

Editorial

Included in this issue is an article about a bus rapid transit system in Australia completed in April this year. The system features excellent examples of integrating transportation and land use at two of its stations – at a hospital and at a shopping center.

This type of integration and coordination between land use and transportation is accepted by transportation professionals as the desirable way to plan. It is often mentioned in the goals and objectives of metropolitan planning and in transportation literature in general. An example is a major study completed recently using the International Union of Public Transport's *Millennium Cities Database for Sustainable Mobility*. In the conclusions of this study of 100 cities worldwide, it states that it is essential to the vitality of urban and suburban areas to "encourage integrated urban planning/transport operations that tie the establishment of offices, businesses and leisure activities to the development of new public transportation infrastructures."

Unfortunately, the integration of land use and transportation is still seen by many planners, particularly those in suburban cities, as only placing higher density developments/larger trip generators close to major highways. Public transportation and providing for its right of way are not considered at all, especially in suburban locations. Why is this so? Could it be that we have a cadre of urban planners and politicians who are children of the suburbs, have reached seniority, and are now in decision-making positions, who do not know any other lifestyle but that of a monotonous, sterile, car-serving landscape? Older urban centers where public transit has a definite role and place are viewed as historic curiosities rather than as potential working models.

To preserve the vitality of metropolitan areas, transportation planners in suburban areas will have to break away from the traditional suburban model and venture into the exciting world of real integrated planning. It will take some courage because there are so many around for the status quo.

Daniel B. Rathbone, Ph.D., P.E.
Publisher

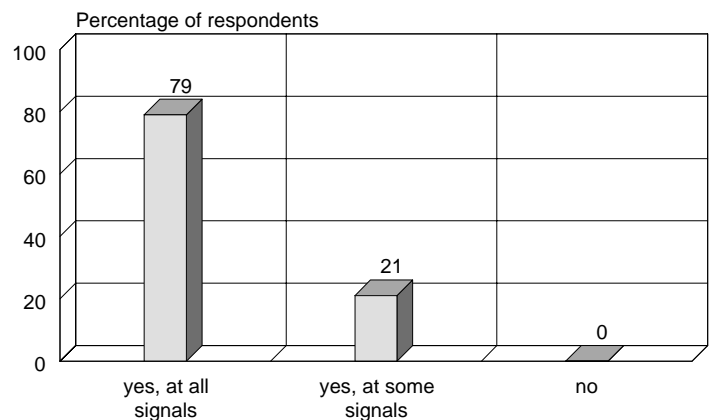
This Week's Survey Results

Traffic Engineering Issues, Part I

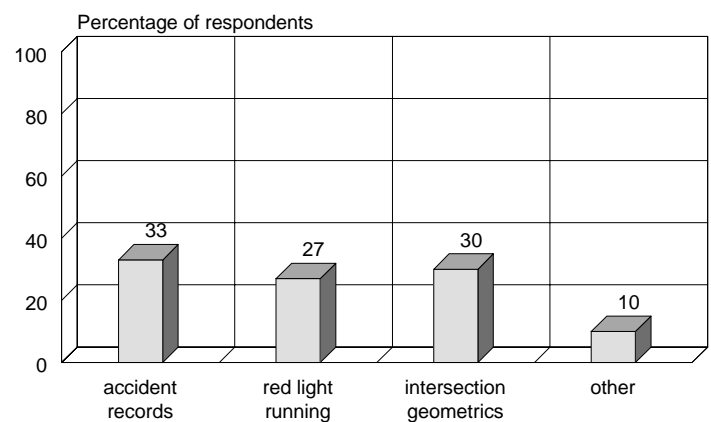
Earlier this month, *The Urban Transportation Monitor* conducted a nationwide survey to obtain information and opinions from city traffic engineers on some pertinent traffic engineering issues. Requests to participate in the survey were sent by e-mail to 400 cities. A total of 76 usable surveys were received for a response rate of 19%.

The results of the survey are published in two parts. Part I is published here and Part II will be published in the next issue.

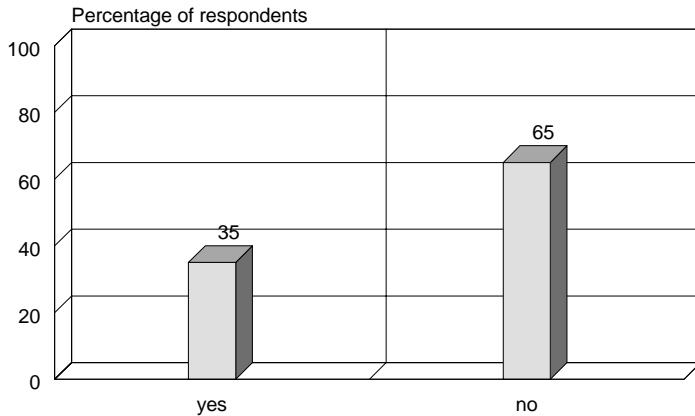
Do you apply an all-red clearance interval at your signalized intersections?



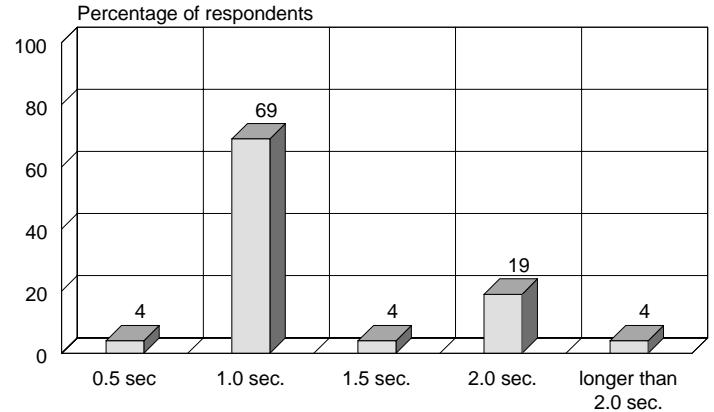
If you apply an all-red clearance interval at only some intersections, what factors would lead you to determine that an all-red clearance interval should be applied?



At intersections where you do apply an all-red clearance interval, do you apply the same standard interval length for all?



If you do apply the same all-red clearance interval length, at all the intersections where you apply it, what length do you apply?



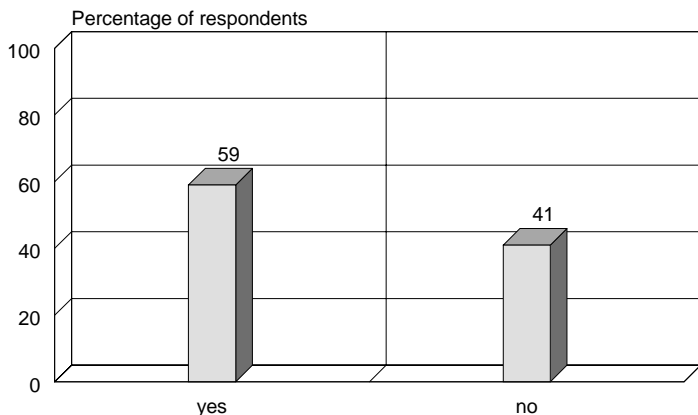
What factors do you consider in determining an all-red clearance interval length? Responses are listed in order of frequency.

- Approach speed and width of intersection (ITE formula).
- History of angle collisions.
- Sight line visibility.
- History of red light violations.
- Determined by state DOT.
- Driver expectancy.
- Street classification.
- Pedestrian volumes.
- Grade at intersection.
- Presence of dips and cross gutters.
- Capacity and level of service.

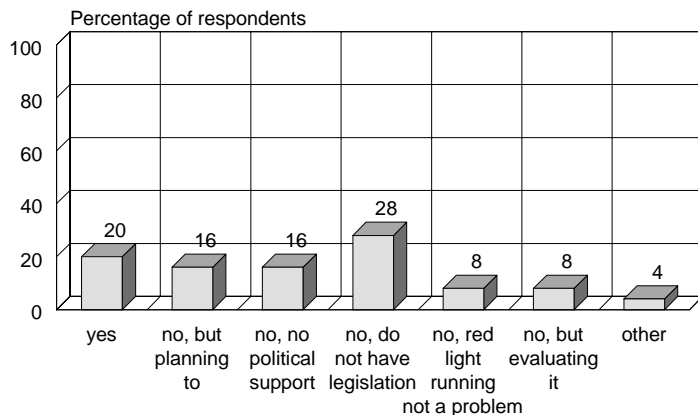
What is your opinion on the desirability of applying an all-red clearance interval? The first three responses are listed in order of frequency. Further responses are individual responses in no particular order.

- It is essential/necessary to provide liability protection and to reduce crashes from red-light running.
- More and more drivers are using the amber interval as part of the green interval. This encourages the left turning motorist (sneakers) to take a chance in the later part of the amber interval. An all-red interval enhances their safety.
- It is desirable when necessary to provide additional clearance time – due to geometric design of intersection.
- My personal opinion: since running a yellow light is not illegal, the all-red period should allow a vehicle to cross the intersection at the average speed. One to 1.5 seconds is generally sufficient for a driver to cross a typical intersection. The feature of some red light cameras that can extend the all-red for the violators should be utilized. That is, the all-red duration can be varied to go beyond the previously set value to avoid collisions. The all-red extension need can be calculated instantly to allow the violator to cross the intersection.
- If the amber clearance interval is set in accordance with ITE recommended practices, we limit the yellow to 5 sec and apply remaining time to all red. We use sparingly, but we have also set all of our amber clearance according to ITE recommended practices.
- Caution is required because the driver becomes accustomed to an all-red interval. Many drivers will use the all-red interval to make it through an amber light. The driver expectancy is that there will be an all-red interval to protect them.
- All-red clearance is a good tool to address safety concerns. I don't feel it is necessary at all intersections. Some intersections operate safely without it. When it is used, the minimum amount necessary to address safety issues should eliminate unnecessary delay.
- Yes, all-red intervals should be applied and they should be applied dynamically and not statically.
- If we have a large intersection with an accident history, we extend the all-red clearance.
- Drivers adjust to it, so you may promote more red light running.
- I am unconvinced that it provides any value when applied carte-blanche, but local practice would put us at increased liability risk if we didn't use it because of driver expectancy.
- It's good at higher speed intersections as it allows that additional time to clear the intersection before the next phase begins.
- It was done in the 1980s and 1990s to account for crashes and red light running. Now I think motorists know this and are running signals because of it.
- In Texas, I feel that it is imperative. Texas law states that it is legal to enter the intersection on yellow. Thus, if a vehicle enters on yellow at the last instant, time must be provided to allow that vehicle to safely cross and exit the intersection.

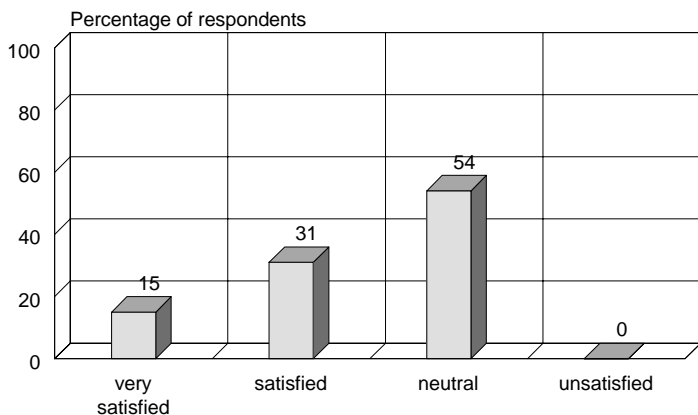
Do you believe there is a positive correlation between the cycle length of a signal and the propensity for red-light running?



Do you apply red-light camera enforcement?



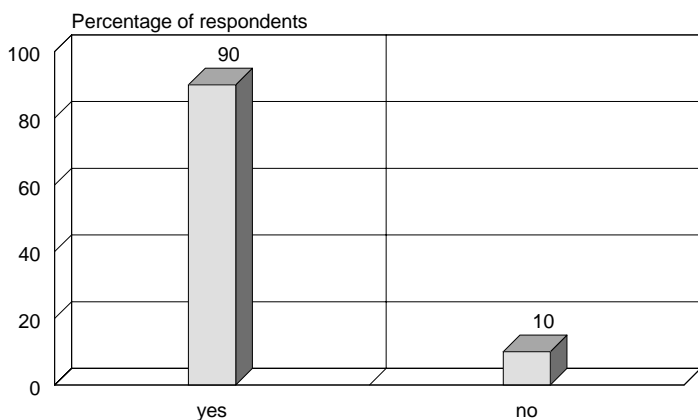
If you do apply red-light camera enforcement, how satisfied are you with the applications?



Reasons for your answer to the question: how satisfied are you with your application of red-light camera enforcement? Responses are listed in no particular order

- Red light running was installed a few months ago. It cut the number of violators by more than half (from about 400 to 200 violators).
- This is a Police Department program. I think it is good when properly applied.
- It is a good device, but not for every intersection. It should be applied only at those intersections with a high rate of red light running accidents.
- It's not clear to me that the frequency of violations has decreased while the program has been in place.
- It has been a very good deterrent to running red lights.

Is signal preemption installed at your traffic signals?



If you have applied signal preemption, at what percentage of your signals is it applied?

