is not currently required in the existing building codes for drift determination. As mentioned, drift is not usually considered in residential design. Finally, the above equations may be used to determine a load-drift curve for a perforated shear wall for values of V_d ranging from 0 to $F_{psw,ult}$. While the curve represents the non-linear behavior of a perforated shear wall, it should only be considered as a representation, and not an exact solution.

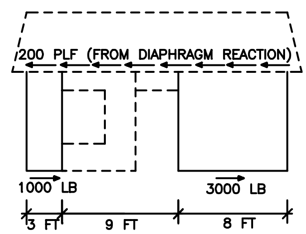
Conclusion

In this example, the determination of the design shear capacity of a perforated shear wall was presented for seismic design and wind design applications. Issues related to connection design for base shear transfer and overturning forces (chord tension) were also discussed and calculations (or conservative assumptions) were made to estimate these forces. In particular, issues related to capacity-based design and "balanced design" of connections were discussed. Finally, a method to determine the load-drift behavior of a perforated shear wall line was presented. The final design may vary based on designer decisions and judgments (as well as local code requirements) related to the considerations and calculations as given in this example.

EXAMPLE 6.3 *Shear Wall Collector Design*

Given

The example shear wall, assumed loading conditions, and dimensions are shown in the figure below.



Find The maximum collector tension force

Solution

1. The collector force diagram is shown below based on the shear wall and loading conditions in the figure above.