



BOLLARDS & OTHER FIXED OBJECTS

Many engineering guides and older street design practices call for the pedestrian zone and the static zone to be clear of 'fixed objects' such as street trees, signs, benches, or street lighting in order to reduce the probability of a vehicle experiencing a traumatic crash if it were to leave the roadway. While maintaining a parkway or furnishing zone clear of all fixed objects may protect the occupant of an errant vehicle, it does not protect people within the street's pedestrian zone.

This policy was generally intended for higher speed roadways lacking vertical curbs where pedestrians are rarely present. Maintaining a clear zone free of fixed objects is not a controlling criteria in the National Highway System (NHS) design standards and is generally unnecessary and potentially undesirable in an urban environment.

Roads in urban contexts benefit from a lively street edge. Street furnishings provide important amenities for pedestrians by adding functionality and vitality to the street. Such furnishings include public seating, bicycle racks, trees and planters, parking meters, public art, signage, bollards, trash receptacles, and other elements. Site furnishings not only increase the functionality of the street for pedestrians and other users, but also can help separate vulnerable pedestrians from moving vehicles.

USE

- Fixed objects in the parkway/amenity zone of the street are generally permitted

if they serve an identified functional purpose. This purpose may be to provide additional protection for pedestrians from the risk of errant vehicles.

DESIGN

- Fixed objects must not impede or encroach upon the pedestrian clear zone of the street.
- Fixed objects must not impede access to crosswalks or any designated curbside loading areas such as bus stops or commercial zones.
- Fixed objects should maintain four feet of distance from any other fixed objects.
- Fixed objects should be set back from the curb face a minimum of 18 inches.

SPECIAL CONSIDERATIONS

- Parkway and amenity zones may be used for snow storage. Snow storage should be considered when contemplating the installation of bollards or other fixed objects along the street edge.

OPERATIONS AND MAINTENANCE

- Street designers should consider the impact of fixed objects on the cost of or ability to maintain streets.
- Depending on the nature of the fixed object, maintenance agreements may be required.