

ENVIRONMENTAL QUALITY OF STREETS AND FREEWAYS: VIEW FROM THE ROAD

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ABRIDGMENT

•A COMPREHENSIVE environmental survey of San Francisco's present street and free-way system was carried out for the city's Planning Department to develop an objective assessment of the present problems, assets, and opportunities of the highway environment. The method proposed can be used for any kind of highway system.

Observers traveled in both directions on all highways with a daily capacity exceeding 10,000 vehicles and recorded the environment with stop-frame 16-mm movies and black and white photographs. These were utilized in the assessment process. Seven criteria were established as significant dimensions in which the system environment could be judged. These criteria were based on earlier research into traveler attitudes to highways (1,2). The criteria were level of maintenance, spaciousness, visual order, level of interest, route clarity, orientation to major distinctions, and apparent safety and ease of movement.

For each criterion a scoring matrix was developed on a 1 to 5 scale with verbal descriptions and selected photographs to explain the significance of the scores. Each criterion was disaggregated into subcriteria. For instance, the maintenance levels of the road channel, right-of-way, and immediate surroundings were distinguished from each other, and routes were scored for different methods of traveler orientation (3).

The environmental scoring system was then applied to the whole system and mapped. The maps delineate major problem areas on the system according to each criterion. Criteria scores are not aggregated because different traveler groups will have different criteria profiles. All criteria will be of some importance.

The maps will serve as a permanent data base for future highway improvements and should be updated continually. Attitudinal surveys of highway users are needed to establish the criteria profiles for significant traveler groups. The environmental impact of the city's street system has been dealt with in a parallel study (4).

REFERENCES

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