

Introduction

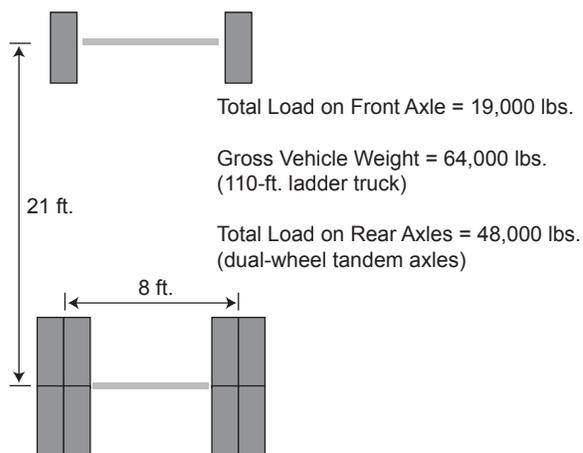
The information in this brochure describes the City of Bellevue's requirements for the structural design of a condition that may occur with underground parking facilities or flood control structures.

Concrete slabs or utility vault lids that are subject to fire truck or semi-trailer loading must be designed for additional loading as prescribed below. This may also include the condition of a fire truck setting down stabilizer outriggers to extend a ladder. The project design team should contact the Bellevue Fire Desk at (425) 452-4122 or FireReview@bellevuewa.gov to determine whether the required fire truck access area may be restricted and if the outrigger load is applicable.

Design Loading

Such a concrete slab must be designed for the following live loads.

- HS20 loading required under the latest edition of the American Association of State Highway and Transportation Officials (AASHTO) publication entitled "Standard Specifications for Highway Bridges"
- Fire truck wheel and axle loads as indicated:



- Point load of 45,000 lbs. due to the maximum reaction which may occur at a stabilizer outrigger. This load must be applied on an 18x18-inch area (2.25 sf) and also applied as an unfactored load on a 10x14-inch area (1.0 sf).

The live load conditions given above are to be applied independent of each other, but in combination with other loads as required by AASHTO and the IBC. Each load must be increased by any factors required by AASHTO or the IBC unless specifically excepted.

For More Information

Please contact a building plans examiner with the Bellevue Building Division at 425-452-4121 or BuildingReview@bellevuewa.gov for additional design information.