Who is Responsible for Seismic Design and Installation of Nonstructural Elements?

MCEER Annual Meeting
February 25, 2005

Andrew Taylor, PhD, SE, Associate,
KPFF Consulting Engineers
Non-Structural Elements - In Theory

Structural Engineer

- Provides seismic design parameters: site coefficients, drifts, accelerations
- Limits of attachment to structure
- Reviews submittals, not calculations

Architect

- Coordinates project specifications, including nonstructural requirements

Contractor/Subs

- Facilitates seismic design of nonstructural elements by a PE, per Specifications and IBC
- Submits designs for review
- Installs per Specifications and IBC requirements

Owner

- Inspects finished work for compliance with construction documents
Non-Structural Elements - In Practice

**Structural Engineer**
- Provides seismic design parameters: site coefficients, drifts, accelerations
- No limits of attachment to structure
- Reviews submittals, not calculations

**Architect**
- Incomplete coordination of project specifications

**Contractor/Subs**
- Hires PE for design of only a few nonstructural elements
- Submits standard details for review
- Installs per guidelines (e.g. SMACNA, NFPA). MEP equipment not rated.

**Owner**
- Nonstructural inspection is limited
- Inspection based on experience with standard guidelines