TOPIC: Structural Design – OSSC/16/#2

Oregon Fire Code, 2014 Edition

REVISED: September 16, 2016 [Paul L. Scarlett] Director

REFERENCE: Chapter 16, Oregon Structural Specialty Code
Section 503, Oregon Fire Code

SUBJECT: Elevated Private Driveways and Parking Decks – Structural Design Loads

QUESTION: What are the structural loading requirements for private elevated driveways and parking decks?

RESPONSE: Private elevated driveway structures and parking decks will be subjected to the loading caused by heavy vehicles such as garbage trucks, delivery trucks, and moving vans. The Portland Bureau of Transportation (PBOT) requires ramps or decks that are constructed in the street right-of-way to meet the live load design requirements of the AASHTO HS-20 Design Truck as a minimum. To meet PBOT standards, elevated private driveway structures and parking decks shall be designed to support the same vehicle load as the adjacent street or shoulder (HS-20 Design Truck minimum, see illustration on page 2). However, if fire apparatus access is provided by an elevated private driveway or parking deck that access must be designed and constructed to meet AASHTO HS-25 loading per requirements of the Oregon Fire Code.

Overhead barriers that restrict the height of vehicles entering a driveway or parking area will not be accepted as an alternative to providing the minimum structural load design.
Questions regarding the street design loads should be directed to the Portland Bureau of Transportation at 503-823-7002.

This figure illustrates the AASHTO HS-20 design truck.

W = Combined weight of the first two axles which is the same as for the corresponding H truck
V = Variables spacing -14 feet to 30 feet inclusive. Spacing to be used is that which produces maximum stresses

Updates March 1, 1999 edition
Updates July 1, 1996 edition
Replaces Code Guide UBC/23/#2 which replaced Policy & Procedures # D-39