

January 21, 2022

Erik Lobeck
Workshop L
910 Yampa Street
Steamboat Springs, Colorado 80487

Re: Shipping Container – Wind and Seismic Overturning

Erik,

You have asked us to determine if a shipping container placed directly on the ground in Steamboat Springs, Colorado would have any issues with overturning from wind or seismic loading.

Shipping Container Specs

| | |
|--------|-------------|
| Height | 8'-5" |
| Width | 8'-0" |
| Length | 19'-10 1/2" |
| Weight | 4914 lbs. |

Design loads

| | |
|---------|--|
| Wind | Risk Category I, 115 mph Ultimate Wind Speed, Exposure "B" |
| Seismic | IBC Design Category C |

Based on our calculations the resisting moment for overturning based on only the dead load of the container is 19,656 ft-lbs. The overturning moment based on the wind load for non-building structures is 8,884 ft-lbs yielding a factor of safety of 2.2. The overturning moment based on the seismic load for non-building structures is 1,844 ft-lbs yielding a factor of safety of 10.6.

Based on our calculations the shipping container sitting directly on the ground in Steamboat Springs, Colorado has no issues with overturning based on wind or seismic loading.

Please let us know if you have any questions regarding this information or if we can be of any further service.

Sincerely,



Benjamin Schutt
President
CO. P.E. #40325

