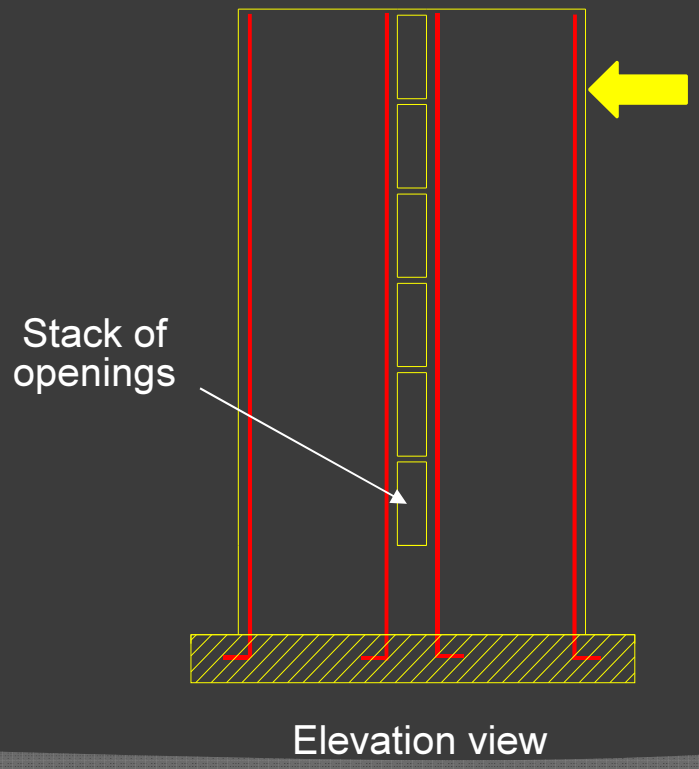
SEISMIC RESPONSE OF STRUCTURAL WALLS WITH REINFORCEMENT & GEOMETRIC DISCONTINUITIES

Investigator:
Santiago Pujol
Ph.D. student:
Enrique Villalobos

BOWEN LABORATORY

PURDUE UNIVERSITY

Test specimens



- Wall C had all longitudinal reinforcement continuous

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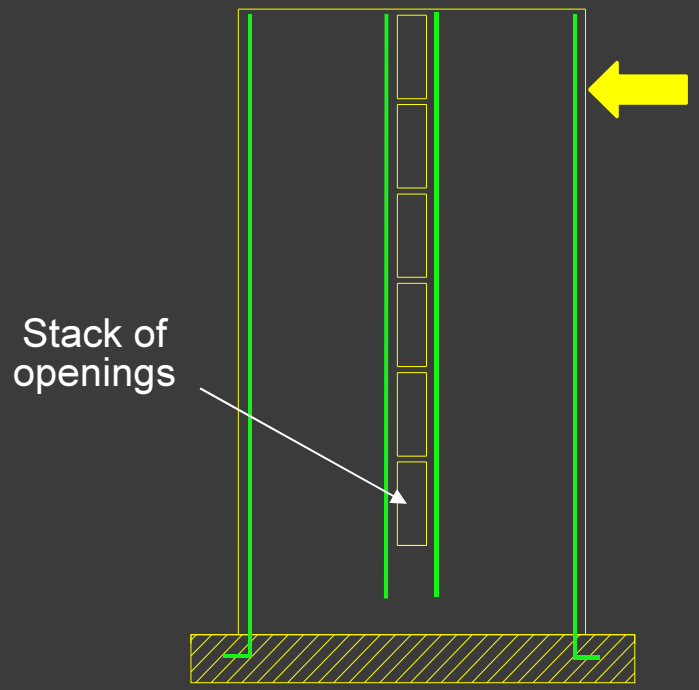
Test specimens



Elevation view

- Wall D had the longitudinal reinforcement flanking the openings anchored in the region meant to represent the first story in a building

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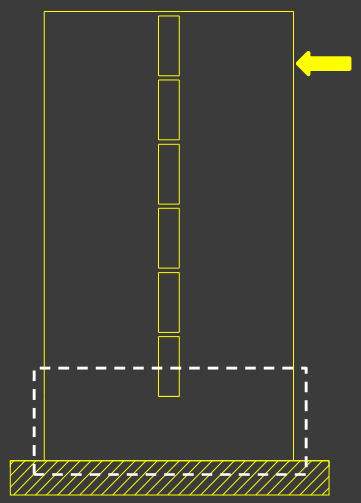
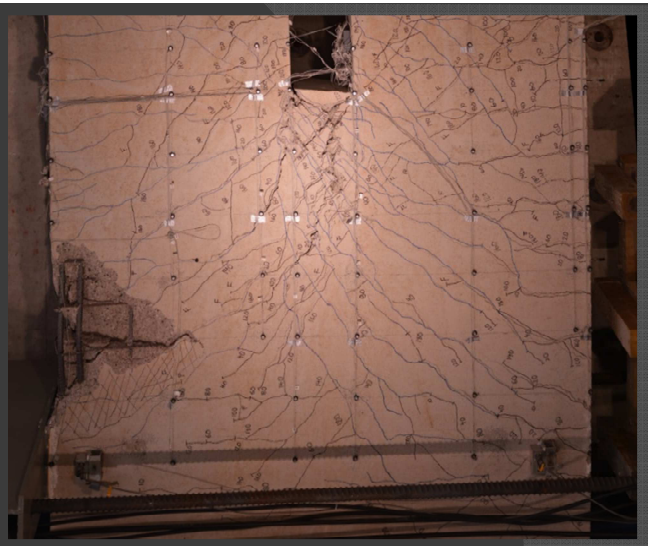
Findings

- Distress caused by shear below the openings shifted the critical section resisting bending moments to the base of the first story.
- In Wall D, this shift caused anchorage failure.

Wall C





Wall D