

## Professional engineer certified calculations

### Cover letter - page 1 of 4

This door engineer certified for 7,200 pounds per square foot (50 pounds per square inch) in the seated condition and 2,088 pounds per square foot (14.5 pounds per square inch) in the unseated condition (rebound response).

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March 30, 2015

To Whom it may concern:

American Safe Room blast doors, double leaf series, ASR-50-DBL-BD with an 80 inch span distance, inside height are certified to withstand a force of 50 PSI in the seated direction and 14.5 PSI in the unseated direction.

Reference drawings:

1. ASR-DD-3: 50 PSI blast load in the seated direction
2. ASR-1.2A: rebound load on cam latch assembly
3. 6033-41: cam latch detail

Drawings were prepared under my direct supervision.

*Maurice E Farr, P.E.*

Maurice E Farr, PE



*Expires 6-15-2016*

## Professional engineer certified calculations

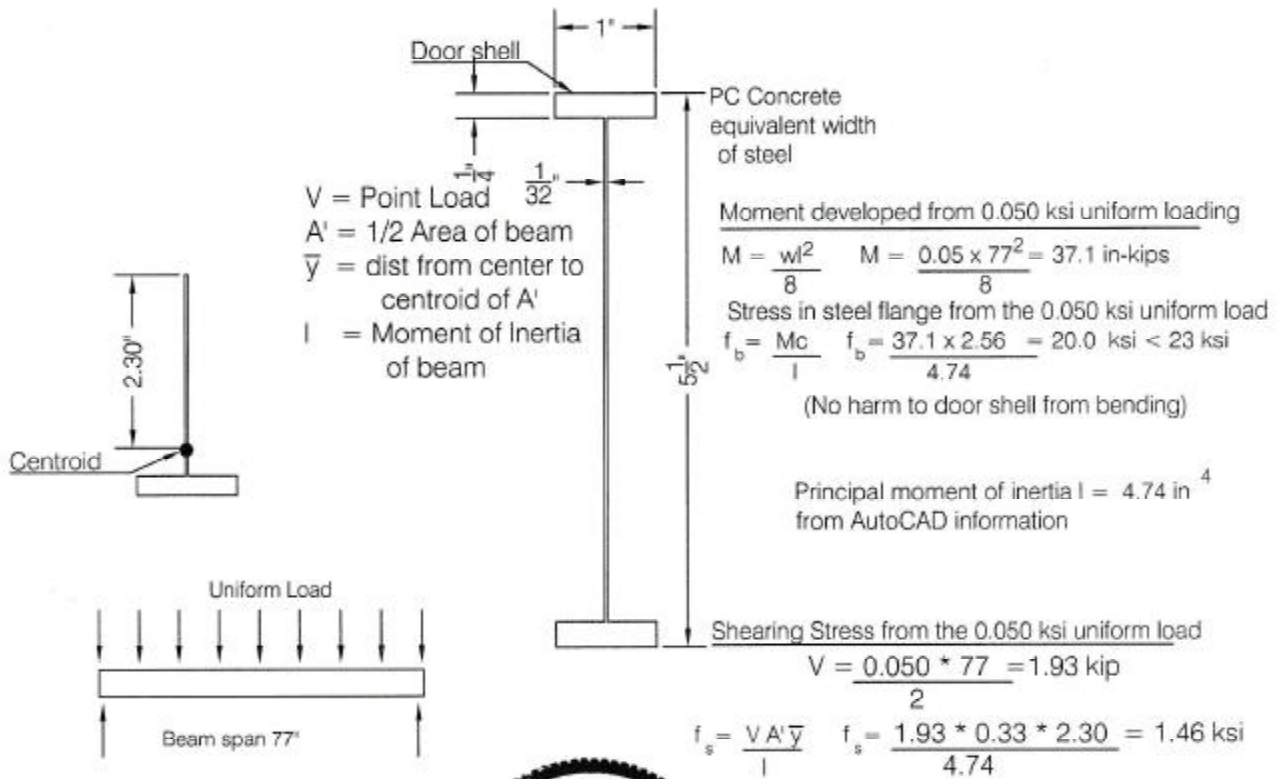
### Blast load calculations - page 2 of 4

The composite door leaf is being considered as a steel beam with 1" flanges and a concrete equivalent width of steel (1/32").

80" Span, 5-1/2" Depth, 1/4" Skin  
 Double Leaf Door

Supported Uniform Load

5" inside, 1/4" thick door shell, 1" width



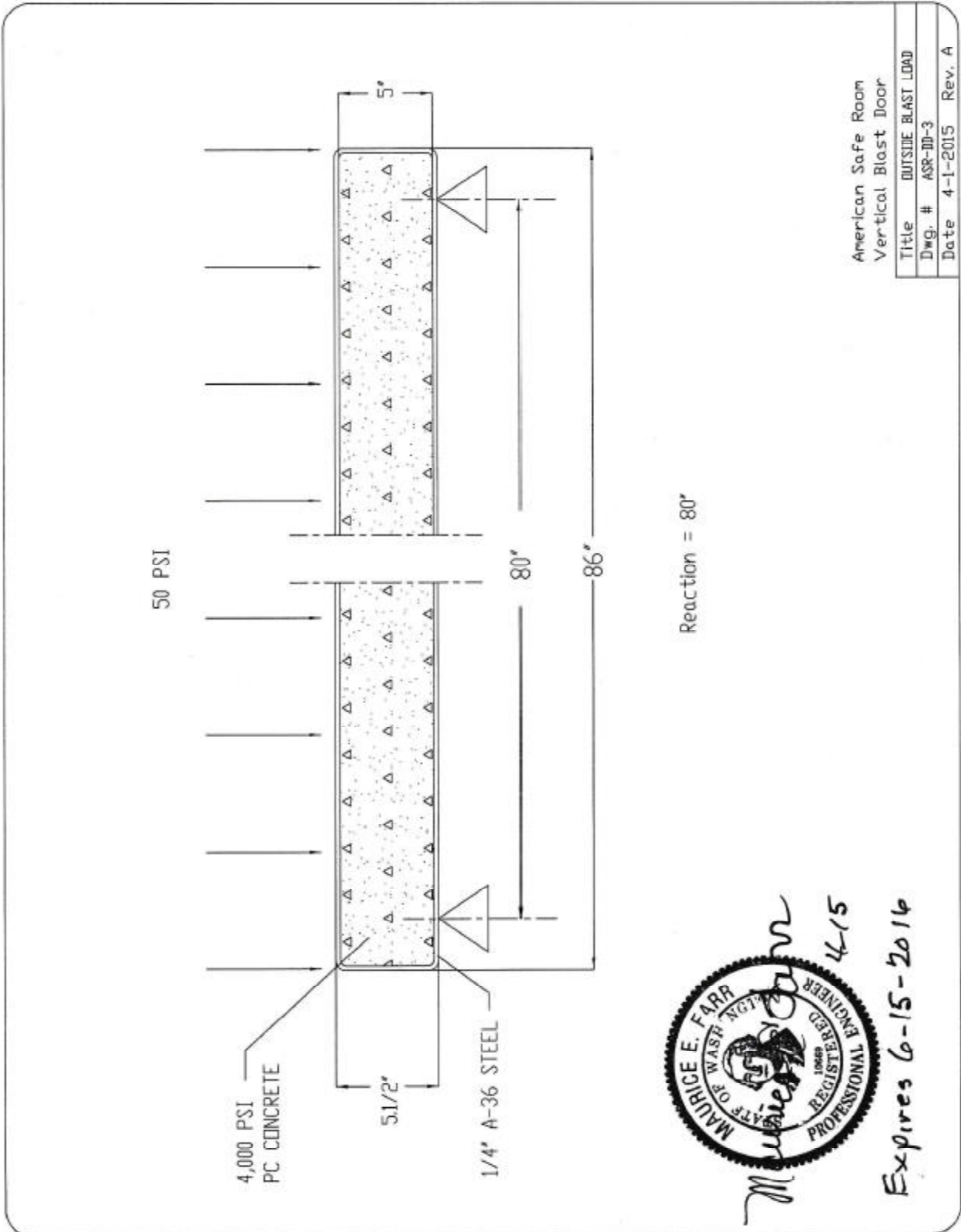
Maurice E Farr, PE

Expires 6-15-2016

# Professional engineer certified calculations

## Door leaf span - page 3 of 4

This certification is for doors with a span distance of up to a 80 inches - top to bottom.



# Professional engineer certified calculations

## Cam latch load rating - page 4 of 4

The cam latches are the first mode of failure in the rebound response.  
 They are rated for 14,816 pounds each.

