



Making the Right Choice

In planning for the Thames Gateway, with a key requirement to enable high quality Transit to provide local circulation to the Channel Tunnel Rail Link, Crossrail, C2C, Tube and DLR extensions, decisions need to be made that are based on environmental sustainability, modal shift potential, and economic viability.

Previous consideration has been given to piecemeal schemes that relate to Barking Reach, Thames Gateway Bridge, North Greenwich, Thamesmead and Medway, using diesel bus, duobus, trolleybus or tram modes. This paper considers the Transit mode, in particular the case for Tbus Transit, as a viable, sustainable and appealing choice that is critical to the success of Thames Gateway.

A Powerful Concept

With such aspirations for major change in the Thames corridor, creating substantial job opportunities and large scale housing, key policy decisions, based on providing a place that is fundamentally attractive, need to be innovative, sustainable and flexible. The necessary attractiveness should cause contra-commuting to become a major consideration. Inner Gateway is already a commuting hinterland, beyond, at Barking Reach and Woolwich, potential is mixed, though crossings, such as between Becton and Thamesmead, could increase potential interaction between otherwise constrained areas. Outer Gateway is likely to remain constrained to an east west axis, though with considerable local potential, such as at Ebbsfleet. With Southend and Medway towns to be considered, transport is obviously fundamental and so too is consideration of its provision, to ensure effective and efficient design that feeds into the need for fundamental attractiveness. Assumptions about attractiveness have to be mitigated by judgements of economic feasibility, practical usefulness and long term priorities of global responsibility and aesthetic currency.

Status Quo

Recent and present reports have alluded to status quo transport thinking in this country which tends to develop on the back of previous assumptions which may be influenced by a need to justify presumptions by the client. The likelihood of entirely rational appraisals are mitigated by "playing safe" and the uncertain nature of predicting future scenarios. This doesn't mean there is an ultimate solution, as judgement is obviously involved, of many equally viable solutions, but radical or lateral thinking tends not to be part of the process. One tradition that is prevalent has been the relationship between passenger numbers and the mode needed to cope with them. Globally this is not accepted to the degree to which it is in this country. Within limits, that have to do with passenger comfort, transport modes overlap considerably in their passenger carrying capacity. Another tradition has to do with perceptions of "out of date" technologies, that relate to not wanting to appear unusual or argumentative when discussing possibilities. There is also a tradition that eulogises technological solutions without giving due importance to service implementations that require high degrees of reliability, comfort, appreciation and convenience by passengers. Tradition also has vehicle guidance as a mantra, often without any real justification. Finally, tradition holds that certain predictions can be made about the significance of certain modes to achieve modal shift, without clear evidence from recent experience, which itself is excused by claims of chimera that such evidence can be produced. This tradition is particularly insidious as it can be used to justify large expenditure and, in other cases, to deny it. Such arguments, when applied, are essentially based on fashion and when analysed, depend on ever decreasing statistical fine lines. Decisions, however, have to be made, against a background of little precedent of imposed public transport over such a large planned conurbation.

Potential

The Thames Gateway initiative demands commitment that is long term, subsidised and pump primed. Intervention, integration and innovation will be necessary at all design stages. Such high ideals are going to take courage to implement, especially as construction can be a tool for encouragement, legitimisation and commitment. This can be assumed to be especially true of local transport, where years may elapse before full utilisation is likely to be achieved, but which, by early building, will demonstrate commitment to the realisation of the ideals.



Within Thames Gateway, opportunities and desirability for high density development varies. The DLR extension to Dagenham Dock has already undergone sufficient appraisal to merit continued planning and possible building. This commitment within the inner area, assumes the Barking Reach development goes ahead. But for full realisation, implementation of the East London Transit is essential. Planning has resolved to implement the Ilford (the main shopping centre) to Dagenham Dock section, based on an assumption that development is only likely to the standard required with visibly high quality transit, that can attract private capital as well as public input.

Mode Choice

This decision highlights the commitment versus practicality dilemma. The use of diesel buses is seen as a uninspiring solution which will not provide any impetus to attract high quality industry or funding. The fear is that the scheme will be diluted in implementation to the extent that modal shift is not achieved and that environmental quality, both at point of use and more widely, will not be improved.

Reactivation of schemes to use light rail seem desperate - the use of trams to feed into the DLR breaks with logic and economic viability. Yet the persistent attraction of trams, at least in recent years, would be entirely viable if the costs were not so prohibitive. This is especially true for the East London Transit, where passenger flows are not likely achieve justification for very many years. Elements of tram technology are achievable without the extreme costs using Tbuses (Trolley or Duobus). Indeed, the technology is identical in motive power terms, using literally similar electric traction motors and control systems. The passenger attractiveness of low floors, level boarding, quietness, complete absence of pollution, and smooth riding are all replicated in Tbuses. In particular, the overhead system shows long term commitment to high quality services in perpetuity. This advantage, and zero pollution emissions, contrasts with hybrid buses, that do not proclaim their partial environmental advantages. Vehicles, such as those being introduced in Lyon by TCL create a unique and powerful image that contributes to encouraging developers. Systems are potentially powered by renewable energy sources. Differences are absence of rails and two overhead power conductors, which, as boom collectors are used, are suspended by a system of lighter construction. The use of identical power sub-stations mean that later use of light rail is entirely feasible, should passenger numbers warrant it. Tbuses are not intrinsically guided, but have the flexibility to have such systems included. They also have the flexibility to avoid obstructions that tend to disable tram services. To make the most of a Tbus installation, extensive surface civil engineering works to provide reserved carriageways and high quality stations, similar to trams, are, in our view, essential to provide the radical travelling experience that is necessary to ensure the successful development of Thames Gateway.

The particular difficulties of Barking Reach and Dagenham Dock redevelopment are thought to surmountable by implementing Tbus Transit to feed the DLR extension. Modal shift to over 20% has been demonstrated in San Francisco. The use of Tbuses on reserved roadways to serve new developments has been successfully demonstrated in places such as Rijksweg, in Arnhem. Public appreciation has been charted as high in many places, even East London itself, during TfL public consultations. Upper levels of development could be expected to equal those caused by the attraction of a tram solution, as long as a similar commitments to service provision and ancillary components are included. The resulting design is expected to cost half that of a tram installation.

The case for Tbuses is equally applicable to Greenwich Waterfront Transit and North Kent FastTrack. Where Zonal Action Plans call for job and home densities of a similar scale, Tbus Transit can be considered. The technology reduces risk compared to Bus Transit, as it perceptibly reinforces the high quality, environmental ethic of Thames Gateway, and reduces the risk compared to Light Rail implementation because of reduced costs and a convincing business case. Implementation of Tbuses can either ensure use of reserved carriageways or bequeath power supply infrastructures if alternative modes are later considered.

The danger of "more of the same", whether in considering industry, homes or transport infrastructures, are a considerable hurdle to overcome. World City aspirations for London will need daring decisions, influenced by valid traditions.



18m articulated Irisbus Crystalis Tbuses in Lyon, 2003



Thames Gateway Bridge (Dagenham Dock Station shown on front)

References,
 Relationship between Transport and Development in the Thames Gateway,
 Llewelyn Davies with Steer Davies Gleave, 2003.
 East London Transit Summary Report, Transport for London, 2001
 East London Transit Scheme, 4 Phase Implementation, Electric Tbus Group, 2002

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