



**PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION**

**GUIDELINES FOR THE PREPARATION OF
EFFECTIVE
SIGNING AND STRIPING PLANS
FOR
COMMERCIAL AND INDUSTRIAL DEVELOPMENTS**

1. Signing and Striping Plans prepared with review by the developer's Traffic Engineer for the safe and orderly movement of vehicular, bicycle and pedestrian traffic within and through the development. Traffic calming devices such as raised crosswalks should be considered to provide for the safe speed of vehicles within parking lots and adjacent to and between buildings.
2. Traffic control improvements within individual units as part of an approved overall development plan should be based on a comprehensive master plan prepared for the entire development, consistent with the conditions of approval and requirements of the City Traffic Engineer.
3. All traffic control devices must be integrated with the surrounding and adjacent developments or existing property. Adequate provision shall be made for safe transitions from the new development to existing street signing and striping. Additional work on adjacent existing streets may be necessary.
4. Traffic Control Plans and Staging Plans should be included with multiple phased projects, or projects which require interim improvements prior to the completion of final improvements.
5. Scale of drawings to be no less than 1-inch = 40-feet.
6. All references to standard signs should be to the latest approved Caltrans/MUTCD numbers.
7. General notes are to include the following
 - a. "The location of all signs, striping, and pavement markings shall be clearly marked and approved by the City Traffic Engineer prior to installation"
 - b. "Modifications to signing and striping dictated by field conditions shall be made by the contractor as required by the City Traffic Engineer"
 - c. "All pavement markings at entrances/exits to City streets shall be in thermoplastic."
 - d. "All traffic control devices required for the safe and orderly movement of vehicles and pedestrians within and exiting the development shall be in place prior to occupancy of any building."
8. Driveway exits to City streets to be marked with turn restriction pavement arrows and signs as needed for safe entrance and exit from the site (No Left Turn, etc.).
9. Install R6-1 (R10) "ONE WAY" signs in median islands where left turns out of intersecting driveways are prohibited.
10. Stop signs and pavement legends at all exit driveways to be marked consistent with Standard Plan ST-37. Centerline markings to be Detail 21 instead of 22,

- and extend to the first cross aisle, or other prominent conversion point of internal circulation. All pavement markings at these locations shall be in thermoplastic.
11. At entrance and exit driveways, use Caltrans Standard Arrows Type I for straight direction, and Type IV for required turns.
 12. Separation of lanes at entrances where there are landscaped median islands, add standard Caltrans channelization lines, Detail 38A, and Detail 25A adjacent to median curb with reflective markers at 12 feet instead of 24 feet. To avoid clutter of signs at entrances, avoid unnecessary use of the Keep Right symbol signs (R4-7) with effective use of yellow reflective curb paint and reflective markers on the curb top.
 13. Design internal traffic circulation to allow for turns at the ends of aisles. Design to be consistent with traffic engineering guidelines for parking lot layout. Landscape curbs at ends of aisles should be three (3) to four (4) feet back from the end of marked parking space lines. (Reference: "Traffic Engineering Handbook", Parking Lot Design – End Islands). Landscape islands for interior areas between aisles can extend the full length of the parking space. Include all dimensions on the signing and striping plan.
 14. Show all parking lot aisle width dimensions.
 15. Directional arrows are generally not needed for two way aisles with 90-degree parking.
 16. Show dimensions for landscape islands relative to parking space striping.
 17. Show crosswalks on striping plan and locate STOP pavement legend markings to match.
 18. Stop intersection layout to conform to City Standard Plan ST-37. Location of the Limit Line is controlled by layout of a typical crosswalk, ST-28.
 19. Show existing or designed signing and striping on adjacent streets approaching and leaving the development.
 20. Show all existing improvements including driveways, street lights, etc., on opposite sides of street from the development.
 21. Include a Legend with list of Standard Plans and Caltrans Standard Details referenced. Example, Standard Plan A20A "Pavement Markers and Traffic Lines"
 22. Include the following Standard Plans references to the Notes on the Striping Plan:
 - ST-30 Traffic Sign Placement
 - ST-37 Stop Intersection
 23. Curbs to be painted red and marked "No Parking Fire Lane" to be shown on the Signing and Striping Plan. Stencil for "No Parking Fire Lane" to conform to Fire District requirements
 24. Recommend paint "KEEP CLEAR" pavement markings in front of Trash Enclosures.
 25. Add references to other plans that may be constructed at the same time including Traffic Signal Plans and Off-Site improvement plans as they may apply.

26. Review all existing signing on adjacent streets that may need to be revised to match new driveway cuts, curb ramps, etc.
27. Establish locations for installation of obstacle warning signs at median islands. Options available include R4-7 (R7), or OM1-3 (Type N) marker or OM2-2H (Type K) marker.
28. Check all driveways for adequate sight distance from on-site signing obstructions.
29. Install internal All-Way STOP signs, pavement legends, and centerline markings where needed to provide traffic safety and assignment of right-of-way within the parking lot contiguous areas with common use access rights.
30. Internal STOP signs can be smaller size than those used at entrance points to public streets. The use of 18-inch or 24-inch STOP signs and a support system (posts, etc) for installation that fits the design theme for the parking lot is recommended.
31. Public transit – Design adequate access to public transit points of service such as bus stops.

Traffic Engineering