Overlapping punching-shear perimeters

What should I do when punching-shear perimeters overlap?

Answer: ACI 318 does not provide clear requirements as to how to deal with overlapping punching-shear perimeters. However, this uncommon case may be modeled within SAFE as follows:

- 1. Model only one column as you would following a hand-calculation approach.
- 2. Use statics to replace the loading within both columns with equivalent loads and moments located at the centroid of the composite section.
- 3. SAFE will then check the punching-shear perimeter of the total composite section. Here, results will align with general practice.



NOTE: Punching-shear overwrites are available such that the perimeter may be manually input according to requirements.

See Also

• Verification examples of punching-shear calculations per various building codes are available within SAFE through Help > Documentation.