

ClydeMetro:

RAIL and LIGHT RAIL OPPORTUNITIES for GREATER GLASGOW 2001-16



**Scottish Association
for Public Transport**

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ACKNOWLEDGEMENTS:

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Photos: Stockholm Metro (rail) to left and Strasbourg (light rail) to right.

I THE BACKGROUND

In its **UK Ten Year Plan for Transport** (July 2000), the government recognises the value of high quality public transport networks. Better public transport can cut car use, regenerate towns and cities and promote social inclusion, particularly if planned with new land use and travel pricing strategies.

Key elements in regional plans should:

- increase frequency and capacity on existing urban rail networks;
- introduce Light Rail to extend quality public transport, relieve rail bottlenecks, and enhance service on busy corridors at present reliant on buses;
- link land use planning with rail and light rail developments to cut road traffic and encourage urban regeneration;
- reform fares and pricing;
- expand Park+Ride and provide extra halts and interchange with other public transport routes.

Bus priorities and other bus service improvements will remain very important, but evidence shows that rail and light rail have greater potential to attract modal shift away from car travel. Already, Strathclyde PTE rail traffic has increased by 25% since 1995.

After years of decline, bus use in Glasgow rose in

2000, but elsewhere the downward trend has continued. Integrated policies should increase bus use by up to 20% over the next ten years, but government expects rail and light rail to achieve much greater increases, with more tangible benefits for city and town life.

New planning guidelines encourage development increasing use of the existing rail network but the Strategic Rail Authority (SRA) has also observed that the railway layout does not always accord with today's market geography ("A Strategic Agenda", SRA, 2001). Light Rail offers an opportunity to extend rail transport into housing areas and commercial developments not currently reached by the rail network.

In England, seven Light Rail schemes are now in operation, four have recently been announced (in Nottingham, Leeds, Bristol and Portsmouth) and another 21 schemes - including extensions of existing systems - are expected over the next ten years. No Scottish schemes have yet been approved. However, the Scottish Executive expects to unveil a **Scottish Transport Plan** in autumn 2001. This will highlight an action programme to 2006 and other prospects to 2016, offering a major opportunity to deliver rail and light rail schemes in Scotland.

2 WHAT IS LIGHT RAIL?

Light Rail covers a range of options from street-running trams to segregated routes, suited to providing intensive services for the shorter-distance and intermediate journeys which form the majority of urban movement. Light Rail vehicles can operate on reserved track or on street, extending fume-free rail transport into residential areas, commercial developments and city centre streets.

Light Rail networks can also include sections of existing rail formations, either through conversion from heavy rail operation, where appropriate, or by re-opening disused former rail routes. It is also possible for Light Rail vehicles to share routes with trains ("joint running") where track capacity is available and suitable safety features have been provided.

3 METRO and LIGHT RAIL DEVELOPMENT AROUND GLASGOW

Success in urban regeneration and reduced road congestion is highly dependent on the ability to develop public transport as an attractive alternative to cars for a greater proportion of journeys. High quality, reliable, frequent and reasonably fast public transport should be built into urban regeneration plans, with Metro and Light Rail having particular

potential for ensuring modal shifts away from cars for short urban trips below 10 miles. Car ownership in Glasgow and the west of Scotland is below the levels in continental cities but, as ownership rises, a Metro and Light Rail network will have a key role in increasing public transport use and stabilising or reducing urban road traffic.

Due to the urgency to avoid further increases in car traffic, and to provide extra train and track capacity on congested parts of the Strathclyde PTE rail network, Greater Glasgow needs a strong strategy to link the **management of road demand** with implementing plans to **expand capacity and quality on Metro and Light Rail services in the Glasgow area.** A two-stage rail strategy is recommended:

Phase I:

Development of SPT train services around Glasgow into a **ClydeMetro** high frequency "turn up and go" network over the next 5 years. The network would include strategic development areas on Clydeside.

ClydeMetro would share track with other trains and use conventional high-platform railway stations and halts giving level access from platform to train, though network extensions need not to be built to mainline rail standards.

Phase 2:

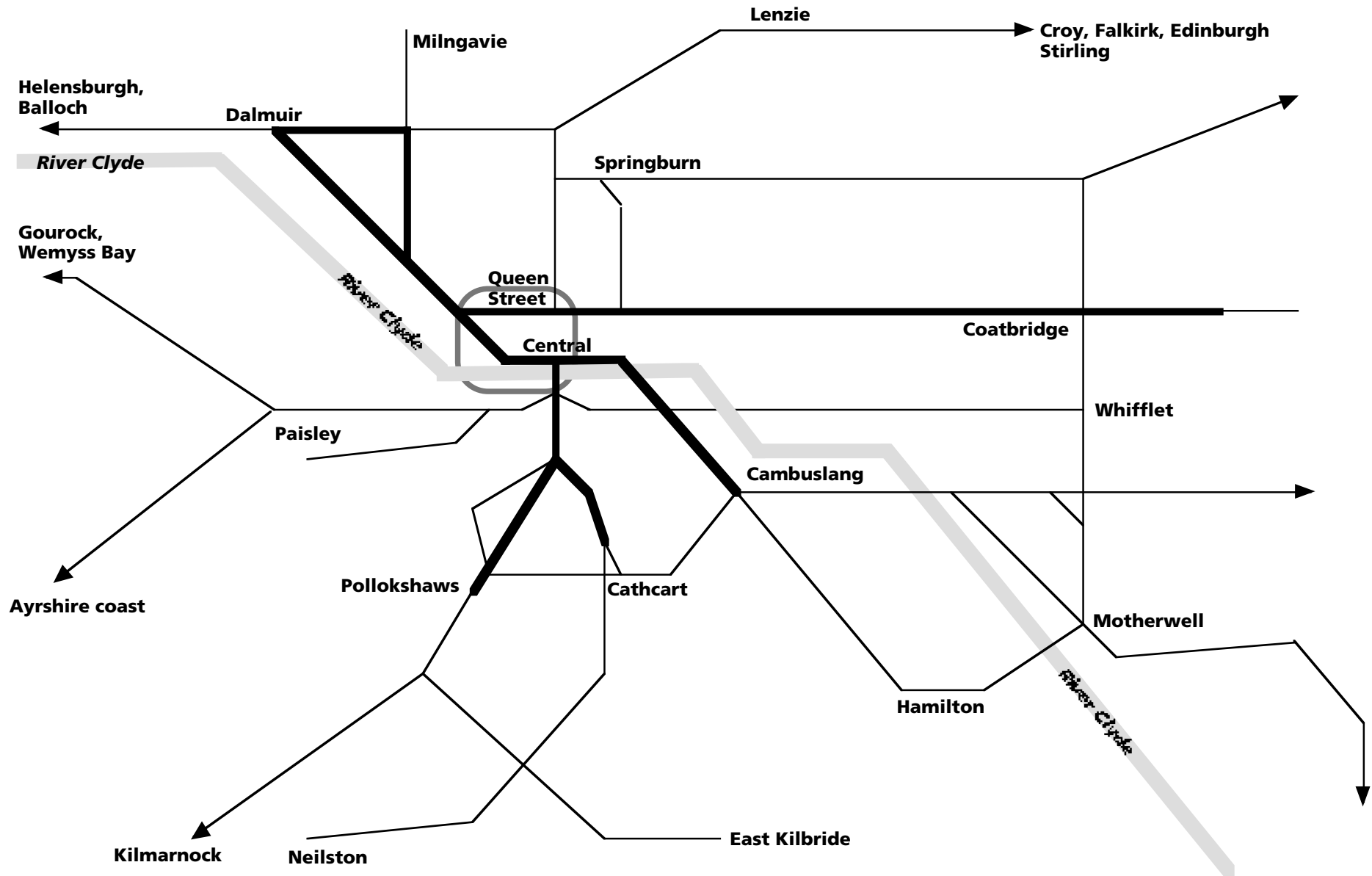
Greater Glasgow should be planning for the introduction of Light Rail **ClydeMetro** routes from 2007 as the first stage towards a city tram network. Low-floor, easy-access light rail vehicles would operate on routes within 10 miles of the city centre.

New routes (including re-use of former rail formations), and some sections of street running with tram priority, should be integrated into Local and Structure Plans. Conversions of some existing railways to Light Rail would also be considered, focusing on routes where street running extensions could increase rail penetration into major housing or commercial developments.

Regional and national express services would continue to be developed by SPT and others on longer distance routes. There would be improved **SPT Express** routes from Glasgow to Helensburgh, Gourock, Ayr, Kilmarnock, Lanark, and cross-boundary routes to Stirling, and Edinburgh (via both Shotts and Falkirk).

Rail Network 2001

	Routes served by at least 4 urban trains per hour
	Other rail passenger routes
	Circle Underground



4 AGREEING A PROGRAMME

The autumn 2001 target date for publication of **Five Year and longer term Transport Plans for Scotland** is a strong incentive to agree a rail expansion programme for the West of Scotland within the SPT and WESTRANS multi-modal strategy. What follows are suggestions for immediate priorities and longer-term options for Clydeside. The proposals are additional to improvements in the ScotRail national passenger network and in rail freight but they do include close links with **land use strategy** in Local Plans and Ayrshire and Glasgow and Clyde Valley Structure Plans.

New vehicles would include **level access** from platforms:



Level access from platform to vehicle in Germany.

4.1 CLYDEMETRO OPTIONS 2001-6

ClydeMetro Phase I would target to **double rail usage in the Glasgow area**, increasing the utilisation of the existing east-west cross-city rail tunnels and the inner suburban rail network (see diagram on page 3 for existing network).

Key features of **ClydeMetro** Phase I:

- new *Metro* services capable of joint running with existing trains;
- *turn up and go* frequency (quarter hourly or better) on most lines within 10 miles of Glasgow;
- *park + ride* expansion, and development of additional interchange stations and halts;
- *multi-modal bus/rail tickets* based on simplified zones, including day tickets and family discounts, with fare levels less than the cost of car use.

4.2 NETWORK DEVELOPMENT 2001-6

(See diagram on facing page.)

Key Objectives:

- relief of capacity bottlenecks at Glasgow Queen St and Central High Level, at Motherwell and through Cambuslang, Partick and Pollokshields;
- extension of rail network to **Glasgow Airport, Larkhall, Pacific Quay & Clyde Waterfront, Ibrox, Parkhead, Clyde Gateway** and **East Kilbride Town Centre**;
- **electrification** of **Shotts-Whifflet-Rutherglen** line, with trains routed via the Argyle line.





4.3 NEW CLYDEMETRO ROUTES 2001-6

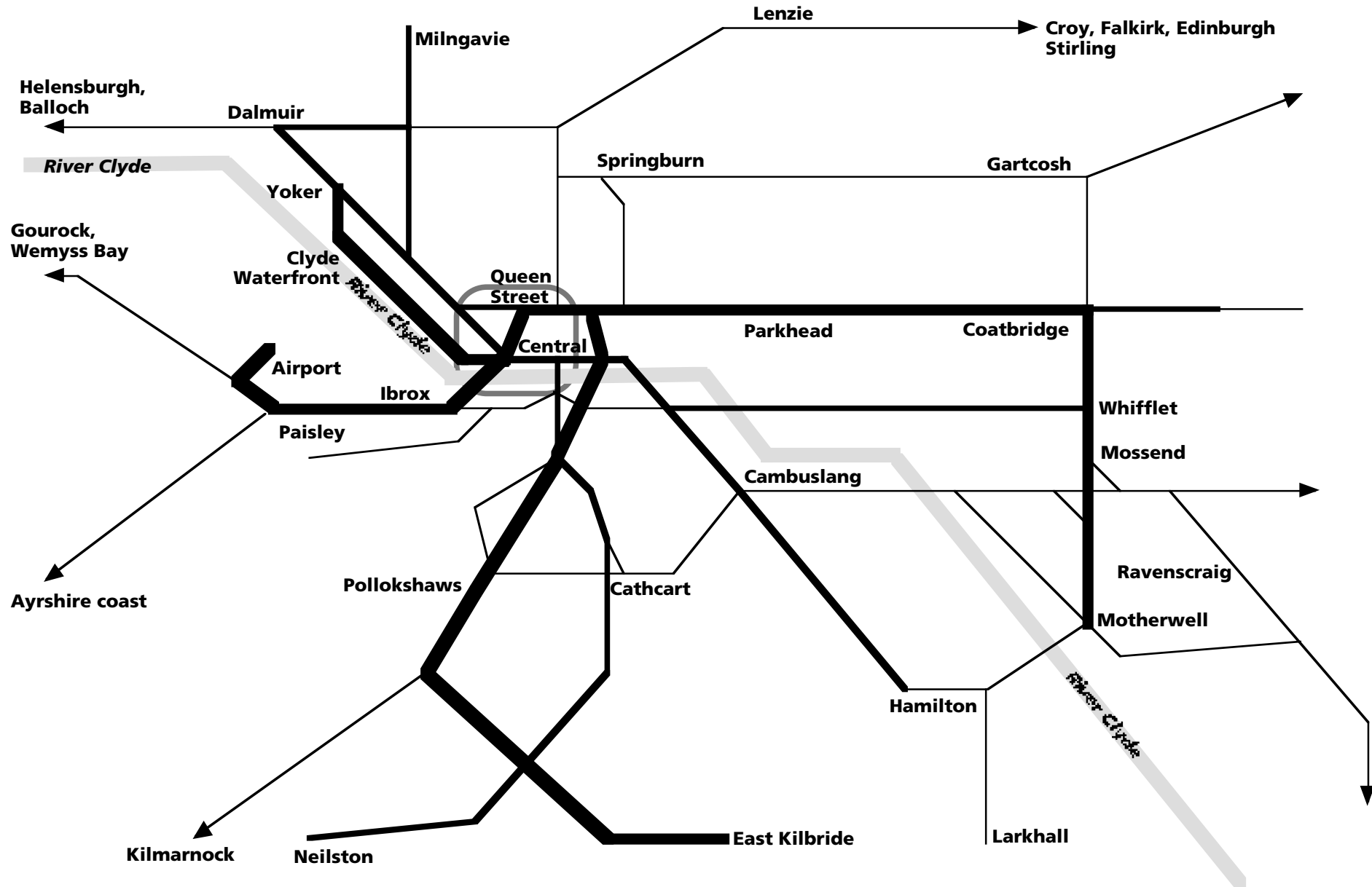
Line 1: Glasgow Airport to Motherwell via Paisley, Ibrox, SECC, Queen St Low Level, Parkhead Forge, Coatbridge, Whifflet & Mossend

Line 2: East Kilbride to Yoker via Clarkston, Giffnock, Pollokshaws, St. Enoch Bridge, Queen Street, SECC, and Waterfront Development

These new services would need five short sections of new route into Glasgow Airport, Ibrox to Finnieston, High St to Glasgow Cross, into East Kilbride Town Centre, and to Yoker using the former railway along the Clyde Waterfront. Restoration of four running lines would also be required on the busy double track between Ibrox and Paisley.

CLYDEMETRO: Phase 1 - 2006

	CLYDEMETRO: lines 1 and 2 (New through services)
	Other lines with 4 urban trains per hour or better
	Other regional / national routes
	Circle Underground



5 CLYDEMETRO 2007-16

Longer term developments will be influenced by the results of improvements to 2006, the availability of funding, and adjustments in land use, road traffic reduction and social inclusion priorities.

Detailed programmes need not be firmed up until Phase I is underway. However, the best results are likely to come from Metro or Light Rail extensions directly linking major housing areas to the **ClydeMetro** network established in Phase I.

Possible additions to **ClydeMetro** are:

CITYTRAM:

- **Priorities as on page 7 diagram:** improving access to **Clyde Waterfront, Southern General Hospital, Braehead/ Renfrew, Paisley, Neilston, Cathcart, Cambuslang, Clyde Gateway** and **Parkhead**;
- **Drumchapel** and **Maryhill** via Kelvinbridge and Great Western Road;
- **Kirkintilloch** via Lenzie;
- Extensions to **Easterhouse, Castlemilk, Pollok** and **Newton Mearns**.

Outer **ClydeMetro** extensions:

- Paisley to **Kilmacolm** via **Bridge of Weir** and **Linwood**;
- East Kilbride to Hamilton and extension to Airdrie and Coatbridge via **Netherton Hospital, Ravenscraig** and **Newhouse**;
- Airdrie (Drumgelloch) to **Bathgate**.

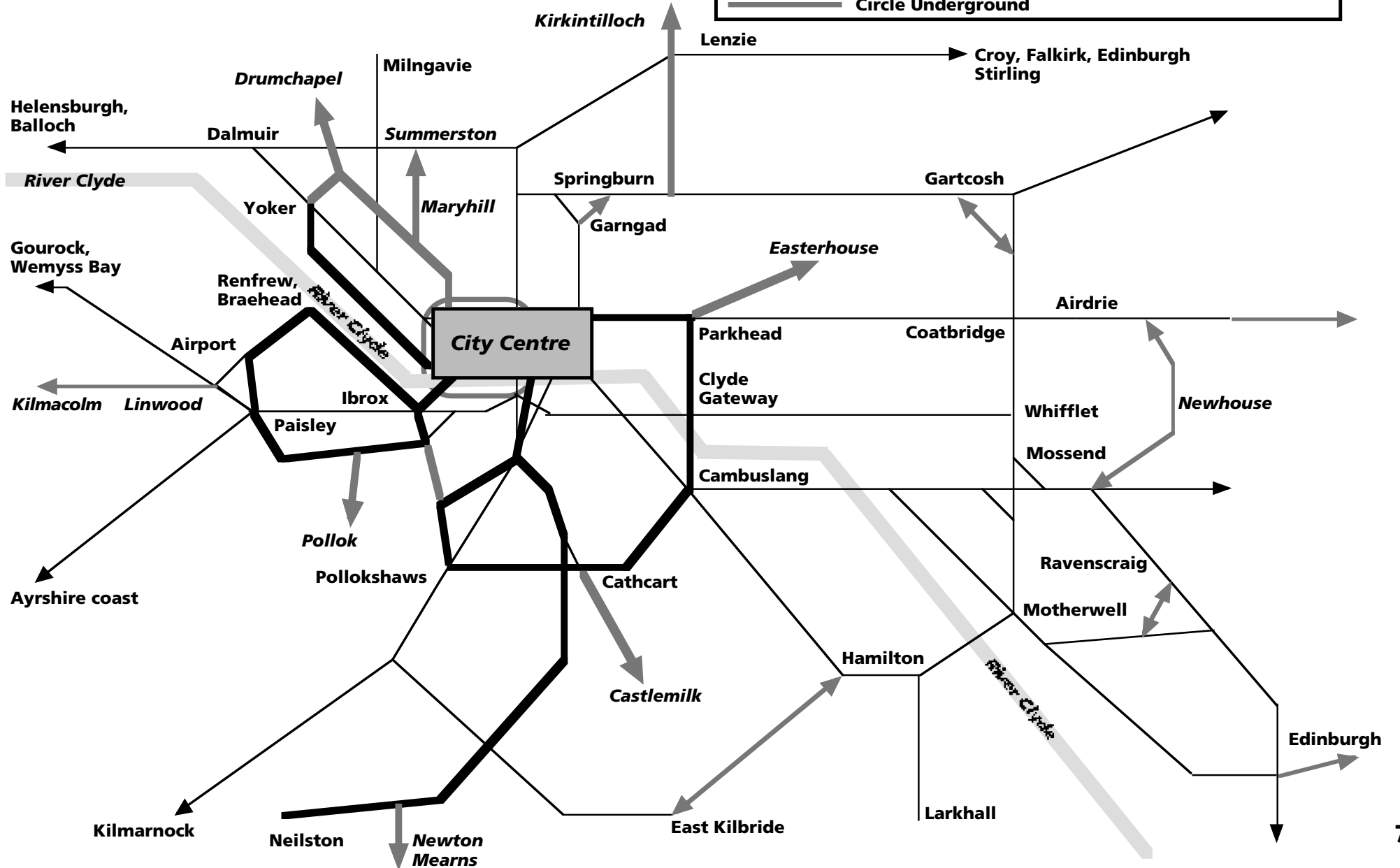
ClydeMetro would create a cost-effective **Clydeside** transport network rivalling the best in continental Europe by 2016, bringing the benefits of economic regeneration, road traffic reduction and social inclusion.



Freiburg in Germany (photo: LRTA Edinburgh).

CLYDEMETRO: Phase 2 - 2007-16

	CLYDEMETRO REGIONAL
	possible additions
	CLYDEMETRO CITYTRAM
	possible additions
	Circle Underground



6 BENEFITS, COSTS and FINANCING

The proposals have been framed with special reference to the ability to deliver improvements by 2006 and in the longer-term. Further professional studies will be needed, though a shortage of skills and planning resources, as well as problems with financing, may constrain what can be implemented in the next five years. Emphasis has therefore been placed on road demand management and on incremental rail improvements giving high overall benefits within a comparatively modest investment programme for the immediate future.

However, it is assumed that **the skills situation, planning procedures, and availability of finance will allow more improvements from 2007 to 2016**. Plans for renewal of track, signalling and electrical equipment on the SPT rail network should be reviewed and amended to take account of future benefits of shared running and Light Rail. In England, urban rail and light rail projects have each secured £150 million, or more, of **extra public funding leveraged to bring in additional funding from the private sector** including contributions from property development. Private partnership funding for **ClydeMetro** should be possible from bodies such as **Scottish Airports, Clydeport and Braehead**.

Capital costs for funding of **ClydeMetro** Phase I to 2006 are likely to be in the region of **£300 million** - shared between **Scottish Executive, SRA, SPT, and local councils** but with a **significant contribution from private funding. ClydeMetro**, like most light rail developments in Britain, could be organised as a design, build, operate and maintain project. Depending on fare and other specifications, the project could be free of annual revenue support for the successful bidder.

However, maximising net benefits (including gains from reduced road traffic and congestion) suggests a policy of lower fares, partly funded from peak-period road charges. The most effective strategy is therefore likely to require direct measures of **road congestion charging and/or parking charges hypothecated for the promotion of improved and inclusive transport**. Indeed, this may become a condition for other increases in public funding. The **Transport (Scotland) Act** ruled out workplace and retail parking charges but it includes provision for congestion charging - projected to be more effective in producing local income and in cutting congestion than workplace parking levies.

Without acceptance of a regional strategy for congestion charging, it may not be possible to

finance either fares reform or the increasing investments envisaged for rail and light rail, especially in the period from 2007. Delivery of an optimum programme may depend on early political acceptance of hypothecated congestion charging in the West of Scotland. The alternatives are EITHER a less radical programme (with increases in localised road congestion) OR a distortion of priorities to where the greatest funding contributions can be gained through conditions attached to planning approvals.

Key political decisions on rail improvements and the introduction of Light Rail will have to be taken in the next few months. **The Scottish Executive, WESTRANS, SPT, local councils, the public and other partners in the West of Scotland need to work together to develop the ClydeMetro concept for inclusion in the Five Year and longer term Transport Plans for Scotland due this autumn. A unique opportunity exists to integrate such plans with thinking on a replacement ScotRail franchise and delivery of the Structure Plans for Glasgow and the Clyde Valley and for Ayrshire.**

The Scottish Association for Public Transport

Further copies of ***Clyde Metro: Rail and Light Rail Opportunities for Greater Glasgow 2001-16*** can be obtained by post from the SAPT office, 5 St Vincent Place, GLASGOW G1 2HT, price £2.20 including postage. Please also write if you want further information about the proposals or other SAPT activities.

Formed in 1972, SAPT campaigns for improved public passenger transport and shifts from heavy lorries to rail or water-borne freight movement as part of integrated, sustainable and inclusive transport for Scotland.

Activities range from local interests to overall Scottish policies and links to and from Scotland.

Members receive a Quarterly Newsletter and meetings for members are held in Glasgow, Edinburgh and other parts of Scotland. SAPT is a voluntary body reliant principally on subscription income. Present rates for membership are:-

*£12 for individuals
(£6 for students, pensioners and the unemployed)*

£15 for families

£18 for voluntary organisations

*£30 for commercial organisations
(other than major transport operators)*

*£75 or £150 for Local Authorities (depending on whether
population is below or above 200,000)*

£150 for major transport organisations

In addition to the Quarterly Newsletter (free to members), recent publications include:-

Position Papers issued in 2000:

- 1 The Future of Air Passenger Duty
- 2 Transport Planning and the Scottish Parliament
- 3 Integrated Transport for Scotland
- 4 On Track for Road Traffic Reduction
- 5 Tram and Light Rail Prospects for Scotland
- 6 Developing Scotland's Rail Network
- 7 Climate Change and Scottish Transport
- 8 Scottish Transport 2010: Multi-modal Corridor Strategies
- 9 Increasing the Momentum: Views on Amendments to the Transport (Scotland) Bill
- 10 Fares, Fuel and Fairness: Options for Fiscal and Pricing Policy

Position Papers issued in 2001:

- 1 Ferry Fares: A Response to the Caledonian MacBrayne consultation
- 2 ScotRail Interlink 2010: A Response to the Consultation on Strategic Priorities for Scotland's Passenger Railway
- 3 Air Travel and Scotland 2000-30: A Response to the DETR UK Consultation

SAPT is a founder member of **TRANSform Scotland**, the Scottish campaign for sustainable transport - the company limited by guarantee, set up in 1997, which brings together organisations and supporters with interests in sustainable transport - for further information, contact Colin Howden at 0131 467 7714.