



South London Freight Quality Partnership

Construction Logistics Workshop

Croydon Town Hall, 18th March 2008

Introduction

The recently published London Freight Plan highlights improving logistics efficiency in the construction sector as one of its key priorities. Operational experience shows significant mileage savings, efficiency gains and environmental benefits, but:

- questions about the business case remain among those responsible for commissioning construction projects, and,
- there is uncertainty among those responsible about what to look for from a construction logistics plan when determining a planning application.

There are significant plans for the redevelopment of central Croydon, with several multimillion square foot developments, including for example, Park Place, Croydon Gateway / Ruskin Square, Cherry Orchard Road at various stages of the planning process.

The eventual benefits of these developments to Croydon are not questioned. However, the prospect of significant traffic disruption and environmental impact in a constrained area has been identified as a potentially significant interim problem during the construction phase.

The potential for the application of improved logistics practices to improve this situation has been identified as part of discussions within the South London FQP, resulting in this workshop, with the aim of involving those who would be directly involved in the above processes to identify:

- the potential for consolidation of construction materials and other elements of efficient construction logistics as part of the significant redevelopment plans for central Croydon;
- the potential benefits of adopting improved logistics practices in the construction sector;
- the practical steps that would be needed to put in place an effective construction materials consolidation centre that meets the needs of all parties.

Presentations

Three presentations on these subjects were delivered (unfortunately without visual aids due to faulty equipment) in order to provide a common understanding of the current situation in terms of:

- the potential available to use the planning process through measures outlined in the London Freight Plan and other existing public policy tools;
- the impacts of the London Construction Materials Consolidation Centre and other developments in improved logistics practices in the construction sector;

- the results of a study into the wider use of construction materials consolidation for London.

The presentations are available from www.southlondonfqp.com

Discussion

Planning Framework

The provisions within the London Freight Plan and its direct link to the wider London Plan, the existing policy tools available to local planning officers through the provisions of, for example Planning Policy Guidance 13, and the likelihood that large schemes would be referred to the Mayor and hence TfL, mean that there is now a potentially strong public sector structure in place that should influence a move towards improved logistics practices in the constructions sector.

Some of this is applied already, though not always as a single element within a planning consent. Hence there appears scope to improve both the way in which the requirements for construction logistics plans are laid out and the way that the issue is addressed during the planning process.

On the latter point, there was a lot of discussion about the structures and techniques that are in place within Local Authorities in general and particularly Croydon Council, given that Croydon was the particular focus for this workshop, to ensure the provision of high quality construction logistics plans within planning applications and consents.

Improvements in the way that council departments work together in determining applications are currently being implemented in Croydon. The ease with which the new system can encourage improved construction logistics practices will be a test of the new way of working to see what it can deliver.

The techniques used in the traffic impact assessment process were also questioned. In particular questions were asked about how robust the current methodology for estimating the number of deliveries to a 'conventional' construction site really is. This is an issue that would need to be investigated in conjunction with an assessment of the potential benefit that improved logistics practices could bring. There was agreement that the key objective here would be to bring about a reduction in traffic at the construction site gate. Hence it is the outcome of the technique that should be specified and which should drive the choice of construction logistics technique to be employed, rather than a specification that a development should use particular technique without a clear understanding of the resulting impact. As an example of this, LB Camden has started specifying the maximum number of vehicle movements to site that will be allowed during construction for particular developments as part of the process of granting planning consent. There was also discussion of how the local authority could back this up by the use of temporary loading restrictions in the area around a construction site to make it impractical for (sub)contractors to try to avoid using new logistics practices by, for example, simply unloading in nearby locations and carrying materials to site.

Construction Logistics Techniques

There has recently been significant emphasis on the use of consolidation centres within the construction sector to reduce the number of deliveries actually being made to construction sites. However, the latest information (including that presented by Constructing Excellence during this workshop), suggests that the use of construction materials consolidation centres is just one of seven improved logistics techniques that could (and should) be incorporated within the practices of the construction sector, which result in a complete supply chain management.

Headline results from the Bovis / Stanhope / Wilson James / TfL construction materials consolidation centre demonstration at South Bermondsey were as follows:

- Vehicle trips to site for materials passing through the centre were reduced by approximately 70%
- Journey time reductions of 2 hours
- CO₂ reduction of approximately 75%
- Made large inroads into the typical 15% over-ordering of materials typical of construction sites
- Reduced on site waste and damages
- Increase of half an hour per person per day for workers on the sites served by the construction materials consolidation centre
- Delivery reliability approximately 97% (compared with approximately 40% on a comparable control development), with knock-on improvements on site productivity

These combine to reduce the risk of project overrun and once proven should help scheduling of shorter construction periods.

However, the use of construction materials consolidation as a stand alone technique without the back-up of other techniques allowed some 'leakage' of deliveries that did not pass through the centre, particularly for trade subcontractors, so that the total reduction in delivery trips to site was approximately 40%.

This leakage of deliveries emphasises the importance of instilling a change in behaviour and confidence throughout the supply chain for this approach to work, which is not an easy task. To achieve this there will need to be a change in contractual arrangements from developer and main contractor to the specialist trade contractors and, in turn, their suppliers, but also requirements imposed by the council that enforce this.

The Business Case

The business case has often been cited as the stumbling block for the introduction for improved logistics management techniques in the construction sector supply chain. The difficulty in clearly stating / confirming the business case appears to lie in capturing the necessary data. However, there is evidence that the business case has been made. A range of examples were quoted by various attendees that appear to suggest that full supply chain management practices can save up to 8% of the total cost of the project through the investment in a system that costs no more than 3% of the total project cost. The balance of 5% of total project cost offers a

substantial potential saving that should be of real interest to developers if it can be realised.

In practice the barriers to confirming the business case may be that:

1. these are commercial transactions, and placing business case information in the public domain could prejudice the position of those who are already working successfully in this market - several logistics businesses represented at the workshop are (and have been for some time) building their business around supplying commercial services to the construction sector;
2. although there is an overall benefit in terms of development cost, delivery time, efficiency etc, the benefit is not universal and some organisations would need to adapt or face losing out if there is a change in the way that construction logistics chains are organised;
3. the adoption of construction logistics practices requires upfront planning and investment in order to realise the end rewards, which always represents a risk when considering what is considered a 'new technique'.

Next Steps

SLFQP to work in partnership with Croydon Council to develop guidelines on how to best encourage and assess developer plans for construction logistics plans and how to integrate that into the Council's inter-departmental structures for determining planning applications.

Private sector attendees, representing both developers/main contractors and the suppliers of logistics services to the construction sector, to explore the potential for incorporating improved logistics methods into their development plans.

SLFQP to follow up the workshop in approximately 3 months to assess progress towards the goals of:

- incorporating improved construction logistics practices in developers' plans;
- improved methods for assessing construction logistics practices as part of development control processes.