

DRAINS IN GARAGES (EMERGENCY DRAINS)

I. SCOPE

Section 406.4.5 of the Los Angeles Building Code requires that:

“The area of floor used for parking of automobiles or other vehicles shall be slopped to facilitate the movements of liquids to a drain or toward the main vehicle entry doorway.”

This Information Bulletin is meant to clarify the installation of drains in garages which are commonly known as emergency drains.

II. DEFINITION

Emergency drains, are floor drains within a building and serve only the area used for parking of motor vehicles. They are intended solely to receive water from automobile drippage, fused sprinkler heads, ruptured piping, and other similar conditions.

These emergency drains are not to be confused with the drains in table 7-3 of the Los Angeles Plumbing Code, 2014 edition.

III. PROHIBITED USE OF EMERGENCY DRAINS

Emergency drains are permitted to be used for the discharge of wastewater from any type of cleaning or maintenance activity performed within the parking facility. Any use of the emergency drains as a conduit for any prohibited or illicit discharge shall render the emergency drains as an “Illicit Connection” as identified in the Los Angeles Municipal Code Section 64.70.03.B, and may be subject to removal or disconnection from the storm drain system. The owner of the parking facility shall be responsible for any prohibited or illicit discharge from the facility, and shall be liable for criminal or civil penalties for violation(s) of any Ordinance, or State or Federal pollution law or regulation.

IV. INSTALLATION REQUIREMENTS

Garage drains shall comply with the following guidelines:

A. Traps

Emergency drains shall be installed without traps and vents.

B. Independent Systems

Emergency drain systems shall be independent of any other system, such as plumbing drainage, plumbing vent, rainwater drainage, subsurface drainage, condensate drainage or fire pump test drainage.

Exception:

Rainwater drainage and subsurface drainage systems may be combined with emergency drain systems under the following conditions:

1. Rainwater drainage systems and subsurface drainage systems cannot drain by gravity.
2. Backwater valve shall be installed, where necessary, to prevent flooding of the garage and to keep the various systems separated.

C. Point of disposal

Emergency drains shall discharge to a street curb or Department of Public Works catch basin. If the emergency drain is combined with subsurface drain system, then the discharge shall be done where allowed for subsurface drain systems.

NOTE: Discharge to the street or public storm drain is subject to the approval from the Bureau of Engineering, Department of Public Works.

D. Material

Piping material shall be as required per sanitary drainage piping.

E. Sizing

Emergency drainage systems shall be sized on the anticipated flow in gallons per minute, with a minimum of two (2) inch pipe.

F. Grade of horizontal drainage piping

Horizontal emergency drain piping shall have a minimum slope of one percent ($\frac{1}{8}$ in/ft).

G. Cleanouts

Cleanouts shall be as required per sanitary drainage piping.

H. Sumps

Only drains located below the point of disposal shall discharge into a sump.

Sumps serving emergency drainage shall be vented to the outside or to the parking garage and shall be installed as required per sanitary drainage systems with the following exceptions:

1. Sumps installed solely for the emergency drain system are not required to have double pumps.
2. Airtight cover is not required if the emergency drain system is not combined with any other system and located within the garage.

3. The sump pump shall be designed to discharge at least 20 gpm.

The discharge from the sump pump shall terminate into a gravity line before leaving the property line. The connection to the gravity line shall be as required per sanitary drainage piping.

I. Roof and Ramp Drains

All drains located on roofs used for parking shall be considered roof drains and must comply with the plumbing code requirements for roof drains (Section 1101.11). When the roof parking slopes toward a covered parking, the portion of garage subject to rainwater shall be separated from the rest of the garage by means of approved type trench drains. Similarly when ramps collect rainwater, they shall be separated by the rest of the garage by means of trench drains, which will be considered rainwater drains.

V. PLAN CHECK REQUIRED

Plan check is required only when the emergency drain system has a sump pump.