

THE QUALITY OF LIFE IN RESIDENTIAL AREAS

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### Purpose

The film's purpose is to review what is known about housing-quality, social activities and road safety. These aspects constitute the so-called quality of life in residential areas. The possible influence is examined of several principles of urban planning on the quality of life in residential areas. The film mainly deals with the aspect of road safety.

### Measuring methods

A concept as quality of life can not be expressed in one figure. It is possible, however, to measure some aspects constituting the quality of life in a residential area. Housing-quality can be measured by means of interviews. Behaviour can be measured by observation methods and road safety by analysing accident data. What information offer these methods which have been used in The Netherlands up till now.

### Interview

From interviews with inhabitants of a so-called "woonerf" (residential yard) it appeared that over 90% of the inhabitants are satisfied with the redesigning of their residential area to a residential yard. It is striking, however, that more than 50% believe that pedestrian safety has decreased. Pedestrians feel threatened by motorized traffic. There is also criticism of the execution and shape of some urban design elements.

### Behaviour observation

Research has been carried out on children's behaviour in several residential areas. They were observed and it was measured which activities they undertook and how often. It turned out that the

area around the house is not used very intensively in a traditionally designed residential area, where traffic is segregated. The area around the house is used intensively, however, in a residential area with mixed traffic - like a residential yard. There children often play around the house and they also use the entire area. It furthermore appeared that the area design influences the nature and the variety of the activities.

#### Analysis of accident data

Fatal road-accidents involving children to 15 years old occur most often with three year old children.

70% of these accidents happen within 400 metres of their own house. This clearly indicates the problem but is no indication of the safety of the area.

The number of accidents in a residential area each year is of such an order that it is impossible to make a statistical comparison of the road safety of various areas. Other methods have to be found to measure road safety of one particular residential area.

#### Conflicts

It is assumed that the number of near-accidents, also called conflicts, is significantly higher than the number of actual accidents. The relationship between the number of conflicts and the actual number of accidents has not been proved sufficiently yet. Conflicts are measured among others by filming them. Observators also follow road users and measure the number of conflicts.

This method offers the advantage of obtaining - rather quick - a good idea of the effects of urban design principles on human behaviour in a residential area.

Much thorough research is still necessary to establish the relationship between conflicts and accidents more accurately.

As soon this has happened the number of conflicts in a residential area can be a measure for the road safety in a residential area.

### Regulations

A regulation improving road safety of pedestrians, cyclists and moped-riders is segregating traffic categories. In several parts of The Netherlands this regulation has been put in practice. This regulation has some disadvantages, such as the high costs and the lack of space to carry out the plans.

Moreover all sorts of social activities are considerably limited. Mixed traffic is a totally different approach. This is to be found in a residential yard. There, the same paved area is used for different functions as driving, playing, cycling, walking and parking.

Although residential yards are becoming increasingly popular and they usually present a pleasant picture it is in fact not yet known if they are safer than traditionally designed residential areas. That is because residential yards are rather new, but also because no suitable methods have been found for measuring road safety in one particular area. The conflicts method already is a suitable method for measuring behaviour. Further research will have to prove if it can also indicate road safety. At that time it will be possible to say if an area is safe or not, without having to wait for casualties.