Desirable streets

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Stephen O?Malley looks at how a project in Whitechapel, London, has attempted to reconcile work and travel needs with demands for healthy, balanced lifestyles

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Our urban centres present us with the challenge of meeting a range of complex and competing needs, demanding a healthy balance of pollution-free transport, attractive, safe and active travel, and the clustering of complementary mixed uses. Local authorities, landowners, city-dwellers and businesses are increasingly recognising the critical value of healthy cities.

Satisfying these needs and offering balanced local lifestyles can strengthen the competitiveness of these neighbourhoods and their ability to attract and develop talent. Achieving this sophistication, however, involves challenging convention, thinking independently and acting responsibly.

It also requires engineering expertise that improves our urban infrastructure network, reduces reliance on vehicular traffic with its related pollution and noise, ensures better flood risk resilience and manages water as a resource that offers amenities and supports biodiversity.

Organised thinking

This involves giving consideration to the way we organise urban areas so that people do not need to travel so far, more places are accessible by public transport, walking is encouraged and space for cycling is protected.

The process requires the participation of public and private organisations, a long-term vision and a viable funding and investment strategy. Our buildings, structures and public spaces must make a positive contribution to the quality of a place and a difference to the wellbeing of the people who live and work there. We must ensure that development is affordable, commercially viable, functional and of high civic quality, addressing the following questions.

- How do we nurture neighbourhoods and streets so that they offer a sustainably high level of vitality and enjoyment in spaces that fulfil a range of our emotional needs at different times of the day, month, season and year?
- How do we provide a coherent, district-wide network for movement and open space so that carbon emissions can be reduced?
- How can we ensure residential and commercial densities that enable travel distances for commuting and leisure to be reduced?

Neighbourhoods that can answer these will help residents achieve a healthy, balanced lifestyle, rather than submitting them to long commutes and daily congestion. A growing share of metropolitan residents are already choosing to work and live in places that are walkable, bikeable and connected by reliable public transport.

Realm of possibility

In Whitechapel, in the London Borough of Tower Hamlets, our team was commissioned to prepare guidance for the public realm and open space. The primary purpose was to help provide high-quality, attractive and functioning areas, as envisaged by the 2013 adopted Whitechapel Vision Masterplan supplementary planning document (SPD). The borough?s guidance sets out a framework for the design of all public realm in Whitechapel, including existing and new open spaces and streets.

The guidance seeks to integrate a high-quality public realm and open space network with the townscape. Given the significant change forecast for Whitechapel and its large residential and working population, it is important that there is a detailed strategy to direct this and ensure that the overall public realm and road system do not become fragmented and incoherent.

Figure 1: Whitechapel Crossrail station will be at the centre of the redesigned streets

In response to this risk, the guidance seeks to meet the needs of Whitechapel?s existing community and to anticipate those of its future population. It aims to knit the area together, prioritising pedestrian useability and movement, greater legibility and inclusivity. It also emphasises enjoyment of open space and the public realm, as well as enhancing the general connectivity of the area, particularly north?south across the A11, Whitechapel Road, which is the heart of the neighbourhood.

The team, in close collaboration with officers from both the borough and Transport for London (TfL), reviewed the Whitechapel Vision Masterplan, SPD and the surface transport outcome plan. It also conducted supplementary baseline analysis of population growth forecasts, public transport and road networks, cycling and pedestrian infrastructure, collision data, pollution, and market function. The baseline report was corroborated and informed by a pedestrian footfall survey.

The role of Whitechapel Road as part of the district and highway network was assessed in close consultation with the borough and TfL officers, as well as a large number of statutory consultees and community stakeholders. Traffic modelling analysed the potential effects of three different proposals on the local and wider London network.

Options for open areas

The three primary options all aim to reduce the dominance of traffic, maintain good public transport access to the high street, increase pedestrian safety and foster higher levels of human interaction. Each option offers increasing degrees of intervention. The first option entails the following measures:

- introduction of a median strip, of a meaningful width, for the full length of the street, allowing pedestrians to cross the street in two stages wherever they wish
- tightening of lane width while maintaining dedicated bus lanes east?west and allowing for a new segregated eastbound cycle lane
- four new, wide, pedestrian crossings without lights, located at strategic points along the street to tie into the wider pedestrian and cycle networks running north and south
- reduced turning choices and tightening of traffic light-controlled junctions at Valance Road and Cambridge Heath intersections
- the need to accommodate growing demands for cycling in the area, as represented in the new Stratford to Aldgate Cycle Superhighway 2 .

This arrangement offers some improvements for pedestrians, enhancing their experience and allowing them to cross more freely. Creating a segregated cycle lane to the north significantly improves safety and legibility as well.

Option two includes most of these measures, with the significant difference that buses and all other vehicles share a single lane in each direction. This reduces the number of lanes from four to two, cutting in half the distances people need to travel to cross the road. Both the borough and TfL were rightly protective of the reliability of bus journey times, however, so require more evidence and testing to demonstrate that sharing lanes with other vehicles would work. One way to evaluate this risk is to operate a temporary, low-cost change that replicates the proposed system and then observe the outcome in real time, similar to the strategy that was recently taken on Edinburgh?s George Street.

Figure 2: Whitechapel Road Proposed Plan (Option 3)

The third option builds on the principles of the previous two. Rather than the junctions at Valance Road and Cambridge Heath being controlled by traffic lights, they perform as mini roundabouts. The tightened geometry, best practice cycling features and pedestrian priority ensure that vehicles also travel at speeds of 15mph or lower.

Significant analysis and consultation is required to refine these options. It is only by re-ordering Whitechapel?s landscape, in its widest sense, that it can prepare itself for the changes it faces.

There is a lot to celebrate about the existing Whitechapel experience, but strengthening the relationship between people, buildings and urban infrastructure will create a healthier outlook and help to make people?s experiences memorable and pleasurable.

Stephen O?Malley is Founding Director of Civic Engineers

Further information

- Images ? Crossrail; Civic Engineers
- Related competencies include Legal/regulatory compliance , Planning , Sustainability
- This feature is taken from the RICS *Land journal* (June/July 2017)