

All information, calculations, etc. from Paul J. Ford Structural Engineers, Columbus, OH.
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In order to execute the following calculations, you will need to know two pieces of information about the vehicle in question: the GVW (Gross Vehicle Weight) and the number of axles.

For vehicles with only two axles:

$$\text{Front Axle load} = (\text{GVW}) \times (0.20)$$

$$\text{Rear Axle Load} = (\text{GVW}) \times (0.80)$$

For vehicles with more than two axles:

$$\text{Front Axle Load} = (\text{GVW}) \times (0.20)$$

$$\text{Rear Axle Load} = \frac{(\text{GVW}) \times (0.80)}{(\# \text{ of Rear Axles})}$$

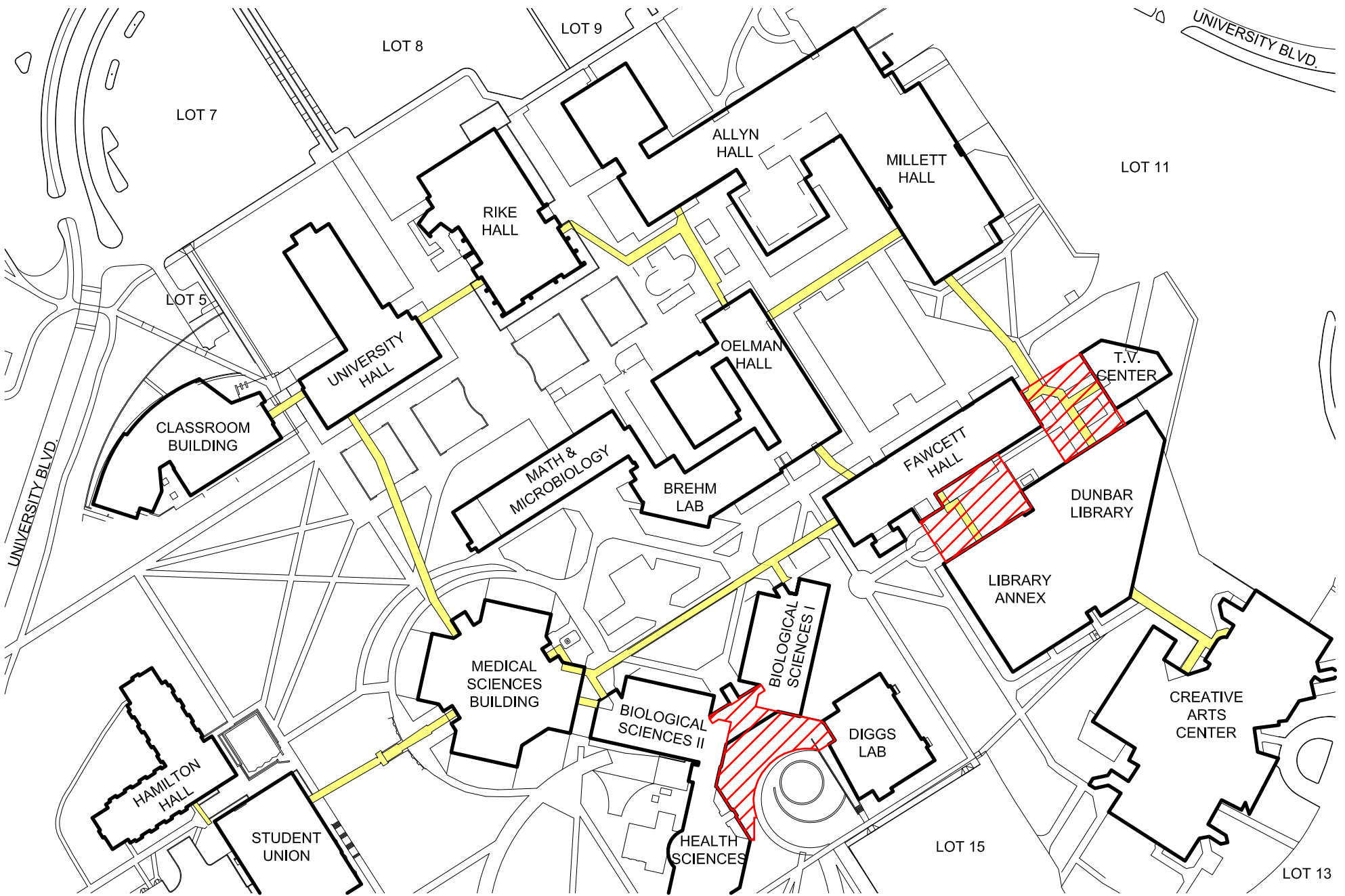
This approximation does not apply to vehicles on tracks such as dozers or certain mobile cranes. For those situations you must use the following calculation method.

For track vehicles

$$\text{Track Load} = \frac{\text{Operating Weight}}{2 \times (\text{Track Length in feet})}$$

TUNNEL CROSSING ALLOWABLE LOADS

Tunnel Crossing Location	Maximum Allowable Loading
Rike Hall – Allyn Hall	24,000 lb. axle load 4,300 lb/ft track load
Allyn Hall – Oelman Hall	40,000 lb. axle load 8,800 lb/ft track load
Oelman Hall – Millett Hall	40,000 lb. axle load 8,600 lb/ft track load
Millett Hall – Fawcet Hall	40,000 lb. axle load 7,300 lb/ft track load
Fawcet Hall – Oelman Hall	40,000 lb. axle load 10,000 lb/ft track load
Fawcet Hall – Biological Science Building	16,000 lb. axle load 3,750 lb/ft track load
Library – Creative Arts Center	9,600 lb. axle load 1,250 lb/ft track load
Student Union – Medical Science Building	16,000 lb. axle load 3,750 lb/ft track load
Student Union – Hamilton Hall	Pedestrian Traffic Only
University Hall – Student Success Center	40,000 lb. axle load 5,500 lb/ft track load
Rike Hall – University Hall	24,000 lb. axle load 4,300 lb/ft track load
University Hall – Medical Science Building	24,000 lb. axle load 4,300 lb/ft track load



 = **SUPPORTED SLAB**
VEHICLE TRAFFIC PROHIBITED

 = **UNDERGROUND TUNNEL**



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TUNNEL MAP

DATE: 8/11/2015 | NOT TO SCALE | DWG# 3924