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Sustainable transport for south west Sheffield

Fig 1Transport systems

Congestion in South West

South west Sheffield appears to have very little alternative transport infrastructure, that would offer commuters any other route than the road systems. To the north and east there are far more options in the form of train and tram links. Commuters must have vigorous encouragement to get out of their cars. Aside from the many economic and social effects of poor transport planning, the air quality effects are becoming a concern on the main arterial routes in the SW area. 'Sustainability' looks at the economics, social and environmental components of a strategy. Accessible, well planned transport infrastructure is a key indicator in healthy communities and individual health and well-being. According to some measures there has been a 5.5% increase in tram use and a significant percentage of tram users are car owners.

Increasingly there are new, global issues that have to be considered when looking at transport planning. There is also a background of significant uncertainty that detracts from long term or the long view. Joined up, inter-modal strategy maybe the only way to meet transport needs.

The national strategy now includes implementing tram provision in some major cities. Included in these national plans is the electrification of train track from Sheffield, southwards- to result in full electrification to London. Sheffield must insist on a coherent strategy for transport development and the best use of funds available.

Tram extension

A consultation was started in 2003, looking at extensive development of the tram in Sheffield, out to Dore from as far east as Hellaby, Rotherham. The plans impacted heavily on other transport networks and physical infrastructure; costs reflected this and the plans failed. Many other tram development plans in other cities were shelved because of costs. Many of these are now being implemented following negotiations.

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Individual Highlights

Fig 2 Abbeydale & Eccellsal Road and air pollution over the city

Air quality

Air quality on some arterial approach roads is well above the EU legal limit.

Despite fuel costs and health costs air quality is not prioritized by planners and contractors.

There is now a city wide initiative to reduce car dependency, in addition to the air quality monitoring and communications by the East End Quality of Life Initiative www.sheffieldestend.org.uk

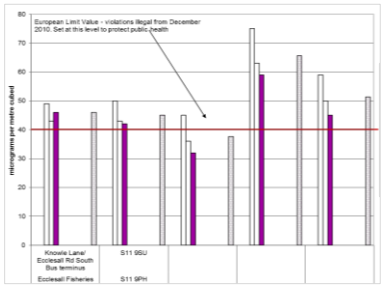

Fig 3 Air Quality graph 2012

Air quality is monitored throughout the southwest area and the results show pollution levels above EU legal limits.

But they do not show the effects of gridlocked traffic on the residential areas around the main arterial routes.

'It is also important to note that Sheffield's most affluent areas with the highest rates of car ownership lie to the south west of the city where there is no SYS route' Haywood. Planning Practice and Research 2010

Quantifying cost

To quantify cost it is important to have a coherent strategy with some measurable outcomes. Additional costs and benefits can be argued interminably unless they are rooted in the initial planning and strategy. Thankfully, there is now far greater attention paid to environmental and social impact analysis of any large transport project. Sheffield Hallam University has conducted some impact analysis of the current tram provision in Sheffield, looking at capital and operating costs, benefits and disbenefits, impacts on other modes and accidental costs. In addition secondary impacts such as impact on local employment and business investment were also examined.

In the current economic context, it may also be important to at least try to imagine the cost of NOT implementing a strategy.

Considering a cost analysis of tram extension

Since the 2003 tram extension proposal was considered, there have been national and local changes. The change of national government aside, there has been extensive development in Millhouses park and population and demographic increases, unemployment in the Yorkshire and Humber region has risen to the second highest in the country. The stark discrepancy in transport expenditure per capita between the north and south has been revealed. The current national government has decided to go ahead with spending on transport and tram development in northern cities and northern links.

There was a meeting in November 2011 to try to overcome the problems that had caused escalating costs over the previous years- lack of standardization, over specification to heavy rail standards, reluctance regarding new rail technologies and expensive utility diversions. An action plan was agreed, but the issue of utility diversion not fully resolved. Ultimately the costs are determined in £/ km. ('…new schemes are on average £3m/km more expensive to build than those that have already been built' NCE 2004), which means a two dimensional analysis can be made to estimate a pay-back period. This does not take account of other factors that can affect that period and the overall value of a project, nationally and locally. The issues may include-traffic flows and air quality are more intertwined than ever; pockets of thriving, integrated development are needed to assist economic growth; transitional economies need people to be able to move freely. There is a cost of NOT enabling and empowering- short term and long term.

If we look at the short term success of the Olympics transport planning- the public transport Games was achieved with imagination and focus on accessibility. It was achieved with park and ride, coach and rail provision. Walking, cycling, accessibility and links, barriers, pinch points, potential accidents and near misses were fully considered.

There is an opportunity with the large allocation of funds to electrify the train line from Sheffield, to add significant value to this project by considering local adjustments and improvements that could be incorporated into the works for the project.

Fig 4

Walking the line

From the town centre out to Dore station and beyond there is extensive track bed with a history of change and re-alignment in many areas along the way. There are numerous bridges and some unused arches. Many stretches are sparse and undeveloped. There are small areas where there has been some development quite close to the track, but a buffer zone remains. (See Figure 3) There is a 2m width available that would accommodate a single tram track in these areas.

There are many points of interest along this track, that would benefit from a public transport node, that offers minimal additional vehicle congestion, improved accessibility for all and additional environmental and social benefits-

- College, University and Hospital links
- Supermarkets and other businesses
- Abbeydale Industrial Hamlet, Millhouses Park and developments
- Beauchief and other sports facilities
- Transport links including Dore station
- Scope for sustainable economic development
- Scope for park and ride

OUR infrastructure- YOU decide

Traditionally, over countless phases of infrastructure development, the shape of the city has been imposed on the majority of its citizens by planners and policy makers. Albeit, with some engagement with community representatives along the way. With ever increasing complexity of the issues involved, it has never been so important to get it right now…….for the future.

Fig 5

Infrastructure

As discussed, the light rail/tram developments in other major northern cities in the last decade have stalled due to escalating costs due to of lack of standardization, reticence to adopt new technologies and so on. Following the fairly recent attempts to overcome these issues, a more 'partnership' type approach may be taken to overcome the challenge of accommodating energy and utility infrastructure in these transport projects. The EU operates a financial partnership approach with utility providers sharing in the costs of a project. Considering that some projects have been abandoned in the UK due to a breakdown of agreement between parties it seems to be still highly relevant to minimize disruption in this area wherever possible.

The electrification of the main train line from Sheffield southwards, offers a prime opportunity to examine how to maximize the transport nodes and outputs from any works carried out, without extensive disruption to the city. A New partnership approach to transport projects especially with a financial component, need a successful outcomes from the start to build resilience

Friends of Millhouses Park Transport Initiative

A Better Park for Everyone

Find us on the Web:
www.friendsofmillhousespark.org

Newsletter by Smith Environmental Systems

Get involved

This transport project is a big idea that is going to need a lot of support from all sections of the community. If you like the idea of a sea change in mobility and transport, a more joined up approach that includes all transport modes not just the car, then please join in and get involved. If you need more information, if you are not sure but fed up with limited options, if you love driving but are fed up with the lack of action on our unsustainable dependency on our cars, if you worry about how to cope with increasing fuel costs and what the alternatives may be……..get involved.

Real democracy

It is possible to exercise our democratic rights every day, but real democracy is about being heard and having what you have to say properly considered by peers and equals.

Decisions about transport infrastructure are made on many levels, but mobility and accessibility of transport infrastructure are often planned with very little over-arching strategy because of individual or specific economic/political contexts.

An over- arching strategy and vision can be gained from the perspective of all stakeholders

Friends of Millhouses Park

Transport Initiative