contents

foreword.....

The purpose of this manual is to act as a guide in the design and layout of off-street parking facilities. The Traffic Engineering Department will be glad to assist in the planning of any parking layouts.

The tendency when designing parking areas is to crowd as many car spaces as possible into the allotted space by reducing standards, such as narrower parking stalls and narrower aisles. The best design, however, should give full consideration to every design factor that improves access to and from the street: internal movement, maneuvering of cars, convenience of patrons and security of vehicles.

The average automobile is 18'-0" long and 6'-9" wide. Adding to these limits allowances for opening doors, the relative skill of drivers, the turning radius of the average automobile and a margin for safety, the following standards have been established. Parking areas built to these specifications will allow 80% of all cars to park with relative ease in one maneuver.

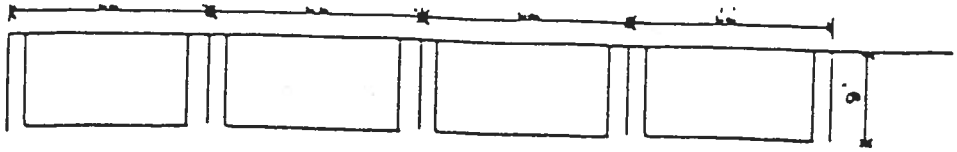
In the larger lots greatest economy of space can be accomplished by placing the stalls at right angles to the aisles (see page 6). Acute-angle parking allows fewer stalls for a given length of curb or aisle than right-angle parking, but entrance is easier for drivers, and a definite advantage is that the aisle may be narrower and permits use of a lot too narrow for right-angle parking (see pages 7, 8, 9).

Acute-angle parking requires that the first stall be placed a minimum distance from the property line or sidewalk. This is a safety measure to protect occupants of the sidewalk from vehicles backing out of the stall.

Barrier curbs are essential when parking heads into an adjoining property line or sidewalk. Their placement depends upon the angle for which the parking is planned (see page 5).

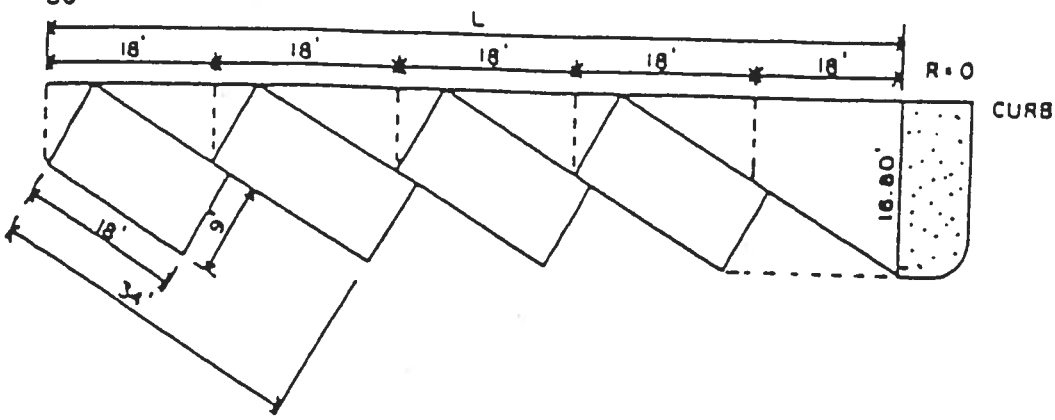
Circulation of cars within facilities requires consideration of entrance and exit locations, width of aisles and the angle of parking. One-way, counterclockwise movement is desirable, where feasible, and will reduce congestion.

Entrances and exits should be held to a minimum to reduce conflict with street and sidewalk traffic, but it is highly desirable that exits and entrances be separated.



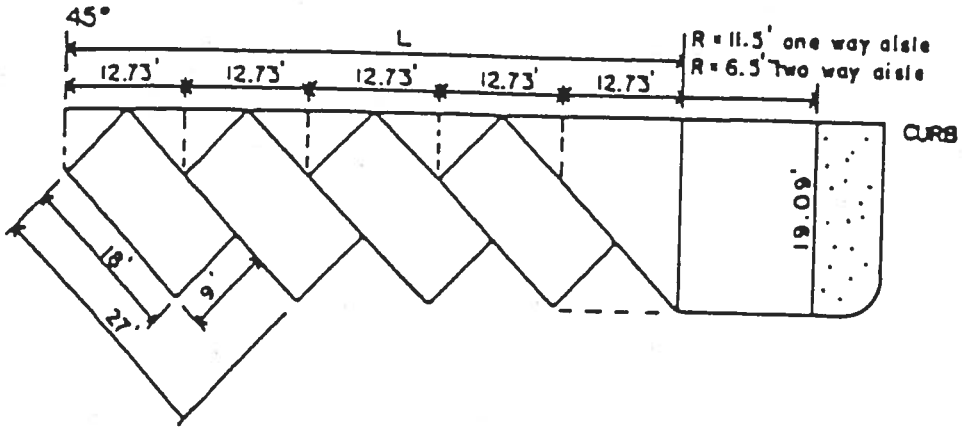
$N = \frac{L}{22}$

30°



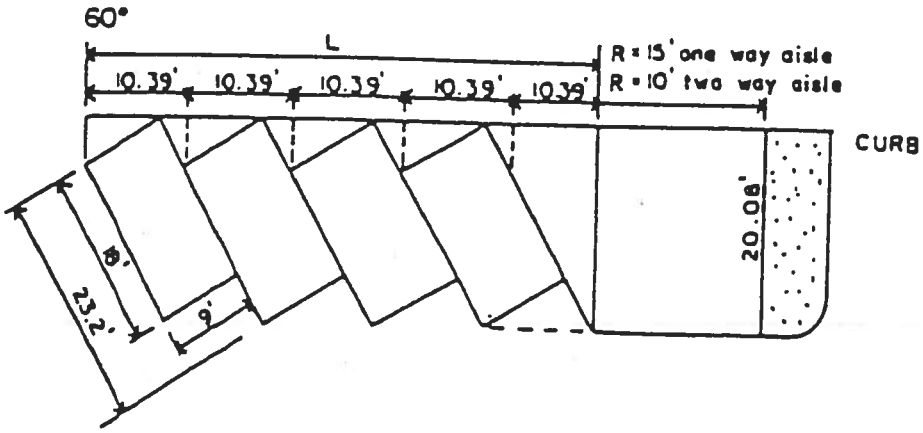
$N = \frac{L-18}{18}$

45°



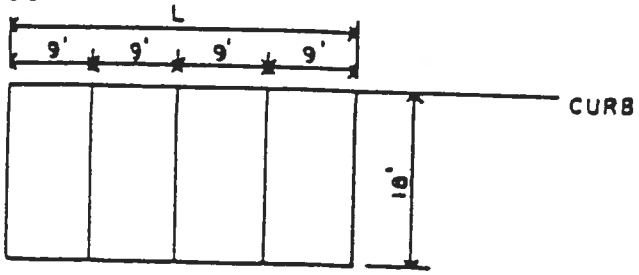
$N = \frac{L-12.73-R}{12.73}$

60°



$N = \frac{L-10.39-R}{10.39}$

90°

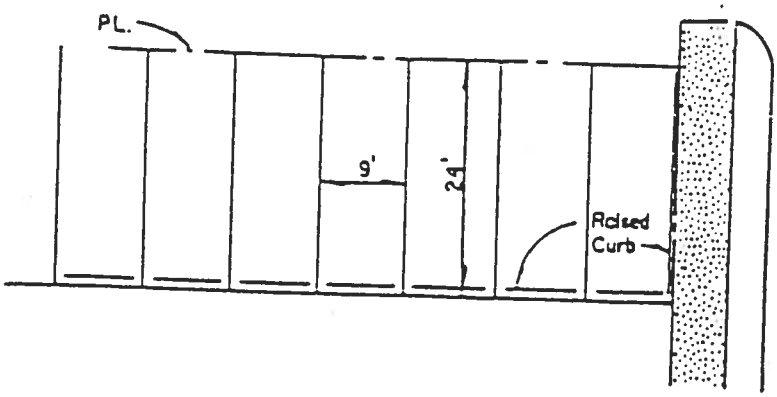


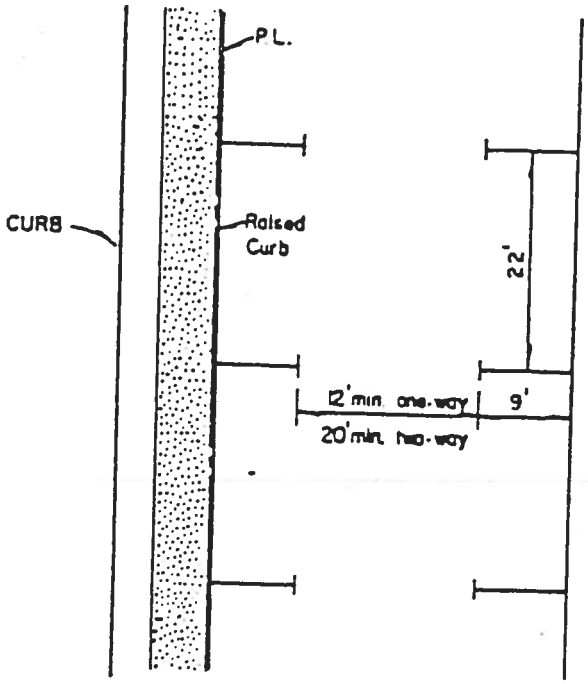
$N = \frac{L}{9}$

NOTE - N = number of space
L = curb length
R = on site turn road
(refer to pgs. 7, 8,


P.L.

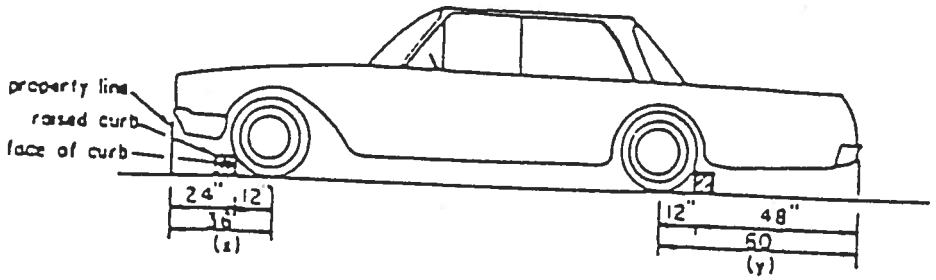
ALLEY


P.L.
9'
24'
Raised Curb

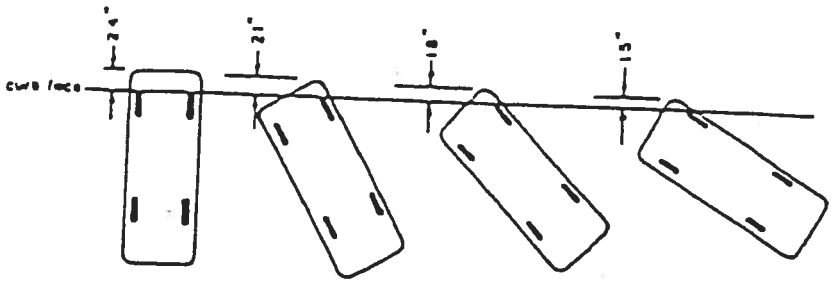

P.L.
CURB
Raised Curb
22'
12' min. one-way
9'
20' min. two-way

overhang of average automobile

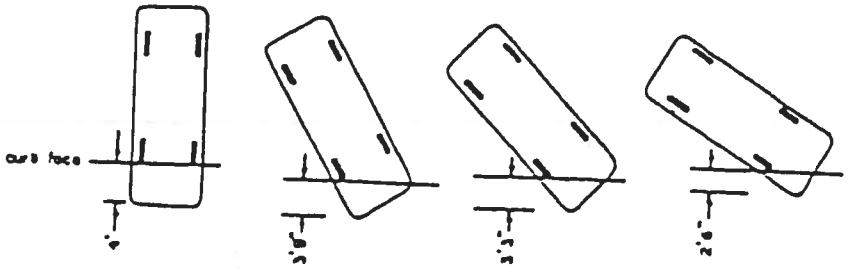
parked against raised curb at 30°, 45°, 60°, & 90°



front overhang (x)

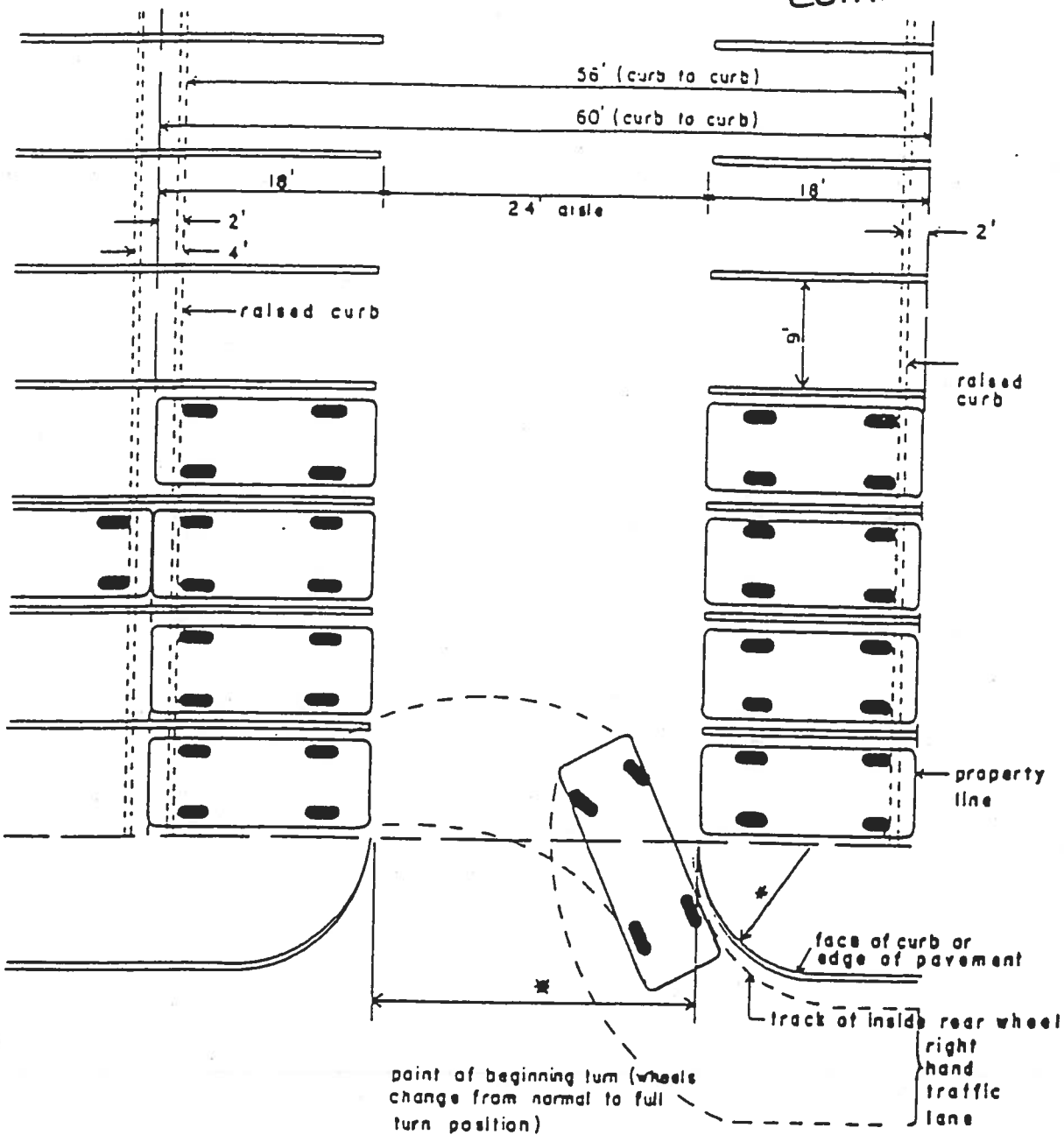


90° 60° 45° 30°



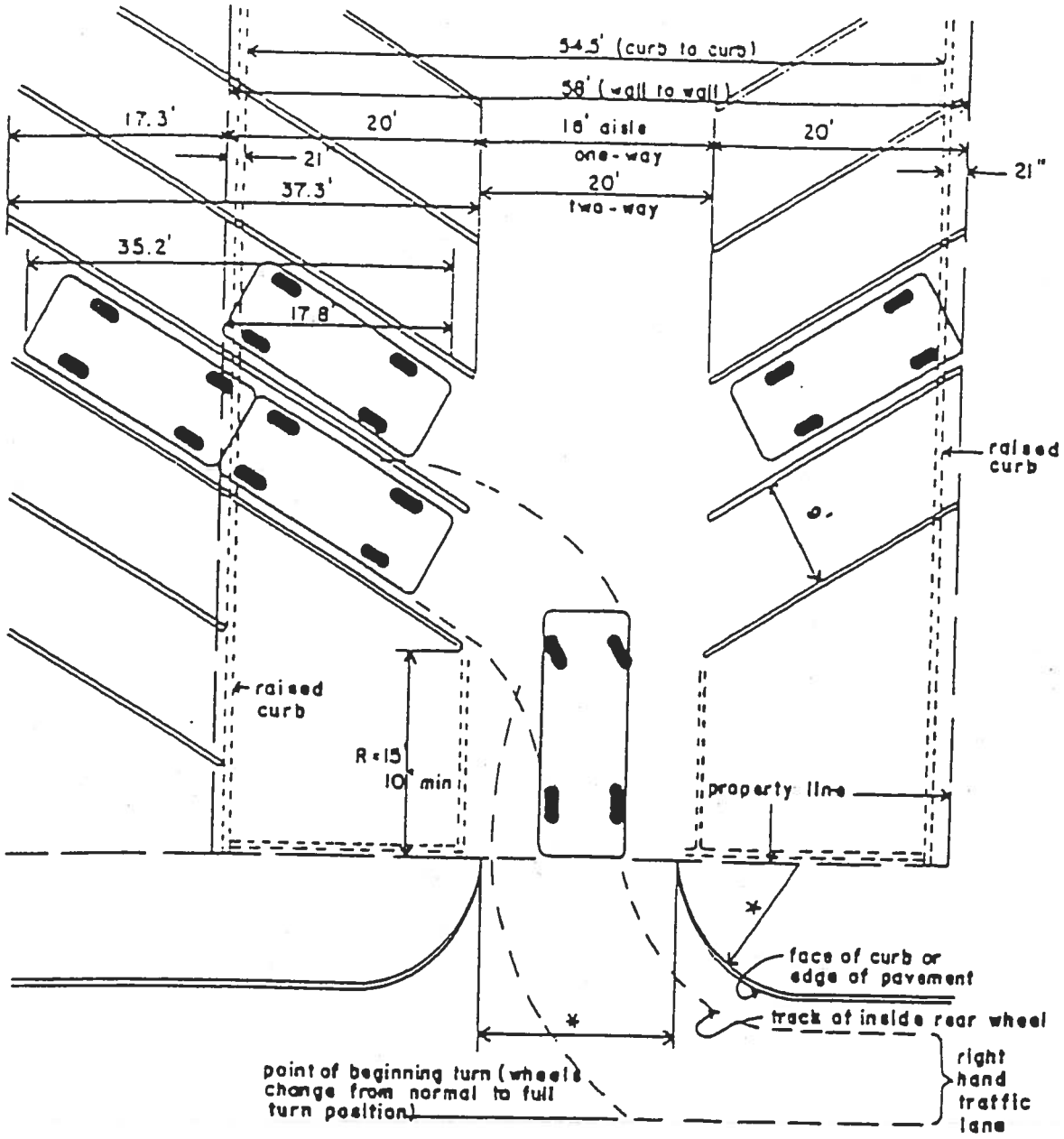
rear overhang (y)

* 9'x18' most common



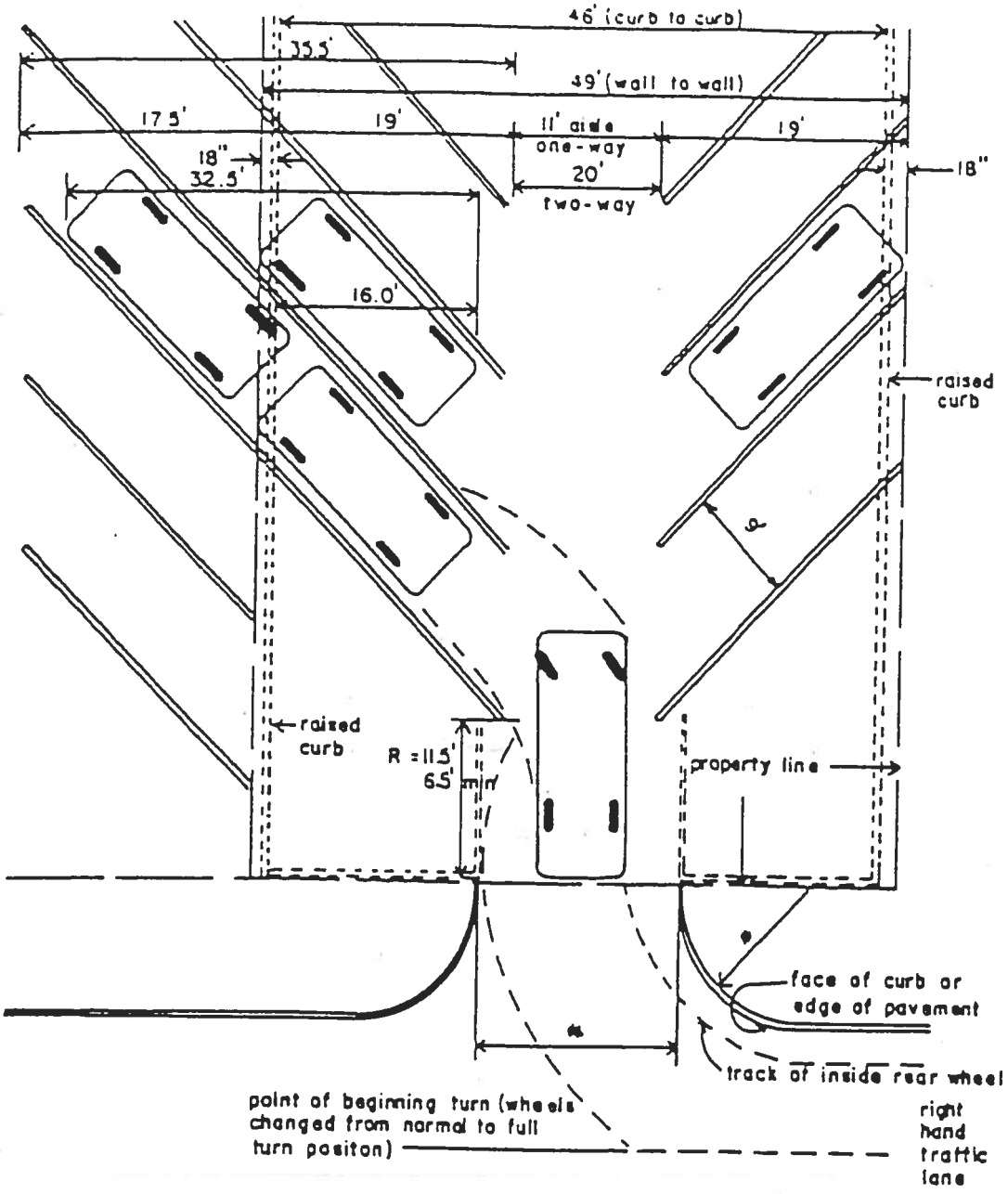
* drive approach must meet plate no. 1, ordinance 6891.

90°



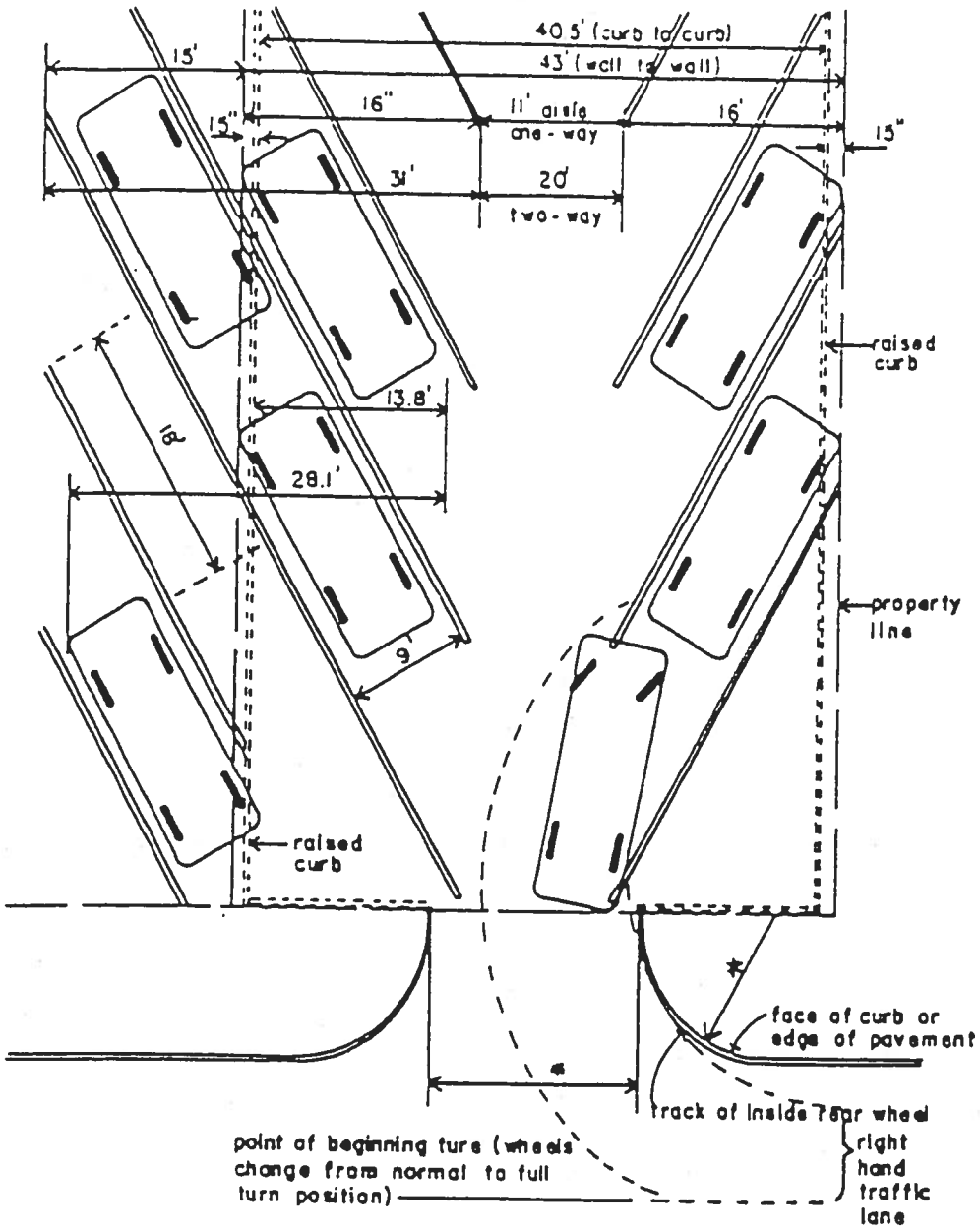
* drive approach must meet plate no. 1, ordinance 6891

60°



* drive approach must meet plate no. 1, ordinance 6891

45°



* drive approach must meet plate no. 1, ordinance 6894

30°