CONTEXT

Tinsley lies in the Don Valley, some 6 km to the north-east of Sheffield city centre. The traffic calming scheme at Tinsley is one of four selected by the Department of Transport in 1990 to spearhead the application of new 20 mph zone regulations.

The general area is industrial in character, but the 20 mph zone is residential with shops and recreational facilities. There are two distinct housing types having different socio-economic and racial mixes. One part is pre-1919 terraced housing with properties close to roads, no off-street parking and grid type road layout. This area has Housing Action Area (HAA) status, and limited finance for environmental street works was available. In contrast the other part of the area consists of post-war semi-detached housing with gardens and off-street parking.
There are bus routes on roads which are also used as links between major roads. To reach the recreation ground and schools, children cross residential roads with high vehicle speeds and much on-street parking. Child pedestrian accidents tend to be concentrated along these roads.

OBJECTIVES

The scheme was designed, with the agreement of the people of Tinsley, to incorporate speed reduction measures within environmental improvement works associated with the HAA. Extensions to the initial zone will address the problem of child pedestrian accidents on the surrounding roads.

DESCRIPTION

Each entry point or “gateway” to the zone is treated by carriageway narrowing, a flat top hump, and zone entry signs. Plateaux have been constructed at junctions within the zone. Footways are extended thus creating crossing places with low kerb upstands, and short crossing distances.

Visibility is also improved if parking is confined to the lengths of sheltered parking defined by the footway extensions. Longer lengths of road have intermediate flat top humps.

The flat top humps are 100mm high and trials involving emergency services resulted in ramp gradients on the access type roads of 1 in 8. Ramp gradients will be less severe on the local distributor roads.

Materials used are brindle block-paved ramps incorporating white reflective blocks to produce chevron patterns. Flat top humps are surfaced in red bitumen macadam. Narrowings are surfaced in small element paving while block paving is used for forecourts. Trees have been planted where underground services permit and street lighting has been improved.

COST

Not available.

ASSESSMENT

The first stage of the scheme was implemented in 1990. Surveys of traffic speed and volume and of residents’ opinions will be undertaken with the co-operation of the Transport and Road Research Laboratory (TRRL).