# 6-Step Methodology for Identifying High-Risk Buildings

**Identify buildings to be surveyed**

**Step 1. Planning Stage**
Identify buildings to be surveyed. Buildings with 24/7 or high capacity occupancy (ORS 455.400), hazardous materials, critical operations, and special concerns.

**Rapid Visual Screening** → **Building appears adequate**

Score ≤ 2.5

**Step 2. Rapid Visual Screening (RVS)**
Conduct FEMA 154 screenings to develop preliminary scores (e.g., earthquake performance) and preliminary funding needs.

*FEMA 154 - "Rapid Visual Screening of Buildings for Potential Seismic Records: A Handbook"*

**Prioritize buildings into long term plans** → **Deferred Priority List**

**Step 3. Prioritization**
Prioritize buildings that warrant detailed engineering studies. If building scores ≤ 2.5 AND require additional upgrades, then engineering evaluations are recommended. Prioritization factors involve: seismicity, occupancy load, energy efficiency, deferred maintenance needs, ADA, fire safety, environmental condition, modernization and special circumstances (e.g., historic, shelter, future demolition).

**Engineering evaluation for structural deficiencies** → **Building is adequate**

**Step 4. Engineering Evaluation**
Conduct ASCE 31 engineering evaluations to determine any specific seismic deficiencies and mitigation concepts.

*ASCE 31 - "Seismic Evaluation of Existing Buildings"*

**Benefit Cost Analysis to determine cost effectiveness** → **Lower Priority List**

**Step 5. Benefit Cost Analysis (BCA)**
Conduct BCA to determine cost effectiveness of mitigation. If the benefit cost ratio (BCR) exceeds one, than mitigation is recommended.

**Fix high-risk buildings**

**Step 6. Earthquake Mitigation**
Mitigate high-risk buildings with BCR>1 to improve life-safety, liability and sustainability. Level of upgrades varies. Use FEMA 356 method or other appropriate method.