

**SUMMARY OF ENFORCEMENT GUIDELINES  
FOR PRIORITY TREATMENT FACILITIES  
SUMMARY REPORT 410-3(S)**

**FROM**

**Guidelines for Utilization of Police Officers  
In Traffic Control and Enforcement on Urban Freeways**

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## SUMMARY OF ENFORCEMENT GUIDELINES FOR PRIORITY TREATMENT FACILITIES

by

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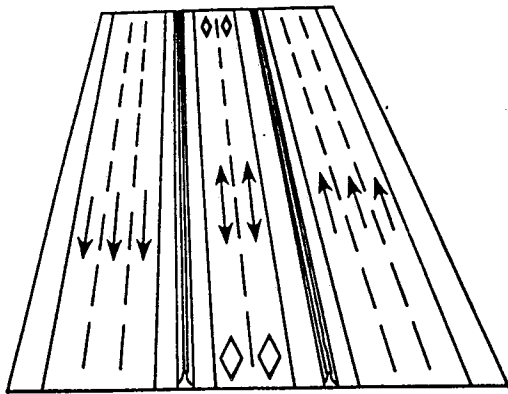
Priority treatment facilities are those areas of the freeway designated by design and/or operation to improve high-occupancy vehicle (HOV) travel speeds and, correspondingly, reduce travel times. High-occupancy vehicles may be buses, vanpools, or carpools which are designated or authorized to use the priority treatment facility. These facilities have been shown to be an effective means of increasing the utilization of high-occupancy vehicles on freeways which, simultaneously, reduces congestion, energy consumption, downtown parking needs, and pollutants emitted.

With respect to enforcement application, the following four categories of priority treatment facilities are considered: (Figure 1).

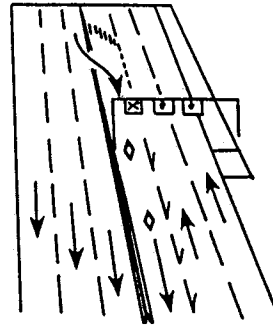
1. Separate Priority Treatment Facility. Lane or lanes that are physically separated from other freeway lanes, designated for the exclusive use of authorized high-occupancy vehicles. These facilities are referred to as transitways or authorized vehicle lanes.

2. Concurrent Flow Lane. A freeway lane in the peak direction of flow (commonly the inside lane), not physically separated from the other general traffic lanes, designated by traffic control devices for exclusive use by authorized high-occupancy vehicles.

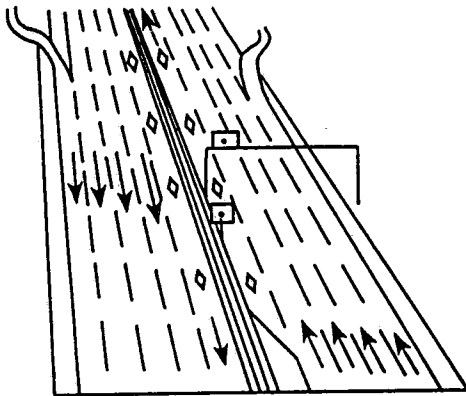
3. Contraflow Lane. A freeway lane (commonly the inside lane in the off-peak direction of travel), designated for exclusive use by authorized high-occupancy vehicles travelling in the peak direction. The lane is



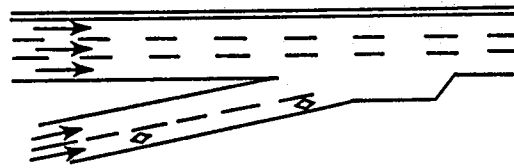
(a) Separate Priority Treatment



(b) Contraflow Lane



(c) Concurrent Flow Lane



(d) Priority Entry Ramp Treatment

**Figure 1. Typical Freeway Priority Treatment Facilities**

typically separated from the other off-peak direction travel lanes by plastic posts or other similar traffic control devices.

4. Priority Entry Treatment. Special ramp treatments designed for exclusive use by authorized high-occupancy vehicles that allow those vehicles to bypass queues in entering the freeway. This treatment is commonly used in conjunction with freeway ramp metering.

### OBJECTIVES

The primary objective of enforcement by police officers on priority treatment facilities is to maintain the design and operational integrity of the facility for those high occupancy vehicles designated or authorized to use it. In this regard, detection and apprehension of violators, issuance of citations to violators, and effective prosecution of violators is essential. Therefore, law enforcement personnel with full capability to issue citations must be employed on priority treatment facilities.

A secondary objective of enforcement by police officers on these facilities is safe and efficient operations. Depending on the type of facility and priority users, the potential hazards imposed by vehicle breakdowns, wrong-way movements, and/or other vehicle encroachments into the priority lane(s) pose serious safety problems. Each of these potential hazards or conflicts will also adversely impact operations and must be a concern of the enforcement authority. For those priority treatments which are not physically protected and involve daily, manual set-up, protection of the field crews is also a responsibility of the police agency.

### GENERAL GUIDELINES

Depending on the type of priority treatment facility and enforcement strategies, location of officers is extremely important. For priority entry bypass ramps, the officer should be located with a clear view of the ramp such that a determination of vehicle occupancy compliance may be made. The selection of location should be sufficient to allow adequate time and distance after identification of a violator for violator pullover and citation.

Where access to a priority treatment facility is not controlled nor separated from adjacent freeway lanes, tandem (two officers) enforcement at strategic points may be most applicable. This technique positions an officer at an entry area to the HOV facility to detect the violation. Vehicle identification is communicated to a second officer located at a facility exit area. The second officer is responsible for apprehension and citation of the violator. This technique may require several officers to enforce facilities with multiple entry/exit locations.

Pursuit, apprehension and citation may also be employed at selected entry locations utilizing fewer enforcement personnel. This technique involves detection and pursuit of a violator on the facility with subsequent citation at a designated location off the facility. Application of this technique is very site specific and may only be implemented if the violator can be removed from the priority treatment facilities. The design requirements for application of the pursuit, apprehension and citation technique are:

1. A safe and easily accessible refuge area(s) bordering the priority lane in which to cite violators.
2. Existence of a vantage point(s) from which enforcement personnel can observe the priority lane.
3. A physical barrier between the priority lane and the general freeway traffic lane.

From the standpoint of citation for non-compliance, enforcement experience on priority treatment facilities indicates the need for strict enforcement at the outset of a project. To allow the public time to become accustomed to the priority treatment, violators should be issued warnings for a short period.

Strict enforcement effort should continue for one to two months depending upon the type of priority treatment, the number of intermediate access points, the "innovativeness" of the priority treatment, and the degree

to which standardized and frequent signing and marking is utilized. Following the strict enforcement period, the enforcement effort can decrease to a more nominal level.

The effectiveness of enforcement on priority treatment facilities may be measured in terms of violation rates. Violation rate is defined as the percent of the total number of vehicles using the priority treatment facility which do not meet the occupancy authorization requirements. A wide range of violation rates have been observed--from 0 percent to over 90 percent. One intent of employing a certain level and type of enforcement is to achieve a violation rate that is acceptable to maintain the integrity of the priority treatment facility.

Various factors will affect violation rates on any particular priority treatment facility where enforcement is applied. These factors include:

1. Priority signing and marking;
2. Type or combination of authorized vehicles;
3. Travel time incentive;
4. Probability of apprehension;
5. Penalty for violation;
6. Accessibility to priority facility;
7. Operating time period;
8. Level of occupancy authorization;
9. Visibility; and
10. Weather conditions.

Other statistics relating to priority treatment enforcement may also be used to assess effectiveness. These include:

1. The relationship between the number of citations issued and the number of violations occurring.

2. The interrelationships between the violation rate, apprehension rate and the travel time savings of the priority lane.

3. The changes in the violation rate due to changes in the quantitative, qualitative or substantive aspects of the enforcement application.

#### EXAMPLES OF TYPICAL SET-UPS

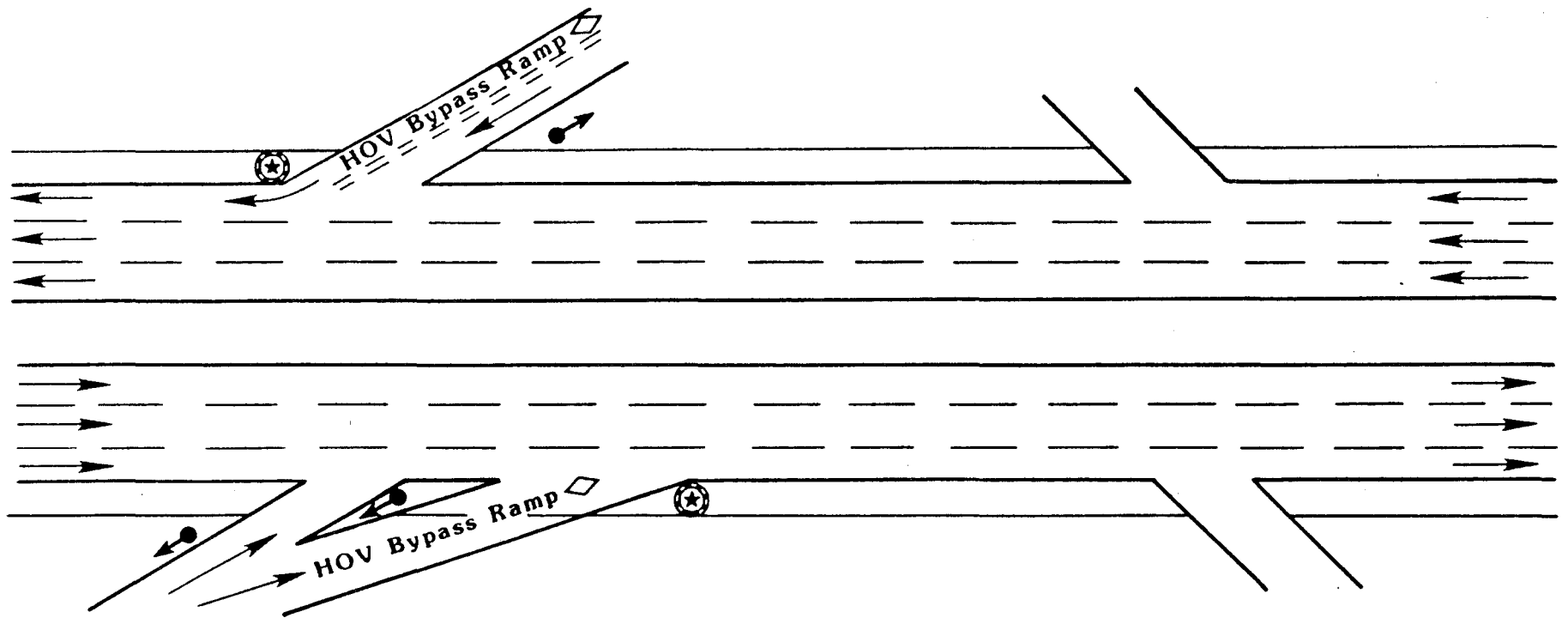
Figures 2 to 4 illustrate several examples of enforcement on priority treatment facilities. Figure 2 indicates officer locations on two types of priority entry ramps. The patrolman must be in a position for good visibility on the ramp to assess priority restrictions with sufficient time to restrain violators. A refuge area adjacent to the priority ramp is critical.

Figure 3 presents possible enforcement strategies for either contraflow or concurrent flow lanes. Detection and apprehension of priority violators may utilize "catchment pairs" of patrolmen or routine line patrol procedures. Again, refuge areas for citation are essential.

Figure 4 highlights the possible need for additional officers for enforcement on physically separated, controlled access, priority treatment facilities (transitways) with multiple entry/exit points. Violations must be controlled to maintain the priority authorization of the facility.

Enforcement on priority treatment facilities may come from local police agency personnel or it may be the responsibility of the operating transit authority. In this case, special transit police may enforce (detect, apprehend, cite) violations on these priority facilities. This insures consistency in enforcement due to day-to-day facility operating experience by the transit police personnel.





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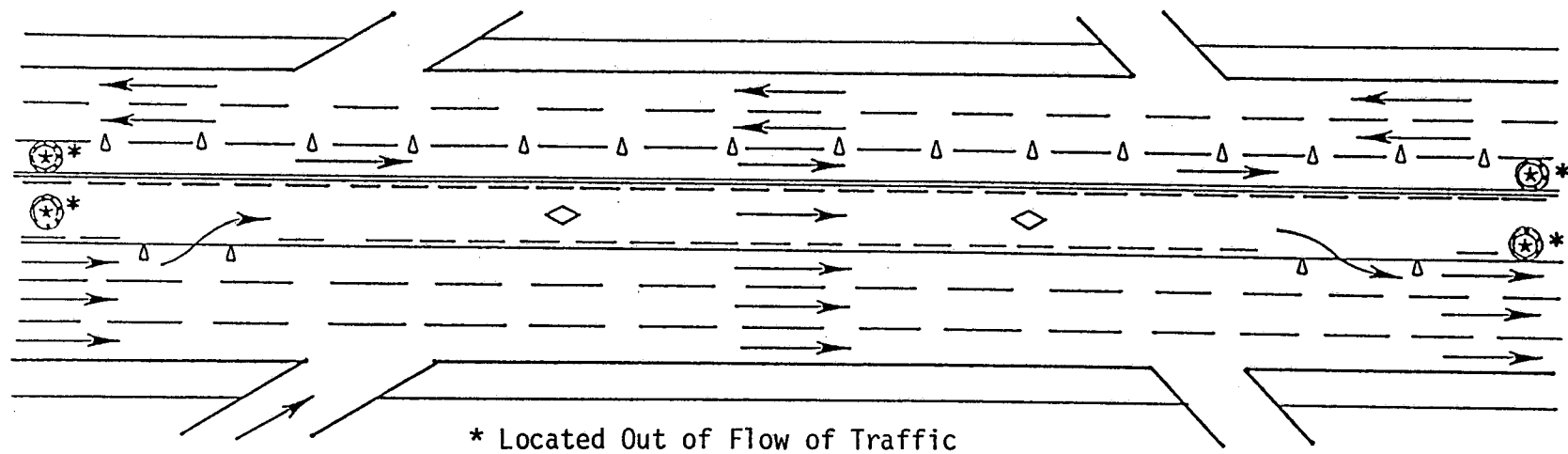
**LEGEND**

|        |                |
|--------|----------------|
| ⊛      | OFFICER        |
| ◇      | HOV LANE       |
| ↑<br>● | RAMP<br>SIGNAL |

Not to Scale

Note: Traffic control plan depicted is for illustration purposes only. It is not a standard or specification. In all cases, the MUTCD should be adhered to for location and placement of traffic control devices.

Figure 2. Example Set-Up for Priority Entry Ramps



\* Located Out of Flow of Traffic

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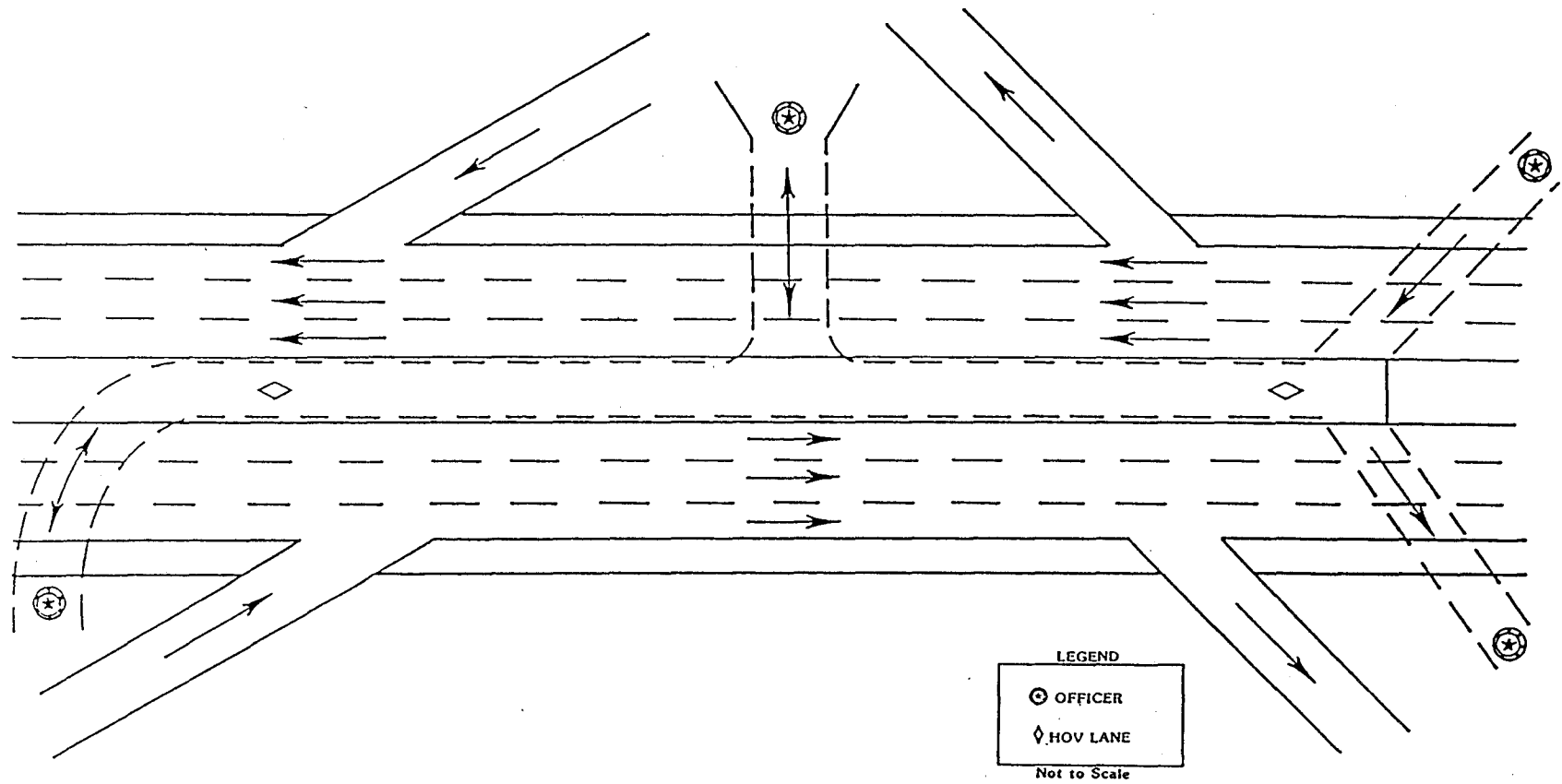
**LEGEND**

|   |          |
|---|----------|
| △ | CONES    |
| ⊙ | OFFICER  |
| ◇ | HOV LANE |

Not to Scale

Note: Traffic control plan depicted is for illustration purposes only. It is not a standard or specification. In all cases, the MUTCD should be adhered to for location and placement of traffic control devices.

Figure 3. Example Set-Up for Priority Contraflow/Concurrent Flow Lanes



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Figure 4. Example Set-Up for Median Transitway

