difficult to access.

- ***Lack of Diversity*** (Inclusive Growth Barrier 8) - This barrier reflects a recurring theme that there is presently an overall lack of choice within West Edinburgh, which ultimately has a direct impact on social exclusion. As well as a reliance on private car to move around locally, there is an identified lack of choice when it comes to affordable family housing, employment opportunities and access to recreational facilities.

Propositions

With reference to the identified barriers for inclusive growth, phase 1 of the developing West Edinburgh Spatial Strategy for Inclusive Growth (WE-SSIG) initially set out a series of Propositions for the future of West Edinburgh. These Propositions consist of a number of indicative interventions for facilitating inclusive growth in West Edinburgh grouped broadly into the following:

1. Growing Social Resilience.
2. Local Connections & Open Space.
3. Regional Mobility & Energy Hub.
4. Influencing Market-Led Proposals.
5. New City Districts.

Each Proposition encompasses a number of indicative interventions (Inclusive Growth Drivers) which have been specifically developed to address the barriers to inclusive growth which have been determined through the baseline data collation and engagement process. They ranged from ‘do minimum/less development’ (Proposition 1 – ‘Growing Social Resilience’) through to the creation of new city districts (Proposition 5 – ‘New City Districts’) and various strategies in-between. The developing Vision and Approach consolidated these into a series of inter-connecting strategies across a range of scales, interventions and milestones.

The Vision was then intended to be developed in more detail going forward to provide an implementation plan across infrastructure and land use opportunities to align with a series of key milestones for the City, most notably:

- Edinburgh City Plan
- 2030 Net Zero Carbon targets
- 2050 targets and be

WE-SSIG Initial Propositions

Proposition 1

Growing Social Resilience

Focus less on physical development and greater social infrastructure.

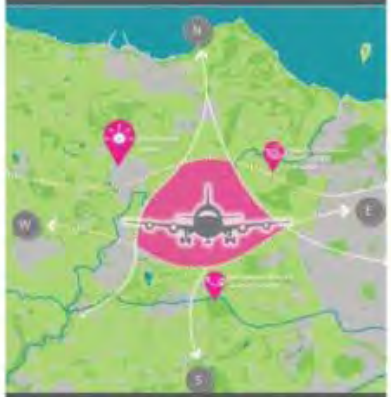
Proposition 2

Local connections and open space

Inter-connected Local Centres and open space with an enhanced leisure opportunities

Proposition 3

Regional Mobility and Energy Hub



Highly connected regional transport and energy centre

Proposition 4

Influencing market-led proposals

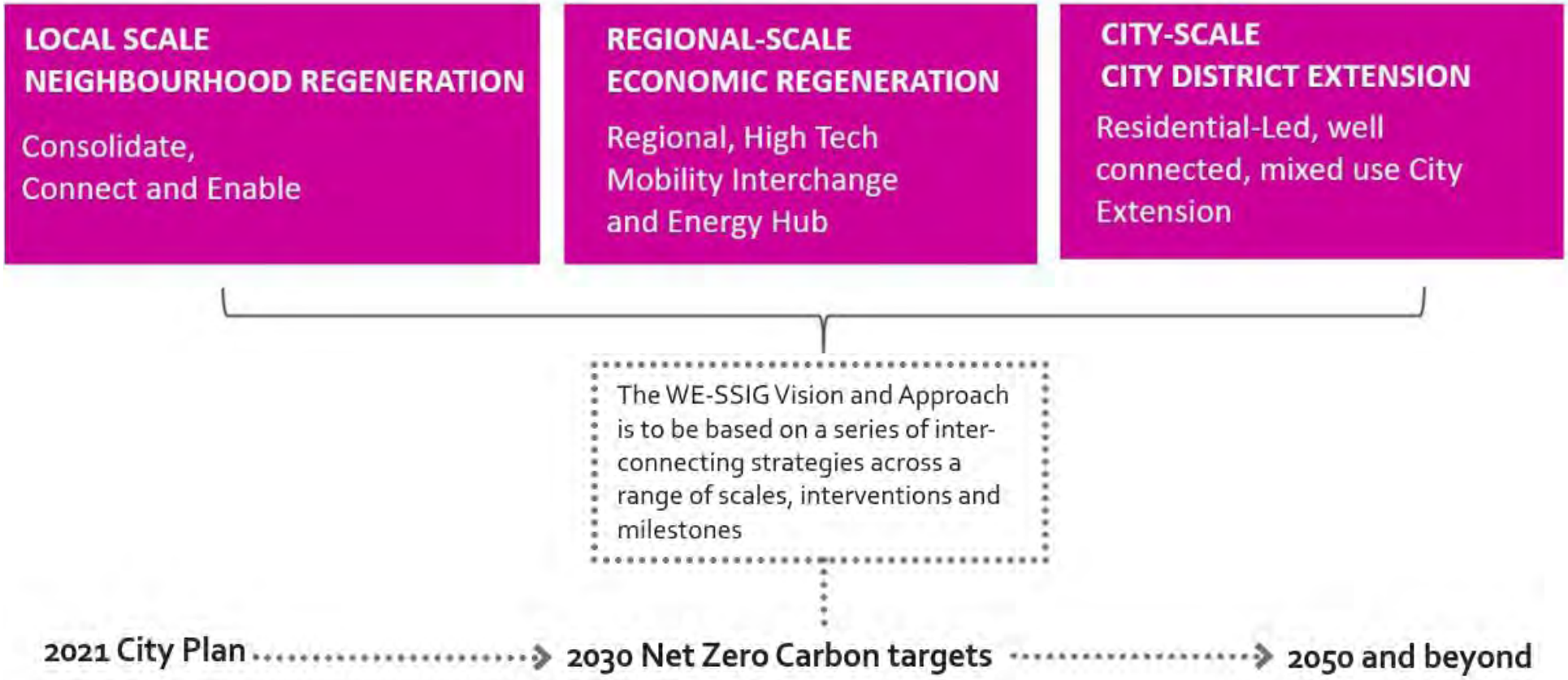
Develop existing market-led proposals with an emphasis on inclusive growth

Proposition 5

New City Districts

Intense, low carbon new neighborhoods centred around low carbon lifestyles and wellbeing

WE-SSIG Vision



Summary

Through interrogation of baseline socio-economic and environmental data, as well as consultation with key stakeholders, Phase 1 of the WE-SSIG examined barriers to inclusive growth in West Edinburgh, assessed the relative importance of these barriers and sought to establish potential interventions to overcome these.

With reference to the barriers and interventions, a number of Propositions were developed and framed against the Scottish Government's 5Ps of Inclusive Growth to encourage thinking around potential drivers for achieving the aspiration of inclusive and sustainable growth in West Edinburgh.

Of the five Propositions presented, the most favourable when considered on balance between deliverability and impact was Proposition 4, 'Influencing Market-Led Proposals' with Proposition 5 having the strongest influence and Proposition 1 being the most straightforward to deliver. Notwithstanding this, there were a number of interventions within each Proposition which needed to be explored further to determine the extent to which they could combine to help deliver an optimum solution and fully realise the potential of West Edinburgh.

1.5 Approach to Phase 2.

Phase 2 involved detailed testing and refining of Phase 1 findings. These included:

- An initial review and refresh of Phase 1 data and analysis and identification of preferred option(s).
- Detailed stakeholder engagement – re-engage with key stakeholders (see Report in Appendix xx , Phase 2 – Stakeholder Feedback Record, March 2021, AECOM).
- Horizon scanning (i.e. Reflecting on any emerging policy, industry or other developments that may impact on West Edinburgh – this will be an ongoing activity).
- Refinement of analysis and Propositions.
- Feedback from Partnership Team.
- Production of Strategy Document identifying key issues, priorities and actions for going forward, and development of an indicative timeline for monitoring and implementation.

Stakeholder Consultation Report

3

This report provides a record of Stakeholder Consultation that took place during Phase 1 and Phase 2 of the West Edinburgh Spatial Strategy for Sustainable and Inclusive Growth to provide more background and insight into comments and ideas.

This concludes with a Schedule of Approach that has been further developed to capture priority recommended actions that have developed as part of the research and consultation process through the Phase 2 of the project.

The Schedule of Approach (for the Vision and each of the inter-connected stratgies) captures these updates and further been used to inform and develop the Dependencies and Recommended Actions brought forward into the main Strategy Document.

'Overall, there was general support for the inclusive growth and net zero principles embedded within the study, however feedback on specific elements of the characterisation of West Edinburgh and Schedule of Approach was varied and contrasting.'

Consultation Report, Introduction, AECOM, May 2021

AECOM Imagine it. Delivered.

West Edinburgh Spatial Strategy for Inclusive Growth

Phase 2 - STAKEHOLDER FEEDBACK RECORD

On behalf of City of Edinburgh Council, Scottish Government, Scottish Futures Trust and Scottish Enterprise

March 2021

1. Overview of Approach

Key Respondents

Amber Real Estate Investments Ltd
CALA Homes
Crosswinds Development Ltd.
Edinburgh Airport Limited
Elan Homes
Green Action Trust
Hallam Land Management (Craigiehall)
Hatton Mains (Ltd)
Heriot Watt University
Heritage Environment Scotland
Murray Estates
Napier University
NatureScot
New Ingliston Ltd.
Parabola
Ratho & District Community Council
Royal Highland and Agricultural Society of Scotland
Scottish Water
SESTRANS
Tarmac
Taylor Wimpey/Hallam Land Management (Norton Park)
Wallace Land
West Craigs Ltd.

1.1 Approach to Engagement

Key stakeholders identified and consulted on Phase 1 of the WE-SSIG were re-consulted in February 2021 on Phase 2. A consultation package was disseminated (see Appendix 1) which included work undertaken on the Phase 2 study, including; mapping the character and identity of West Edinburgh, identifying the spatial approach and how the 5 Propositions at Phase 1 had been distilled into a distinct vision at local, city and regional scales, highlighting key character zones and outlining a draft Schedule of Approach to achieving inclusive growth.

Respondents were asked 5 key questions as detailed below:

Feedback 1:

We would welcome your feedback on the WE-SSIG Phase 1 Report.

https://democracy.edinburgh.gov.uk/mgChooseDocPack.aspx?ID=5592

Feedback 2:

Please provide any further background information (data, plans, policies or strategies) in addition to that provided during our Phase 1 consultation, which you consider could inform the outcomes of the Phase 2 masterplan.

Feedback 3:

Please identify any specific infrastructure or land use interventions which should be prioritised in the WE-SSIG in order to facilitate inclusive growth in West Edinburgh, outlining the parties you see involved in delivery.

Feedback 4:

Please provide us with feedback on the Character Zones which have been identified and the strategy for inclusive growth in West Edinburgh.

Feedback 5:

Please provide us with feedback on the Schedule of Approach.

Overall, there was general support for the inclusive growth and net zero principles embedded within the WE-SSIG, however feedback on specific elements of the characterisation of West Edinburgh and Schedule of Approach was varied and contrasting. The following sections of this report highlight the key themes which were consistent across the consultation feedback and identifies how these have been considered and where applicable have informed further iterations of the Phase 2 WE-SSIG study through key actions.

2. Stakeholder Consultation Responses

2.1 Feedback 1: Phase 1 Report Feedback

Key Themes	Overview of Response	Response Narrative and Actions
Propositions	Propositions 1 and 2 are not reflective of the significant amount of development which is already committed in West Edinburgh, as well as its designation as a Strategic Growth Area within SESPlan and the LDP.	The 5 Propositions developed at Phase 1 of the WE-SSIG were specifically identified to spark debate and push the boundaries of strategic thinking on what could be achieved in West Edinburgh. They were reflective of a 'do-minimum' to 'do maximum' approach and each Proposition had different strengths and weaknesses with respect to addressing the barriers to inclusive growth which were identified in West Edinburgh. Deliverability was considered, but it was important that Phase 1 investigated a range of diverse approaches which could inform more detailed consideration in Phase 2. **ACTION: It is accepted that the Regional Mobility and Energy Hub is not well defined and clarity will be developed through the Phase 2 Schedule of Approach.** **ACTION: Character and identity mapping to consider development which has already been delivered in West Edinburgh or is under construction.** **ACTION: Context of West Edinburgh as a Strategic Development Area to be embedded within the decision-making process in Phase 2.**
	Proposition 3 'Regional Mobility and Energy Hub'. The character of this Proposition is not well defined.	
	The operational impacts of the airport on its neighbours would have to be considered for either Proposition 3 or 4.	
	Care should be taken with respect to Proposition 4 that market-led proposals are holistically deliverable.	
	The aim and ambition should be a blended approach to deliver the New City Districts by Influencing Market Led Proposals within the framework of a coherent placemaking vision and co-ordinated delivery strategy.	
	One particular point we could disagree with in the Phase 1 Report is the conclusion that Proposition 4 (Influencing Market-Led Proposals) should be marked down on the basis of it not providing West Edinburgh with the natural and physical resources available to ensure a strong and sustainable future.	
	It is considered that Proposition 5 should have been carried through more strongly to Phase 2 of the WE-SSIG as opposed to an approach which restricts options for future growth.	
Spatial Extent	Mobility Plan/Edinburgh Sustainable Transport Study (ESSTS) Corridor 8 is misrepresented in Figure 1 F. This should be remedied in Phase 2, along with any other updates from the finalised Mobility Plan.	It should be recognised that WE-SSIG Schedule of Approach does consider the local, city and regional effects of the future of West Edinburgh. While the focus of the Phase 2 study is directed on key land use interventions which can be established within a broadly defined area, the socio-economic effects of these decisions on the wider city and region have been considered. The key themes for focus identified in the Schedule of Approach are consistent with those which are defined within the iRSS and overall the Schedule of Approach responds to the primary regional spatial objectives which are defined within the iRSS. **ACTION: It is accepted that Corridor 8 of the Mobility Plan/ESSTS is misrepresented in Phase 1 and this will be addressed in Phase 2, along with any other updated from the finalised Mobility Plan.**
	The spatial context for the study appears to be fairly tightly focussed around City of Edinburgh and opportunities for sustainable and inclusive growth to those within the city. Employment opportunities within the study area tend, in reality, to draw on a very wide travel to work area.	
	Most of Scotland's road freight and tourism movement interacts with or passes through this area, and with the (normally) busiest airport in Scotland, and the busiest road and rail passenger corridors into the city, the area needs to deliver for a much wider spatial context.	

Key Themes	Overview of Response	Response Narrative and Actions
	Whilst diagrammatic, perhaps the arrows of growth in Proposition 5 should be better aligned along the A8 Corridor to focus on delivery of public transport infrastructure and delivery of mixed uses and infrastructure associated with the Royal Highland Showground, Edinburgh.	**ACTION: Updates to the alignment of Corridor 10 will also be updated as necessary for Phase 2.**
	More reflection on how the study area fits within the interim Regional Spatial Strategy (iRSS) and a wider spatial context would be useful.	**ACTION: It is recognised that the settlements of Currie and Balerno should have a more prominent status in the background mapping.**
	Figure 1 D does not include existing communities at Currie and Balerno which make a meaningful contribution to West Edinburgh.	**ACTION: Review the table in light of the new application.**
	One of the underlying transport proposals and safeguards (Table 1.3) concerning the Gogar Link Road (T9 and Corridor 10) is now misaligned due to the submission of a planning application concerning it (reference 21/00217/FUL).	
Expectations for Phase 2 of the WE-SSIG.	We would expect that as the strategy evolves, it will be informed by a more nuanced identification, understanding and analysis of the historic assets, landscapes, places and spaces, both designated and undesignated, within the study area.	We concur with the suggestion to involve local communities, businesses and landowners in the future outcomes of West Edinburgh as a place. This is already underway in Wester Hailes as part of a separate programme of work and it is expected that the Local Place Plans identified within the Schedule of Approach will apply these inclusive principles. The comment on recognising the potential for changing patterns of land use is noted and the WE-SSIG has been informed by extensive consultation with representatives of Scottish Enterprise and the Scottish Futures Trust, as well as detailed economic and market analysis. The Schedule of Approach has been established to be rigorous enough to robustly inform the Vision for West Edinburgh, while remaining flexible to respond to emerging markets and land use requirements. **ACTION: Phase 2 We-SSIG to provide more detailed baseline context mapping which identifies key environmental and land use constraints and opportunities. This should be inclusive of recognising historic environment outcomes of key assets such as the Union Canal.** **ACTION: 'Central Scotland Green Network' terminology to be implemented where necessary.** **ACTION: In line with the infrastructure first approach, future growth in West Edinburgh should reflect the broad principles within the City Mobility Plan.** **ACTION: The tension between focussing on brownfield development first within an established Strategic Development Area, or directing immediate attention to the release of greenfield land, is recognised and specifically considered and justified within the Phase 2 report .**
	It is not apparent that the policy requirement to protect and promote the historic environment has informed or influenced the Phase 1 approach and outcomes to any significant extent. This means that it is not clear whether, or how, the outline strategy presented in the Phase 2 consultation document will deliver positive historic environment outcomes.	
	Union Canal is a nationally important scheduled monument. There is a clear opportunity to use the canal as a focus of growth in West Edinburgh, and to deliver change that can enhance the understanding and appreciation of the canal. However, the emerging strategy should recognise the designation status of the canal and be sensitive to the need to respect the integrity and setting of the canal.	
	We would encourage specific use of the term Central Scotland Green Network, particularly when setting the context in relation to other plans.	
	Aligning developments with the Draft City Mobility Plan is key.	
	Better representation of local communities, businesses and landowners would assist in achieving the objectives of sustainable economic growth and social inclusion for these areas.	
	The Propositions at Phase 1 should not be mutually exclusive there are benefits and disbenefits of both by the critical land uses and economic anchors should be recognised.	
	Further justification needs to be provided as to why the immediate focus should be on brownfield sites at Edinburgh Gateway, as opposed to large-scale greenfield release which could deliver further inclusive growth benefits.	

Key Themes	Overview of Response	Response Narrative and Actions
	A long term vision for the west of Edinburgh and the A8 Corridor still needs to recognise the potential for changing patterns of land use and accommodating key land uses and economic drivers for the city such as Edinburgh Airport and Royal Highland Showground. These are long term users with significant benefit to the local, regional and national economy.	**Noted.**
Status of the WE-SSIG	It would be helpful to clarify what the status of the WE-SSIG is and how it is intended to support future CEC planning policy. Has the consultation document been supported by a Strategic Environmental Assessment? It would be helpful for the WE-SSIG to be consulted on at the same time as the proposed City Plan 2030 Has the WE-SSIG been carried out alongside the City Plan, or independently of this process? The consultation document is inconsistent with the current LDP and Strategic Development Plan which designates West Edinburgh as a Strategic Development Area.	The WE-SSIIG is an independent study commissioned by Scottish Enterprise, the Scottish Futures Trust, City of Edinburgh Council and the Scottish Government to investigate the impact of development within West Edinburgh and utilise this to develop a new vision and overarching spatial strategy for inclusive growth. It is not intended that the plan will be formerly adopted by the commissioning partners and as such will not require to be considered under a Strategic Environmental Assessment (SEA). That said, it is expected the outcomes of the WE-SSIG will, to an extent, inform future policy, for example City Plan 2030, and as a result it is envisaged that the WE-SSIG will be consulted on as part of the City Plan.
Infrastructure Capacity	In terms of foul drainage capacity, Scottish Water highlight that it is important to note that they will provide the capacity at water and wastewater treatment works to support sustainable economic growth emerging from the strategy. This should not be seen as a barrier to development. Where there is a requirement for increased capacity, Scottish Water will intervene and invest through continued engagement with the council and others to ensure that they provide the capacity in the most sustainable way possible. This can be achieved by identifying where and when development will occur where there is a strategy to unlock growth over the medium to longer term. This plan led approach enables Scottish Water to assess how they prioritise investment, look for more sustainable ways to support development and assess the impact on networks.	The feedback from Scottish Water is welcomed and highlights the importance of identifying a coherent framework form growth in West Edinburgh in the short, medium and long term.
Active Travel and Public Transport	Edinburgh Airport is broadly supportive of the principles underpinning active travel and public transport provision and is ready and willing to work with all interested parties to assist in the promotion of these modes. Note: Flight scheduling necessitates several journeys must be made to/from the airport during hours where there are little or no public transport options available. There is a dedicated active travel corridor in the design of the East Access Road for both walking and cycling. It is anticipated that there will be a growth in public transport at the airport from 40% in 2019 to 53% by 2030.	A collaborative relationship with Edinburgh Airport would be a welcome addition to WE-SSIG as it progresses.

2.2 Feedback 2: Additional Information

The following additional information was provided by key partners and has actively informed the outcomes of the WE-SSIG:

NatureScot

- In support of the primary principles of the WE-SSIG, NatureScot highlight the Blueprint being developed by Green Action Trust, which would inform habitat connectivity and active travel in WE-SSIG: https://www.gcvgreennetwork.gov.uk/what-we-do/our-blueprint. The other key input will be from the Ecological Coherence Plan being developed by Edinburgh Council in partnership with Scottish Wildlife Trust, which considers habitat connectivity and ecosystem services. Outputs from both of these pieces of work should be utilised to inform the spatial planning and delivery of green/blue infrastructure and 'nature networks' within the proposed growth area.

- NatureScot highlight the important work that is taking place to support sustainable and inclusive growth in the Cockenzie/ Blindwells area of East Lothian. The planned integration of flood protection and water management infrastructure, open spaces and recreational infrastructure, digital infrastructure, heat networks, other utilities and active travel networks is a model that is replicable for West Edinburgh. Essential to the East Lothian Council approach is a site and place informed approach to new infrastructure with development being planned in a co-ordinated, cross-disciplinary and integrated way. This design led approach to integration between different strands of infrastructure, if followed through, not only has the potential to deliver efficient use of land, but it is hoped that it will be more cost effective to deliver. It also has the potential to deliver greater levels of sustainability and climate resilience than would otherwise be achieved through a more sectoral or siloed approach to infrastructure delivery.

SESTrans

- There is a region wide need to implement a cross boundary active travel network linking people, settlements and places of work. The SEStran Strategic Network – a schematic, and high level routing study was completed in May 2020. Please see this for routes, and fully reference it in relation to identifying early stage spatial organisation of transport and active travel infrastructure.

- A SEStran Regional Freight Study is underway, including multi modal, water to rail freight, consolidation and transfer and last mile logistics opportunities. The draft Case for Change is currently being reviewed by Transport Scotland and if approved this should be actively referenced. This study will inform ideal locations for freight transfer and is being carried out in accordance with STAG process and principles.

- The SEStran Mobility Hub Study, completed March 2020, identifies potential locations and opportunities for providing hub infrastructure and public realm improvements that support the use of shared forms of mobility including public transport. Study appendices including data are available. Please make explicit reference where used.

- The SEStran Park and Ride Strategic Study examines mode transfer opportunities around public transport (Bus and Train), and provides evidence of existing P&R pressure areas across rail and bus modes.

- The SEStran Main Issues Report completed 2020 provides a useful context to wider regional issues that form the basis for a new Regional Transport Strategy (under development) which may be particularly useful for this study.

Green Action Trust

- It is acknowledged that Water-Resilient Places (Scottish Government, 5th February 2021) had not been published when the phase 1 consultation was on-going, but it should now be an important consideration in the next phase of developing the Spatial Strategy, with obvious reference to the Gogar Burn, its issues and opportunities.

Scottish Water

- Scottish Water is investing to ensure that water services are resilient for future need and anticipate strengthening networks along the A8. In addition, there will be further need to reinforce the wastewater network along this route to facilitate future flows from development contained within the current Local Development Plan and any future plans. Scottish Water recognise that their services are vital to our customers and the communities in which they serve. They will continue to work with the council, stakeholders and customers to plan and deliver services that will support future growth emerging from this strategy. Scottish Water continue to promote a plan led system so that they can align investment and deliver services in the most sustainable way possible.

Edinburgh Airport Limited (EAL)

- Edinburgh Airport intends to develop site operations over the next 25 years. Passenger numbers were previously predicted to increase from around 14.7 million (2019) to 30 million per year by 2043. However, due to COVID-19 this figure will change, but cannot now be determined with any accuracy. Industry forecasts indicate that passenger numbers will recover to FY19 levels by the end of FY24, but the timing and pace of the recovery remains uncertain.

- Airport Masterplan: The last published masterplan was in 2011. In 2016, a draft was issued for consultation, but a final document was not completed – i.e. was not adopted/agreed by the council. In early 2020 a new version was being finalised prior to the lockdown. Following our recovery from COVID, Edinburgh Airport intends on refreshing the latest masterplan for consultation. They intend to incorporate the Global Air Park (GAP) plans into the document. Edinburgh Airport have also recently developed a new environmental strategy which has been endorsed by the EAL Board.
- Global Airpark (GAP): Key ancillary airport functions are constrained/forecast to become constrained as a result of the airports 2040 growth trajectory and masterplan for the airfield. The objectives of the GAP project are:
  - Exports are strategically important to Scotland's economic growth, GAP will support the Scottish Government's ambition to increase exports from 20-25% Gross Domestic Product by 2029;
  - A well-connected site open widely used by e-commerce, life sciences and the food sectors in particular due to time criticality;
  - Provide a sustainable world class air logistics hub;
  - Establish Edinburgh Airport as the UK's Northern Cargo Gateway;
  - Secure diversified growth with existing and new partners to support the delivery of local, global access;
  - Align GAP to the current Airport Masterplan and East Access Road alignment;
  - Establish Edinburgh Airport as a hub for e-commerce and key regional product categories;

  - Engrain digitalisation and sustainability throughout;
  - Ensure growth is future-proofed.
- Edinburgh Airport's Sustainability Strategy, which includes circular economy, efficient waste and electric vehicle themes, as well as a goal to be a carbon neutral campus by 2025, with plans for a 7 megawatt solar farm (in the final stage of Low Carbon Infrastructure Transition Programme application for funding for this).
- It has been noted that Edinburgh Airport made representation on Choices for City Plan 2030.

2.3 Feedback 3: Infrastructure and Land Use Interventions to Facilitate Inclusive Growth

Nature of Infrastructure or Land Use Intervention	Suggested Priority Measures **(those emboldened are considered to be key priorities which align with the Spatial Approach and have market and policy commitment)**	Delivery already committed /identified in forthcoming masterplans or existing policy	Aligns with Spatial Approach for Inclusive Growth and is included in WE-SSIG	Aligns with broad Vision for West Edinburgh and should be considered further in future policy or prioritised for delivery
Active Travel	**Northern active travel route to Edinburgh Gateway Railway Station.**	✓	✓	
	Cammo Walk/Green Corridor, including the railway bridge.	✓		
	West Edinburgh Active Travel Network (WEATN). A shared position between neighbouring developers to facilitate development of meaningful active travel routes would ensure connections are meaningful.			✓
	Active travel facilities as well as routes should be give adequate space, and delivery prioritised within commercial and residential zones - ideally to be delivered by developers / landowners where possible.			✓
	Green Land Bridge over City Bypass linking Wester Hailes to Hermiston Park.	✓	✓	
	A policy of providing active travel routes that align with desire lines rather than next to roads would address some perceived barriers to active travel uptake.			✓
	Any package of infrastructure work needs to be aligned with the City Deal funding package and programme.			✓
	There should be an acknowledgement that much of the existing active travel infrastructure is not fit for purpose, in terms of signage, widths, segregation, safety, markings, surface, visibility, lighting etc. (e.g. A8 cycle route, Maybury, Gogar, Barnton junctions, Eastfield Road).		✓	✓
Road Network	**Action Programme transport interventions for Maybury & A8 corridors, including LDP action T9 (Gogar Link Road), Gogar and Maybury Junction.**	✓	✓	✓

Nature of Infrastructure or Land Use Intervention	Suggested Priority Measures **(those emboldened are considered to be key priorities which align with the Spatial Approach and have market and policy commitment)**	Delivery already committed /identified in forthcoming masterplans or existing policy	Aligns with Spatial Approach for Inclusive Growth and is included in WE-SSIG	Aligns with broad Vision for West Edinburgh and should be considered further in future policy or prioritised for delivery
	Specific infrastructure and land use interventions which should be prioritised in the strategy in order to facilitate inclusive growth are already captured within the phase 1 document (section 1.6, including table 1.3 Transport Proposals and Safeguards). in particular, the WETA Refresh (2016) was developed in partnership with other stakeholders in West Edinburgh and there is general agreement that the infrastructure identified is the appropriate package to support growth in the area based on the current adopted LDP.	✓	✓	✓
	Regarding delivery of development and infrastructure it is clear that there will be an acknowledged funding deficit and there will be a financial impact on the public purse which the Council cannot facilitate. Viable developments which can generate localised improvements as well as contributing to strategic infrastructure programmes will be critical to the success of any strategy when public finances are likely to be constrained.			✓
	We would also note that the current identification and prioritisation of transport infrastructure projects by CEC appears to be undertaken in a relatively piecemeal manner. This has resulted in an inconsistent and contradictory approach to delivery, which has been to the detriment of inclusive and sustainable development across West Edinburgh. We would therefore request that any future Spatial Strategy for West Edinburgh acknowledge these issues and promote ways to overcome them		✓	✓
	The character of the A8 should be a strong boulevard approach to the city, to recognise and promote key land uses along that approach including appropriate commercial uses. Eastfield Road, Dumb bells and A8 roads – recognised as constrained.		✓	✓
	East Access Road to facilitate growth and provide additional capacity and Resilience. The Global Air Park requires the access road.		✓	✓
Education	Primary and secondary school provision should be prioritised.			✓
	Replacement Wester Hailes Education Centre.		✓	✓
	Travel connections to integrate all education sites (e.g. Napier's Sighthill campus not just Heriot-Watt at Riccarton) should be addressed equally.		✓	✓

Nature of Infrastructure or Land Use Intervention	Suggested Priority Measures **(those emboldened are considered to be key priorities which align with the Spatial Approach and have market and policy commitment)**	Delivery already committed /identified in forthcoming masterplans or existing policy	Aligns with Spatial Approach for Inclusive Growth and is included in WE-SSIG	Aligns with broad Vision for West Edinburgh and should be considered further in future policy or prioritised for delivery
Utilities	Utilities for development (electric vs gas supply and demand, foul, etc). It is essential that CEC understands utility / servicing constraints and timelines for various land options in West Edinburgh, including a realistic assessment of education capacity constraints.			✓
	Future proofed communications infrastructure (e.g. 5G or its successors) should be prioritised and provided at the outset for any developments. Access to communications is as important as access to other facilities and services to ensure inclusion.			✓
	Commitment to other infrastructure delivery for water, drainage, services and utilities should also be part of a planned and co-ordinated approach and further development of Park & Ride facilities along the A8 west should be considered.		✓	✓
Habitat and green/blue networks	We have looked at this area in relation to opportunities for habitat connectivity of key habitat types likely to be present – grassland, bog/heath, woodland and wetlands. Of these habitats, the most notable existing resource that could be enhanced is woodland. There is an opportunity to create a north-south, as well as an east-west, 'nature network' by establishing a situation where existing woodland and associated habitats at Queensferry – Cramond, Corstorphine Hill and Dundas Estate are connected and expanded.		✓	✓
	We suggest that some of the highest quality places in the WE-SSIG area at present are Dalmeny and Dundas Estates and the golf courses. These are places close to the city where people choose to spend time, with the pressure on Dalmeny Estate last year providing a clear example of this. Development in West Edinburgh should be based on principles of what makes these places attractive to people, e.g. green infrastructure, safe routes for walking and cycling, etc. and it should propose ways in which these could be translated into new development.		✓	✓
	We consider that a key land use intervention that the WE-SSIG should prioritise are north-south connections for people and nature. The WE-SSIG area lies between two key resources for Edinburgh and its surroundings – the Pentland Hills and the coast. As such, it offers an opportunity to establish and reinforce habitat and access connectivity between these assets. A north-south focus would also create the opportunity for synergies and sustainable infrastructure connections between interventions in WE-SSIG and other areas of regional growth, such as the Granton Waterfront project.		✓	✓
	There is huge potential for a coordinated approach to the various greenspaces within individual developments. These could be linked together (and managed) in a meaningful way, expanding the active travel connections across a wider area, while enhancing biodiversity and well-being.		✓	✓

Nature of Infrastructure or Land Use Intervention	Suggested Priority Measures **(those emboldened are considered to be key priorities which align with the Spatial Approach and have market and policy commitment)**	Delivery already committed /identified in forthcoming masterplans or existing policy	Aligns with Spatial Approach for Inclusive Growth and is included in WE-SSIG	Aligns with broad Vision for West Edinburgh and should be considered further in future policy or prioritised for delivery
Public Transport	Public transport facilities, prioritised within housing and commercial zones, ideally to be delivered by developers/ landowners where possible, and in advance of buildings construction.		✓	✓
	Enhancement of existing park and ride sites under a Hub model, to support and encourage greater use of active travel modes, should ideally be delivered by local authorities, and locations should align to SEStran strategic studies.		✓	✓
	There is a need to improve the efficacy of the Park and Ride facility on the A71, and additional development can help contribute both resources and critical mass to achieve significant improvements at this key transport hub.			✓
	Electric Bus Loop	✓		
	Delivery of Tram/LRT/Park and Ride and ancillary uses is a core part of intercepting traffic as early as possible en-route to the city. This will enable modal shift and deliver significant environmental benefits in terms of traffic calming, reduction in emissions and improvements in air quality and placemaking and landscape benefits.		✓	✓
	Tram Loop connecting Heriot Watt campus and Wester Hailes.	✓	✓	✓
	Enhance accessibility to Curriehill Station and develop this as a transport hub.	✓		✓
	Focus should be on enhancements to public transport infrastructure, routes and timetable amendments in consultation with Network Rail and Lothian Buses.		✓	✓
	The previously published draft City Mobility Plan Spatial Vision sets out a desire to improve public transport connectivity to and from Balerno. This would assist in addressing a key shortcoming in the area and provide better integration and connectivity to education facilities at Riccarton, and retail and employment in West Edinburgh.		✓	✓
	Enhance services and the sustainability of the nearby neighbouring communities such as Ratho, East Calder and Kirknewton, whilst filling a key gap in terms of public transport provision between West Lothian and Edinburgh.		✓	✓

Nature of Infrastructure or Land Use Intervention	Suggested Priority Measures **(those emboldened are considered to be key priorities which align with the Spatial Approach and have market and policy commitment)**	Delivery already committed /identified in forthcoming masterplans or existing policy	Aligns with Spatial Approach for Inclusive Growth and is included in WE-SSIG	Aligns with broad Vision for West Edinburgh and should be considered further in future policy or prioritised for delivery
Placemaking	**Note the importance of ensuring that supporting commercial and community facilities, as well as public realm, are also required as integral parts of creating 20 minute neighbourhoods and that there is an emphasis on place making as part of the emerging WE-SSIG.**	✓	✓	✓
	Encourage the WE-SSIG to support innovative approaches to delivering open space and public realm, especially as part of a higher density development where developable space may be limited.		✓	✓
	Combining art with the outdoors, which can also include creative planting and lighting schemes, can help to better create a sense of place, provide places that communities can group around and assist in connecting residents with their new neighbourhoods.			✓
	A consistent policy approach should be maintained alongside a strategic placemaking and design vision to preserve the unique identity of the approach to the city and to avoid suburbanisation.		✓	✓
Energy and Carbon Reduction	Futureproofing for greater working from home, autonomous vehicles, alternative fuels (not just EVs)		✓	✓
	There should be a clear focus on ensuring that there is full integration of different elements of net zero infrastructure. This will include the linear components of infrastructure that will connect planned areas of growth to the city but also between new neighbourhoods. A clear and comprehensively planned approach will be necessary to fully support sustainable lifestyles and net zero development.		✓	✓
	Emphasise the need for carbon reduction technologies to be incorporated as part of any new development proposals throughout the West Edinburgh area		✓	✓
	There are possible synergies between developments through shared energy infrastructure (e.g. District Heat Networks, Energy Centres etc.).		✓	✓
General	We would expect the eventual approach to deliver an optimum transport solution in accordance with the requirements of the emerging Strategic Transport Projects 2 and National Planning Framework documents. This would involve identifying how the necessary infrastructure can be 'front-loaded' to deliver the necessary mix and scale of development in an inclusive and sustainable manner.			✓

Nature of Infrastructure or Land Use Intervention	Suggested Priority Measures **(those emboldened are considered to be key priorities which align with the Spatial Approach and have market and policy commitment)**	Delivery already committed /identified in forthcoming masterplans or existing policy	Aligns with Spatial Approach for Inclusive Growth and is included in WE-SSIG	Aligns with broad Vision for West Edinburgh and should be considered further in future policy or prioritised for delivery
	A conceptual framework is required for the A8 from Eastfield Road West to the Newbridge Interchange to complement the strategy shown below and prioritise investment in public transport and physical infrastructure as well as strategic landscape improvements.			✓
	Second Runway at Edinburgh Airport should remain safeguarded for a sustainable future.	✓		✓

2.4 Feedback 4: Character Zones

Character Zone	Key Themes	Response Narrative
General Comment	The character and identity section of the consultation document does not accurately reflect adopted site allocations and consented development, for example the commercial and industrial character at Gogarburn does not reflect the residential development recently approved at Land east of Milburn Tower. Approved development and LDP allocation should be used to inform the Phase 2 Assessment.	**Action: Character zones will be updated to reflect development which is consented and under construction.**
	It is not clear what the purpose of these character zones are and how they would relate to emerging policy.	The character zones have been developed to establish a broad baseline position within West Edinburgh in order that future development can be appropriately directed to re-enforce or enhance the existing character.
	We would note that the definitions of each of the Character Zones provide little flexibility to respond to changing market or planning policy conditions. We would therefore request that some flexibility is included within the wording of each of the Character Zones to allow for reasonable levels of additional flexibility in the future.	We note this concern and advise that the Schedule of Approach has been established to be rigorous enough to robustly inform the Vision for West Edinburgh, while remaining flexible to respond to emerging markets and land use requirements
	The terminology should perhaps mirror that of recognised planning policy too, given the WE-SSIG will ultimately influence LDP policy. Reference to 'countryside' and 'greenbelt' rather than 'Farmland and Settlements' is more accurate.	The character zones have been established in order to reflect the broad sense of place or unique character of these areas, they are not intended to reflect planning policy designations or constraints.
	The infrastructure linking the highlighted zones may require further thought, for example, infrastructure for active travel.	This is noted and these connections are embedded within the Schedule of Approach.
	There should be inherent flexibility within the WE-SSIG rather than a one size fits all approach to uses. This is needed to accommodate future opportunities and address the likely need to recalibrate the mix of uses and activities post-Covid due to changing market demands.	We note this concern and advise that the Schedule of Approach has been established to be rigorous enough to robustly inform the Vision for West Edinburgh, while remaining flexible to respond to emerging markets and land use requirements
	Only the 'Coast' character zone currently recognises the role the that the historic environment plays in defining the character of the area. However, the historic environment is a key element of the character of all of the defined 'zones' that comprise the Strategy area, and we would expect this to be reflected in the emerging Staged Vision, including the contribution of historic settlements and landscapes as well as individual heritage assets.	**Action: This is noted and will be updated through the design iteration process.**
	Non-standard terminology / designations have been used which create confusion e.g. 'Farmland' as opposed to Greenbelt or Countryside	The character zones have been established in order to reflect the broad sense of place or unique character of these areas, they are not intended to reflect planning policy designations or constraints.
	The Gyle and Sighthill employment land appears to be encircled without a definition / explanation other than broad references to Parabola. It is unclear from the Character Zone diagram what the intention is in delineating the white dotted circle which appears to cover the intersection of a number of the character zones, but without explanation as the overriding focus / purpose in this area?	**Action: This is noted and was meant to be representative of the extent of a potential 20-minute neighbourhood zone. This will be updated through the design iteration process.**

Character Zone	Key Themes	Response Narrative
	Culture Leisure and Sporting locations are only partially identified in selective locations	**Action: This is noted and will be updated through the design iteration process.**
	Education refers to Heriot Watt Riccarton Campus only.	**Action: This is noted and will be updated through the design iteration process.**
	A more conceptual framework would be a better way to define a spatial strategy without defining specific points of references on an OS base. Interpretation of boundaries could be taken too literally in terms of areas as defined as opposed to a spatial pattern and context for growth. The general characterisations of the zones should not relate to specific boundaries as a map overlay. Whilst well intentioned it will lead to interpretation as a definitive boundary as opposed to a conceptual diagram showing a pattern of growth. Boundaries of the Central Corridor for example do not differentiate land to the north or south of the A8 which have very different specific characteristics.	The character zones have been developed to establish a broad baseline position within West Edinburgh in order that future development can be appropriately directed to re-enforce or enhance the existing character. The boundaries are not fixed, but are representative of the broad sense of place within these areas. It is accepted that the areas north and south of the A8 have different existing and potential functions and characteristics, but this corridor is a key focus for future growth and should be considered holistically in the context of the city region.
Coastal	Firth of Forth SPA should be recognised as part of the coastal character as well as the Forth Rail Bridge.	**Action: This is noted and will be updated through the design iteration process.**
Farmland and Settlements	Land to the west of the A902 Maybury Road which is assessed as 'farmland and settlements' – this is incorrect. This material error is especially concerning as CEC are delivering the new Maybury Primary School, healthcare centre and nursery as part of HSG19. The land should therefore be characterised as 'residential / education / healthcare' instead.	**Action: Character zones will be updated to reflect development which is consented and under construction.**
	The character of the land to the west of Maybury Road is urban in nature and would support additional growth in the future. Infrastructure is also in place to allow this development to come forward. We would therefore request that the Character Zone assessment of this location is amended to allow for the possibility of future growth in this area.	**Action: Character zones will be updated to reflect development which is consented and under construction.**
Central Corridor	Given that the central corridor extends into South Gyle and Sighthill, and encompassing Edinburgh Napier University (and Edinburgh College) facilities, we would suggest that the description includes reference to education.	**Action: This is noted and will be updated through the design iteration process.**
	As example, this plan has the danger of leading decision makers to restrict new mixed-use or housing development to within the 'Central Corridor' area only. The A8 corridor will have some limited capacity for growth which then needs to be dispersed to sustainable communities in order to avoid overheating and gridlock. Ratho connects the A8 with the A71 and seems a highly appropriate location to focus future sustainable development.	In terms of connectivity to surrounding settlements, the Schedule of Approach does recognise that cycling and wheeling provision needs to be strengthened as a preferred travel mode for travel beyond a 20-minute journey across West Edinburgh. In order for development to be delivered in the central corridor, enhancements to key existing east-west corridors such as the A8 and A71 will require to be implemented. These should be carried out via an Infrastructure First approach linked to ecological enhancement/opportunities.
	It is sometimes forgotten that the A8 corridor (central corridor) is the first impression of Scotland and in particular Edinburgh for many of the travellers using Edinburgh Airport. Tourism is a significant element of the Scottish economy and initial impressions should not be forgotten.	This is noted and reflected in the desire to establish the A8 as a 'Gateway' style Avenue for the city.

Character Zone	Key Themes	Response Narrative
	The proposals to focus on development and investment along the East-West corridor seem to be to the detriment of existing communities and residents without considering other opportunities on brownfield sites within the city bypass.	The immediate priority for expansion within West Edinburgh is focussed on brownfield sites within and around Edinburgh Gateway.
	Large scale logistics space could also be provided at Turnhouse, based on demand evidenced to date.	**Action: This is noted and will be updated through the design iteration process.**
	We agree with the designation but suggest the description is updated to reference the need for "transport infrastructure improvements". E.g.: "...requiring a coordinated approach to transport infrastructure improvements, low carbon travel, distribution, production and strategically planned mixed use development..."	**Action: This is noted and will be updated through the design iteration process.**
	A more balanced approach to development in the Western District is the best way for the council to achieve its objectives in terms of sustainability, and in delivering more affordable homes to maintain and share the high quality of life that Edinburgh has to offer. The Western District growth area should be extended along the A71 to facilitate this strategy.	The socio-economic analysis and reporting concludes that the Western District expansion does offer opportunity with respect to achieving inclusive growth objectives, provided appropriate infrastructure (e.g. mass rapid transit) is in place or developed concurrently. The immediate focus for West Edinburgh has therefore been identified as land to the south and east of the existing airport, where brownfield development on allocated land with a tramline in place offers a more sustainable immediate solution to achieving the vision for inclusive growth in West Edinburgh. **Action: It is recognised that existing settlements within the A71 corridor can be better integrated into the Western District. This is noted and will be considered through the design iteration process.**
Western District	Extension of the Western District westwards along the A71 corridor would enable far greater impact on sustainable transport options and deliverability including improving services for communities such as Ratho and enabling a key transport corridor between Edinburgh and Livingston to be maximised.	**Action: It is recognised that existing settlements within the A71 corridor can be better integrated into the Western District. This is noted and will be considered through the design iteration process.**
	We agree that the Western District character zone "provide(s) a range of opportunities for inclusive and sustainable growth within new and existing areas through enhanced connections, learning/skills opportunities, rail networks, waterways and leisure. "This area should be focussed on the existing communities of Balerno, Currie and Juniper Green, ensuring that the principle of "inclusive growth" is met. The land to the North of the rail line and West of Riccarton relates more to the Farmland and Settlements Character Zone, given its rolling farmland and woodland character, than it does the Western District.	**Action: It is recognised that existing settlements within the A71 corridor can be better integrated into the Western District. This is noted and will be considered through the design iteration process.**
	We generally support the proposed approach, although we question why the Western District is referred to as a longer-term objective. The Western District can deliver inclusive growth. The tram loop is not required to deliver a sustainable and accessible development as the Green Land Bridge and Electric Bus Loop will achieve this. The Tram Loop may improve connectivity even further but is not essential.	The Green Land Bridge is supported by the WE-SSIG and should be a priority in terms of delivering significant infrastructure to support inclusive growth in West Edinburgh. It is certainly accepted that the electric bus loop route is sensible, although it should be linked to Edinburgh Gateway. There are some risks to this approach, particularly around funding, maintenance and frequency /capacity. While it could be an adequate short-term solution, the WE-SSIG concludes that a more formal mass rapid transit infrastructure system should be implemented as part of opening opportunities for development in this area.

Character Zone	Key Themes	Response Narrative
	The 'residential/mixed use' (pink colouring) and 'commercial/industry' (blue) zoning on the plan at page 3 should be logically extended to include what is currently referred to as the IBG development site allocation in the adopted Local Development Plan (2016).	**Action: Character zones will be updated to reflect development which is consented and under construction.**
	The yellow shading relates to education, this should refer to Heriot Watt / Riccarton Campus which includes both education and employment uses.	**Action: This is noted and will be updated through the design iteration process.**
Character and Identity Plan	The airport/showground land includes Crosswinds, which is no longer operational airport.	**Action: This is noted and will be updated through the design iteration process.**
	Garden District is shown as commercial / industry.	**Action: This is noted and will be updated through the design iteration process.**
	The Oriam Sports Centre should be included under culture, leisure and sport' facilities.	**Action: This is noted and will be updated through the design iteration process.**
	Rail routes should be more clearly identified, particularly the Shotts Line which runs from Edinburgh Waverley to Glasgow. Curriehill train station should be included in the schedule of defining features.	**Action: This is noted and will be updated through the design iteration process.**

2.5 Feedback 5: Schedule of Approach

Focus of Strategy	Response	Response Narrative
General Comment	We note and support one of the key aims of the Overall Vision is to take an 'infrastructure first' approach to deliver future development in West Edinburgh. However, we consider that this aim could be expanded and strengthened by including reference to funding opportunities and how this infrastructure will be facilitated.	Noted. While it is not within the remit of the WE-SSIG to identify funding opportunities, this point is recognised and will be considered further by the appropriate delivery stakeholders.
	In addition, we would request that West Edinburgh's status as a Strategic Development Area is referenced within the Overall Vision for the area.	**Action: This is noted and will be updated through the design iteration process.**
	It is inappropriate to limit future development to only the Western District Character Zone, as there are other Character Zones within West Edinburgh which can also support future development. This approach also does not acknowledge that parts of West Edinburgh are an identified Strategic Development Area.	Development is not limited to the Western District. There is also a key focus on the central corridor and associated settlements.
	The spatial strategy for the Central Corridor Character Zone needs to follow through to the commentary on 'Sustainable housing' in the Schedule of Approach.	**Action: This is noted and will be updated through the design iteration process.**
	A sensible approach would be to work towards a planning policy to allow 'key settlements' within the countryside (Farmland and Settlements) to expand in a sustainable way. A policy and spatial strategy that would allow sustainable and low-carbon market-led housing development with new/upgraded supporting services and commercial hubs, local facilities, transport improvements etc. Well planned sustainable 20- minute neighbourhoods such as Ratho.	This point is noted and the Schedule of Approach does encourage appropriate community resources such as workspaces, local retail, communications infrastructure and community venues to be established into the fabric of existing neighbourhoods. Local Place Plans should be developed using Wester Hailes as a pilot for community-led change, with a focus on developing local models around placemaking, skills development and access to employment opportunities, building stronger communities.
	The Countryside area and Green Belt should be protected and all development should be on brown field sites where at all possible	The immediate focus of development in West Edinburgh focuses on brownfield sites and existing allocations around West Edinburgh, however the long-term vision does allow for the phased expansion of the city in a sustainable manner.
	There are no Industrial zones in Ratho apart from a derelict former cement works and one Quarry, which is next to the Wave Garden, a planned leisure facility and only a small zone in Ratho Station – please amend.	There is significant industrial/commercial land uses west of the train station in Ratho, however this will be adapted to reflect the pockets of residential also apparent in this area. **Action: This is noted and will be updated through the design iteration process.**
	The ambitions for New City Districts should be more focused on what kind of places they should be. A placemaking vision rather than something which is too specific on uses and zones at this stage.	We note this comment but would suggest it's a level of detail below the anticipated objectives of the WE-SSIG. The WE-SSIG will however aim to frame the placemaking vision for West Edinburgh over the next 30 years.

	The New City Districts concept is very strong and feels right for West Edinburgh. It should be conceived as a family of overlapping 20 Minute Neighbourhoods which are inherently mixed use, with individual characters, rather than a use focused zonal approach.	Noted and this should be reflected in the outcomes of the WE-SSIG.
	We should be thinking in terms of placemaking and development frameworks, that will create places that can evolve in rich and varied ways over time, rather than zones.	We note this comment but would suggest it's a level of detail below the anticipated objectives of the WE-SSIG. The WE-SSIG will however aim to frame the placemaking vision for West Edinburgh over the next 30 years.
	Positive opportunities will arise in the future that can't be foreseen at this time. The framework needs to be clear enough to be an effective roadmap for delivery whilst allowing flexibility to accommodate such opportunities in the future as the New City Districts evolve. For example, as the original concept for the International Business Gateway has evolved over time.	Noted.
	Sustainable Growth Objectives seek to inform the spatial approach which are depicted at the Local, Regional and City scale. There is however limited information on the nature of resultant interventions or timescales and an ongoing commitment to develop the vision in greater detail is needed to allow proper engagement and response from the development industry.	Noted. Key interventions and associated timescales for implementation will be developed through the Phase 2 WE-SSIG study.
	How does longer term growth support other initiatives such as the City Deal that is investing in West Edinburgh now?	It is envisaged that the WE-SSIG will inform future investment and expenditure decisions. It is beyond the remit of the WE-SSIG to identify funding streams beyond those already committed in West Edinburgh.
	The spatial representation should be expanded to include phasing. Tram lines should also be represented in terms of phasing/priority.	Noted. Key interventions and associated timescales for implementation will be developed through the Phase 2 WE-SSIG study.
	Retrofit resources into existing communities – not clear what type of resources and on what basis, not obvious in the schedule of approach	**Action: This is noted and will be updated through the design iteration process.**
Tackling Inequality	The '20-minute neighbourhood' should not be used as an excuse to deny residents the ability to own and park a vehicle – it is unrealistic to design new housing on the premise that residents must only use public transport to reach their place of employment, visit family / friends, etc.	Noted.
	In the context of West Edinburgh there is a significant opportunity to shape future proposals in and around the Edinburgh University's Sighthill campus. The University wish to explore opportunities with other key stakeholders in the area including City of Edinburgh Council, NHS Lothian, Edinburgh College, the local community and employers in the surrounding area to consider the potential creation of a Community Hub. The development of a shared vision has the potential to deliver facilities that can maximise opportunities and benefits from better collaboration, and seek to deliver of services and amenities on a shared basis. The approach fits well with the emerging	**Action: This is noted and will be updated through the design iteration process.**

	themes of WE-SSIG, and the University want to be a key driver of opportunities for better collaboration and connectivity in West Edinburgh.	
	The focus should be on aligning new communities with existing communities.	Noted and this is supported by the WE-SSIG.
Environmental Conservation, Improvement and Tackling Climate Change	There should be a focus on energy innovation and implementing low carbon solutions. However, in some instances it may not be feasible or practical to deliver certain technologies (for example hydrogen technology is at early stages of development and may not be feasible to be included in certain developments). Wording should be amended to qualify these technologies only where practical and feasible.	**Action: This is noted and will be updated through the design iteration process.**
	Improving habitat connectivity, integrating active travel and delivering a climate resilient landscape in this area should be included as central aims for this strategy. Delivering nature-based solutions and promoting a place based approach to enhancement and connectivity of the areas' natural assets, and integrating other aspects of sustainable infrastructure, will be necessary for the delivery of 'net zero' development in west Edinburgh. Promoting fully integrated and 'nature rich' development is also likely to support other aspects of inclusivity, including active lifestyles and wider aspects of population health and well-being.	**Action: This is noted and will be updated through the design iteration process.**
	Similarly, the narrative on green/blue infrastructure is there in the spatial approaches but is under-represented in comparison to other issues such as transport. While transport is an immediately obvious issue for West Edinburgh, there are problems that have affected the transport network in recent years, e.g. flooding, which can be managed and ameliorated (wholly or in part) through nature-based solutions in the form of well-planned green/blue infrastructure. We would welcome more involvement to help shape and direct the role of green/blue infrastructure in the spatial approaches.	**Action: This is noted and will be updated through the design iteration process.**
	Some elements are possibly contradictory. "Promote West Edinburgh as a centre for energy innovation, identifying land-use opportunities within the Central Corridor Zone to implement low carbon energy solutions e.g. hydrogen and solar" doesn't clarify if the proposal is to identify land for large scale hydrogen storage, or solar energy capture and storage,. If so, it could have significant impact on other identified land uses, such as settlement locations, or habitat connections.	We would highlight that the WE-SSIG seeks to offer a flexible, yet robust vision for the future of West Edinburgh and does not necessarily seek to allocate specific parcels of land for specific functions. Any specific development proposals coming forward would still have to respect the policy framework established through the LDP, but in general terms should seek to reflect the broad inclusive growth and net zero aspirations of the WE-SSIG.
	We welcome the inclusion of Environmental Conservation as an area of focus within the Schedule of Approach. However, the draft spatial interventions do not include actions which are focused on delivering the protection and promotion of the historic environment. We encourage you to consider the scope for inclusion of interventions which proactively deliver HEPS3 by addressing the challenges and opportunities relevant to the rich historic environment of the West Edinburgh area.	**Action: This is noted and will be updated through the design iteration process.**
	EAL agrees with the promotion of renewable energy options to support West of Edinburgh sustainability objectives (e.g. windfarms and /or hydrogen) which are compatible with the operation of the Airport. Note: some constraints exist wrt Wind Farms or angle of Solar Farms near an operational Airport.	**Noted.**

	For the natural capital/natural infrastructure opportunities to be realised, there will need to be much greater prescription to ensure that 'green' solutions are not marginalised or negotiated out in favour of what are perceived to be competing objectives. There needs to be the inclusion of natural infrastructure in new developments; securing positive effects for biodiversity and using an infrastructure first approach which includes natural infrastructure.	**Action: This is noted and will be updated through the design iteration process.**
Economic Renewal	The Higher Education sector is of significant benefit to the Edinburgh economy and a range of facilities offered attract students from across the world. Riccarton has a unique landscape setting and the campus character is very much based upon this strong landscape framework. The HWU Campus Masterplan commits to significant future development and expansion of facilities on campus at greater densities. The development and density on campus is part of a core development strategy and should be the focus of policy support. This could include a range of mix of uses for education, business and industry, research and development and social and community infrastructure including local commercial facilities, student and key worker or co-living accommodation.	It is accepted that any future development in south-west Edinburgh should respect the landscape setting of the Riccarton campus. The HWU campus is seen as a strong asset to West Edinburgh and a key driver in facilitating inclusive growth in terms of education and employment opportunities.
	There should be greater reference to the re-use of brownfield land to help facilitate commercial and other mixed used development in West Edinburgh.	Noted and the immediate focus of the WE-SSIG is on developing brownfield and existing allocated sites to the south and east of the airport.
	At Regional level a high-tech interchange is planned at Newbridge. This runs the risk of being premature with a lack of connecting infrastructure with the city and undermining sustainable placemaking objectives if programmed in advance of the new districts approach	Noted. The regional high-tech interchange will be considered further as part of the Phase 2 reporting.
	We would query the aim to “promote West Edinburgh as a centre for energy innovation, identifying land-use opportunities within the Central Corridor Zone to implement low carbon energy solutions e.g. hydrogen and solar”, and request that more information on this is provided to support this aim.	Noted. These objectives will be refined through the Phase 2 reporting.
	Why avoid large scale commercial spaces? We do not agree with the promotion of smaller-scale campuses to the exclusion of larger-scale commercial uses.	We would highlight that the WE-SSIG seeks to offer a flexible, yet robust vision for the future of West Edinburgh and does not necessarily seek to allocate specific parcels of land for specific functions. Any specific development proposals coming forward would still have to respect the policy framework established through the LDP, but in general terms should seek to reflect the broad inclusive growth and net zero aspirations of the WE-SSIG.
	Given the significant traffic movements which can be associated with large logistics hubs, care must be taken within the strategy to ensure these are sited in the most appropriate locations.	Noted.
Connectivity and Infrastructure Delivery	The Mass Rapid Transit (i.e. the Tram) extension is welcomed as a means of reducing traffic on the A8 providing that adequate “park and ride” and other public transport links are provided in readily accessible sites. (The current P&R site at Ingliston pre Covid was regularly full and acted as a deterrent for use). Equally a P&R site originally proposed to	Noted.

the south of Ratho Station, at the top of the hill, was locally deemed to be sited where it would not be regularly used	
Transport poverty for smaller communities such as Newbridge and Ratho mean that they become Dormitory villages using private transport. There is little desire for these communities to be absorbed into larger urban areas.	Noted.
In the central corridor there are already the residential communities of Ratho Station, Newbridge and Sighthill not to mention the outlying hamlets such as Ingliston and Middle Norton as well as future proposed developments. These do not necessarily tie into the Growth Objectives listed. Where there is a desire to increase commerce and industry in the central corridor thereby reducing open spaces this does not reflect the CEC Ecological Coherence desires	The Central Corridor already partly includes a Strategic Development Area and is recognised as an important development corridor within national and local policy. Any future opportunities within the A8 corridor will require to integrate and connect with existing communities and respect the appropriate national and local policy and guidance with respect to new development.
We note that 'Active Travel' believes that most of the community where there is no public transport, should cycle and walk rather than use motor vehicles. In an area where going south from the A8 there are steep hills and a significant proportion of the population over 65 this is not realistic and ageist.	Noted and it is accepted that active travel opportunities should be seen as part of a suite of choices for mobility across West Edinburgh and beyond.
Bus service enhancements implemented on a north/south axis to connect Edinburgh Gateway, Hermiston and south Edinburgh. This ignores Ratho and Newbridge, who have an infrequent bus service at present but with a high number of 2 or 3 car households. If a frequent bus service is not provided there is no incentive to use public transport. An East/West service is required lining these communities with services such as Doctors and banks which are based in different communities.	Noted. This east /west access is identified in the City Mobility Plan as a key corridor which requires improved public transport, park and ride and active travel connections to and between city and town centres.
Support for the use of Travel Plans is included as part of the WE-SSIG to encourage sustainable travel and reduce the use of private cars.	Noted. This should also form part of the policy strategy put forward in City Plan.
We would agree with the overall desire to link social, economic and developmental benefits around inclusive growth and low carbon land use. However, there is a need to recognise the importance of sub-regional commuting and the difficulties associated with the alignment of housing and labour markets across West Edinburgh.	Noted.
Whilst the A8 is the corridor priority this should not be to the exclusion of other transport corridors/ nodes and hubs and in itself does not assist in north south connections. North south travel connections are desirable but will only be delivered as a result of market-led development which generates land values.	Noted.
Connectivity and Infrastructure is focussed on the A8 corridor, but no account has been taken of carrying capacity or environmental impact limitations.	There is an overall desire to reduce traffic on the A8 through an increased provision of public transport and active travel provision.
Bypass remains a large barrier, could we show how this could be addressed?	The Schedule of Approach does support a green walkway of the city bypass.
Enhancement of Curriehill Station should be given greater priority, in order to establish Balerno as a destination in its own right: 'Gateway to the Pentlands'.	The tension between service frequency and critical mass is understood. The WE-SSIG supports Transport Hubs, but these work best where there is a high frequency and quality of public

		transport service. While this is not in place at Curriehill presently, the development of the Western District should be considered in line with the strategic expansion of this important transport asset.
	A tram extension is not required to support the Western District as it already benefits from Curriehill train station.	As above.
	Priority should be given to those areas where infrastructure is already in place.	Noted, and this general approach is supported by the WE-SSIG.
	Whilst a number of socio-economic indicators for Currie, Balerno and Juniper Green are positive, there is a sense of isolation and exclusion within these communities. Poor public transport services limits accessibility to employment and retail locations, Council locality hubs as well as education institutions. This in turn acts as a barrier to attracting visitors to the area which serves as a Gateway to the Pentlands, and those seeking to establish new business ventures/employment opportunities in the area. A strategy of sustainable inclusive growth for West Edinburgh can identify opportunities that will assist in addressing these issues and provide real benefits for existing communities in the area.	Noted. Phase 2 will considered how the Western District integrates with existing communities within this region.
	We recommend that the spatial approach should specifically recognise the importance and benefits of Gogarburn's existing business functions to the economic vision for the area and also the opportunities that surrounding land in NatWest's ownership could deliver in the future in terms of further mixed use development to help realise the vision for West Edinburgh.	Noted. We would highlight that the WE-SSIG seeks to offer a flexible, yet robust vision for the future of West Edinburgh and does not necessarily seek to allocate specific parcels of land for specific functions. Any specific development proposals coming forward would still have to respect the policy framework established through the LDP, but in general terms should seek to reflect the broad inclusive growth and net zero aspirations of the WE-SSIG.
Sustainable Housing	Under 'Sustainable Housing' it would be good to recognise the urgent need for new homes to be affordable and accessible.	Noted. This will be reflected in the Schedule of Approach.
	While it is agreed that the immediate focus should be delivering mixed tenure housing, there is no justification as to why areas around the airport have been prioritised for this in terms of timing.	The socio-economic analysis and reporting concludes that the Western District expansion does offer opportunity with respect to achieving inclusive growth objectives, provided appropriate infrastructure (e.g. mass rapid transit) is in place or developed concurrently. The immediate focus for West Edinburgh has therefore been identified as land to the south and east of the existing airport, where brownfield development on allocated land with a tramline in place offers a more sustainable immediate solution to achieving the vision for inclusive growth in West Edinburgh.

The Schedule of Approach has been further developed to capture priority recommended actions developed as part of the research and consultation process through the Phase 2 of the project. Appendix 2 captures these updates. This has further been used to inform and develop the dependencies and recommended actions brought forward into the main Strategy Document.

Appendix 2 – Schedule of Approach Updates

West Edinburgh Vision - Objectives, approach and recommendations

FOCUS based on Interim Regional Strategy	OBJECTIVES for inclusive and sustainable growth	SPATIAL APPROACH	RECOMMENDATIONS	WHO
Overall vision	The strategic and cohesive coordination of existing and future assets in West Edinburgh which balances growth in prosperity with social equity and sustainability, connecting opportunities and creating a place which provides choice and promotes diversity for local, regional and wider communities.	• Design and deliver a series of complimentary land use strategies that align key City of Edinburgh Council and Scottish Government objectives. • Implement a vision that balances ambition with practical delivery measures. • Embed an approach that ensures those on low incomes and experiencing socio-economic challenges are prioritised in terms of opportunities for positive outcomes. • Provide a range of place-focused, human scaled, well connected mixed-use, mixed-tenure residential-led areas (within new and existing sites) that cater for people's differing needs. • Develop a housing and infrastructure strategy that ensures both new and existing development can be energy efficient, ecologically rich, and low carbon. • Take an 'Infrastructure First' approach that joins priorities in a holistic, connected way and considers addressing key short-term impacts of the COVID-19 pandemic, while also not compromising the medium and long term vision for West Edinburgh. • Inclusive growth is pursued within the constraints of environmental and financial sustainability – ensuring fairness for both current and future generations and preserving, protecting and enhancing Scotland's natural capital environment.	• **Infrastructure led approach.** • **Provide maximum opportunities for local communities in the planning for inclusive growth.** • **Work to attract City Deal Funding to the area to 'make things happen'.** • **Continue to develop and reinforce political 'buy in' to the strategy and vision via APOG and other partnerships.** • **Form partnership working groups with key landowners/consultees moving forward, building upon the consultation process already undertaken.** • **Promote and consult the strategy through the development plan consultation process and integrate with other strategies.** • **A shared position between neighbouring developers to facilitate development of meaningful active travel routes would ensure connections are meaningful.**	CEC Landowners Partners

Connectivity - objectives, approach and recommendations

FOCUS based on Interim Regional Strategy	OBJECTIVES for inclusive and sustainable growth	SPATIAL APPROACH	RECOMMENDATIONS	WHO
Connectivity and Infrastructure Delivery	**Place**: More equal opportunities across Scotland's cities, towns and regions and rural areas, ensuring sustainable communities. **Participation**: Inequality of opportunity to access work is addressed, jobs are fulfilling, secure and well-paid, and everyone is able to maximise their potential.	• Where appropriate, and particularly within the existing International Business Gateway site north of the A8 around the Edinburgh Gateway Interchange, development to be based on principles of 20 minute neighbourhood, ensuring sufficient critical mass to support services, local businesses, amenities and anchor institutions within a walkable distance and connecting to existing established urban neighbourhoods. • Cycling and wheeling provision to be strengthened as a preferred travel mode for travel beyond a 20-minute journey across West Edinburgh, this will require enhancements to north – south connectivity to open the opportunities provided by the Coastal Character Zone and along key existing east-west corridors such as the A8 and A71. Ensure these are carried out via an Infrastructure First approach linked to ecological enh • Bus service enhancements implemented on a north/south axis to connect Edinburgh Gateway, Hermiston and south Edinburgh and consideration should be given to Mobility as a Service (MAAS) and its impact on bus requirements within the design of the Built Environment. ancement/ opportunities. • Residual vehicle demands should be adequately addressed through the existing road network, no new road building is proposed other than for direct access to development sites, however improvements will be required at key road network nodes such as Newbridge, Gyle and Hermiston. • In collaboration with key partners, explore opportunities for a tram loop, or mass rapid transit solution to facilitate sustainable growth in the Western District Character Zone, aligning with Zone 8 of the Edinburgh Strategic Sustainable Transport Study Phase 1.	• **Deliver an optimum transport solution in accordance with the requirements of the emerging Strategic Transport Projects 2 and National Planning Framework documents. This would involve identifying how the necessary infrastructure can be 'front-loaded' to deliver the necessary mix and scale of development in an inclusive and sustainable manner.** • **Progress and prioritise inclusive growth strategy and 20 min. neighbourhood principles within and around Westerhailes.** • **Develop urbanisation of A8 corridor and neighbourhood masterplans around 20 min. neighbourhood principles.** • **Align and plan Infrastructure Programmes.**	CEC Partners

Economic Renewal - objectives, approach and recommendations

FOCUS based on Interim Regional Strategy	OBJECTIVES for inclusive and sustainable growth	SPATIAL APPROACH	RECOMMENDATIONS	WHO
Economic Renewal	**Productivity**: Economic growth is resilient, sustainable and inclusive. **Participation**: Inequality of opportunity to access work is addressed, jobs are fulfilling, secure and well-paid, and everyone is able to maximise their potential.	• Intensify key settlement centres in Farmland and Settlement Character Zone, promoting small-scale local commercial hubs and enhancing connections. • Large scale logistics space should be promoted west of the airport within existing industrial zones at Newbridge and Ratho, and at appropriate locations within the Central Corridor Zone. • Promotion of smaller-scale incubator mixed-use campuses within the Airport Zone, avoiding large footprint commercial space where possible. • Facilitate research, development and innovation objectives of the Edinburgh and South-East Scotland City Region Deal by promoting fast, efficient and affordable access and connections to the five data driven innovation 'hubs' at the Bayes Centre, Edinburgh Futures Institute, Easter Bush, the Usher Institute and National Robotarium, as well as , the BioQuarter/ Edinburgh Royal Infirmary.	• **Existing settlements be intensified with small scale commercial hubs** • **Small scale, mixed use workspaces be promoted in existing and pipeline development (avoiding large footprints).**	CEC Partners

Environment and Climate Change - objectives, approach and recommendations

FOCUS based on Interim Regional Strategy	OBJECTIVES for inclusive and sustainable growth	SPATIAL APPROACH	RECOMMENDATIONS	WHO
Environmental Conservation, Improvement and Tackling Climate Change	**Productivity**: Economic growth is resilient, sustainable and inclusive. **Place: M**ore equal opportunities across Scotland's cities, towns and regions and rural areas, ensuring sustainable communities.	• Promote West Edinburgh as a centre for energy innovation, identifying land-use opportunities within the Central Corridor Zone to implement low carbon energy solutions e.g. hydrogen and solar. • Seek opportunities to transform existing, extensive farmland into thriving, productive landscape. • Re-enforce tourism and leisure identity in key constellations by establishing core connections. • Consolidate and enhance existing green/blue networks and associated accessibility. • Promote habitat connections along priority areas outlined in ongoing CEC Ecological Coherence work.	• **Identify and set key north south active travel routes and link to blue green infrastructure opportunities.** • **Align outputs from Blueprint being developed by Green Action Trust, (to inform habitat connectivity and active travel) and the Ecological Coherence** • **Plan being developed by Edinburgh Council in partnership with Scottish Wildlife Trust (habitat connectivity and ecosystem services) to inform blue-green infrastructure and networks. Refer to precedent work in this area at Cockenzie Blindwells in East Lothian.**	CEC Partners

Resilient and sustainable places- objectives, approach and recommendations

FOCUS based on Interim Regional Strategy	OBJECTIVES for inclusive and sustainable growth	SPATIAL APPROACH	RECOMMENDATIONS	WHO
Resilient and Sustainable Places	**Population**: Scotland's population is healthy and skilled. **People**: Economic benefits and opportunities are spread more widely across Scotland's population with lower poverty levels. **Place**: More equal opportunities across Scotland's cities, towns and regions and rural areas, ensuring sustainable communities.	• Immediate focus (i.e. within the City Plan programme) should be delivering mixed-tenure housing (as part of mixed-use schemes) which meets quality design, active travel and energy efficient standards focused within the sites around the Edinburgh Gateway Interchange. • Where smaller homes are being designed attention should be paid to how they can accommodate home working, home study and play. • In the longer term, provision of mixed-use, mixed-tenure, well connected housing that meets quality design and energy efficient standards should be focussed within the Western District Character Zone and should connect with existing, established neighbourhoods • Embed bio-diversity net-gain principles within large-scale green belt development proposals.	• **Improvements to existing housing neighbourhoods, connections and Condition** • **20 min. principles be embedded into all aspects of new housing and development** • **Any new homes should accommodate home working, study and play.** • **Commitment to other infrastructure delivery for water, drainage, services and utilities should also be part of a planned and co-ordinated approach and further development of Park & Ride facilities along the A8 west should be considered.** • **Support innovative approaches to delivering open space and public realm, especially as part of a higher density development where developable space may be limited.** • **Delivery of mixed-tenure housing (as part of mixed-use schemes) which meets quality design, active travel and energy efficient standards focused within the sites around the Edinburgh Gateway Interchange.**	CEC Partners

Tackling Inequality - objectives, approach and recommendations

FOCUS based on Interim Regional Strategy	OBJECTIVES for inclusive and sustainable growth	SPATIAL APPROACH	RECOMMENDATIONS	WHO
Tackling Inequality	**Population**: Scotland's population is healthy and skilled. **People**: Economic benefits and opportunities are spread more widely across Scotland's population with lower poverty levels. **Place**: More equal opportunities across Scotland's cities, towns and regions and rural areas, ensuring sustainable communities. **Participation**: Inequality of opportunity to access work is addressed, jobs are fulfilling, secure and well-paid, and everyone is able to maximise their potential. **Productivity**: Economic growth is resilient, sustainable and inclusive.	• Areas of deprivation identified through the WE-SSIG Phase 1 Report and those located within the wider local region should be prioritised in the implementation of more efficient and affordable access to education, employment and training opportunities. • Where necessary, appropriate community resources such as workspaces, local retail, communications infrastructure and community venues should be retro-fitted into the fabric of existing neighbourhoods. • Develop Local Place Plans using Wester Hailes as a pilot for community-led change, with a focus on developing local models around placemaking, skills development and access to employment opportunities, building stronger communities. • Enhance strategic connections between educational institutions and life-long learning opportunities. • Enhance active travel connections and greenspace connecting existing and new development. • Promote provision of employment opportunities in proximity to housing and/or transport hubs. • As a longer-term objective, and in line with the tram extension discussed under 'Connectivity and Infrastructure' promote the provision of quality, energy efficient mixed-use, mixed-tenure housing within the Western District Character Zone, promoting active travel connections with the Heriot Watt Campus and associated education and employment opportunities.	• **Development of Local Place Plans – funding of one project as a pilot at Wester Hailes.** • **Progress opportunities and shared Vision for Skills - Development, Education and Lifelong Learning programmes with key stakeholders in area such as the education institutes and schools.** • **Travel connections to integrate all education sites (e.g. Napier's Sighthill campus not just Heriot-Watt at Riccarton) should be addressed equally**	CEC Partners

COLLECTIVE ARCHITECTURE

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4

Background Context Mapping

The project team have produced a series of maps that outline the existing West Edinburgh context under the following key headings:

A. Aerial Map
B. Urban Development and Greenspace
C. Greenspace, Woodlands and Farms
D. Watercourses and Fluvial flooding
E. Neighbourhoods and Identity
F. Notable Buildings
G. Scheduled Monuments and Listed Buildings
H. Major Roads and Junctions
I. Rail, Tram and Path Network
J. Protected and Conservation Areas

The Aerial Map indicates the extent of the study area.

A series of transportation maps outlining existing baseline information for the areas has been provided as Supporting Document 6.

'West Edinburgh is peppered with small clusters of development. On the urban edge of the city, it could be described as peri-urban - a hybrid landscape with fragmented urban and rural characteristics.'

Background Mapping, Urban Development and Greenspace, Collective Architecture, May 2021

West Edinburgh Today

Fig.A Aerial map overleaf indicates the extent of the study area.

This extends from the Firth of Forth to the North and Balerno/Curriehill to the South. It also extends from the Westerhailes/Crammond to the East and Ratho/South Queensferry to the West.

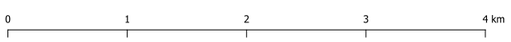
Figure A.
Aerial Map via Google Earth

0 1 2 3 4 km

Urban Development and Greenspace

Fig. B. Urban Development and Greenspace
West Edinburgh is peppered with small clusters of development. On the urban edge of the city, it could be described as peri-urban - a hybrid landscape with fragmented urban and rural characteristics.

Figure B.
Urban Development and Greenspace, Collective Architecture



Greenspace, Woodland and Farms

Fig. C. Greenspace, Woodland and Farms
In terms of land coverage, West Edinburgh is predominantly greenspace, woodland and farmland. Although much of the area defined as farmland is not productively used for agriculture and it may be more appropriate to describe this as scrubland. Additionally, much of the defined greenspace is not publicly accessible, with much of it occupied by golf courses.

Figure C.
Mapping Greenspace, Woodland and Farms, Collective Architecture

Watercourses and Fluvial Flooding

Fig D. Watercourses and Fluvial Flooding (in grey)
This map shows the extent of watercourses, water-bodies and fluvial flooding in West Edinburgh. Two major watercourses which flow through the area are the Union Canal which flows between Edinburgh and Falkirk, and the River Almond which terminates into the Firth of Forth at Cramond.
In addition there are several smaller burns and streams which flow throughout West Edinburgh. The grey areas on the map indicate areas that may flood due to rivers and streams. Much of the area on the banks of the River Almond is categorised as medium and high risk areas for flooding, including the large zone around and to the north of the Airport.

0 1 2 3 4 km

Figure D.
Mapping Watercourse and Fluvial Flooding, Collective Architecture

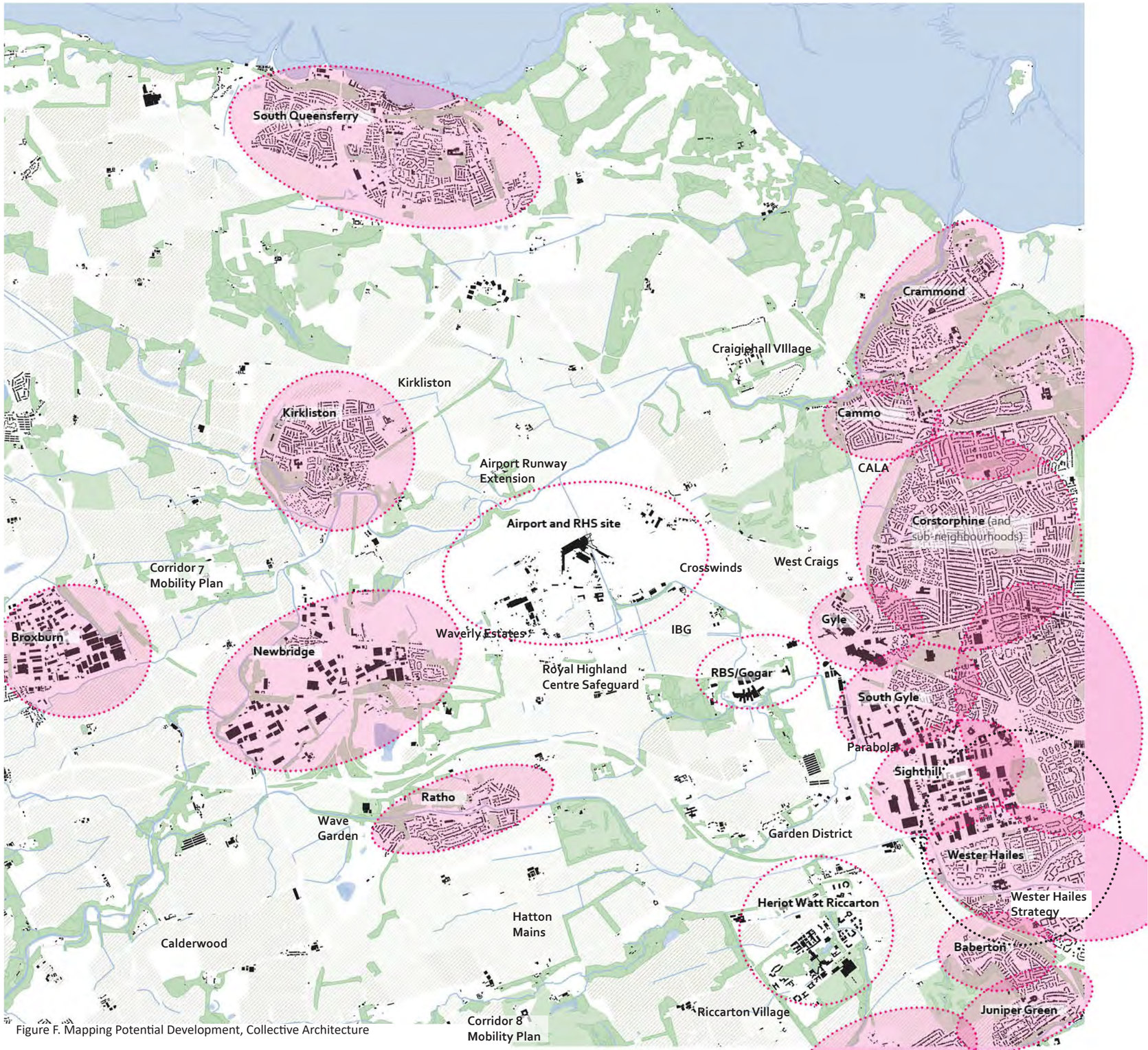
Neighbourhoods

Fig. E. Neighbourhoods

West Edinburgh does not have one specific town centre, nor can be defined by a singular, encompassing identity. Instead it has a number of disparate centres and smaller settlements within the landscape. This is in contrast to the urban area which is defined by many neighbourhoods which connect and overlap each-other.

Some of the centres within West Edinburgh are characterised by housing, while others are mostly industrial, commercial or educational.

Figure E.
Mapping Neighbourhoods, Collective Architecture



0 1 2 3 4 km

Figure F. Mapping Potential Development, Collective Architecture

Notable buildings

Fig. G. Notable buildings

West Edinburgh does not have one specific town centre, nor can be defined by a singular, encompassing identity. Instead it has a number of disparate centres and smaller settlements within the landscape. This is in contrast to the urban area which is defined by many neighbourhoods which connect and overlap each-other.

Some of the centres within West Edinburgh are characterised by housing, while others are mostly industrial, commercial or educational.

Figure G.
Mapping Notable buildings, Collective Architecture

Key

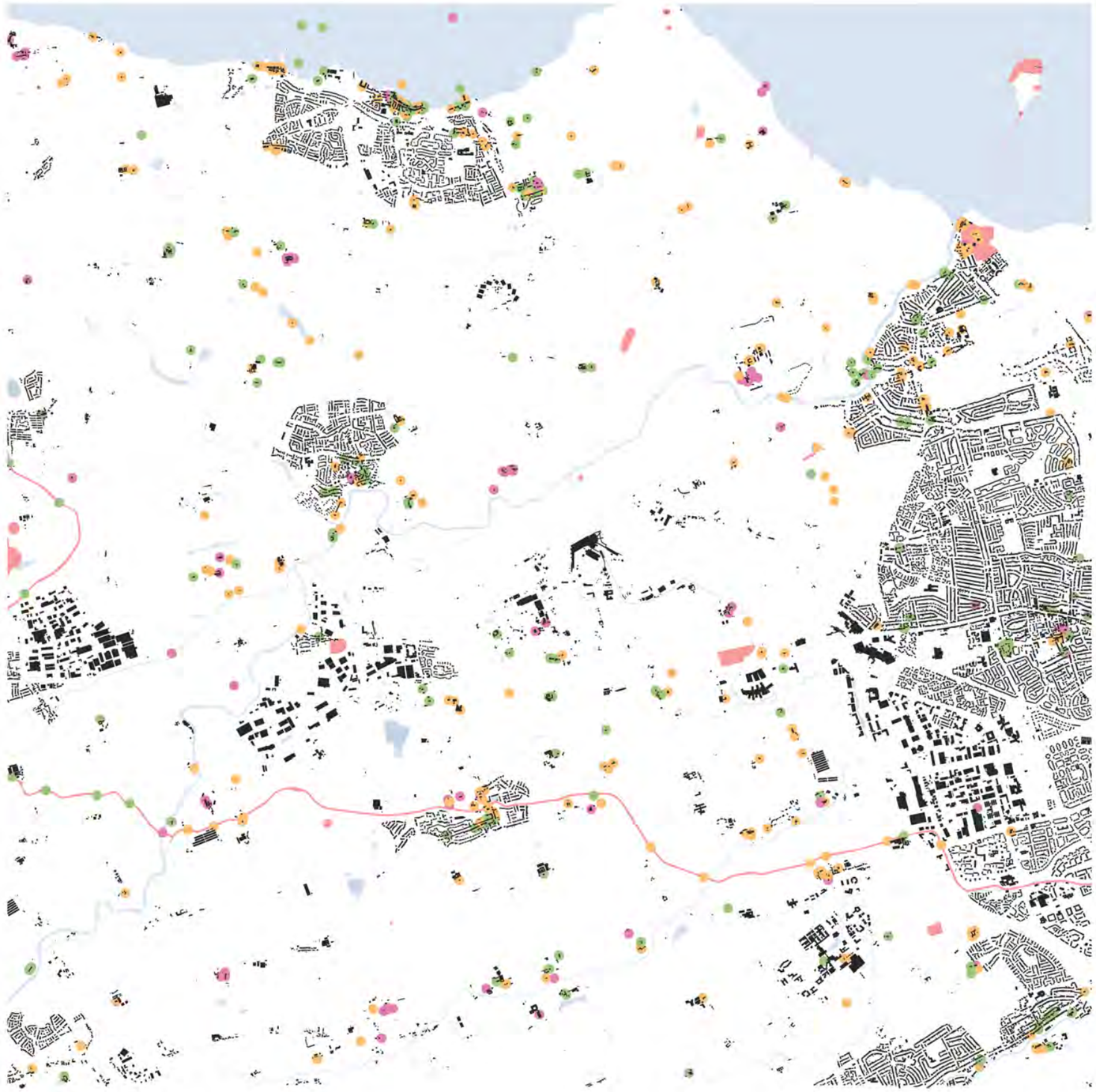
- Cultural Facility
- Education
- Emergency Service
- Medical Care
- Religious Buildings
- Retail
- Road Transport
- Sports Or Exercise Facility
- Air Transport

0 1 2 3 4 km

Scheduled Monuments and Listed Buildings

Fig. H. Scheduled Monuments and Listed Buildings
West Edinburgh contains a wealth of historic, cultural assets which are dispersed throughout the area. There are over 25 Scheduled Monuments and 660 listed buildings, of which 91 are Category A listed and 331 are Category B listed.

Figure H.
Mapping Scheduled Monuments and Listed Buildings, Collective Architecture



Pipeline Development

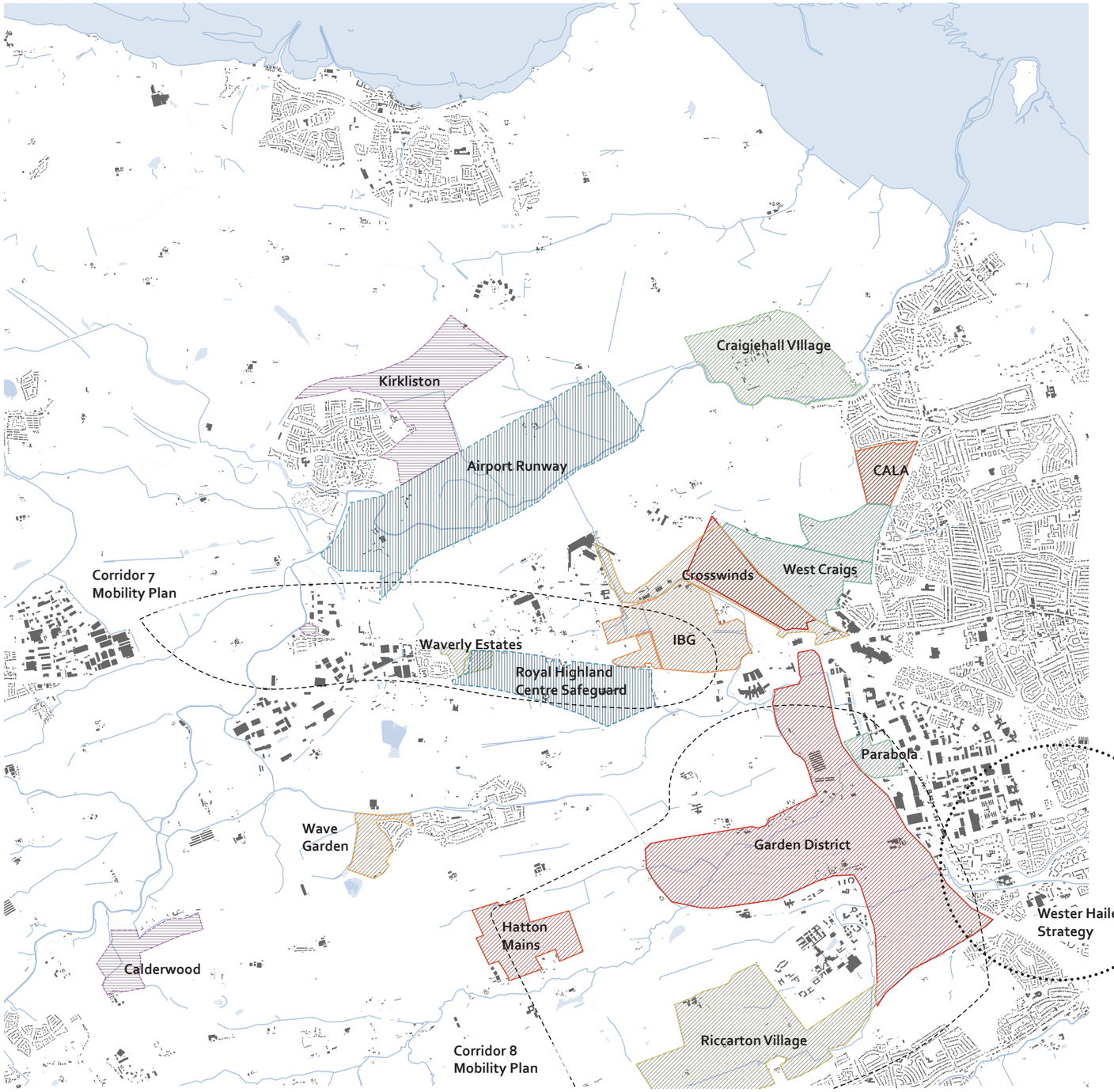
Fig. F. Pipeline Developments

There are several potential, major housing-led development sites within West Edinburgh. These are typically in private ownership and at various stages of design and/or development.

There are also two sites which are designated safeguards in the current LDP; the Airport Runway Extension and the Royal Highland Centre sites. In addition, two large sites have been identified as potential housing-led developments within the Choices for City Plan 2030, these are at Kirkliston and Calderwood.

There are also preferred transport corridors which have been identified in the Edinburgh Strategic Sustainable Transport Study.

Figure F.
Mapping Pipeline Development, Collective Architecture



Major Roads and Junctions

Fig. I. Major Roads and Junctions

West Edinburgh is served by several major roads and associated infrastructure. They are well connected and provide direct regional and national links. These define the edge of urban development, and create divisions across the area which may be considered as barriers to non-vehicular movement.

Figure I.
Mapping Major Road and Junctions, Collective Architecture

Rail, Tram and Path Network

Fig. J. Rail, Tram and Path Network

There are several train lines which run through West Edinburgh which provide connections to Glasgow, Stirling, Fife and the North. However, stations serving West Edinburgh are on the periphery of the area. In addition, these stations are served by 'local' services which are less frequent and take longer than more direct services. The tram line connects Edinburgh Airport with the City Centre through West Edinburgh.

There are several Local and Core Paths in the area, as well as some Quite Routes, many of which are connected to one of the train stations. However, the map also shows that the path network is broken in several places and that many of the established routes are East to West with few connections North to South.

Figure J.
Mapping Rail. Tram and Path Networks, Collective Architecture

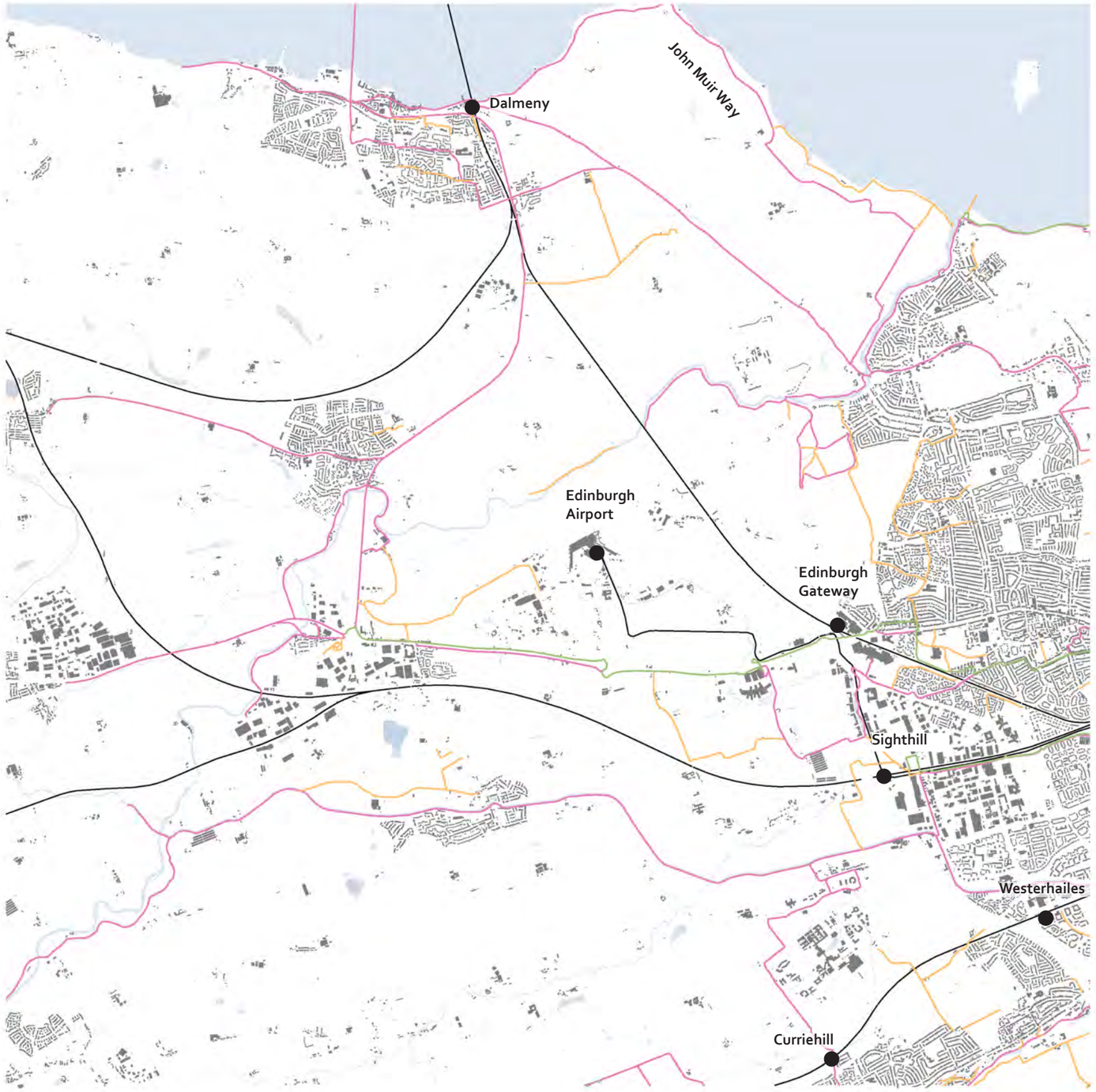


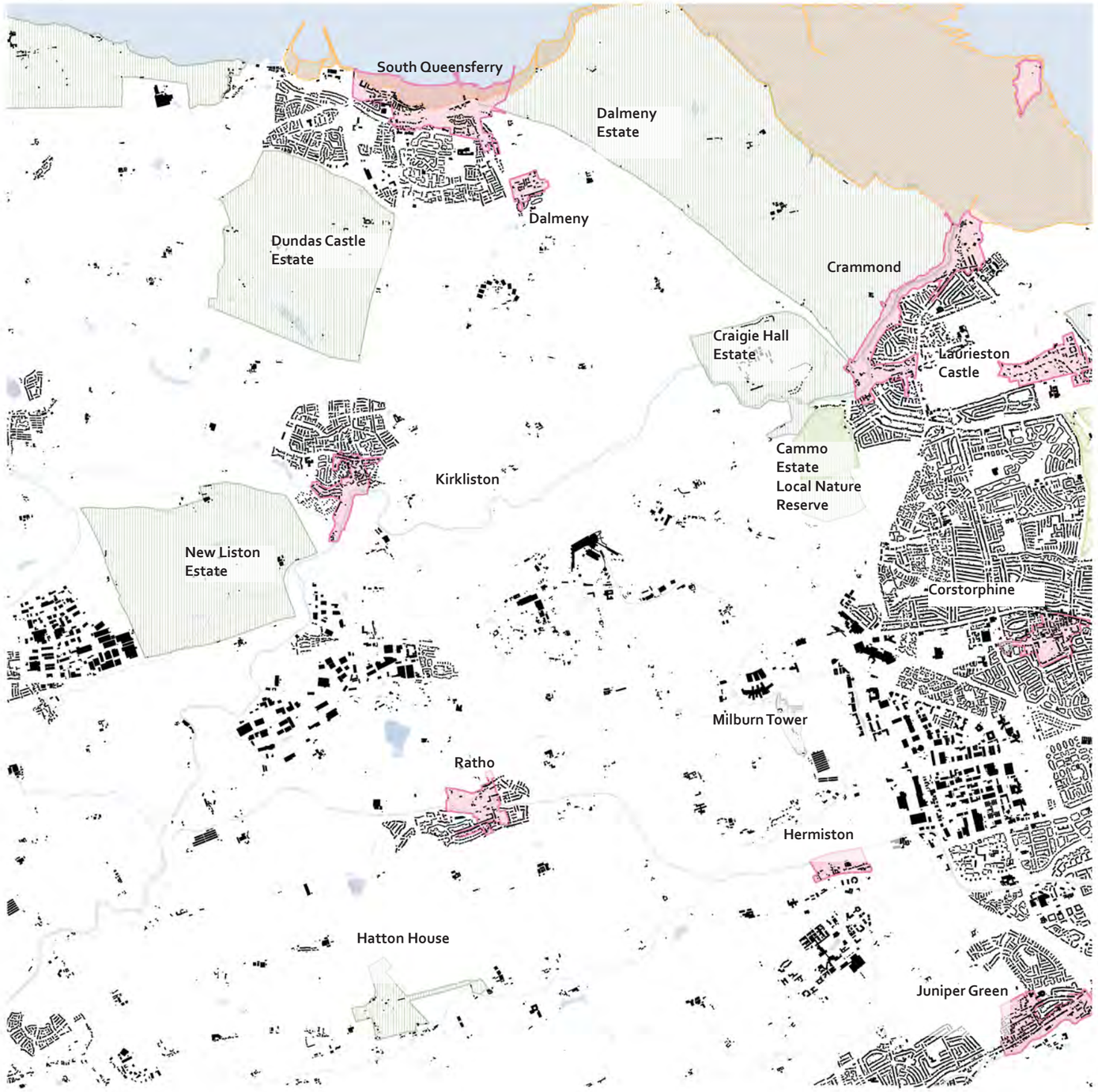
Figure J. Mapping Rail. Tram and Path Networks, Collective Architecture

Protected and Conservation Areas

Fig. K. Protected and Conservation Areas
This map shows the location and extent of protected areas within West Edinburgh. There are several Conservation Areas, shown in pink, as well as multiple Gardens and Designed Landscapes which are typically associated a Country House or mansion, these are shown in dark green. Additionally, the Cammo Estate contains a Local Nature Reserve which was designated in 2016. The north of West Edinburgh is defined by the Firth of Forth, much of this shoreline is a Site of Special Scientific Interest.

Canal -

Figure K.
Mapping Protected and Conservation Areas, Collective Architecture



Key
- Local Nature Reseves
- Conservation Areas
- Site of Special Scientific Interest
- Gardens and Designed Lanscapes

0 1 2 3 4 km

20 minute neighbourhood mapping

A key factor in the developing strategy and vision for West Edinburgh is the development of 20 minute neighbourhods. This concept is a key focus of NPF4. It promotes higher density, mixed use development that targets access to public green space, a range of affordable house types, public transport and active travel.

It is estimated this may require an average density of at least 65 dwellings per hectare in new developments, although it could be higher in some areas. This is intended to provide the most effective use of land, with an emphasis on brownfield sites but development on greenfield if needed, in the same way.

The higher density provides the critical mass to support local services and amenities to achieve a mixed use area that can help reduce car usage. This aims to address the housing shortage and improve affordability and availability of housing overall.

'Higher density can create the demand for associated services and business, employment and public transport, with local services within a 15- 20 minute walking distance at most and an emphasis on active travel. '

Improvement Service, Rapid Scoping Asessment 2020

West Edinburgh neighbourhoods

The study team carried out a high level mapping review of key areas within the West Edinburgh study area.

These maps provided a quick visual insight around the scale, land use and landscapes within Newbridge, Edinburgh Gateway, Ratho and Westerhailes.

They were measured against the key features of the 20 minunte neighbourhoods (see diagram below) and a 1.6km diameter walking distance, (shown as black circle within map) centred, where relevant, on a key transport interchange to assist in the consideration of the overall strategy. Going forward, any future mapping should focus on movement in and around the area focused on local amenities.

The maps are not intended to be used beyond their purpose as a discussion tool and have been included here for information and background only.

EDINBURGH GATEWAY

KEY

- Housing (low density)
- Housing (medium density)
- Business-led development
- Education
- Culture, Leisure and Sport
- Pipeline development
- 20 min neighbourhood distance (simplified) (equates to 800m from centre)

20 min Neighbourhood Themes

Housing (diversity) and Safe streets:
- Very small, disconnected pockets of low density housing at present
- Several pipeline projects in area proposing new build housing and other uses

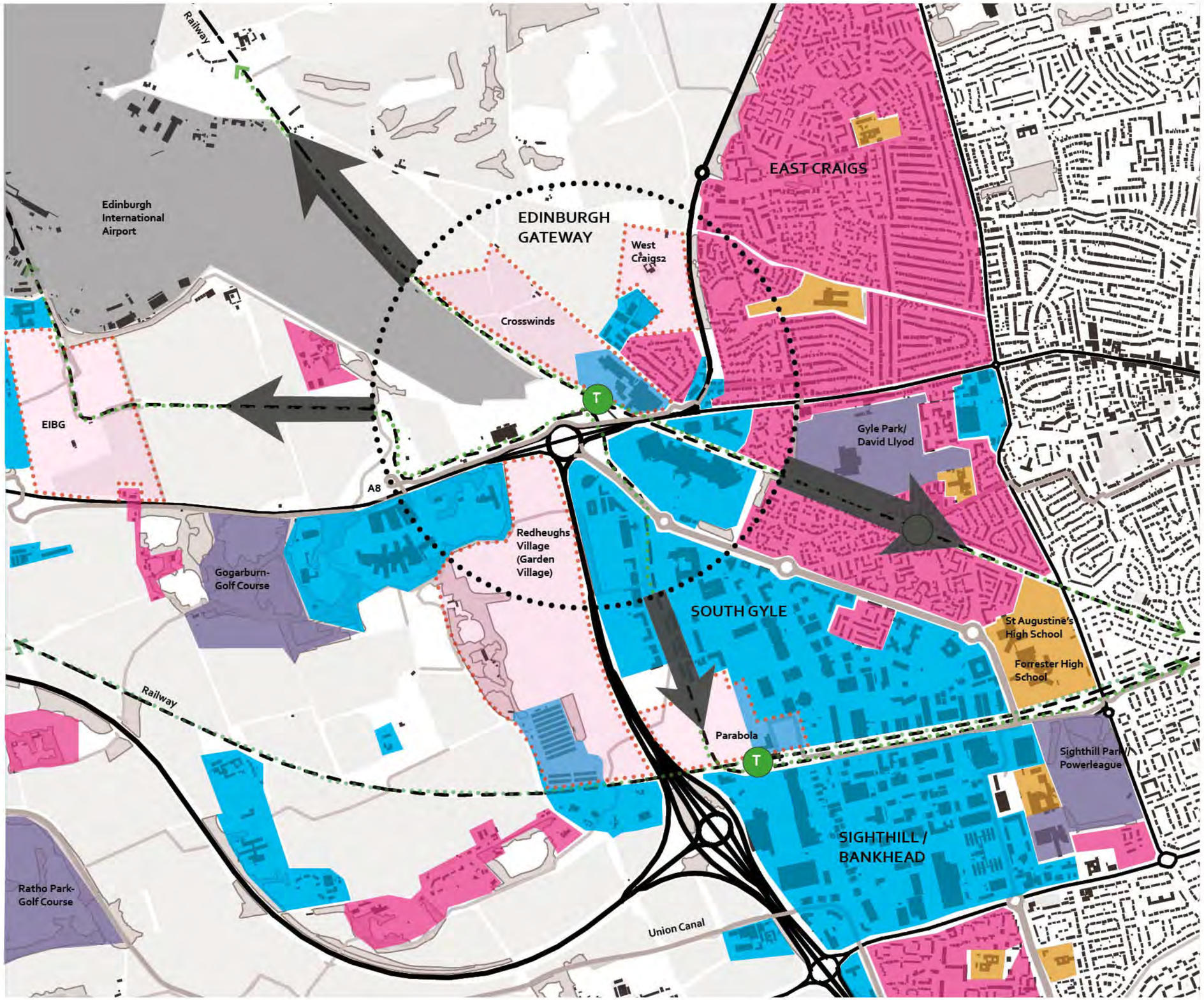
Connectivity / Active Travel:
- Area dominated by large scale car infrastrucuture
- Very well served for train and tram
- New active travel routes planned

Local shopping centres / Health facilities
- Area generally dominated by large-scale business-led development
- No health faclities in the area
- No obvious local centre

Local Schools / Lifelong Learning:
- Primary School in eastern area outwith walking distance
- Links to other places of learning readily access via train/tram

Employment (well connected)
- Many workplaces within the area - primarily large scale office and retail
- Employment opportunities in wider area and connected by bus/rail/tram

Open space (quality)
- No significant open space.
- New developments planned with green routes/open space



NEWBRIDGE

KEY

- **Housing (low density)**
- **Business-led development**
- **Education**
- **Culture, Leisure and Sport**
- **Pipeline development**
- **20 min neighbourhood distance (simplified)** (equates to 800m from centre)

20 min Neighbourhood Themes

Housing (diversity) and Safe streets:
- Very small, disconnected pockets of housing
- Area dominated by major infrastructure

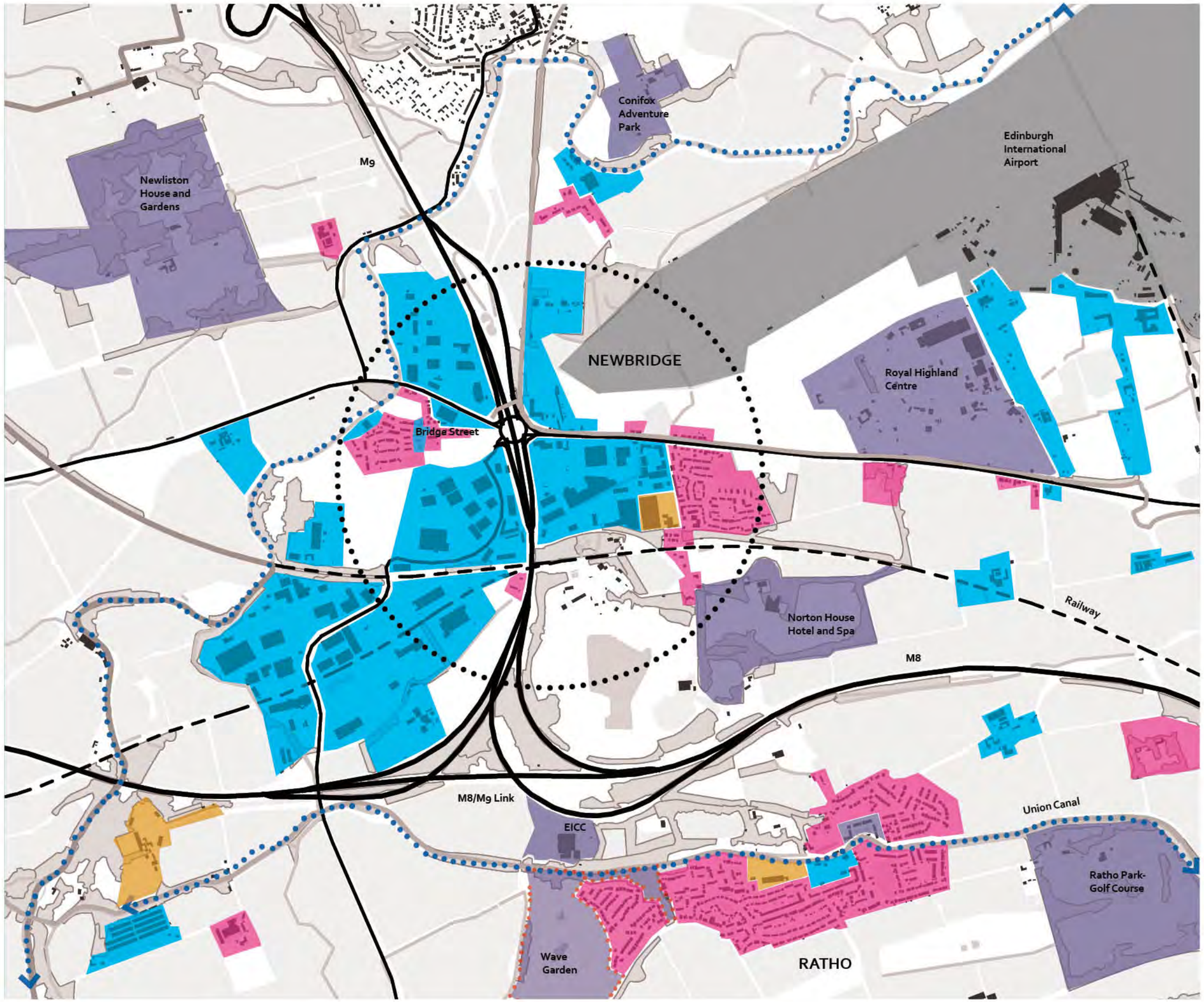
Connectivity / Active Travel:
- Settlement split by M9
- Some bus links connecting wider area
- No rail links connecting other areas
- Poor cycling infrastructure/core paths

Local shopping centres / Health facilities
- Area generally dominated by large-scale business-led development
- No health facilities in the area
- Small local centre along Bridge Street with a few retail/commercial properties

Local Schools / Lifelong Learning:
- Primary School in eastern area
- Links to other places of learning unclear

Employment (well connected)
- Many workplaces within the area - primarily large scale retail, airport-related, leisure and hospitality.
- Employment opportunities in wider area but only well connected by car.

Open space (quality)
- One or two public open spaces around Bridge Street but generally no civic public open space



RATHO

KEY

- Housing (low density)
- Business-led development
- Education
- Culture, Leisure and Sport
- Pipeline development
- 20 min neighbourhood distance (simplified) (equates to 800m from centre)

20 min Neighbourhood Themes

Housing (diversity) and Safe streets:
- Typically low rise housing only
- Concentrated around Union Canal
- No major roads within settlement

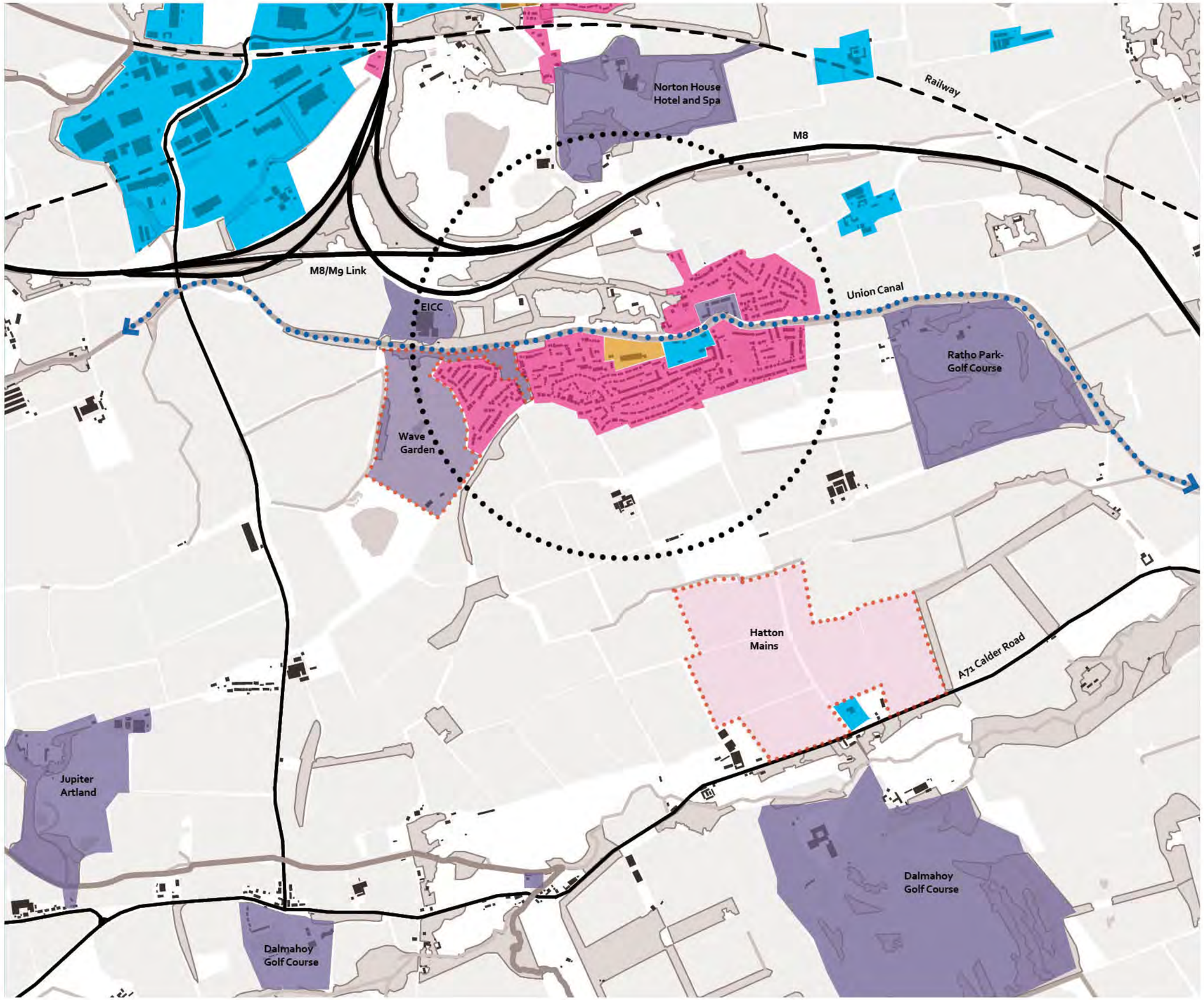
Connectivity / Active Travel:
- Bus links connecting wider area
- No rail links connecting other areas
- Poor cycling infrastructure/core paths
- Poor North south links

Local shopping centres / Health facilities
- Small shops, library, retail, community centre and health centre
- Lots of leisure and cultural opportunities in the area but not accessible by active travel

Local Schools / Lifelong Learning:
- Primary School in walking distance
- Links to other places of learning unclear

Employment (well connected)
- Small pockets of retail/commercial in and around settlement
- Employment opportunities in wider area but only well connected by car.

Open space (quality)
- Community Woodland
- Sports pitches and greenspace around amenity



WESTERHAILES

KEY

- Housing (low density)
- Housing (medium density)
- Business-led development
- Education
- Culture, Leisure and Sport
- Pipeline development
- 20 min neighbourhood distance (simplified) (equates to 800m from centre)

20 min Neighbourhood Themes

Housing (diversity) and Safe streets:
- Mainly affordable medium rise with some areas in need of refurbishment/densification
- Several pipeline projects to east of bypass proposing new build housing and other uses

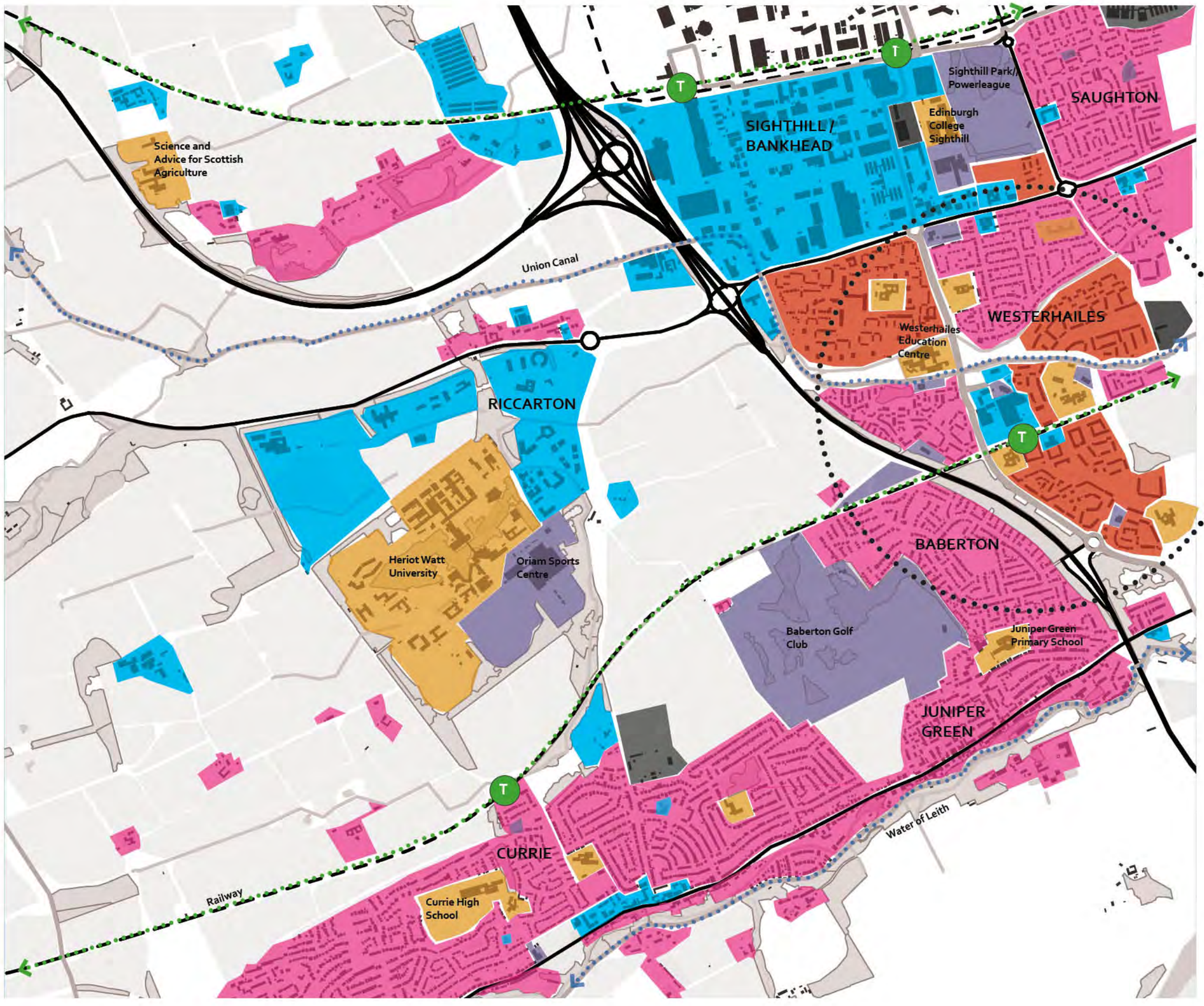
Connectivity / Active Travel:
- Train Station in centre of neighbourhood connecting to City Centre and Glasgow
- Currently car dominated landscape but new active travel routes planned
- Huge potential for enhanced connections via Water of Leith and Union Canal

Local shopping centres / Health facilities
- Clear local centre and range of amenities
- Yet lacks clear hierarchy , urban cohesion and connectivity

Local Schools / Lifelong Learning:
- Number of primary schools within area
- Education centre located centrally with Edinburgh College and Heriot Watt in locale

Employment (well connected)
- Range of commerce and industry within the surrounding area - primarily large scale and retail and industrial
- Employment opportunities within in wider area and connections to City Centre

Open space (quality)
- Access to waterways and areas of open space but connections between these and quality overall could be improved.



Transport Baseline Mapping

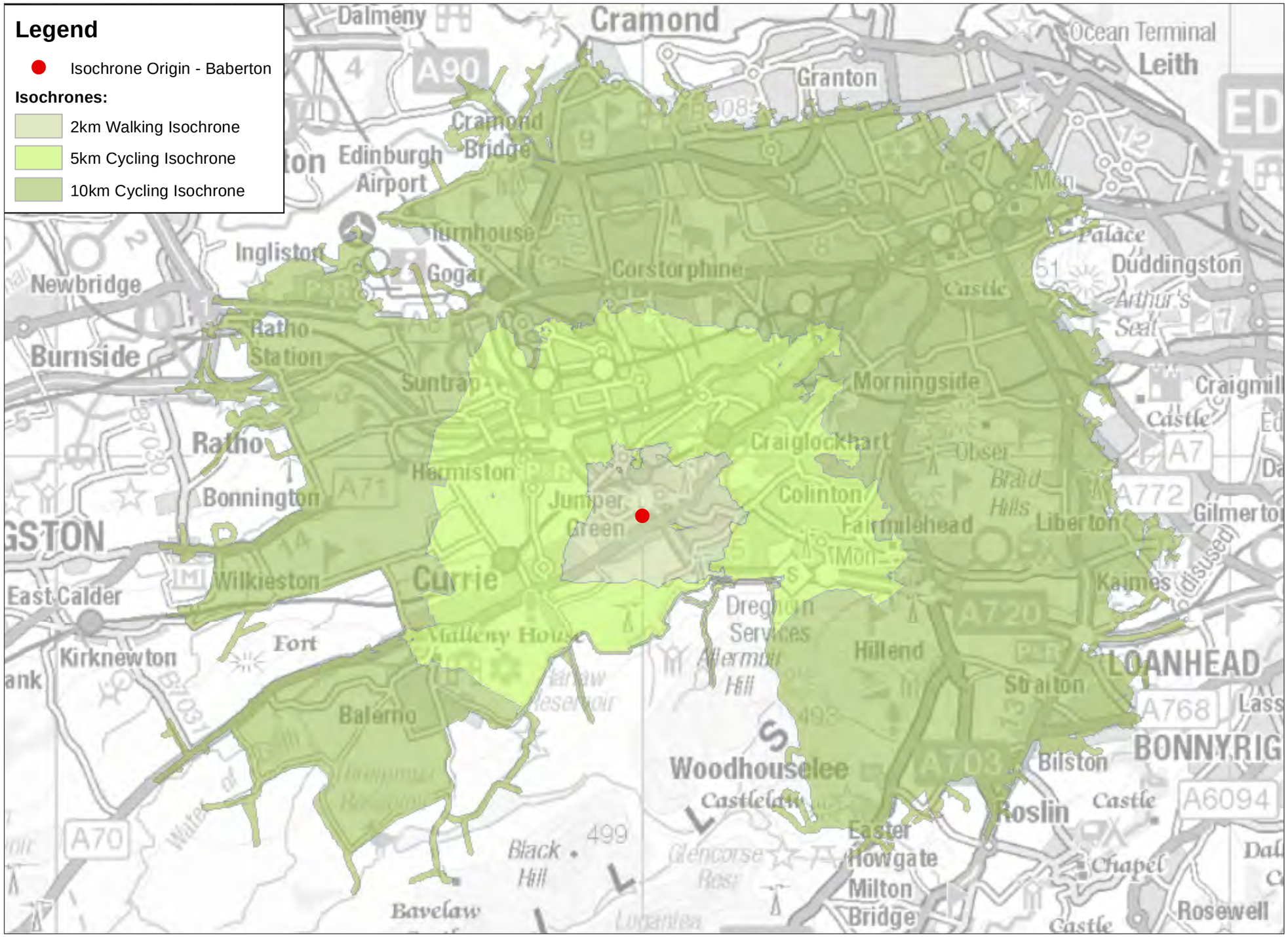
Collection of maps produced during Phase 1 of the Study to provide an baseline overview of existing transportation and movement patterns within the area.

6

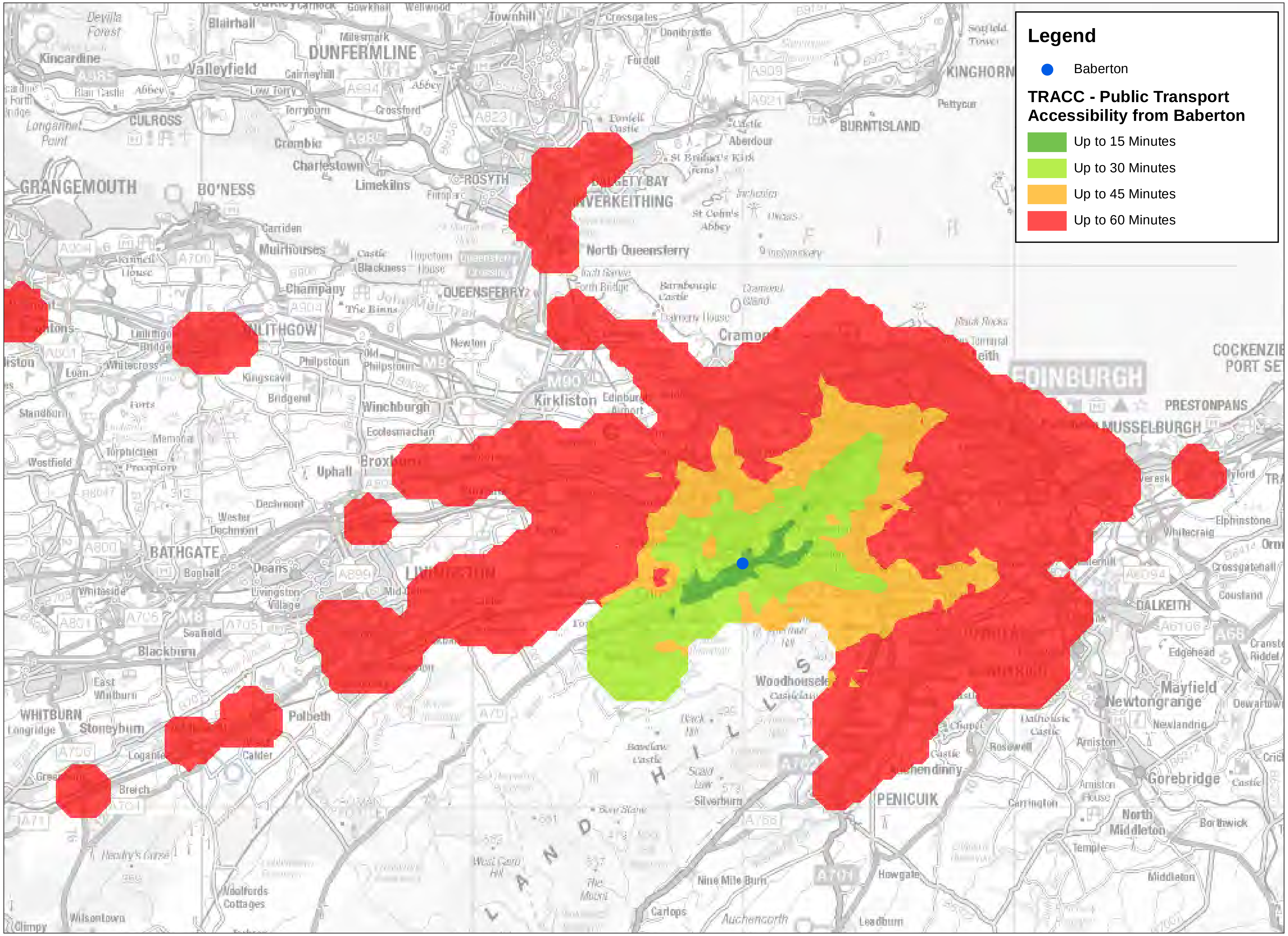
‘The pandemic has increased the appeal of 20 Minute Neighbourhood Principles. This approach prioritises the following at human scale, emphasising the quality and efficiency that is gained through the removal of commuting and centralisation.’

Socio Economic Update, Rettie and Co. May 2021

Map L1. Baberton Walking and Cycling Times

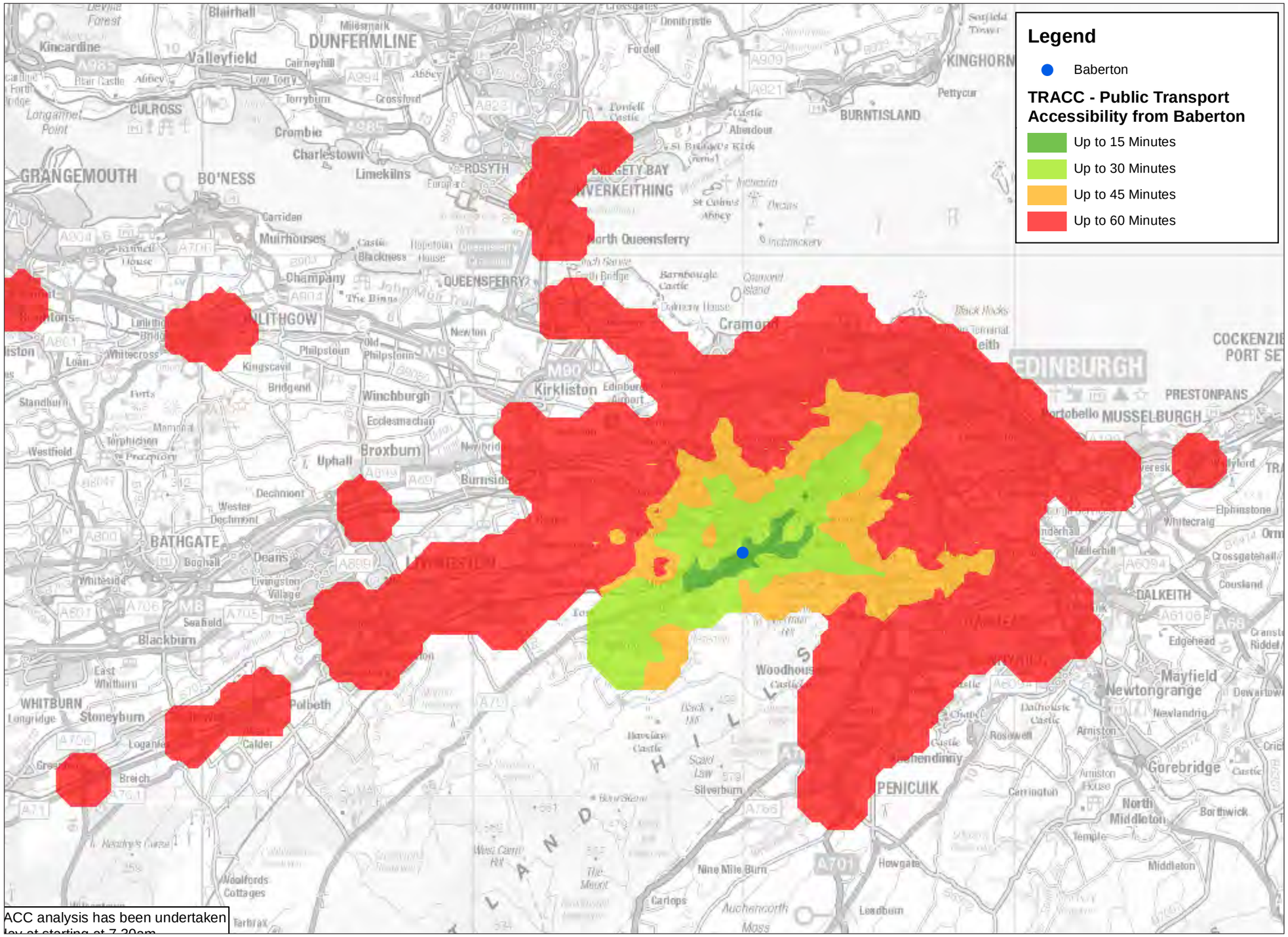


Map L2. Baberton Public Transport Times 7am



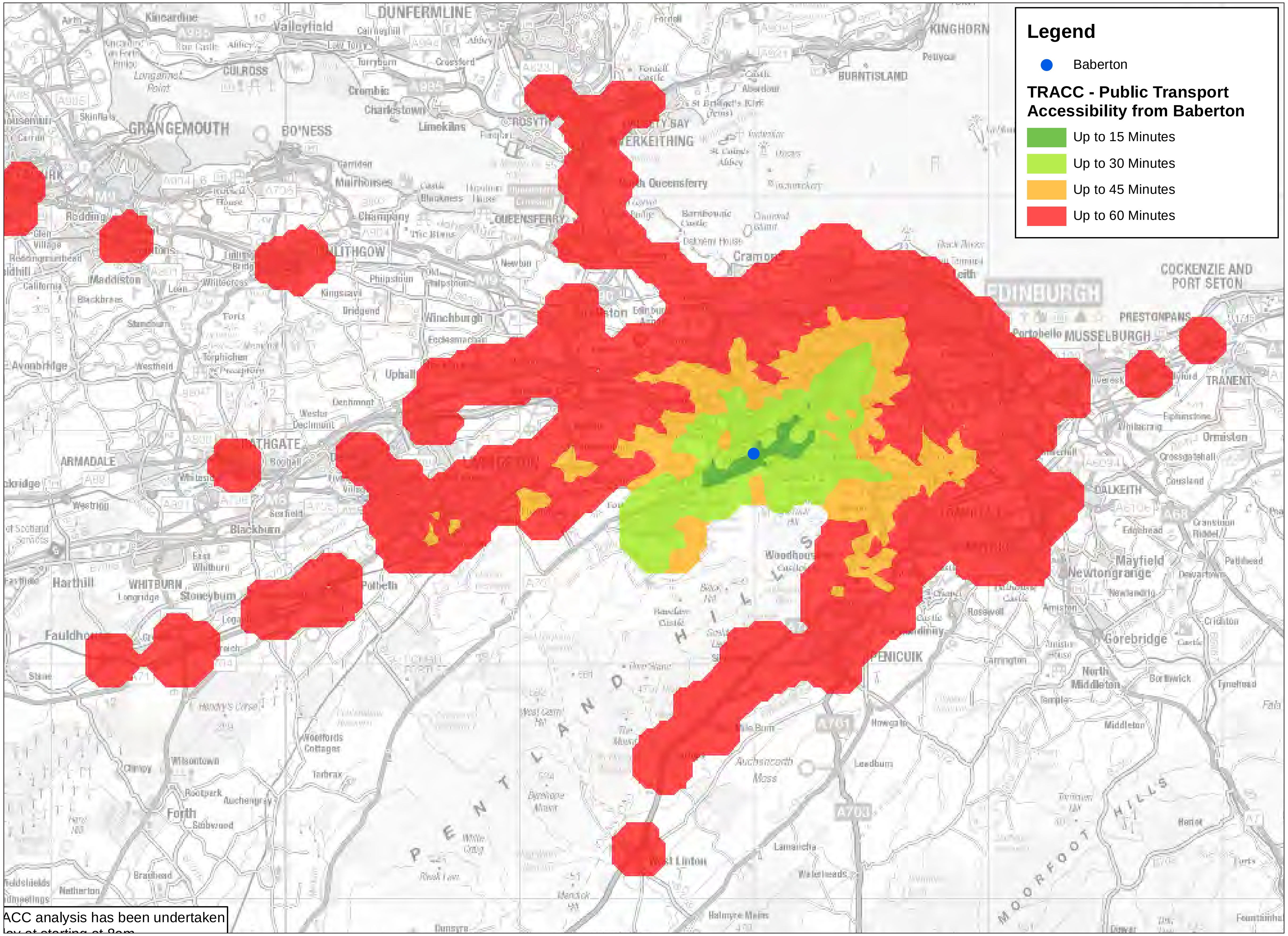
App. B West Edinburgh Today

Map L3. Baberton Public Transport Times 7:30am

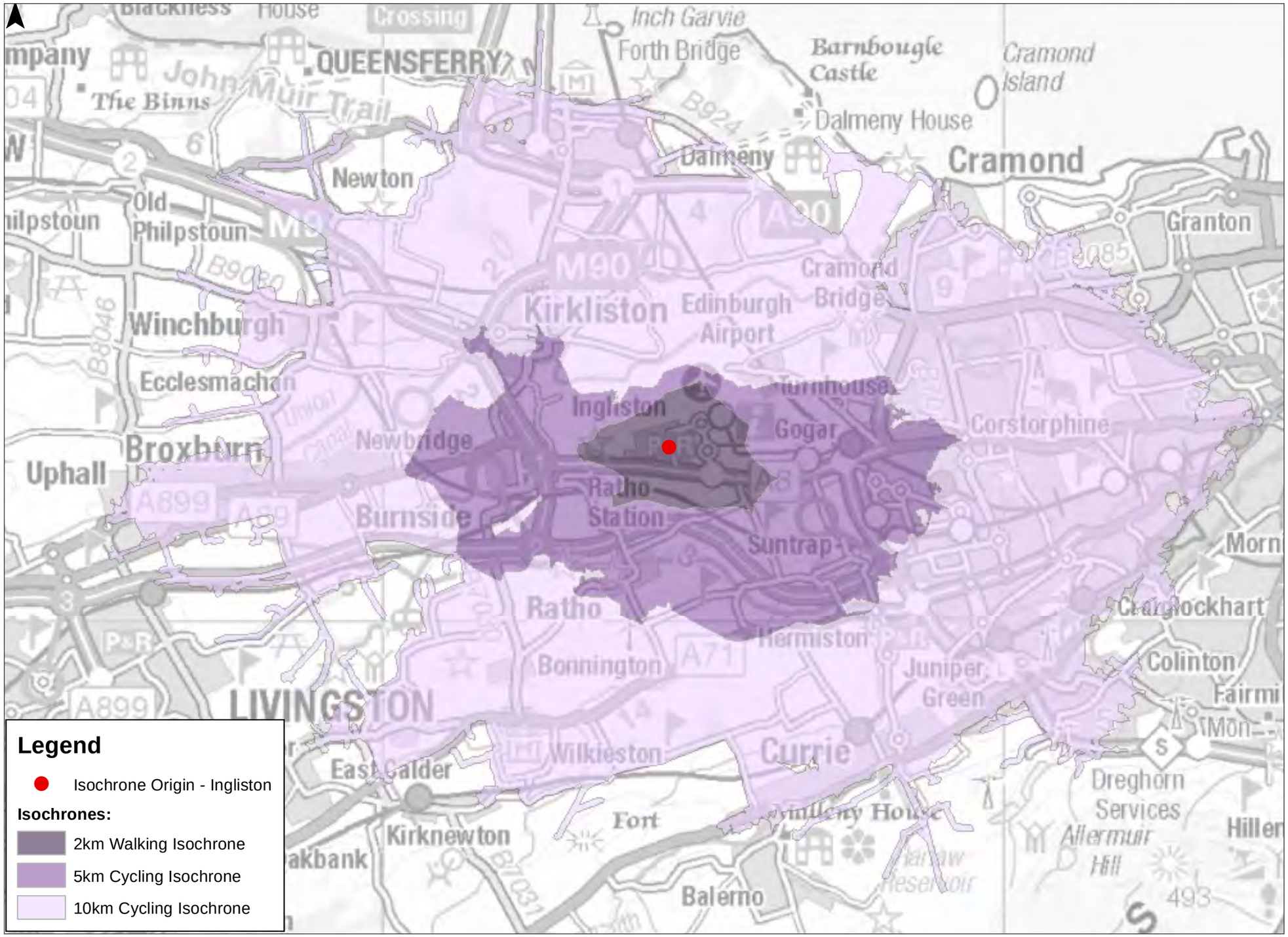


ACC analysis has been undertaken ley at starting at 7.30am

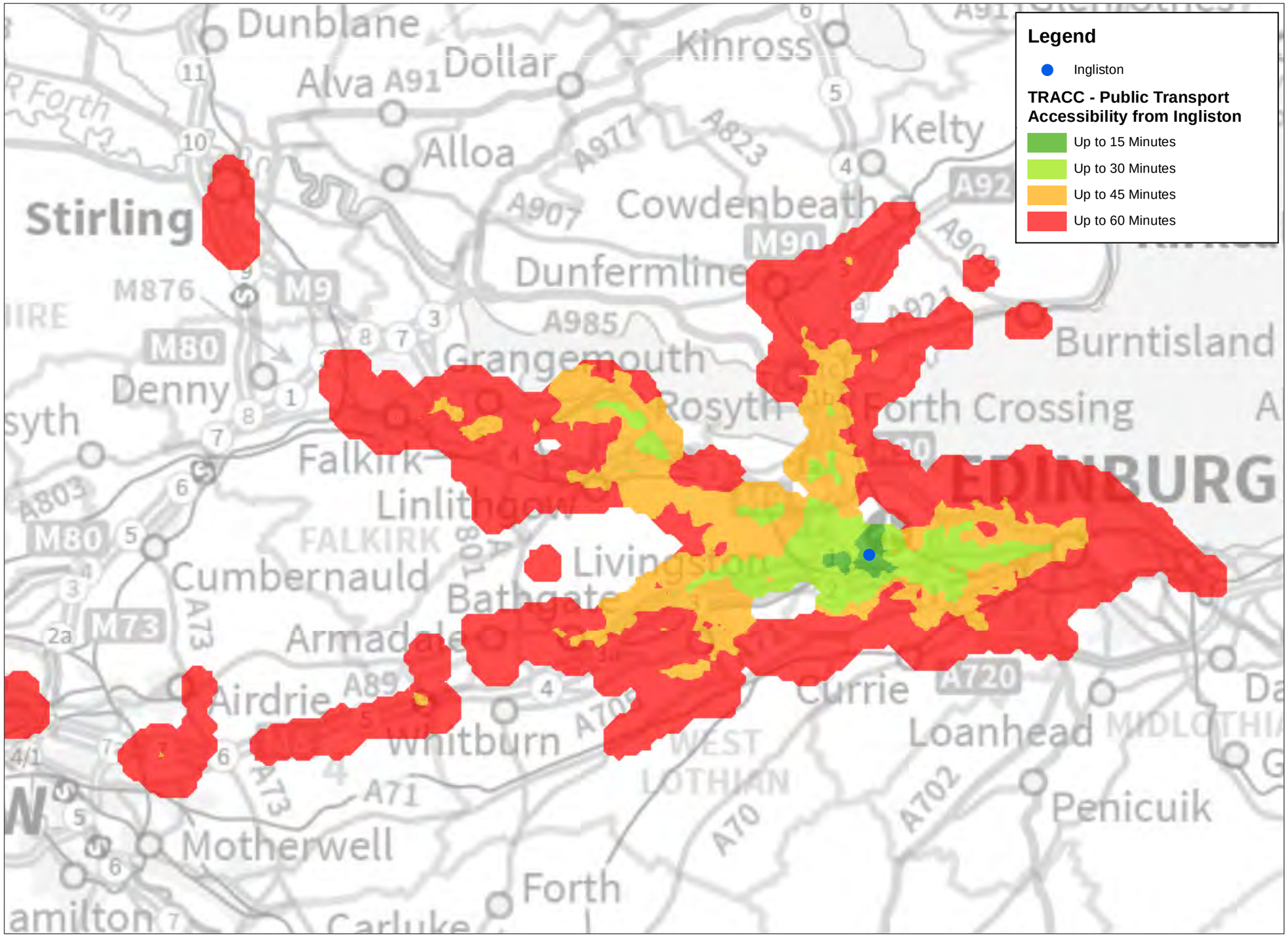
Map L4. Baberton Public Transport Times 8am



Map L5. Ingliston Walking and Cycling Times

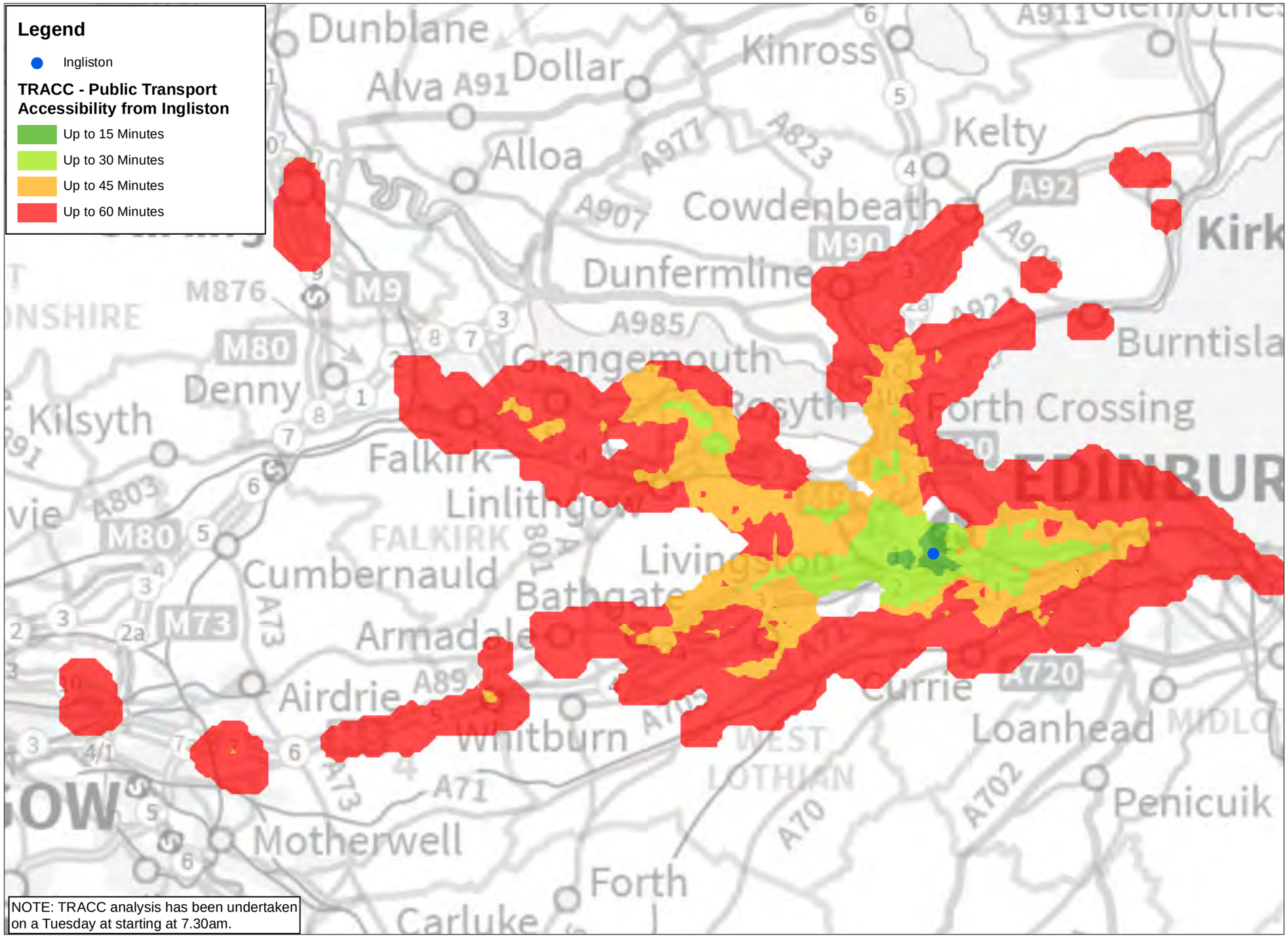


Map L6. Ingliston Public Transport Times 7am



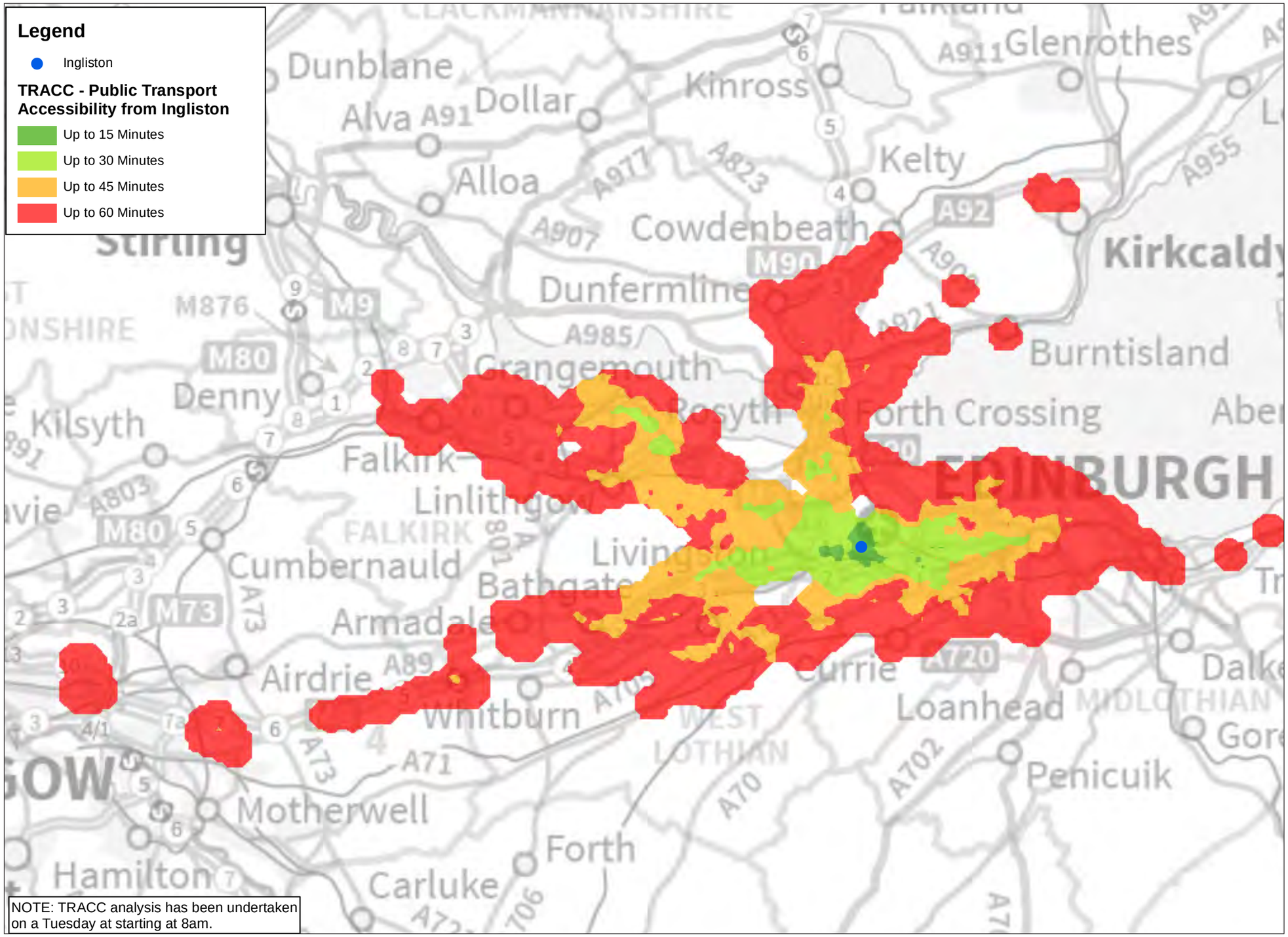
App. B West Edinburgh Today

Map L7. Ingliston Public Transport Times 7:30am



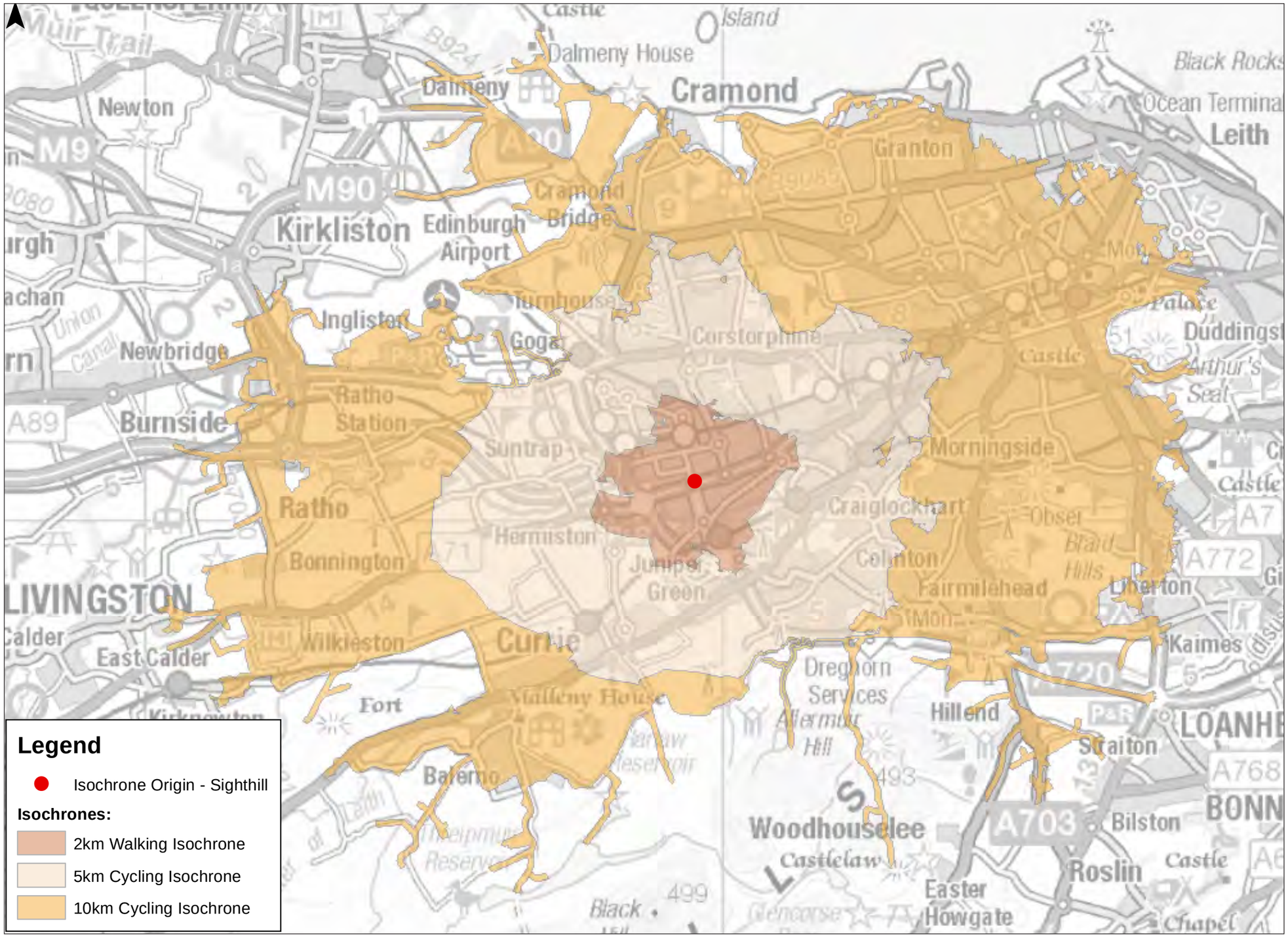
App. B West Edinburgh Today

Map L8. Ingliston Pulbic Transport Times 8am



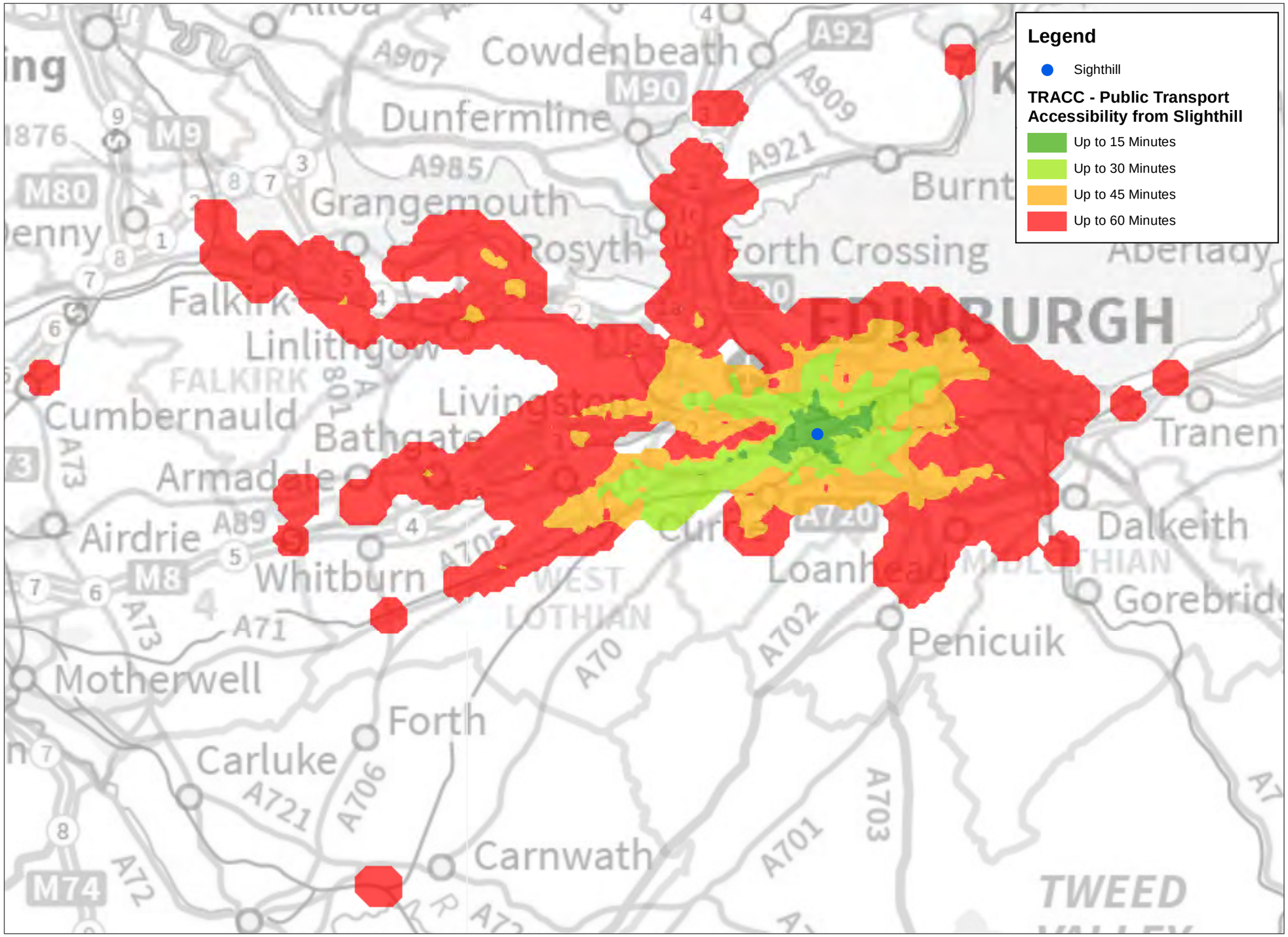
App. B West Edinburgh Today

Map L9. Sighthill Walking and Cycling Times

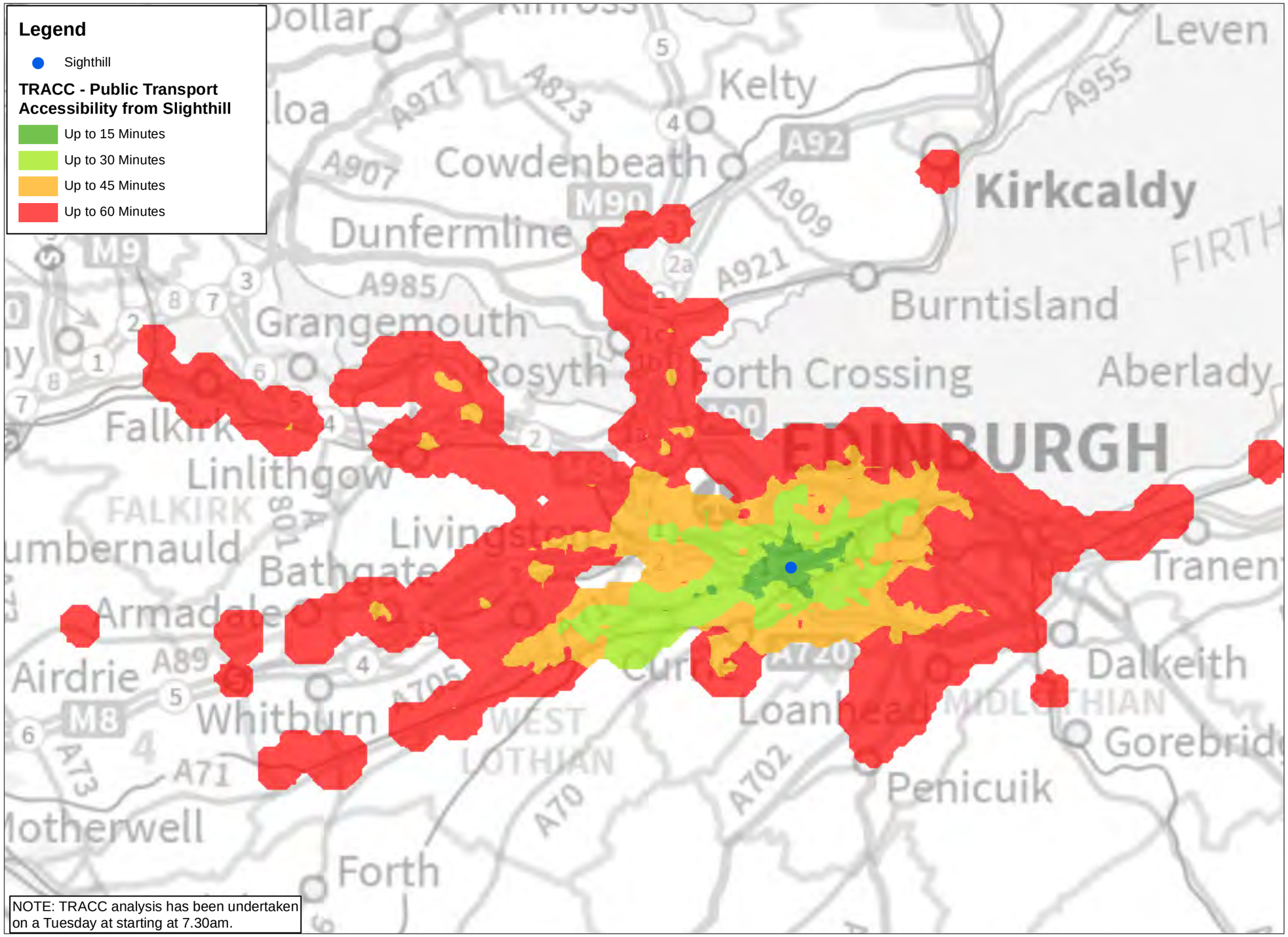


App. B West Edinburgh Today

Map L10. Sighthill Public Transport Times 7am



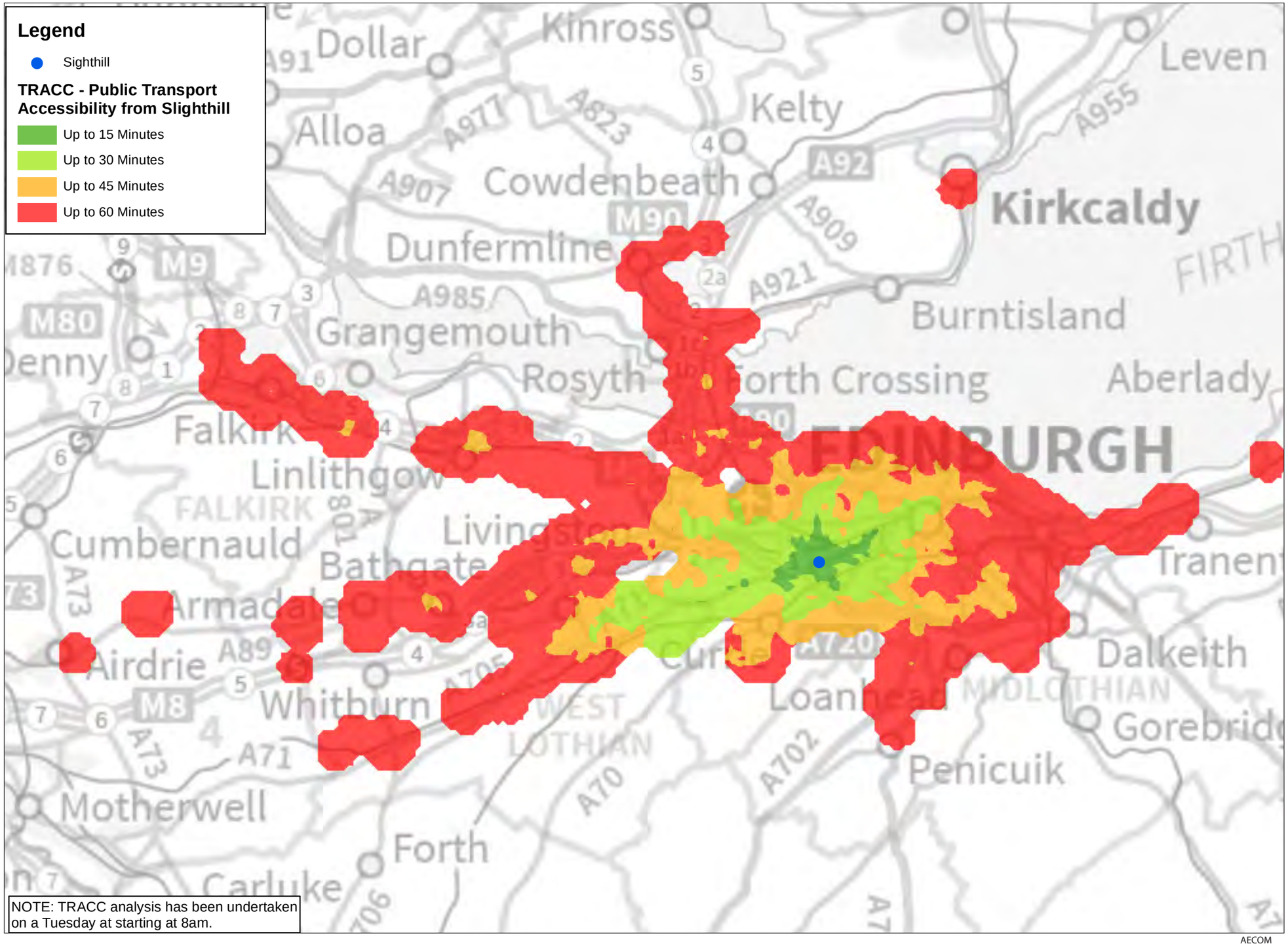
Map L11. Sighthill Public Transport Times 7:30am



NOTE: TRACC analysis has been undertaken on a Tuesday at starting at 7.30am.

App. B West Edinburgh Today

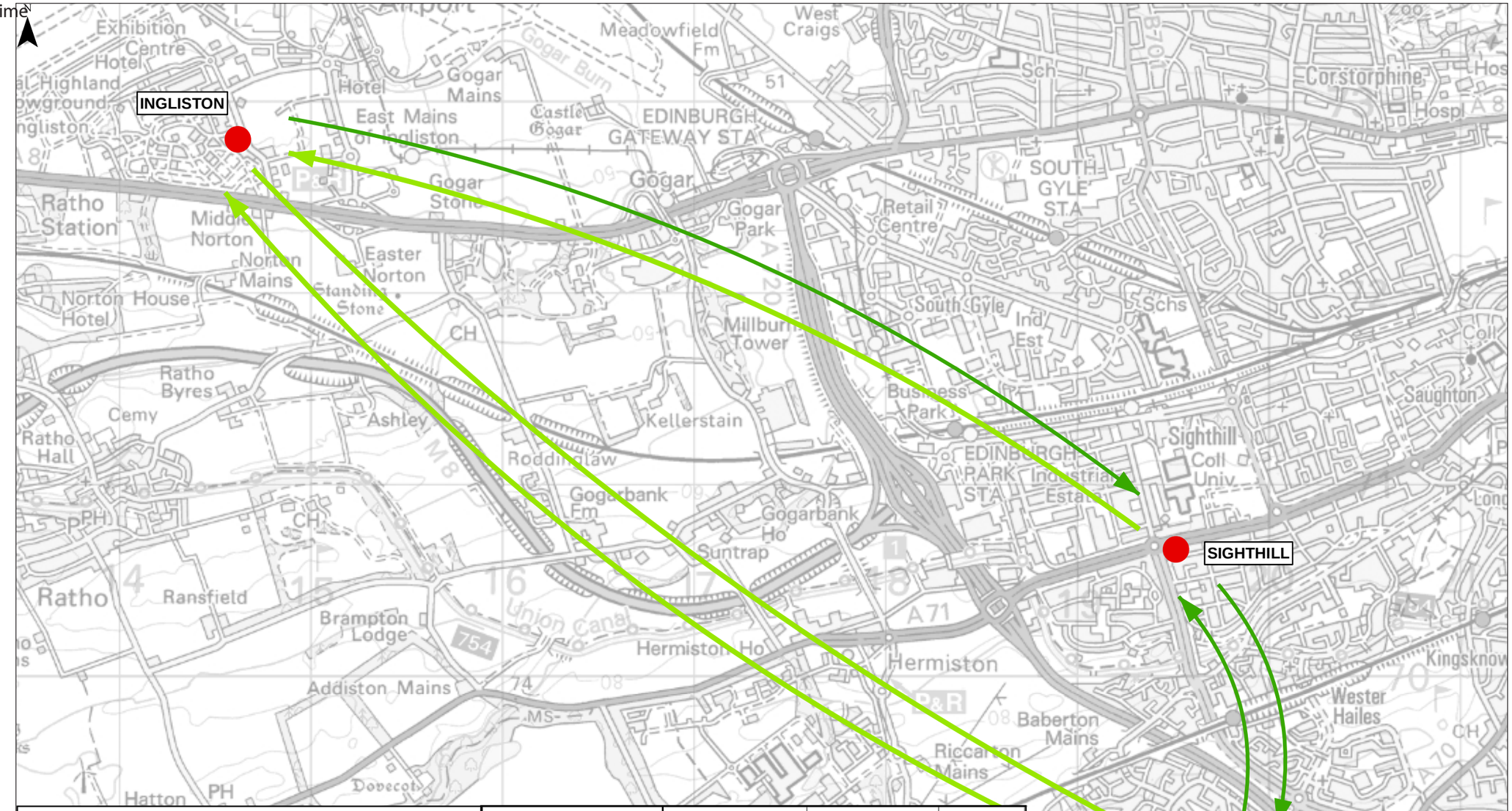
Map L12. Sighthill Public Transport Times 8am



NOTE: TRACC analysis has been undertaken on a Tuesday at starting at 8am.

App. B West Edinburgh Today

Map L13. Googlemap Journey Time Internal
at 7.00am



Legend

Locations within West Edinburgh

Maximum driving journey times between locations:

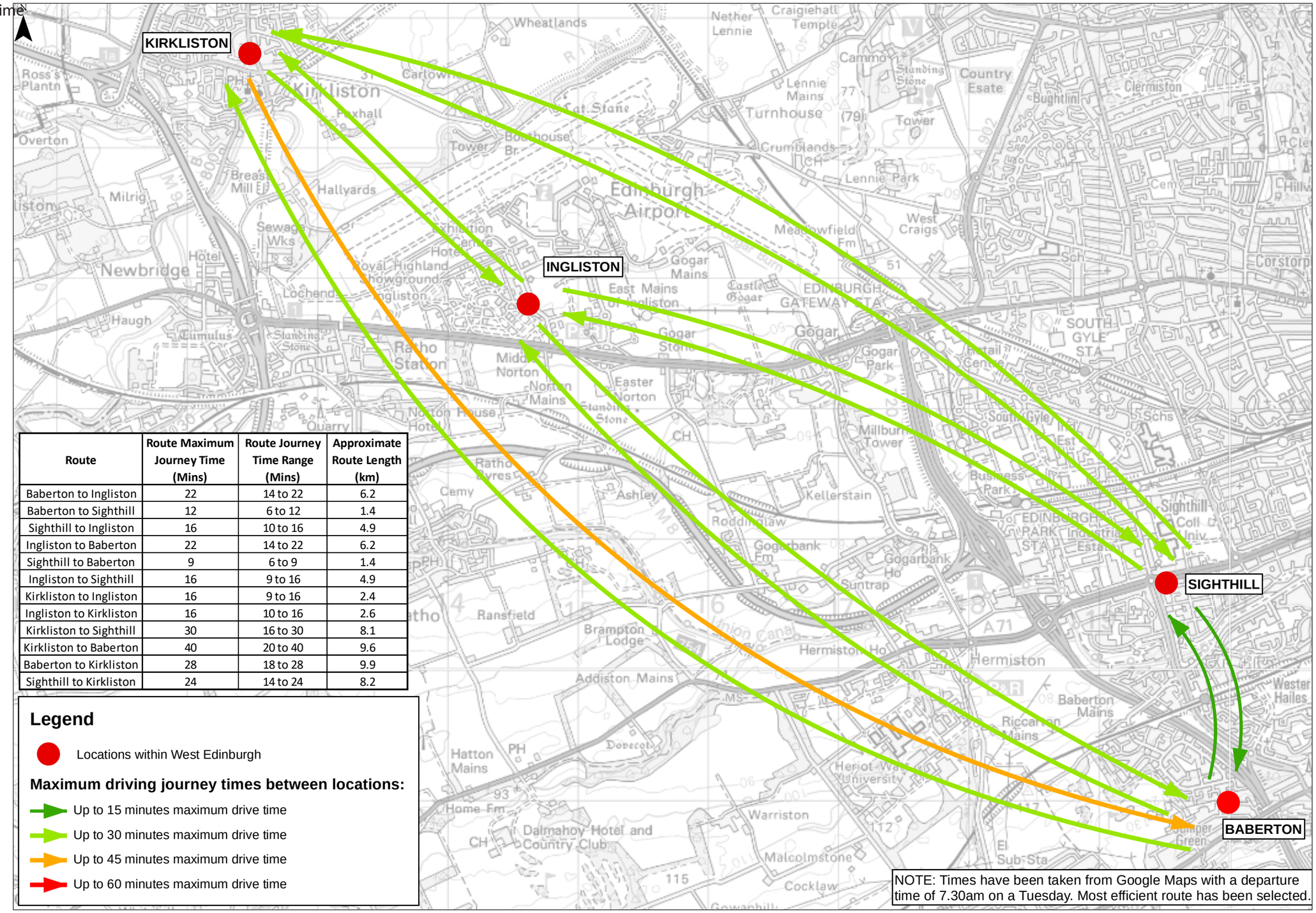
- Up to 15 minutes maximum drive time
- Up to 30 minutes maximum drive time
- Up to 45 minutes maximum drive time
- Up to 60 minutes maximum drive time

Route	Route Maximum Journey Time (Mins)	Route Journey Time Range (Mins)	Route Length (km)
Baberton to Ingliston	20	14 to 20	6.2
Baberton to Sighthill	9	6 to 9	1.3
Sighthill to Ingliston	16	10 to 16	4.9
Sighthill to Baberton	8	6 to 8	1.3
Ingliston to Baberton	20	12 to 20	6.2
Ingliston to Sighthill	14	9 to 14	4.9

NOTE: Times have been taken from Google Maps with a departure time of 7am on a Tuesday. Most efficient route has been selected

App. B West Edinburgh Today

Map L14. Googlemap Journey Time Internal
at 7.30am



Route	Route Maximum Journey Time (Mins)	Route Journey Time Range (Mins)	Approximate Route Length (km)
Baberton to Ingliston	22	14 to 22	6.2
Baberton to Sighthill	12	6 to 12	1.4
Sighthill to Ingliston	16	10 to 16	4.9
Ingliston to Baberton	22	14 to 22	6.2
Sighthill to Baberton	9	6 to 9	1.4
Ingliston to Sighthill	16	9 to 16	4.9
Kirkliston to Ingliston	16	9 to 16	2.4
Ingliston to Kirkliston	16	10 to 16	2.6
Kirkliston to Sighthill	30	16 to 30	8.1
Kirkliston to Baberton	40	20 to 40	9.6
Baberton to Kirkliston	28	18 to 28	9.9
Sighthill to Kirkliston	24	14 to 24	8.2

Legend

Locations within West Edinburgh

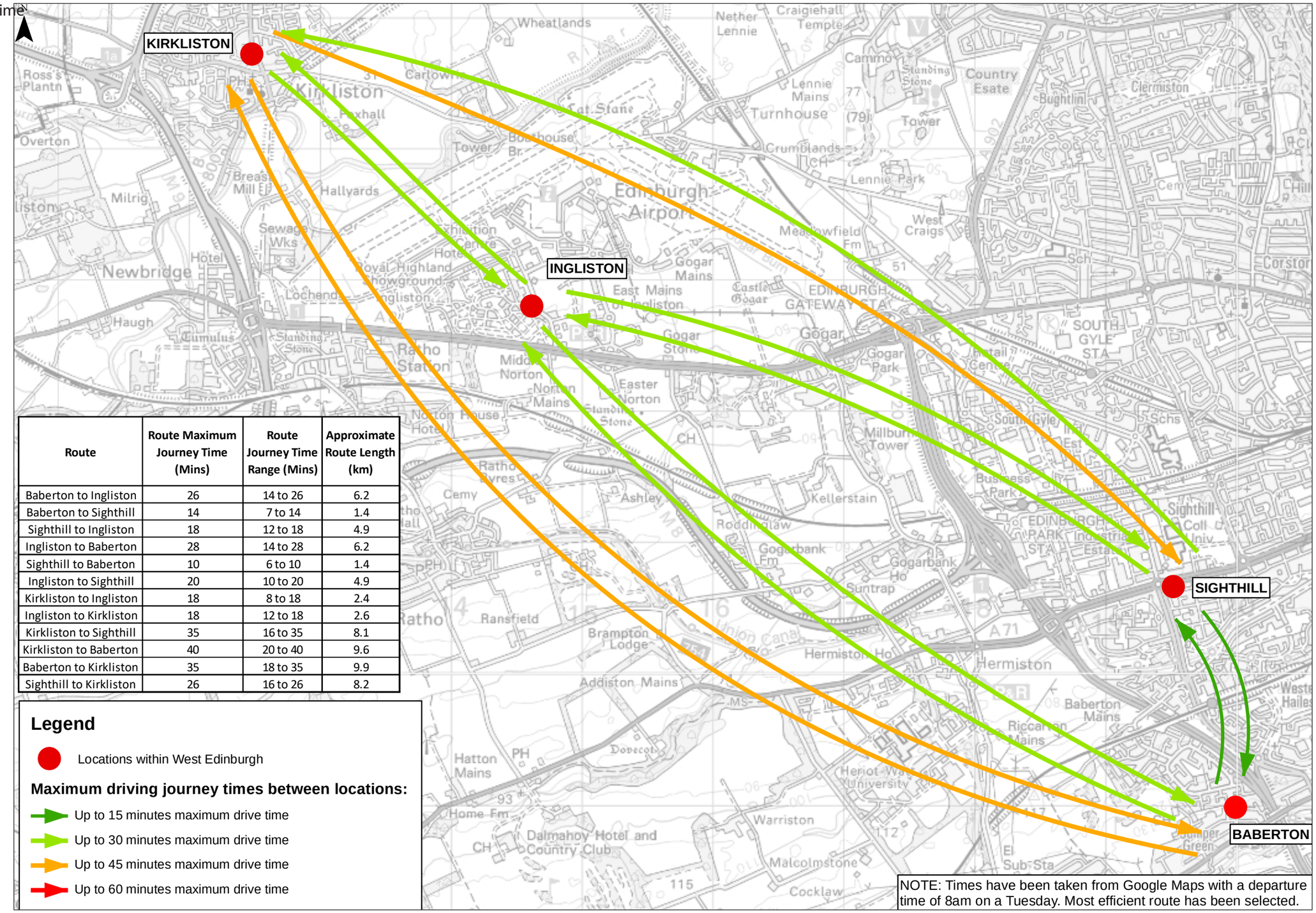
Maximum driving journey times between locations:

- Up to 15 minutes maximum drive time
- Up to 30 minutes maximum drive time
- Up to 45 minutes maximum drive time
- Up to 60 minutes maximum drive time

NOTE: Times have been taken from Google Maps with a departure time of 7.30am on a Tuesday. Most efficient route has been selected.

App. B West Edinburgh Today

Map L15. Googlemap Journey Time Internal
at 8am



Route	Route Maximum Journey Time (Mins)	Route Journey Time Range (Mins)	Approximate Route Length (km)
Baberton to Ingliston	26	14 to 26	6.2
Baberton to Sighthill	14	7 to 14	1.4
Sighthill to Ingliston	18	12 to 18	4.9
Ingliston to Baberton	28	14 to 28	6.2
Sighthill to Baberton	10	6 to 10	1.4
Ingliston to Sighthill	20	10 to 20	4.9
Kirkliston to Ingliston	18	8 to 18	2.4
Ingliston to Kirkliston	18	12 to 18	2.6
Kirkliston to Sighthill	35	16 to 35	8.1
Kirkliston to Baberton	40	20 to 40	9.6
Baberton to Kirkliston	35	18 to 35	9.9
Sighthill to Kirkliston	26	16 to 26	8.2

Legend

Locations within West Edinburgh

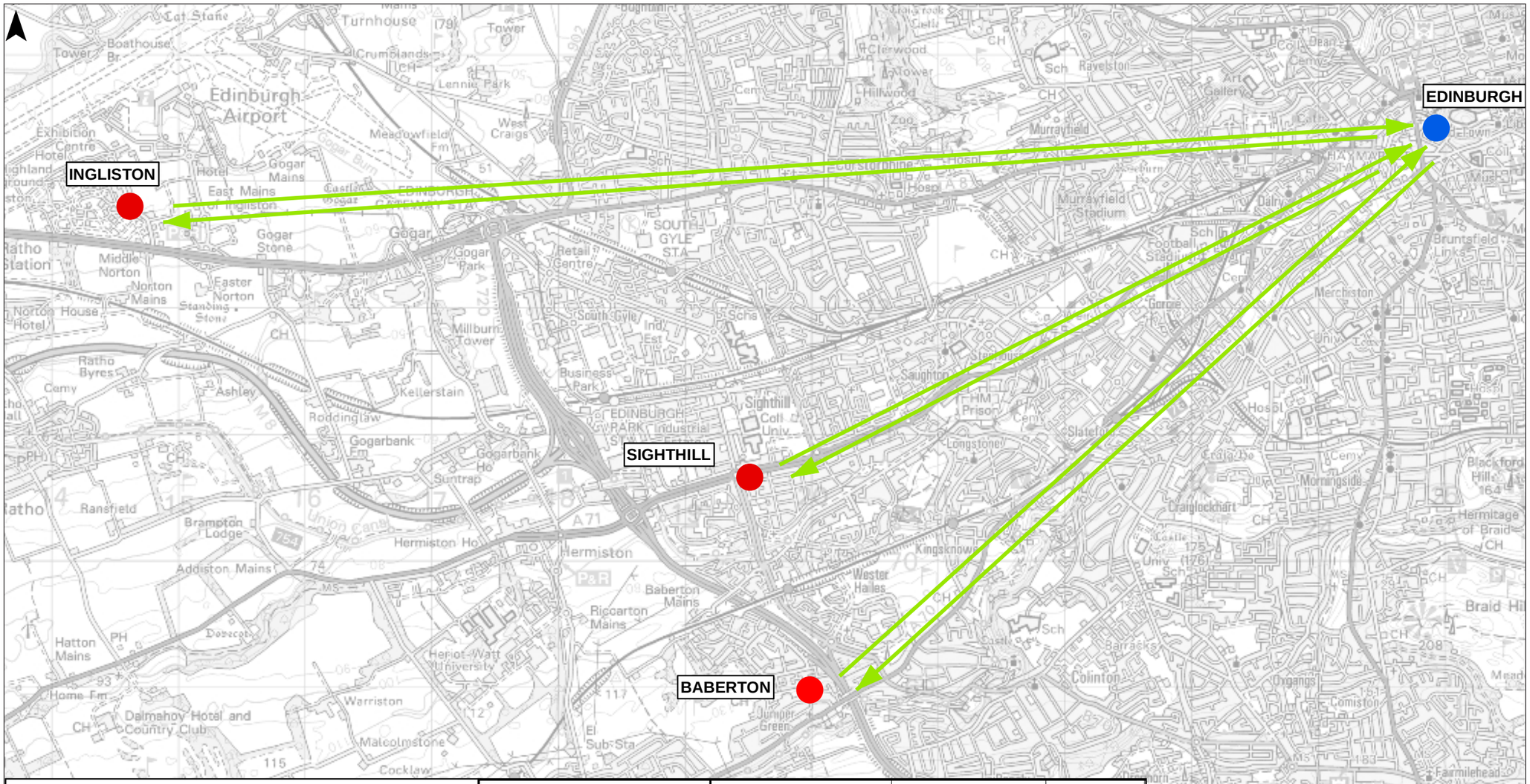
Maximum driving journey times between locations:

- Up to 15 minutes maximum drive time
- Up to 30 minutes maximum drive time
- Up to 45 minutes maximum drive time
- Up to 60 minutes maximum drive time

NOTE: Times have been taken from Google Maps with a departure time of 8am on a Tuesday. Most efficient route has been selected.

App. B West Edinburgh Today

Map L16. Googlemap Journey Time from Edinburgh at 7am



Legend

- Edinburgh
- Locations within West Edinburgh

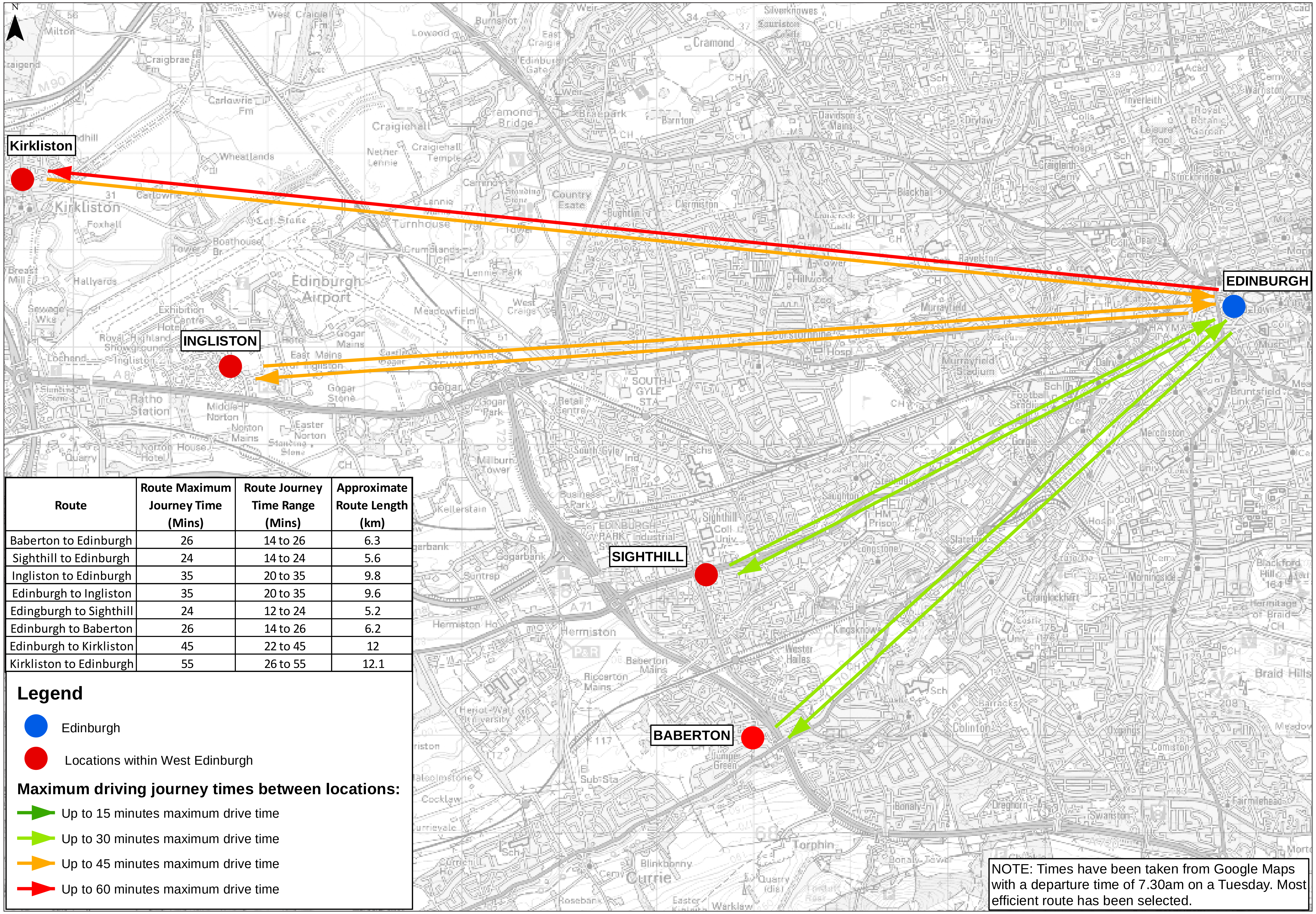
Maximum driving journey times between locations:

- Up to 15 minutes maximum drive time
- Up to 30 minutes maximum drive time
- Up to 45 minutes maximum drive time
- Up to 60 minutes maximum drive time

Route	Route Maximum Journey Time (Mins)	Route Journey Time Range (Mins)	Route Length (km)
Baberton to Edinburgh	20	12 to 20	6.3
Sighthill to Edinburgh	20	12 to 20	5.6
Ingliston to Edinburgh	26	16 to 26	9.8
Edinburgh to Ingliston	30	20 to 30	9.6
Edingburgh to Sighthill	20	12 to 20	5.2
Edinburgh to Baberton	22	14 to 22	6.2

NOTE: Times have been taken from Google Maps with a departure time of 7am on a Tuesday. Most efficient route has been selected.

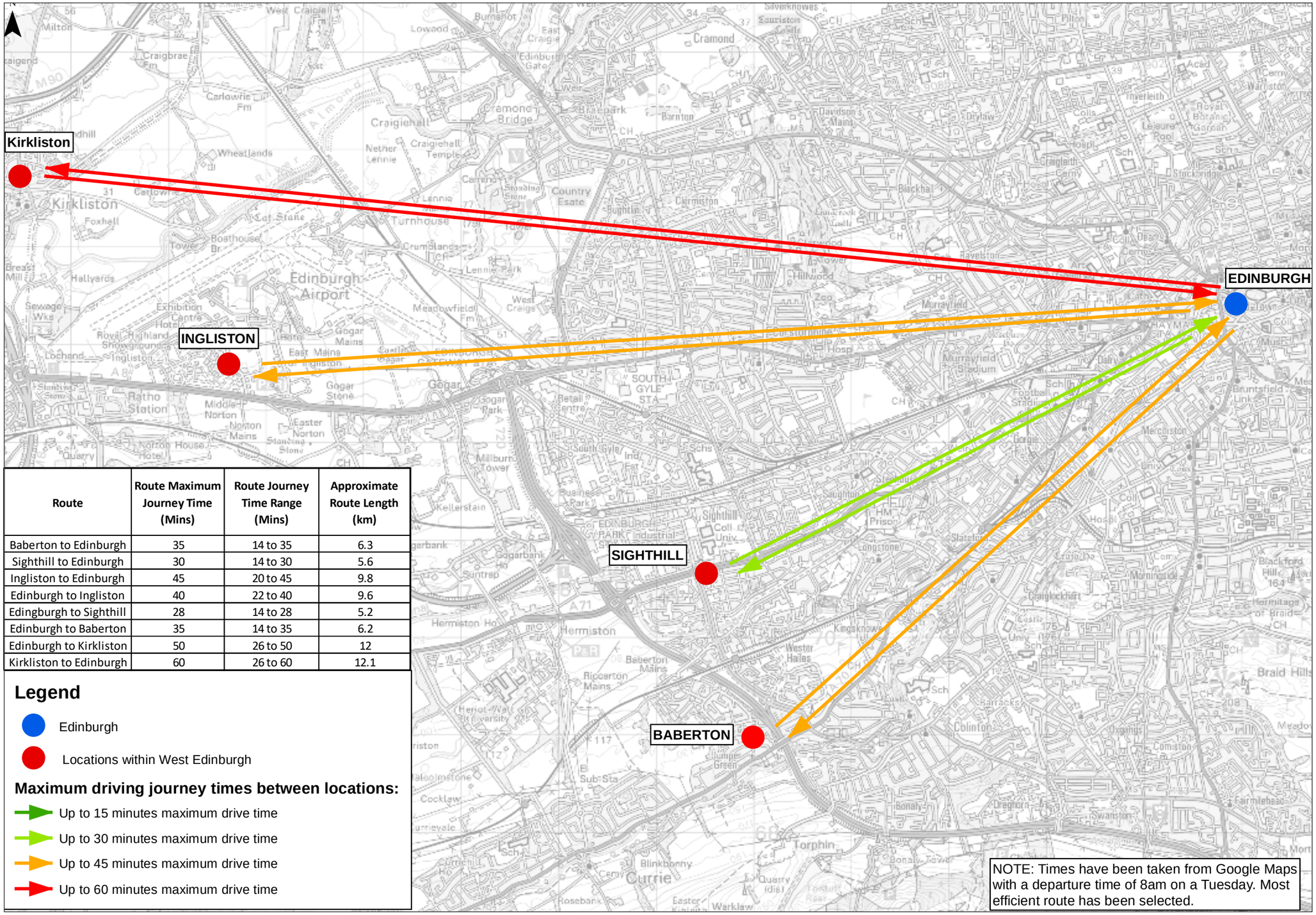
Map L17. Googlemap Journey Time from Edinburgh at 7.30am



Route	Route Maximum Journey Time (Mins)	Route Journey Time Range (Mins)	Approximate Route Length (km)
Baberton to Edinburgh	26	14 to 26	6.3
Sighthill to Edinburgh	24	14 to 24	5.6
Ingliston to Edinburgh	35	20 to 35	9.8
Edinburgh to Ingliston	35	20 to 35	9.6
Edingburgh to Sighthill	24	12 to 24	5.2
Edinburgh to Baberton	26	14 to 26	6.2
Edinburgh to Kirkliston	45	22 to 45	12
Kirkliston to Edinburgh	55	26 to 55	12.1

App. B West Edinburgh Today

Map L18. Googlemap Journey Time from Edinburgh at 8.00am



Route	Route Maximum Journey Time (Mins)	Route Journey Time Range (Mins)	Approximate Route Length (km)
Baberton to Edinburgh	35	14 to 35	6.3
Sighthill to Edinburgh	30	14 to 30	5.6
Ingliston to Edinburgh	45	20 to 45	9.8
Edinburgh to Ingliston	40	22 to 40	9.6
Edingburgh to Sighthill	28	14 to 28	5.2
Edinburgh to Baberton	35	14 to 35	6.2
Edinburgh to Kirkliston	50	26 to 50	12
Kirkliston to Edinburgh	60	26 to 60	12.1

Legend

- Edinburgh
- Locations within West Edinburgh

Maximum driving journey times between locations:

- Up to 15 minutes maximum drive time
- Up to 30 minutes maximum drive time
- Up to 45 minutes maximum drive time
- Up to 60 minutes maximum drive time

NOTE: Times have been taken from Google Maps with a departure time of 8am on a Tuesday. Most efficient route has been selected.

Case Studies

The project team has compiled a series of precedent case studies from around Europe that resonate with the context, aims and objectives of the West Edinburgh Spatial Strategy.

These case studies are predominantly from Northern Europe and Scandanavia and link dense urbanisation with landscape and city connections.

7

‘Whilst the studies vary in context, scale and approach, they provide lessons and insight into best practice in some way.... Equally, they identify where some aspects did not go as planned and where things may be done differently next time.’

Main Document, Learning from Elsewhere, May 2021

4. West Edinburgh Could Be…

A number of case studies of similar-scale spatial strategies across Europe were presented in order to inspire a creative approach to solutions to inclusive growth in West Edinburgh. A summary of these are presented overleaf in more detail.

These seek to establish a Vision for West Edinburgh across the next 30 years in line with the key themes identified in Edinburgh's City Vision 2050. Again, this was framed against NPF 3's four objectives for a 'Successful Scotland', namely, Inspired, Thriving, Connected and Fair.

During a Project Partnership Workshop, attendees were asked to summarise their vision for what 'West Edinburgh could be...' in a succinct phrase or statement.

The key themes emerging from the visioning exercise, together with the identification of potential inclusive growth drivers have ultimately informed the options for future inclusive growth within the West Edinburth Spatial Strategy.

'NP4 will...respond to the shift to inclusive growth; improve health and well-being for the people of Scotland, improve equalities and eliminate discrimination.'

Scottish Government

'..by 2030, Scotland's communities are shaped around people and place, enabling walking and cycling to be the most popular mode of travel for short, everyday journeys.

Scottish Government Active Travel Framework

West Edinburgh Could Be…

Learning from International Precedents

The project team has compiled a series of precedent case studies from around Europe that resonate with the context, aims and objectives of the West Edinburgh Spatial Strategy.

These case studies are predominantly from Northern Europe and Scandanavia and link dense urbanisation with landscape and city connections. Each of the examples vary in scale and their approach to the 5ps: productivity, population, participation, people and place. However, they are all examples of best practice in creating visions and strategies for new city districts or regions, sustainable communities and productive landscapes with connected infrastructure.

Nordhavn
Copenhagen, Denmark

A robust yet flexible strategy for the transformation of a former industrial harbour into a new, sustainable city district.

Identifiable neighbourhoods are connected and integrated to the city centre through a sustainable mobility plan, with a focus on cycle and pedestrian routes and the integration of blue-green infrastructure.

Kalasatama Smart City
Helsinki, Finland

City expansion within a former harbour into a model ‘smart city’ district connected by metro, bus and tram.

Strategy and vision allows for flexible development through collaboration between residents, local authority and private enterprise.

Key role in Helsinki’s 2035 Carbon Neutral goal.

Vauban District
Freiburg, Germany

Susatainable, low carbon, car free neighbourhood on 40 hectare site. Resident participation encouraged in construction, maintenance and management through housing cooperatives.

Buildings become a productive landscape through solar energy generation.

Vision 2030 Almere
Almere, Netherlands

Vision and strategy for new district of the city of Almere, creating homes for 150,000 new residents.

The strategy combines water, nature reserves and new urban development. Four distinct areas are connected to each other and the city centre via new infrastructure and metro lines.

Emscher Masterplan
Rhur Valley, Germany

Re-imagining of a large, unproductive,post-industrial area into a thriving ecological landscape.

Large-scale development and infrastructure are balanced with small scale installations, all of which are focused around key water courses.

Case Studies - Relevance to West Edinburgh

Nordhavn Development
Copenhagen, Denmark

- Transforming the area into clearly identifiable residential neighbourhood
- Integrating the area with the City Centre
- Sustainable mobility plan that extends the City's Metro/Tram Network
- Extension of cycle routes with a focus on blue-green infrastructure

Ørestad Development
Copenhagen, Denmark

- Densification of de-populated area to form four, high density neighbourhoods
- Re-imagining the identity of the area and new development
- Financing of City's Metro system connected to project
- New opportunities for business and residential
- Water used as a key identity feature
- 'Collection' of masterplans delivered to varying levels of success

Kalasatama Smart City
Helsinki, Finland

- City expansion within former Harbour site linked by metro, bus and tram
- Development forms key part of Helsinki's aim to be Carbon Neutral by 2035
- Model 'Smart City' development testing smart and sustainable solutions eg. energy grid, flexible parking, HIMA home automation system
- Mix of 25000 new residents and 10,000 new jobs

BER2040 Airport Masterplan
Berlin, Germany

- New urban development surrounding airport
- Phased masterplan between 2008 and 2025 including new airport Terminal
- Development to consist of strict block structure
- Medium density development combining residential and commercial

Emscher Masterplan
Rhur Valley, Germany

- Re-imagining of large area/region
- Turns unproductive, post-industrial area into thriving ecological landscape
- Focused around key water courses
- Balance of large-scale development/infrastructure with small scale installations

Vauban District
Freiburg, Germany

- Sustainable neighbourhood on 40 hectare site (former Barraks)
- Began in 1990's and completed 2001
- Car free district linked to tram (installed 2006)
- Low energy development with biomass power.
- Promotes resident self-management and housing cooperatives for construction, maintenance and management.
- Diverse range of housing and variety of uses

Vision 2030 Almere
Almere, Netherlands

- Expansion of Almere to become the Netherland's 5th largest City
- Masterplan and vision to create significant district of 150,000 inhabitants
- Four integrated and distinct areas designed to reduce pressure from centre of City
- Connected to each other and city centre via new infrastructure and metro
- Combines water, nature reserve and urban form
- Oosterwald neighbourhood designed as 'freeland' on principles of freedom and liberation for all residents

Borneo-Sporenburg and Ijburg
Amsterdam, Netherlands

- New residential neighbourhoods in former industrial docklands
- Form part of wider dockland expansion with focus on water-based activities
- High density housing on linear plots with vertical emphasis
- Series of architects employed to develop housing using key masterplan design principles/guide
- Development connected by bridges, open space with public transport to city centre and beyond

Case Study - Nordhaven, Copenhagen

01 NORDHAVN_COPENHAGEN

PROJECT - *A project for the redevelopment of the old industrial harbour in Nordhavn. Residential blocks placed on 'islets' and designed as separate communities.*

ARCHITECT: COBE Architects
CLIENT: CPH City and Port Development
SIZE: 3,6 m m^2
RESIDENTIAL OCCUPANCY: homes for 40,000
WORK SPACES: workspaces for 40,000

This is a development that was begun in 2008 to transform the Copenhagen into a sustainable city. The starting point for executing this is the Nordhavn (North Harbour). The development is the largest development in Scandinavia and seeks to transform the industrial harbour into a "waterfront city", with homes being provided to house 40,000 residents. The site area is the first in Denmark to be DGNB platinum-certified, therefore, the design at all points of the process must be completed to the highest possible quality. Expansions are set to bleed out into the sea, which reiterates Copehagen's history. The project programme sees the urban development being designed in parts; one island (islet) is only designed once the former has been fully developed. Ultimately, Cobe are not attempting to create a utopianised idealist city, however, instead they intend to conceive a basis for which future urban projects could follow. In doing so, the challenge is to simultaneously design for the current cultural/ social condition yet make it suitable for a predicted future environment.

RELEVANCE TO WEST EDINBURGH

- Transforming the area into clearly identifiable residential neighbourhood
- Integrating the area with the City Centre
- Sustainable mobility plan that extends the City's Metro/Tram Network
- Extension of cycle routes with a focus on blue-green infrastructure
- Water used as a key identity feature

Nordhavn Port, 1904

Former site plan

Proposed site expansion

Proposed metro loop expansion

Upper surface pedestrianised route

THE SITE

The site is an underused industrial space. One of the challenges is to understand how to transform an industrial area into a recognisable residential area. Cobe have redesigned the district to suit similar sizes of other districts in Copenhagen. The main component of urban life to study is transportation in order to integrate Nordhavn with the city centre. The city metro will have an additional route added to it. On the ground level, the public transportation routes, i.e. bus, bikes (a popular method of travelling in Copenhagen) etc will extend into Nordhavn. There are six main programmatic concepts behind the design.

NORDHAVN_COPENHAGEN

DESIGN PRINCIPLES

1. The site has been partitioned into small neighbourhood, each designed with their own community character and identity.
2. The existing buildings will be maintained as cultural buildings and an indication of programmatic departure.
3. Transport networks (bike loop and metro) reach into the core of the development, connect with city to the harbour. These transport routes have been called 'green connections'. Cobe's 'five minute city' envisages that you should not have to walk more than five minutes from any corner of the island to be connected with public transport.
4. Canal access will be provided in insertions on the periphery of the island – these are established to be 'blue connections'. Designing the blue and green connections to the highest quality is viewed by Cobe to be more important than the design of the physical buildings.
5. Green spaces are plentiful; they primarily run East to West.
6. A flexible grid has been devised that can be changed over time. Therefore, the plan can change to the varying needs that emerge as city life changes.

Development of the industrial site

1. Neighbourhoods /islets- phased design

2. Maintenance of cultural buildings

3. Transportation networks and green connections

4. Canal networks and blue connections

5. Green spaces

6. Flexible grid

Dense, flexible urban grid

THE DESIGN

Nordhavn is a city of "sustainable mobility", with the green connnections allowing easy access to the neighbourhoods on the island and to the rest of Copenhagen. It will be a dense city, with the grid being interspersed with the towers, family housing shops, and leisure and work facilities. Getting the grid right at the beginning of the project was imperative to the success of the plan in relation to environmental conditions. Sun is maximises and wind is minimised.

Case Study - Nordhaven, Copenhagen

NORDHAVN_COPENHAGEN


Harbour visualisation


Proposed metro station

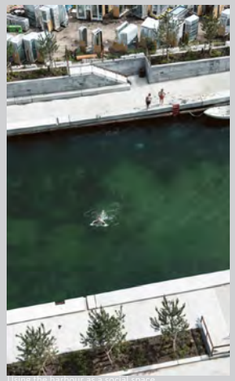

Transportation between islets


Massing from water visualisation


Neighbourhood visualisation


Community visualisation


Community visualisation


Using the harbour as a social space


Harbour visualisations

02 ØRESTAD DEVELOPMENT_ COPENHAGEN

PROJECT - *This project seeks to connect the Ørestad district to the Copenhagen in an attempt to re-establish a thriving city centre, in relation to residency and economy.*

ARCHITECT: Various
CLIENT: Various
SIZE: 310 hectares. 5km long and 600m wide.
RESIDENTIAL OCCUPANCY: unknown
WORK SPACES: unknown

In 1947, the 'Finger Plan' became the model for modern state led planning in Copenhagen. Ultimately, it successfully controlled suburbanisation in streets connected to Copenhagen's railway system. Between the surburban developments, green zones existed. From the conception of the finger plan, approximately 240,000 new housing units were built. As the finger plan took shape, people moved from the inner city centre to the suburbs, leaving the city centre in a poor state. In the late 1980's, it was realised that Copenhagen has major issues to deal with. Growth was low, unemployment was high and the municipalities debt was high. Ultimately, it was not an attractive place to live or work. In 1989, an initiative group was founded, with one of the ideas to restore Copenhagen being to establish the Øresund Bridge. This would improve public transportation and expand the airport. In 1991, a bill was presented for the development of Ørestad. The proposed metro transport link between Copenhagen and the Ørestad was funded by the English New Town principle. This is where the building of the metro was financed by the value increases that the metro would create in Ørestad. By building Ørestad, the metro was financed, whilst the economic situation of Copenhagen was improved.

RELEVANCE TO WEST EDINBURGH

- Densification of de-populated area with four, high density neighbourhoods
- Re-imagining the identity of the area and new development
- Financing of City's Metro system connected to the project
- New opportunities for both business and residential
- Water used as a key identity feature
- 'Collection' of masterplans delivered to varying levels of success
-

Elevated transport networks


Proposed 'Finger Plan'


Unused greenspace surrounding the metro station

INITIAL PROPOSALS

The Orestad company was founded in 1933. Orestad and Copenhagen, from the outset of the urban developments were closely linked through the new metro station proposal. Three million people live in this area of Copenhagen; the metro station would enable a three minute journey to the city centre. The Orestad company were in charge of the metro station and the Orestad urban developments. In 1994, a competition was held for the planning of the new area. Ultimately, proposals aimed to solve many issues and to create new opportunities for the business development and housing to help with the city's tax base by creating a mechanism to finance public transport improvements for the city. ARKKI were selected following this competition.

Case Study - Orestad, Copenhagen

ØRESTAD DEVELOPMENT_ COPENHAGEN

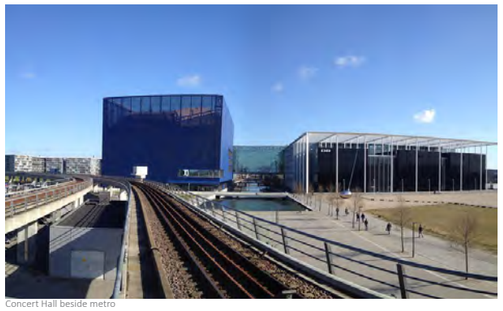
DESIGN DEVELOPMENTS

A large part of ARKKI design was the proposal to combine the buildings in four neighbourhoods where high and dense buildings could be built. The overall plan enabled a high density of green spaces, set to improve the outlook and attractiveness of Copenhagen. They were highly focussed on the interaction between the town and the landscape rather than designing new interactions between urban developments and the structures of Amager. One of the most important features of this scheme was the strip of water along the North and South axis. Ørestad Boulevard was created from North to South along the canal. The canals were proposed to contribute to a sustainable neighbourhood, as they collected rainwater.

The metro station was financed partially by the sale of some of the land in the Ørestad and by loan usage. When the metro opened in 2002, it looked unfinished due to the lack of build environment surrounding it. To assist with the emphasis of sustainable travel, the City of Copenhagen reduced parking availability in Orestad. Following the Ørestad downtown plan by Daniel Libeskind, 2006, Ørestad gained a conference centre, a mall and an apartment complex; all vast in size and well designed. Developments have largely stopped due to a lack of financial backing. Ørestad North was close to completion. The South of the district was less resolved; an apartment block (Big House) was placed in the middle of a cow pasture etc. By this point, there was proposed to be 20,000 people living in the city by this point, however, there is just under 7,500.

BIG House / 8 Tallet

Developments surrounding the metro station



Concert Hall beside metro

COBE's master plan

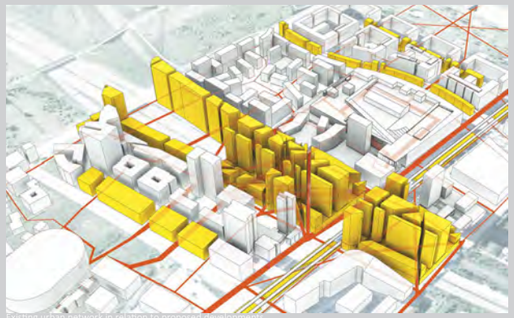
PROPOSALS

Libeskind's plan was comprised of numerous narrow streets to create a sense of urbanity and keep pedestrians unexposed to the elements. Two 20-storey buildings were designed to be landmarks for the new urban development and it was to remain largely car free. Copenhagen have now employed COBE's smaller scale urban development to replacement Libeskind' unsuccessful one. Principally, the plan is similar, however, the COBE project is more realistic in respect of the time-scale in which the project can be built. The Libeskind plan would have only been successful if it had all been built at the same time; the new plan could be conceived in a more staggered way.

ØRESTAD DEVELOPMENT_ COPENHAGEN

ARCHITECT: BCVA
SIZE: 418.000m²
FLOOR AREA: 280.000m²

As part of this project, BCVA wish to plug the gaps found beneath the elevated metro line. The architects believe that the main criticisms of Ørestad is the unsuccessful use of greenspaces; their proposal makes use of the green-spaces available, without overloading it. In addition, with raised highways, there is the opportunity to make use of space that is not on the ground.



Existing urban network in relation to proposed developments

Existing - undercarriage of raised metro unused

Proposal - bridge connecting one side of river to other; communal spaces directly underneath raised metro

Existing - space above ground unutilised

Proposal - residential/office towers of corresponding height

Existing - empty space beneath metro

Proposal - cafés and community spaces created

Case Study - Emscher Masterplan, Rhur Valley

03 EMSCHER MASTER-PLAN_ RUHR VALLEY

PROJECT - *The industrial nature of the Ruhr Valley has become something of the past. This development looks at how the Emscher River can be ecologically redeveloped.*

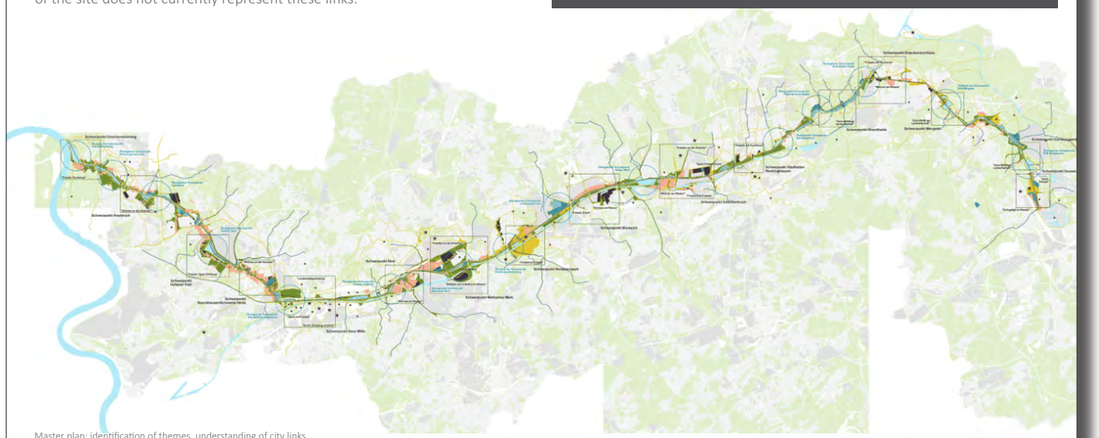
ARCHITECTS: ASTOC Architects and Planners
CLIENT: Emschergenossenschaft
SIZE: 85km stream course, 4.000 hectares.

The Emscher Park was commissioned to be redesigned after the decline of industry in the area. It was decided in 1988 to reorganise the International Building Exhibition (IBA) Emscher Park. This was in an attempt to address urban, social and cultural developments in the area and to completely reorganise the former industrial area. The Ruhr was one of the most important industrial places in Germany, spanning across 200 hectares between coal mines and steel factories. Industry declined in 1983 after the closure of the Thyssen plant in 1983, leaving a largely unoccupied site. The site itself posed a lot of opportunities, as there were various views into the surrounding city centres. Eschmer Valley has acted as the industrial spine of the Ruhr industrial region; it is an 85km long natural river.

The Emscher future master-plan, proposed for 2030, suggests an extension of the long expanses of the river that flows through the Ruhr district. Due to the industrial nature of the Ruhr Valley, the river has become somewhat a gutter for industrial activity. The master plan turns the polluted waters into a river, providing valuable biotopes, and with additional landscaping, the site will become an attractive place to live and work. The master-plan also acts as a n informal plan, helping to form the foundation of planning law and flood protection measures. The river landscape today links industrial culture, landmarks and cultural sites in terms of location, however, the urban planning of the site does not currently represent these links.

RELEVANCE TO WEST EDINBURGH

- Re-imagining of large area/region
- Turns unproductive, post-industrial area into thriving ecological landscape
- Focused around key water courses
- Balance of large-scale development/ infrastructure with small scale installations



Master plan; identification of themes, understanding of city links

Emscher Valley, 1900's

DESIGN OBJECTIVES

Three main design features have been highlighted by the planners:

> Consideration of macro and micro – ecological concept.
> Water resources management concepts for the complete course of the river.
> Urban development with emphasise on spatial planning. Unused areas were pertinent during site studies.

EMSCHER MASTER-PLAN_ RUHR VALLEY

APPROACH

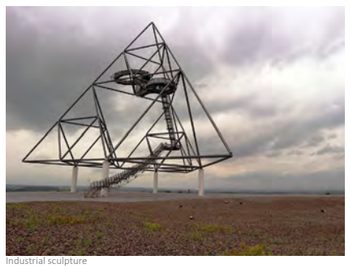
The Emscher is no longer considered simply to be the instrument for industrial production, but it is viewed as an area for valuable living space that can contribute to upgrading the region. The master-plan seeks to involve people in the process in the hope that they will be drawn to the site once conceived. The project is far from fully designed, as there is a large technical onus on the design team to know how to excavate the site.

Current industrial remains - Rhur Valley

'Waiting for the River' existing viewing platform

Public sculpture within industrial remains

Industrial remains made into sculpture



Industrial sculpture

Ice rink within remains

Landscaping work to link industrial remains

Exterior visualisations of proposed residential units

DESIGN SOLUTIONS

The architects have devised two main theses for the project:

- The post-industrial society of the Ruhr region requires an approach to improve the quality of life in the region.
- Common uses of open space will help to create a sustainable balance between people and nature. Free spaces in diminishing urban areas enable citizens to participate in design and create their won urban landscape to an extent.

Case Study - BER 2040 Masterplan, Brandenburg

04 BER 2040 MASTER-PLAN_ BRANDENBURG

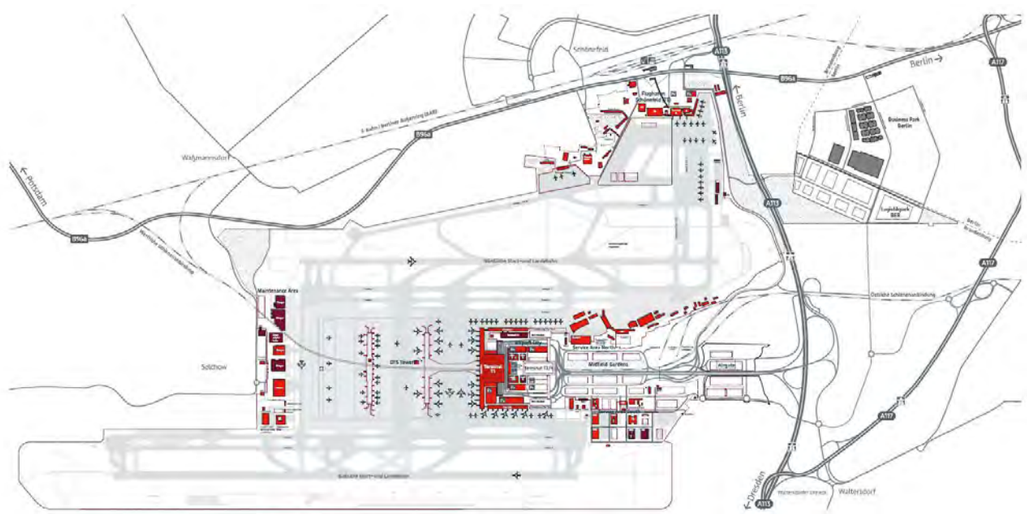
PROJECT - *With immense delays in the opening of the Brandenburg airport, this BER master-plan devises a solution to lack of airport space and explores residential opportunities.*

ARCHITECTS: ASTOC Architects and Planners
CLIENT: Flughafengesellschaft Berlin Brandenburg (FBB)
SIZE: 1.800 hectare
RESIDENTIAL OCCUPANCY: unknown
WORK SPACES: unknown

The construction of the Brandenburg airport began in 2006 and was due to be completed in 2012. After many technical issues whilst constructing the airport, it is still unopened to this day Following the completion of the BER 2040 master plan, the Brandenburg airport will be surrounded by a complex of office buildings, shopping centres, hotels and commercial centres, designed by ASTOC Architects and Planners. They were commissioned by the FBB to design the urban scene surrounding the airport. The master-plan establishes an economic development strategy.

RELEVANCE TO WEST EDINBURGH

- New urban development surrounding airport
- Phased masterplan between 2008 and 2025 including new airport Terminal
- Development to consist of strict block structure
- Medium density development combining residential and commercial



Master-plan 2040 of Brandenburg airport


Establishing important surrounding context

EARLY PROCESS

The urban development master plan identifies the airport as a prime location for such urban developments, with the railway connecting to Berlin's central station and providing options for connecting districts on overhead railways. To begin with, the site was studied at an extremely zoomed out scale (1:10,000) and, progressively, this has moved to the fine detailing at 1:500.

BER 2040 MASTER-PLAN_ BRANDENBURG

PROGRAMME

Building height suit the towns vernaculars, interspersed with block structures. The 2040 masterplan proposes a step by step method of constructing the development. With many issues having been faced during the building of the designed airport, FBB have devised a strategy for phasing the urban development. Between 2018 and 2021, they aim to intensify the airport capacity from 22 to 33 million passengers by expanding the baggage sorting area and erecting the T1-E terminal. By 2025, the aim is to have Terminal 2 (opposite) built to facilitate for 18 million passengers. Thus, the airport capacity will reach a total of 43-45 million passengers. Once complete, the Schonefield Airport will close. Further expansion of terminal two will be made by 2030, allowing overflow from T1-E to fall into the second terminal. 48 million passengers can be held in the airport in total. The final stage will attempt to further the capacity to 55 million passengers, with a direct connection between both terminals being erected.


Brandenburg airport - empty greenspace surrounding


Master plan for residential development


Interior spatial visualisation - lack of contextual identity


Bridge to built up neighbourhood

Case Study - Kalastama Smart City, Helsinki

05 KALASATAMA SMART CITY_ HELSINKI

PROJECT - *The city of Helsinki is projected to be carbon neutral by 2035. The district of Kalasatama seeks to understand how a 'Smart City' could achieve this.*

ARCHITECTS: Harris-Kjisik Architects
CLIENT: City of Helsinki
SIZE: Masterplan- 850,000 km^2. Starting blocks- 40,000km^2
RESIDENTIAL OCCUPANCY: 25,000 residents
WORK SPACES: 10,000 jobs

The starting block developments of the Kalasatama district were designed between 2005 and 2010 by Harris-Kjisik Architects. The district is on the is on the Eastern edge of the city centre of Helsinki, on the harbour. The City Council decided in 2013 to use Kalasatama as a model district Smart City development. It was a former industrial area, owned by the city. By 2035, 25,000 residents will be catered for and 10,000 jobs will be produced. One of the main aims of Smart Kalasatama is to provide an urban lab and testing area for smart and sustainable new solutions. "The goal is a smart and sustainable district, that is achieved through experimentation and co-creation". A sharing economy is already firmly established in the district; people share cars and parking spaces. A smart gird connects estates together, enabling electricity sources. Forum Virium seek to develop Helsinki into a functional smart city and explore how smart city components can be beneficial. The vision planners plan to save on resources like energy and save time for people. There are experiments currently ongoing to see how to improve flexible parking, how to use energy data effectively and how people can develop an ecological way of living to make effect use of time. The goal is for Helsinki to be carbon neutral by 2035; the Kalasatama development could prove to be crucial assisting with this. The smart solutions in Kalasatama include energy efficiency and co development and the city epitomises sustainability. The goal of Kalasatama is basic; to support Helsinki to build "the most functional city in the world by getting the best out of what new technologies can deliver". Minimising transport times is critical to the success of the project.

RELEVANCE TO WEST EDINBURGH

- City expansion within former Harbour site linked by metro, bus and tram
- Development forms key part of Helsinki's aim to be Carbon Neutral by 2035
- Model 'Smart City' development testing smart and sustainable solutions eg. energy grid, flexible parking, HIMA home automation system
- Mix of 25000 new residents and 10,000 new jobs


Kalasatama developments


Kalasatama master plan


City developments

MAKING A SMART CITY SMART

The smart city relies on data and lifestyle benefits. The Kalasatama district is close in proximity to Helsinki and can be linked through the metro, bus and tram. Elevators and escalator play a pivotal role with the density of the project. Artificial Intelligence is becoming necessary and more used; sensors, data and people. There is already a smart infrastructure; bins empty themselves in the smart grid energy with information travelling in two directions and an energy storage is planned that seeks to produce the same amount of energy as 4,000 solar panels. Key elements include open processes, open data and data systems with transparent governing practices.

KALASATAMA SMART CITY_HELSINKI

EXISTING SMART CITY DEVELOPMENTS

There are four sustainable developments already in use:

> Kalasatama smart grid: HIMA home automation system – households will be able to monitor energy and water consumption and control electrical appliances on phones.
> Kalasatama's smart waste containers: sensors placed in containers monitoring waste levels. Alerts sent to waste collections when containers are full.
> Automatic waste collection through pipelines: Kalasatama IMU – waste collection handled by pipeline. Waste travels from waste collection points at properties underground pipes to central collection.
> Smart Kalasatama agile piloting programme: created to answer questions – how to accelerate smart city development and recruit enterprises.


Clean neighbourhood

The make up of a smart city


Smart city diagram


Underground transport networks

PLANNED SMART CITY DEVELOPMENTS

> The world's most appealing emission-free mobility: the transport system of the Helsinki region is smart, flexible and efficient. Public transport more appealing.
> The world's most resource-smart: food waste of citizens and enterprises is minimised. Buildings and homes are smart and energy-efficient.
> The world's smartest city energy: the energy system of the Helsinki Metropolitan Area is efficient and emission-free.
> A world-leading city in the circular economy: energy efficiency and cooperation between enterprises and citizens to save raw materials are everyday realities in city.
> Pioneer of climate-positive construction: residential area of Helsinki metropolitan area are good for the environment. They produce more energy they consume.

Case Study - Vauban, Freiburg

06 VAUBAN_FREIBURG

PROJECT - *Freiburg is renowned as being one of the greenest cities in the world; Vauban epitomises this. Transformed from a barrack, the district exudes sustainability.*

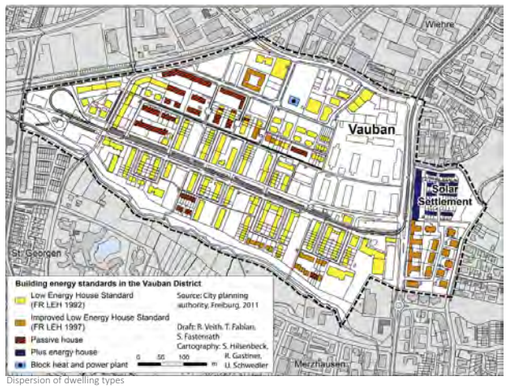
CLIENT: City of Freiburg
SIZE: 40.000 hectares
RESIDENTIAL OCCUPANCY: 5,000 residents
WORK SPACES: 600 jobs

The district was built on the ground of a former French barracks and is approximately 40 hectares in size. The City of Freiburg purchased the area from the German government in 1992 to restore it and create an environmentally sustainable residential area. The construction of this community began mid-1990's and was opened in 2000. By 2001, it had become a home to 2,000 people; this has now increased to 5,000 and over 600 jobs have been created. The district has been developed with a green transportation system, with car parking not catered for in streets. Residents who possess cars leave them on the edge of the district on a community lot. This leaves the main district car free and , instead, the tram installed in 2006 provides access to the city. Prior to the development, most households owned a car. Since the district was developed, 57% of the households who owned cars have gotten rid of them. In total, 70% of people in Vauban live without a car. All buildings must comply to the low energy consumption standard of 65kWh/m2. Energy and heat are produced through a wood-chip powered heat and power generator. Any grey water produced from homes is regenerated to become clean water for use.

RELEVANCE TO WEST EDINBURGH

- Sustainable neighbourhood on 40hectare site (former Barraks)
- Began in 1990's and completed 2001
- Car free district linked to tram (installed 2006)
- Low energy development with biomass power.
- Promotes resident self-management and housing cooperatives for construction, maintenance and management.
- Diverse range of housing and variety of uses for all residents

Former barracks



Dispersion of dwelling types

Rail tracks are set in bio-swale

LOW ENERGY

The whole project is monitored using GEMIS software. This records data about infrastructure, electricity supply, heat supply, water and waste, traffic and private consumption. Freiburg is one of the greenest cities in the world and Vauban is its greenest area. Low energy building is compulsory in the district and approximately 170 units are passive house, with a further 70 being energy-plus homes.

VAUBAN_FREIBURG

PROJECT OBJECTIVES

Initial objectives of the project were confirmed by a process of pubic consultations:

> To develop a new concept of mobility based on the idea of a 'car-free city'.
> To construct other community facilities, such as a market and community centre.
> To develop an environment suitable for the construction of homes.
> To promote self-management and create housing cooperatives and establishing small communities of construction, maintenance and management people.
> To maintain the old street plan and avoid destruction of the existing greenery and natural water source.
> To restore warehouses in the old barracks to create student halls.

Dense streets with small roads

Series of microclimates created within communities

Extensive solar panels on living units

Haus 037 - jobs provided for locals

PROJECT ACHIEVEMENTS

One of the main achievements of the Vauban development is how diverse a range of housing it has created. The community living within the dwelling are mainly young people, elderly people and people with low incomes. Construction of the housing has been carefully considered in relation to environmental factors. The whole complex is construction using local materials, solar panels and rainwater collection mechanisms. With obligations to reduce energy consumption, various initiatives are emerging. 10 passive housing units create more energy than they consume. The water treatment is also green; 80% of water from rainfall can be filtered onto natural land. On of the other notable features of this development is the construction of Haus 37, nurseries and educations centres, providing jobs for more than 400 people.

Case Study, Vision 2030 Almere

07 VISION 2030_ ALMERE_ NETHERLANDS

PROJECT - *This project seeks to provide 60,000 homes for 150,000 inhabitants and 100,000 jobs, whilst maintaining themes of sustainability, research and urbanism by 2030.*

ARCHITECTS: MVRDV
CLIENT: Municipalities of Almere
SIZE: 248.8km^2
RESIDENTIAL OCCUPANCY: 60,000 housing units for 150,000 residents
WORK SPACES: 100,000

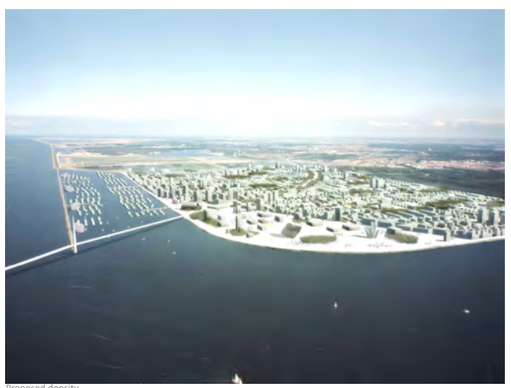
Once completed in 2030, 60,000 homes for 150,000 inhabitants will have been built and 100,000 jobs will be created. If this is achieved, Almere will expand to the fifth largest city in the Netherlands. This, ultimately, will reduce pressures of centralized expansion and push this out towards the urbanised West of the Netherlands. The growth will take place in four areas; Almere IJ-land, Almere Pampus, Almere centre and Almere Oosterwold. The developments for Almere are not to simply be viewed as a master-plan; the project describes how the city can develop in economic, social and cultural terms. Although vast in relation to residential numbers, there is a huge focus on the qualities of the spaces created within the residential spaces. Almere must be designed to serve the demand for expansion within the Netherland, whilst developing into an ecological, social and economically sustainable city.

RELEVANCE TO WEST EDINBURGH

- Expansion of Almere to become the Netherland's 5th largest City
- Masterplan and vision to create significant district of 150,000 inhabitants
- Four integrated and distinct areas designed to reduce pressure from centre of City
- Connected to each other and city centre via new infrastructure and metro
- Combines water landscape, nature reserve and urban development
- Oosterwald neighbourhood designed as 'freeland' on principles of freedom and liberation for all residents


Development zone


Empty site


Proposed density

THE AXIS

Only 30 years ago, Almere was an empty stretch of land that had emerged from the sea. It is now home to 185,000 occupants. These new developments hope to diversify the Netherlands by providing numerous densities and programs. Further growth will expand Almere's model of a poly-nuclear city. The project is comprised of four development areas, each with individual character, logic and identity. All areas are connected by an infrastructural axis that connects the Almere to Amsterdam through the metro.

VISION 2030_ALMERE_NETHERLANDS

DEVELOPMENT CHARACTER

Almere IJ-Land is a new coast off the IJ-Lake. It is a series of urban and nature reserve islands, seeking to improve the lake's water quality. Space available presents the opportunity for 5,000 to 10,000 residences. The future of this area of the city can adapt to suit varying needs of the city. This is the area of Almere where the metro is situated, therefore, it provides the main transport connection to the inner city.

Almere Pampus is set to become high density, with 20,000 homes, focusing on the existing harbor and be open to experimental housing. The maintenance harbor will be reused for leisure and floating villages.

The centre of Almere will become the cultural and economic heart of the city and 5,000 homes, offices and public spaces will become available.

Almere Oosterwold, finally, will hold areas for future development after 2030. The idea is that this is the more rural and organic urban area; it has space for up to 18,000 new homes and other functions.


Transport links to islands


Residential visualisation


Connections to parts of island

Objectives diagram

OBJECTIVES

MVRDV have devised five main objectives for this project:

> create new transport links
> create new living and working environments
> improve the existing city
> communicate an ecological vision
> improve green corridors

Case Study, Almere Oosterwold

ALMERE OOSTERWOLD_ NETHERLANDS

PROJECT - *As part of the Vision 2030 development for Almere, MVRDV have been working in detail with Almere Oosterwold to establish it as an urbanised 'freeland'*

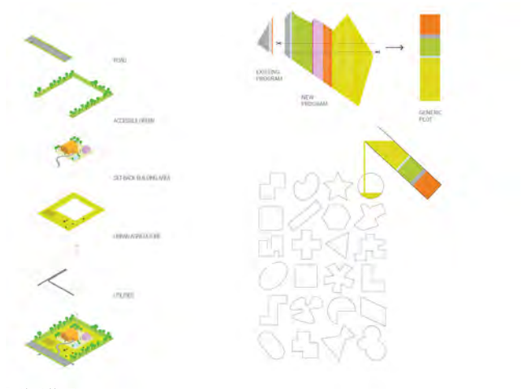
ARCHITECTS: MVRDV
CLIENT: Client: Werkmaatschappij Almere Oosterwold/Municipality of Almere
SIZE: 4,300m²
RESIDENTIAL OCCUPANCY: unknown
WORK SPACES: unknown

In cooperation with the city of Almere, MVRDV have designed a development strategy, with free design and construction transforming the area. The rural character of this area will be maintained, by adhering to the following limitations:

> 18% construction
> 8% roads
> 13% public green
> 2% water
> 59% urban agriculture

Proposed as a 'freeland', Almere Oosterwold will become a completely liberated place, where you are able to define your own living space and, in essence, celebrates individual's' desires. You have the freedom to build whatever you want in whatever shape and you can decide how to use your space and how to behave.

Site zone



Residential layering

Communities are unplanned and land is left open for creativity

Conceptual components diagram

HOW IT WORKS

Ultimately, this development enables a rich assemblage of originality where everything is possible and where advanced urban planning is simplified to basics. The freedom of this is still maintained within measured control; you can build what you want but you cannot harm those around you. Alongside anything you build, you must also design the infrastructure surrounding it; the energy supply, waste disposal, water storage and public parks etc.

ALMERE OOSTERWOLD_ NETHERLANDS

LANDSCAPE INTEGRATION

City and landscape are well integrated; each development is surrounded by a green ring of urban agricultural and public or private green. It sidesteps a closed landscape by creating a continuous open space. It presents the opportunity for a 'productive landscape' for the production of food, energy, water reception and purification. Recent decades show a landscape that has attempted to create distance between production and consumer; the transformation of this landscape downscales this distance.

Green expansion

Community development visualisation

Community development visualisation

Community connections

ETHOS

An open ended participatory and adaptive urbanism is created, with the residents being allowed to collectively create their own environment and a part of the city. The development steps away from governmental dictating and invites organic urban growth. An unplanned and unexpected urbanism will emerge, not dictated by a structure.

Case Study, Borneo Sporenburg, Amsterdam

08 BORNEO-SPORENBURG_ AMSTERDAM

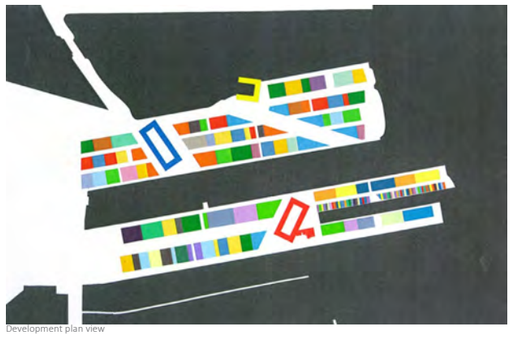
PROJECT - *The industrial docklands of Borneo and Sporenburg have been re-developed to become a residential community, with water related activities being provided.*

ARCHITECTS: West 8
CLIENT: New Deal
SIZE: unknown
RESIDENTIAL OCCUPANCY: 2,500 dwelling units
WORK SPACES: unknown

Borneo-Sporenburg was initially formed for industry. Two peninsulas in the Eastern area of the Amsterdam docks were exploited for water related activities, alongside 2,500 low rise dwelling units. The density of the residential blocks is 100 units per hectare (three times the standard density of suburban developments). This is the third extension of the Eastern expansion of the Amsterdam docklands.
This project displays a break from the typical Dutch canal house. It was suggested that the new dwellings should be three storeys and ground accessed. The vernacular for this area was the terraced house with patios and roof gardens. 30-50% of each plot was occupied by a void for greenspace. By repeating these new types of dwellings in clusters of between 5 and 12, the street elevation becomes immediately interesting, as it deviates from the surroundings. What would normally be designed as public space is included in the plots to create space within the walls of the building. Three sculptural blocks act as landmarks in the expanse of houses.

RELEVANCE TO WEST EDINBURGH

- New residential neighbourhood in former industrial docklands
- Forms part of wider dockland expansion with focus on water-based activities
- High density housing on linear plots with vertical emphasis
- Large number of architects employed to develop housing using key masterplan design principles/guide
- Development connected by bridges and public transport to city centre and beyond


Development plan view


Diverse elevations


Aerial view with landmarks


Abstract frontages

TRANSPORT

Throughout the master-plan, transport is well considered. It encourages cycling and walking, with only a few spaces available for street parking; these spaces are mostly internal or underground so as not to distract on the pedestrianized surface.

The python bridge connects Borneo and Sporenburg together and is essential in demonstrating a picturesque environment, due to its form and colour. Following the master-plan, various architects were selected to design for the same typology.; introverted individual houses.

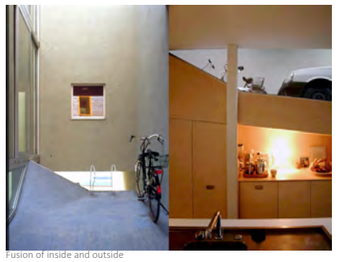
BORNEO-SPORENBURG_AMSTERDAM

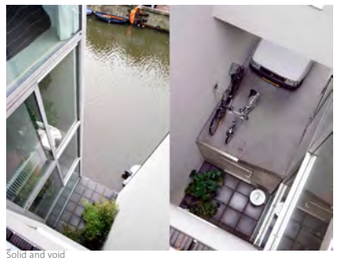
PLOT 12

MVRDV contributed to this project by designing plot 12. This was a private experiment, designed to fit the allocated width of 5m and depth of 16m. Because of the narrow plot and the fact that only half of the width is used, MVRDV proposed a private alleyway; 2.5m wide. The idea of dividing land into strips in West 8's masterplan is emphasized in this project. Interior and exterior spaces are merged into one; the space accommodates three elements:

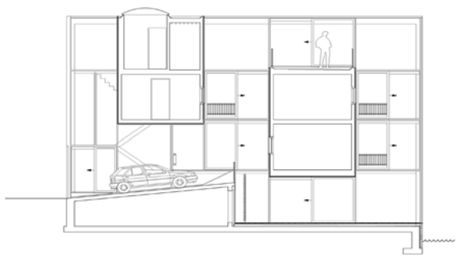
1. a block for storage with the roof sloping up from the street
2. a place to park
3. two closed volumes for a guest room and bathroom

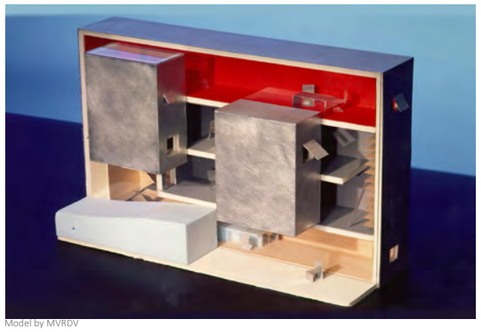

Elevation of developments


Fusion of inside and outside


Solid and void


Exterior


Section through all interior components


Model by MVRDV


Whale building interior courtyard

THE WHALE BUILDING

The Whale building, by de Architekten Cie.

> footprint – 5,000m²
> volume- 100,0m³
> total floor area- 35.8m²

The project provides 214 apartments (150 social housing and 64 private flats available for rent) and 1,100m² of space for business. With two sides of the building elevated, the lowers portions receive sunlight coming in from underneath the building. The inner portion of the building becomes a public city garden.

Case Study, Iberg, Amsterdam

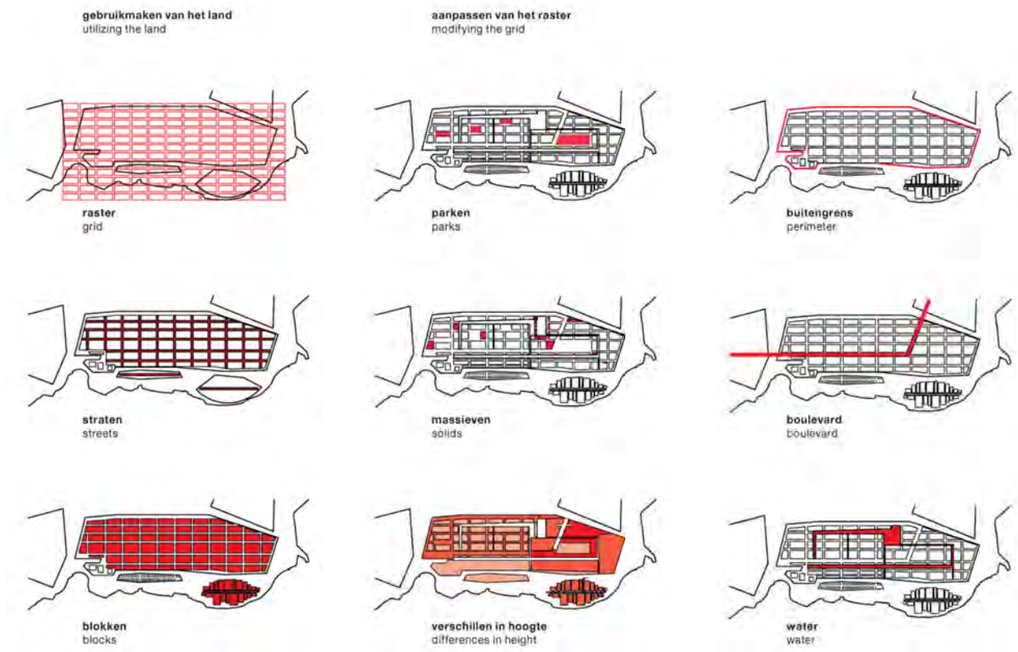
09 IJBURG_NETHERLANDS

PROJECT - *Ijburg is a new development in the Eastern part of Amsterdam. The design has been completed in two phases; the first is now complete.*

CLIENT: City of Amsterdam
SIZE: 540 ha
RESIDENTIAL OCCUPANCY: 18,000 new homes
WORK SPACES: unknown

Ijburg is an urban development in the Eastern part of Amsterdam. Once the project is complete, it will provide 18,000 new homes on six newly made islands. This is a high-density project, with 71 homes being provided per hectare for the initial phase of construction. In the next phase of construction, this will increase to 90 homes per hectare. Existing natural functions and requirements of the water system must be taken into consideration during the design. The design will be realised in two phases; the first, comprised of Haveneiland (Harbour island) and Rieteilanden (Reed Islands) is complete.

Surfacing of land



Components of the grid

Master-plan

THE GRID

Haveneiland is in the centre of Ijburg and has vast density and character. The Rieteilanden are characteristically suburban. The design for Haveneiland is based on a grid which is categorised into three layers:

- landscape design
- urban design
- distribution of programmatic functions

IJBURG_NETHERLANDS

ISLANDS

The grid offers public spaces, accessed by streets, leaving room for various uses. All positions within the grid are equal and the programme is equally dispersed across the grid. There is no hierarchy in the types of housing between the blocks. Public spaces, market square and two parks with playgrounds have been planned at regular distances and connection to streets. An internal waterway intersects the grid and opens the structure of the closed blocks.
Ijbrug is situated in the main ecological structure between the Vecht River and region and Waterland areas. Creating islands is a better solution than draining land. The realization of Ijbrug does not mean that natural values are diminished; the new district offers more shores and shelter.

First development phase

Residentials from the water

Full development visual

WATER SYSTEM

The water system for the first phase of Ijburg is different to other land reclamation projects in Ijsselmeer. Ijburg is going to be raised rather than drained. The creation of new land areas may not impact the quality of the surrounding water. As a result, precipitation on the Ijburg islands is retained for as long as possible and treated. The runoff of surface water is the allowed to infiltrate into the ground through special drains. This water than passes through reed banks, purifying the water and them into the island's surface water.

Case Study, North west Cambridge

11 NORTH WEST CAMBRIDGE_ENGLAND

PROJECT - *This projects seeks to provide an extension to the existing university campus, incorporating public residential units whilst maintaining themes of sustainability.*

ARCHITECT: AECOM Design and Planning
CLIENT: Uniervsity of Cambridge
SIZE: 150 hectares
RESIDENTIAL OCCUPANCY: 1,500 homes for the uni and college, 1,500 private houses, accommodation for 2,000 postgraduates
EDUCATION SPACES: 100,000 sq/m of academic and research development space

The ultimate vision of Eddington, North West Cambridge, is to create a place that is sustainable, long-lasting and ambitious, offering high quality life and enhancing the city and the university. The development seeks to contribute to the university's long term future and contribute to economic growth by providing spaces for workers, students and the public. Approximately a third of the site will be used as public open space for sports, informal recreation and ecological use. The project is the largest capital development that the university has undertaken, including 1,500 affordable home for University and College staff, 1,500 private homes, accommodation for 2,000 post-graduates and 100,000 sq/m of academic and commercial space. The project has been designed to be a small neighbourhood; not just a place to live. The University of Cambridge's planners have worked with small groups to design and delivery elements such as a school, nursery, shop, market square, community centre, sports facilities and green open spaces. The design has been largely inspired by original University of Cambridge features; college courts, city parks, active street life, landscaped areas that are formal and informal.

RELEVANCE TO WEST EDINBURGH

- Mixed use development which includes private housing, student accommodation, education and commercial space.
- A connected extension of the City Centre.
- Overcomes challenges of being located next to large infrastructure.
- Sustainable development which sets out to achieve excellence.

Master plan visualisation

Site boundary

PHASING

Following planning approval in 2013, phase one of construction is underway. It has been designed so that phase one is capable of immediately communicating a sense of place for the development. It provides 1,300 homes, the school, community hall, shops, health centre and hotel; all of which act as imperative features of the project's infrastructure.

NORTH WEST CAMBRIDGE_ENGLAND

THE DESIGN

A variety of architects have participated in certain elements of the plot. The main square is surrounded by seven storey buildings, with the superstore in the South much lower, allowing the sun to penetrate into the main square. A market is planned to be installed in this area. From this main square, a multitude of landscaped minor spaces connect to a green corridor, leading down to lakes. In relation to phasing, each part of the development has been designed to provide open spaces that is accessible to all in the neighbourhood, creating a semi-private and shared space.
The site is bordered by the M11; the noise of this could be detrimental to the development, however, this has been negated by large earth mounds, providing acoustic screening.

Current construction

View from within one of the communities

Community square surrounded by residential units

Residential terraces

SUSTAINABILITY

Sustainability has been a clear objective. The development features a combined heat and power system, pumping system, allowing water run off to be stored in the lakes, and pumped back for domestic use. Carbon emissions and pollution have been minimised throughout the process. All buildings have been designed to reach a level 5 BREEAM Excellent rating. The design process has ensured that wildlife and biodiversity has been encouraged during the development. In relation to energy, the design of he homes and buildings make use of solar panels and the centralised energy centre and district heating work.

AECOM

COLLECTIVE ARCHITECTURE

RETTIE