

Reference - certification of pressure rating

Maurice E Farr
Professional Engineer
395 Kirby Avenue
Roseburg, OR 97470

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TO Whom it may concern:

This bunker roof is designed with reinforced Portland cement concrete to carry the imposed loads of soil overburden, a parked automobile or pickup truck as well as pressure from an apparent aerial explosion.

Structural wide flange steel beams spanning in the transverse direction which are used as false work support until the concrete attains design strength. Plywood 3/4" thick spanning between the lower flanges of the wide flange steel beams will carry the concrete as an integral part of the false work system.

Structural wide flange steel beams act not only as false work while the concrete gains strength but contribute additionally to the total carrying capacity of the roof. This estimated additional carrying capacity is computed to be plus or minus 7 psi.

Design loads for the reinforced Portland cement concrete roof are listed below:

Dead load of reinforced concrete	145 lbs/cuft
3 feet of soil overburden	100 lbs/cuft
Automobile or pickup truck	40 lbs/sqft
Apparent aerial explosion	<u>2,500 lbs/sqft</u>
	2,985 lbs/sqft or 20.7 psi

Maurice E Farr, P.E.

Maurice E Farr, PE

