

A Report by  
Ove Arup & Partners  
to  
THE DEPARTMENT OF TRANSPORT  
East London Assessment Study  
REPORT ON TRANSPORT OPTIONS

Stage 2  
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Ove Arup & Partners  
13 Fitzroy Street  
London W1P 6BQ  
Tel: 01-636 1531

Llewelyn-Davies Planning  
Suffolk House  
1-8 Whitfield Place  
London W1P 5SF

Tel: 01-388 2421

Derek Lovejoy + Partners  
8-11 Denbigh Mews  
London SW1V 2HQ

Tel: 01-828 6392



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The idea of "traffic calming" was therefore considered to see if it could produce the desired environmental benefits without the disadvantages of traditional traffic management techniques. The term traffic calming applies to physical and regulatory measures which induce a style of driving behaviour which is compatible with the functions of the street.

Because of the importance to be attached to the performance of traffic calming measures, case studies of areas within the Study Area were undertaken and these are described below.

#### 5.4 TRAFFIC CALMING APPROACHES - CASE STUDIES

The aim of traffic calming is to change the priorities in the design and use of public street space to improve road safety and to create a more "liveable" environment. Redesigned streets and traffic arrangements should achieve the following:

- less injury accidents, including those involving vulnerable road users, pedestrians and cyclists;
- reduced severance effects of traffic, and perceived danger, fear and intimidation;
- improved environment, ie. less noise, fumes, dirt;
- better street appearance through planting and other environmental treatment;
- improved public transport facilities;
- improved local access to premises, including better provision for the disabled.

Two levels of traffic calming have been developed:

The first level, Traffic Calming alone, caters for the existing volume and pattern of traffic by maintaining existing junction capacities. The emphasis is on the links between the principal junctions.

The second level, Traffic Calming and Displacement, seeks to reduce traffic volumes as well as speeds. This is dependent on some overall reduction in peak hour traffic levels on the calmed roads, and thus has wider traffic and transport implications.

Whichever level is applied the design solutions adopted will depend on the specific priorities accorded to each set of road users. These priorities need to be determined by the function of each street. For this purpose, the streets in the Study Area have been classified into two broad categories, namely "Living Areas" and "Traffic Areas", and further subdivided to reflect varying priorities. This classification is set out in Table 5.1.



TABLE 5.1 : TRAFFIC CALMING - ROAD NETWORK CLASSIFICATION

LIVING AREAS: Pedestrians, cyclists, residents' parking and other living functions will have priority over motor traffic.

- a. Local streets with little or no traffic other than that seeking access to property in the street.
- b. Local "collector" streets which connect to the traffic areas, but which are not designated as through routes.

Speeds not to exceed 30 km/hr (20 mph), self-enforcing.

TRAFFIC AREAS: through traffic routes where vulnerable road users are to be protected.

- a. Sections of through routes where (subject to maintenance of existing traffic capacity) priority is shared between Living and Traffic functions.
- b. Through routes where traffic function takes priority.

Maximum speed 50 km/hr (30mph), not self-enforcing. Signposted routes.

The two levels are described in turn through the use of case studies. These case studies are for illustrative purposes only because clearly the traffic calming measures would have a direct effect on residents, business people and others in the area, and would require their involvement to achieve an effective and popular solution.

5.4.1 Traffic Calming - Retained Traffic Patterns

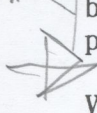
See Figures 11 and 12

By introducing measures to slow down traffic on road links between junctions, but keeping the junctions themselves with the same capacity, the average peak period speed of traffic through the network would remain constant.

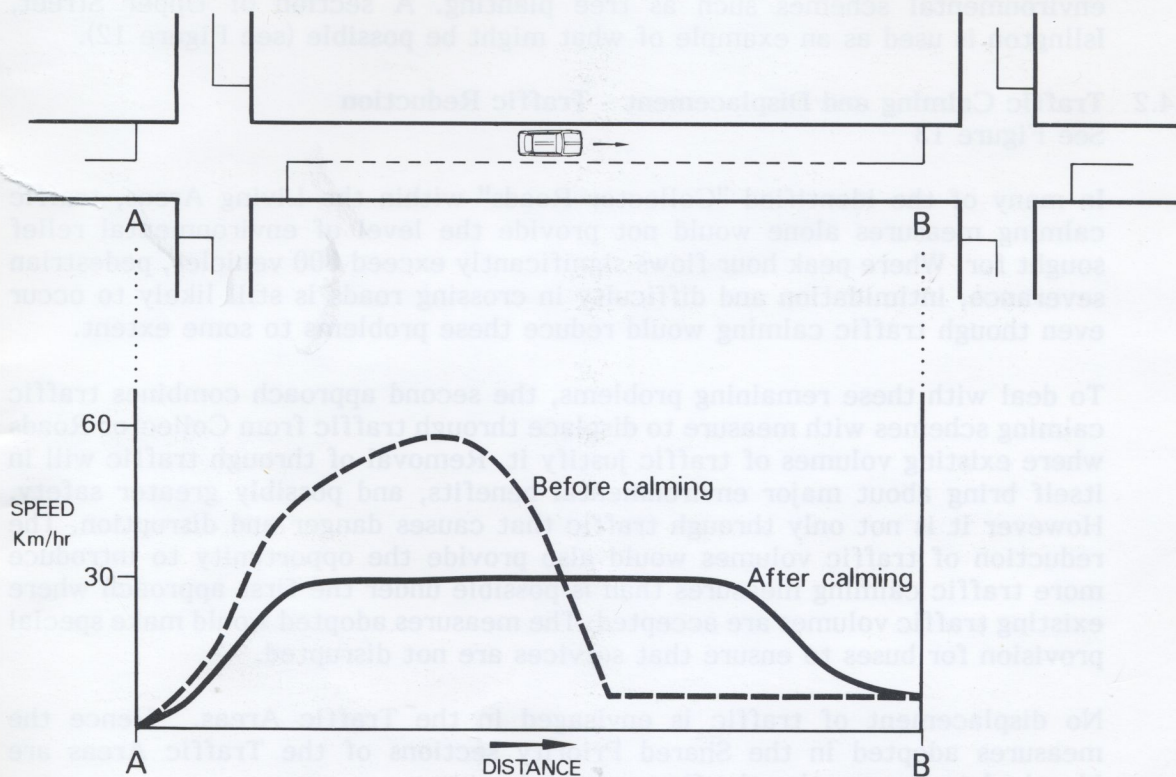
Within the Living Areas this can be done most easily on the small, predominantly residential streets with little or no through traffic, and with low traffic volumes. These streets taken together account for the largest proportion of streets in the Study Area. Maximum speeds on these streets could be reduced with self-enforcing measures to 30 km/hr (20 mph) - see diagram.

Some streets within the Living Areas, however, at present carry relatively heavy through-traffic flows resulting either from past traffic management design or from their attractiveness as "rat-run" routes. These are the Collector Roads identified in Table 5.1 above.

*This relates to collector roads, not roads without through traffic*  
*Paragraph missing?*







TYPICAL SPEED PROFILE

It would be inconsistent with the overall philosophy of the first approach to reduce the volume of traffic using these roads, and so the approach inevitably accepts the existing function of Collector Roads in the hierarchy. The measures applied under this approach are intended to alter drivers' behaviour on the Collector Roads, and they include narrower carriageways, removal of lane markings where this enhances road safety, pedestrian crossing facilities at junctions, and self-enforcing speed reduction measures such as ramps, humps and chicanes. The aim is to reduce maximum speeds to 30 kph (20 mph). Victoria Park Road, Hackney is used to illustrate possible measures (see Figure 11).

Within the Traffic Areas road traffic generally takes priority over pedestrians. However some sections of main road have been identified as requiring shared priority between vehicles and pedestrians because of their particular function. Many of the larger shopping centres which straddle main roads fall into this category.

In many cases there is more carriageway space available in these areas than is required to handle the volume of traffic passing through them, because the capacity of junctions acts as the constricting factor. This gives an opportunity to reallocate some of the surplus carriageway space to give more priority to pedestrians, without affecting traffic flows. Within the Shared Priority Areas, measures would include the reallocation of surplus carriageway space to provide better footways, cycleways, parking and servicing arrangements. These schemes would in themselves bring significant environmental benefits to Shared Priority



## 5.4: TRAFFIC CALMING APPROACHES - CASE STUDIES

Areas and the reallocation of space may also provide opportunities for specific environmental schemes such as tree planting. A section of Upper Street, Islington is used as an example of what might be possible (see Figure 12).

### 5.4.2 Traffic Calming and Displacement - Traffic Reduction See Figure 13

In many of the identified "Collector Roads" within the Living Areas, traffic calming measures alone would not provide the level of environmental relief sought for. Where peak hour flows significantly exceed 600 vehicles, pedestrian severance, intimidation and difficulty in crossing roads is still likely to occur even though traffic calming would reduce these problems to some extent.

To deal with these remaining problems, the second approach combines traffic calming schemes with measure to displace through traffic from Collector Roads where existing volumes of traffic justify it. Removal of through traffic will in itself bring about major environmental benefits, and possibly greater safety. However it is not only through traffic that causes danger and disruption. The reduction of traffic volumes would also provide the opportunity to introduce more traffic calming measures than is possible under the first approach where existing traffic volumes are accepted. The measures adopted would make special provision for buses to ensure that services are not disrupted.

No displacement of traffic is envisaged in the Traffic Areas. Hence the measures adopted in the Shared Priority sections of the Traffic Areas are identical to those under the first approach.

It will be important to ensure that the displacement of traffic from Collector Roads under the second approach does not simply divert traffic from these roads onto the Traffic Areas. This could prejudice the achievement of other study objectives, and could worsen environmental conditions in the Shared Priority sections of these roads. Under each of the Options in which traffic calming and traffic displacement forms a part, the resulting pattern of traffic redistribution has been carefully examined as part of the assessment process.

### 5.5 STRATEGIC EFFECTS OF RAIL AND ROAD INVESTMENT

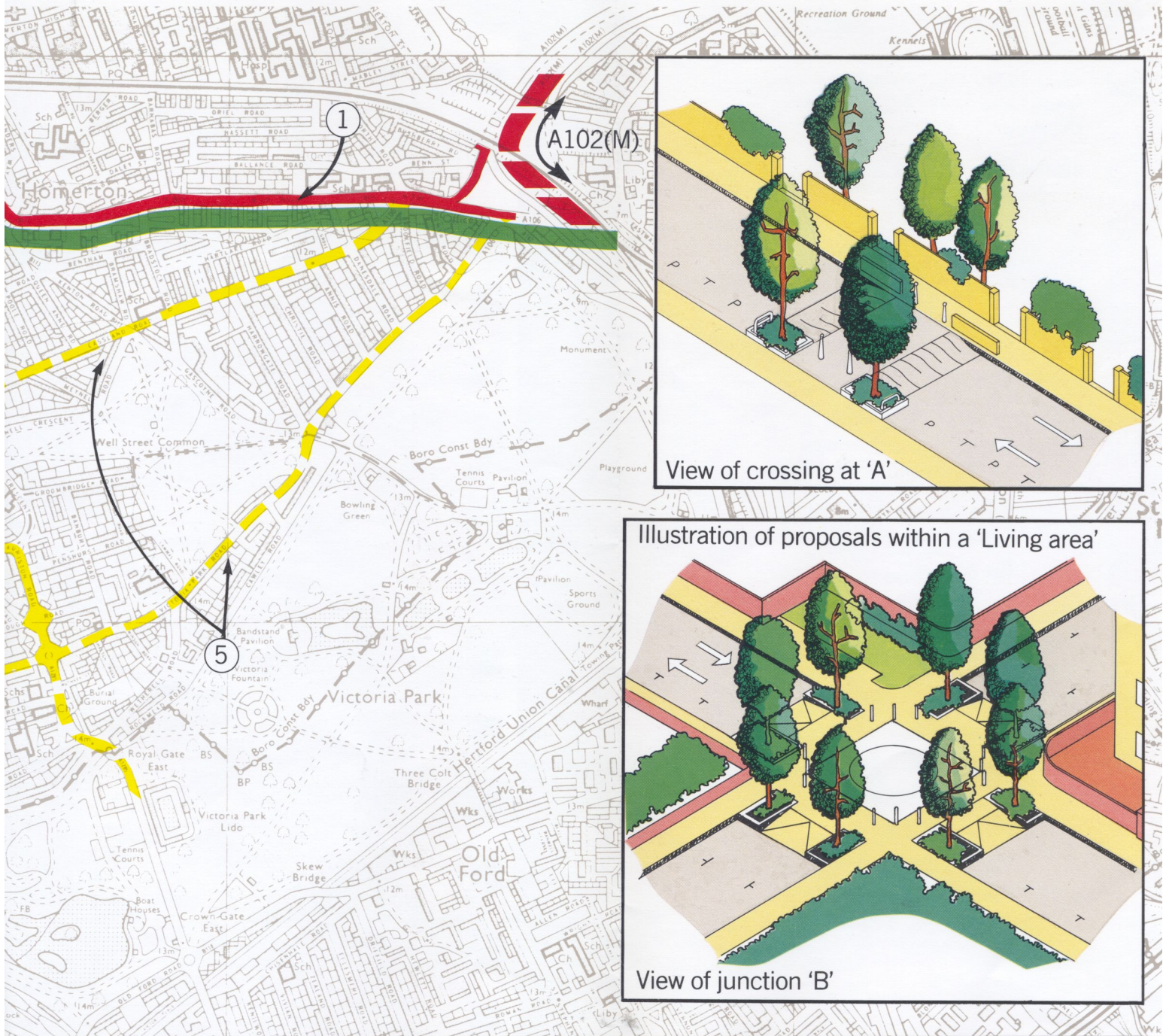
The previous section has identified possible public transport and road schemes and measures. It is important to know if, and to what extent, increases in capacity in one main transport mode (road or rail) will affect the use of the other main mode (rail or road). The increase in capacity would make that mode more attractive, and thus encourage some people to change their main mode of travel. If the number of people choosing to change their mode of travel were large, then two linked conclusions could be reached:

1. Major investment in one main mode could reduce the number of people using the other. If this were so it would indicate that there is genuine choice in deciding whether to invest in public transport or highways. In particular, many people have said that public transport should be improved in order to solve road problems, and therefore avoid road construction.
2. Major investment in main one mode could significantly increase the number of people who would use it by attracting them off the other. Therefore the expected relief of overcrowding, congestion or environmental impacts on the first mode might not occur. If this were so, investing in one mode alone would be self-defeating. In particular,

SIC

mainly?

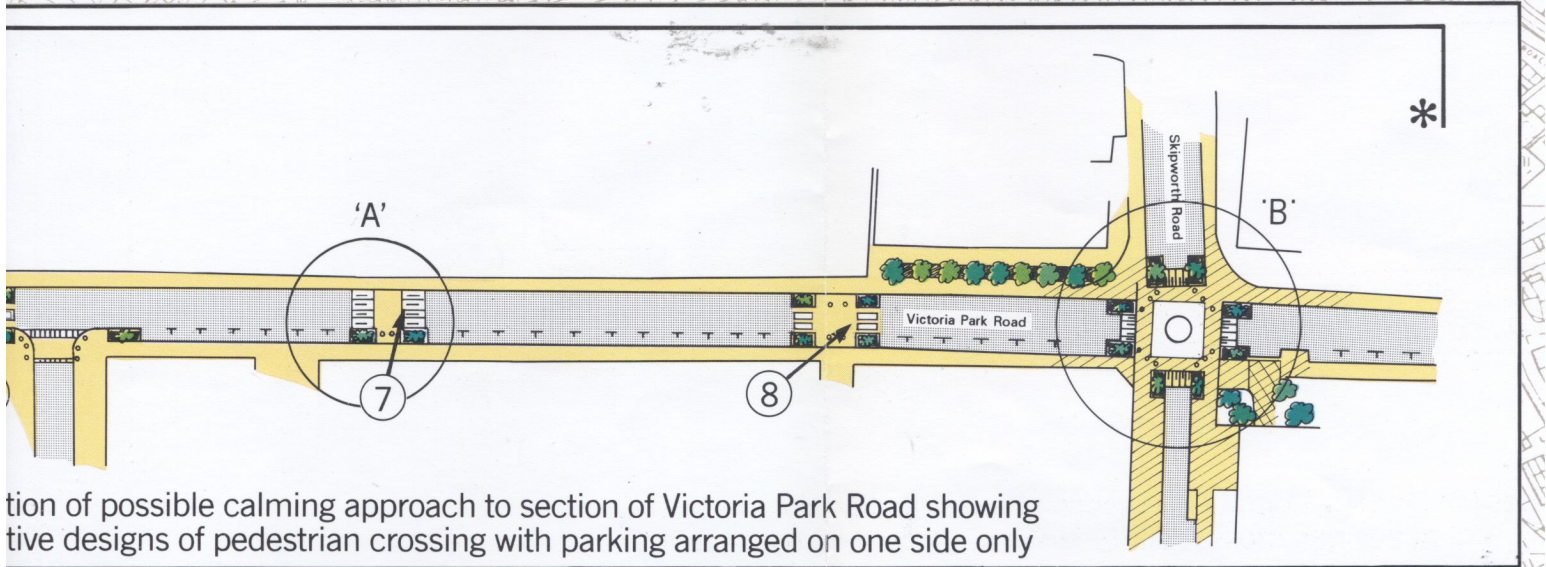




View of crossing at 'A'

Illustration of proposals within a 'Living area'

View of junction 'B'



tion of possible calming approach to section of Victoria Park Road showing  
 tive designs of pedestrian crossing with parking arranged on one side only





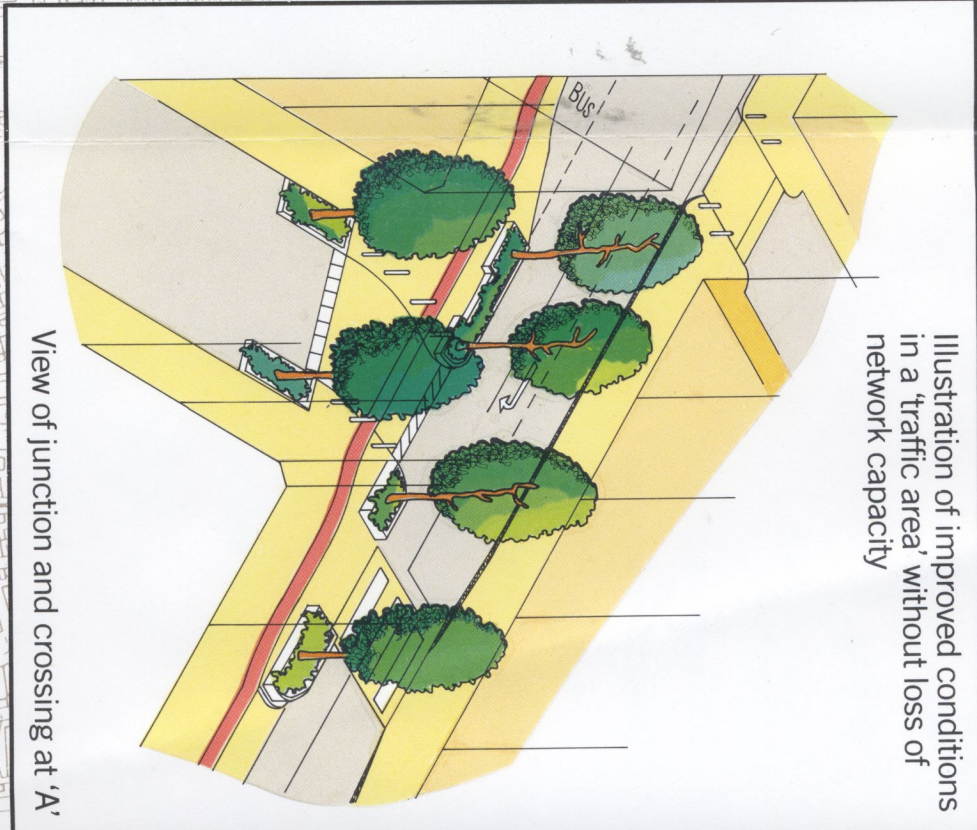


Illustration of improved conditions in a traffic area without loss of network capacity

View of junction and crossing at 'A'



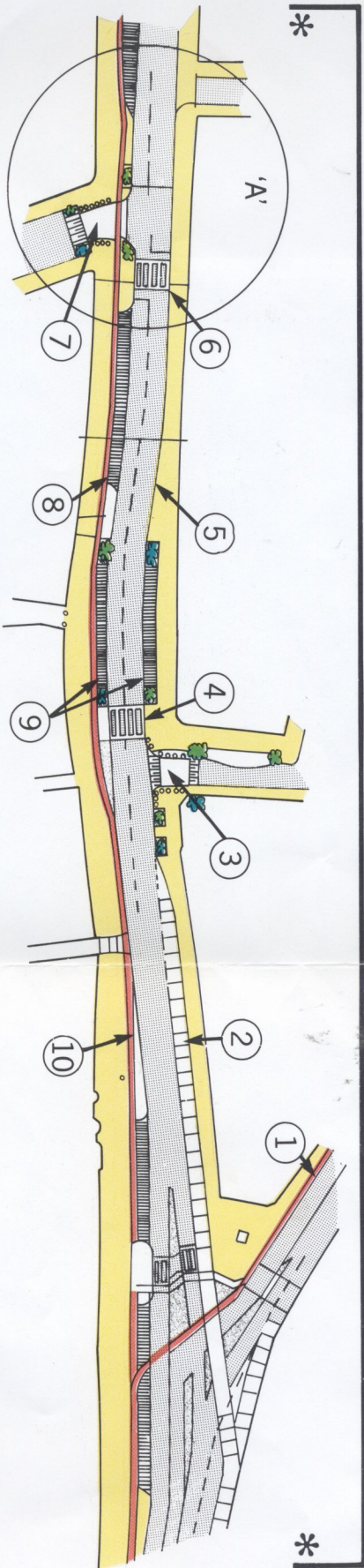
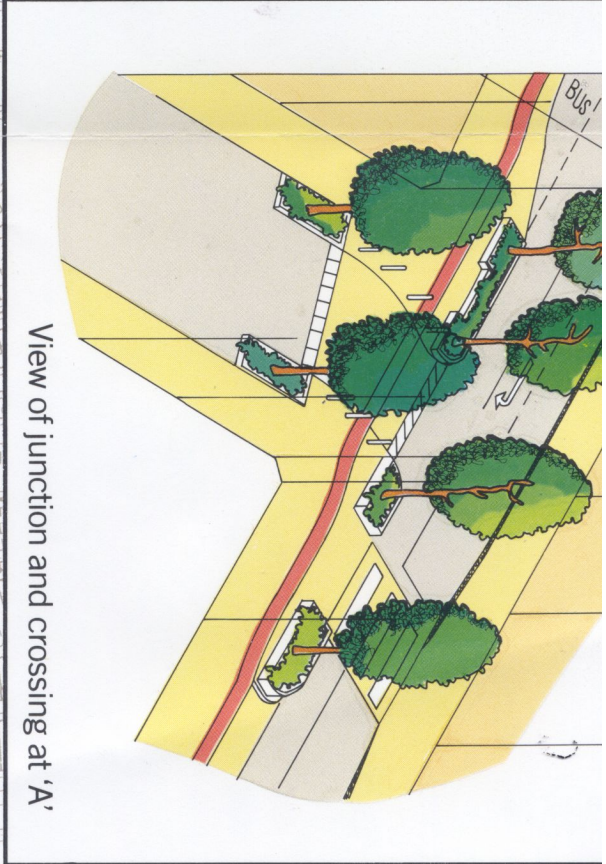
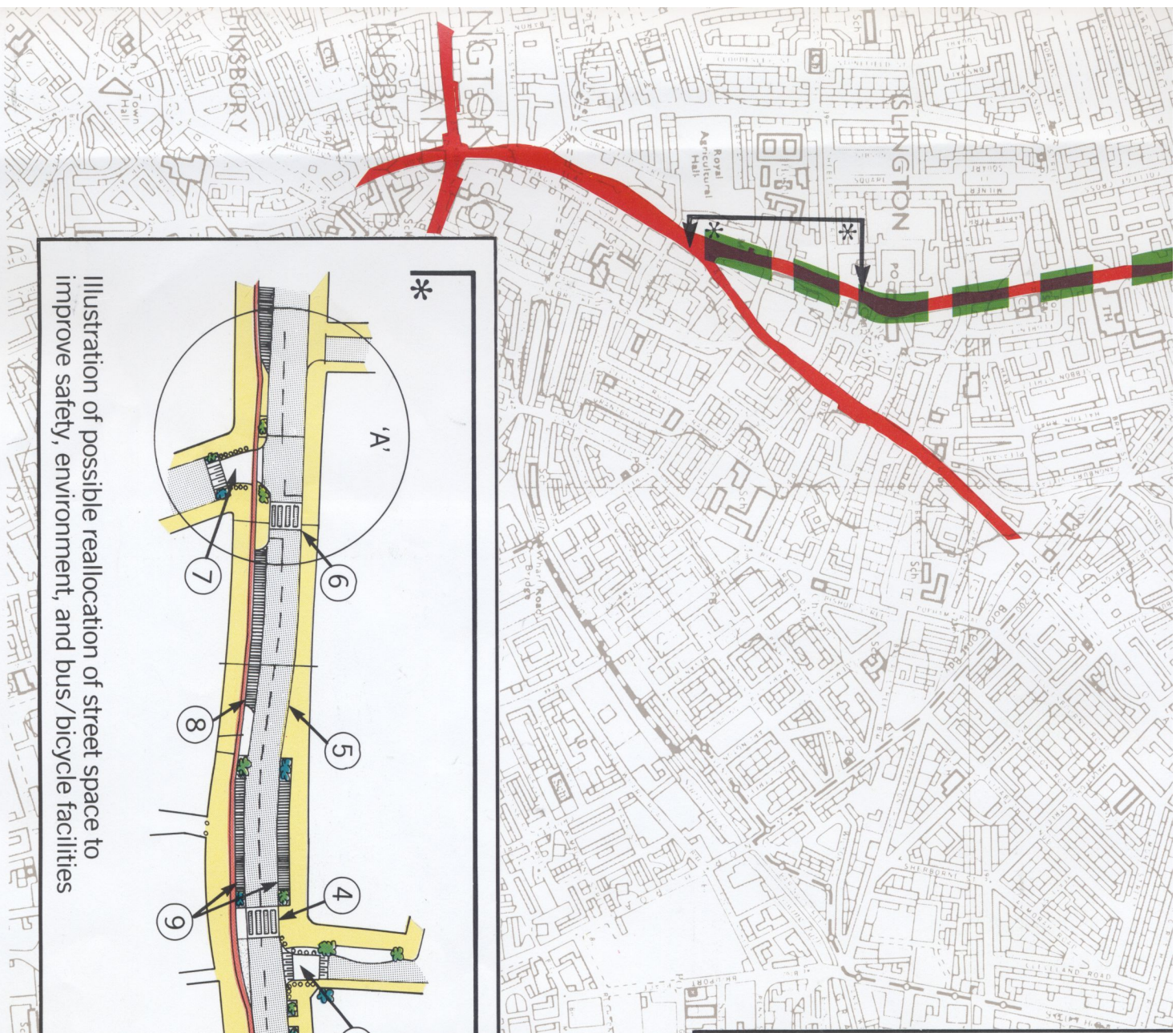


Illustration of possible reallocation of street space to improve safety, environment, and bus/bicycle facilities

Upper Street: 'Shared priority' traffic area



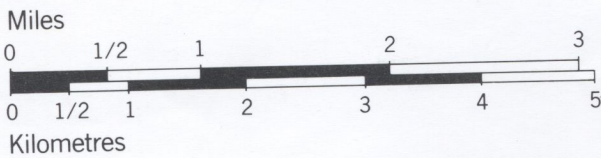
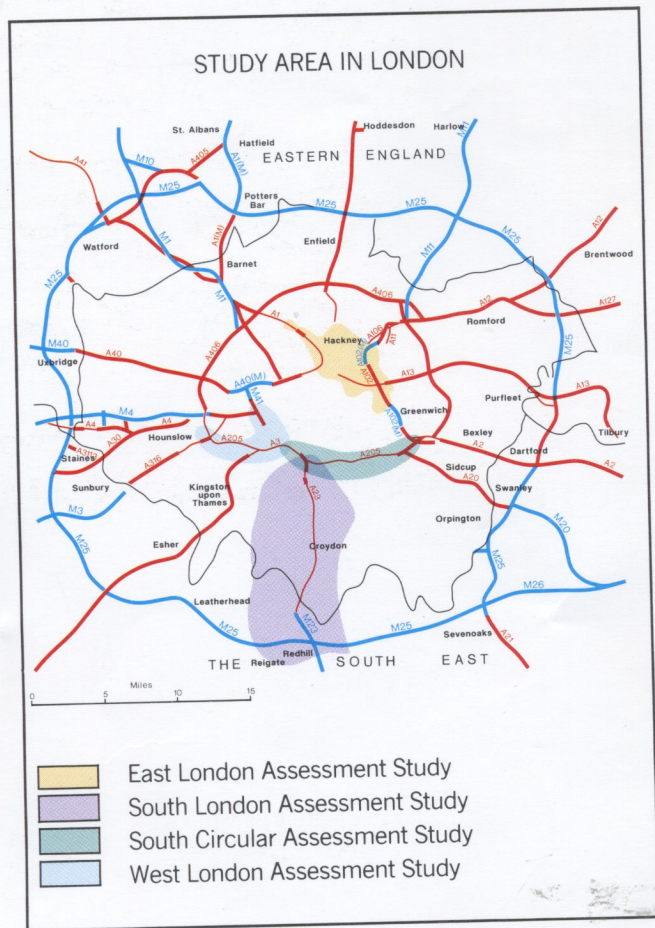
# EAST LONDON ASSESSMENT STUDY

## LEGEND

### Study Area Boundary



### London Borough Boundaries



## LOCATION PLAN

FIGURE 1