

52nd Annual ASBA/ASA Conference

Arizona School Facilities Board

Update on Energy Projects and
Funding for Building Safety Regarding Structural Issues
December 10, 2009

2000 Census Response Rates

County	Percent of Residents Responding
Mohave County	60%
Navajo County	43%
Pima County	67%
Pinal County	52%
Santa Cruz County	58%
Yavapai County	62%
Yuma County	55%
National Average	67%

One person = \$800 to \$1200 / year for 10 years or \$12,000
Approximately 5.1 million Arizona residents in 2000
Forecasting approximately 7 million in 2010

Today's Discussion

- ARRA Energy Grant Program
- Statewide Water Intrusion Analysis
- Statewide Structural Analysis

ARRA Energy Grant Program

- Solar Energy Projects
 - Approximately \$5 million in grant funding
 - Solar water heating or photovoltaic systems
 - Awards are for 4KWdc to 30KWdc systems
 - Awarded projects to 22 school districts
 - Rebates will be returned to the fund, additional projects awarded as funding allows
 - ADOA State Procurement Office currently reviewing solicitations for statewide contract

ARRA Energy Grant Program

- Energy Efficiency Projects
 - Application deadline was November 6, 2009
 - Approximately \$13M in grant funding
 - Replace and upgrade lighting, lighting controls, HVAC and HVAC controls
 - Competitive application process
 - 30% of total project cost up to \$1M per district
 - Performance Contracting (may be used for district portion, 70% of project cost)
 - Awards to be made at SFB Board Meeting on January 13, 2010

ARRA Energy Grant Program

- Criteria for project selection
 - Life-cycle payback
 - Energy savings measured by unit (BTU) reductions
 - Energy savings measured by dollar reductions
 - Impact on school utility budget

ARRA Energy Grant Program

- 104 applications received
- 44 districts submitted applications
- \$103,810,266 in total project costs

Statewide Water Intrusion Analysis

- What is water intrusion?
- Effects of water intrusion
- Solutions for avoiding water intrusion

Water Intrusion



Water Intrusion



Water Intrusion



Young Elementary School March 27 2008 Photo 041

Water Intrusion



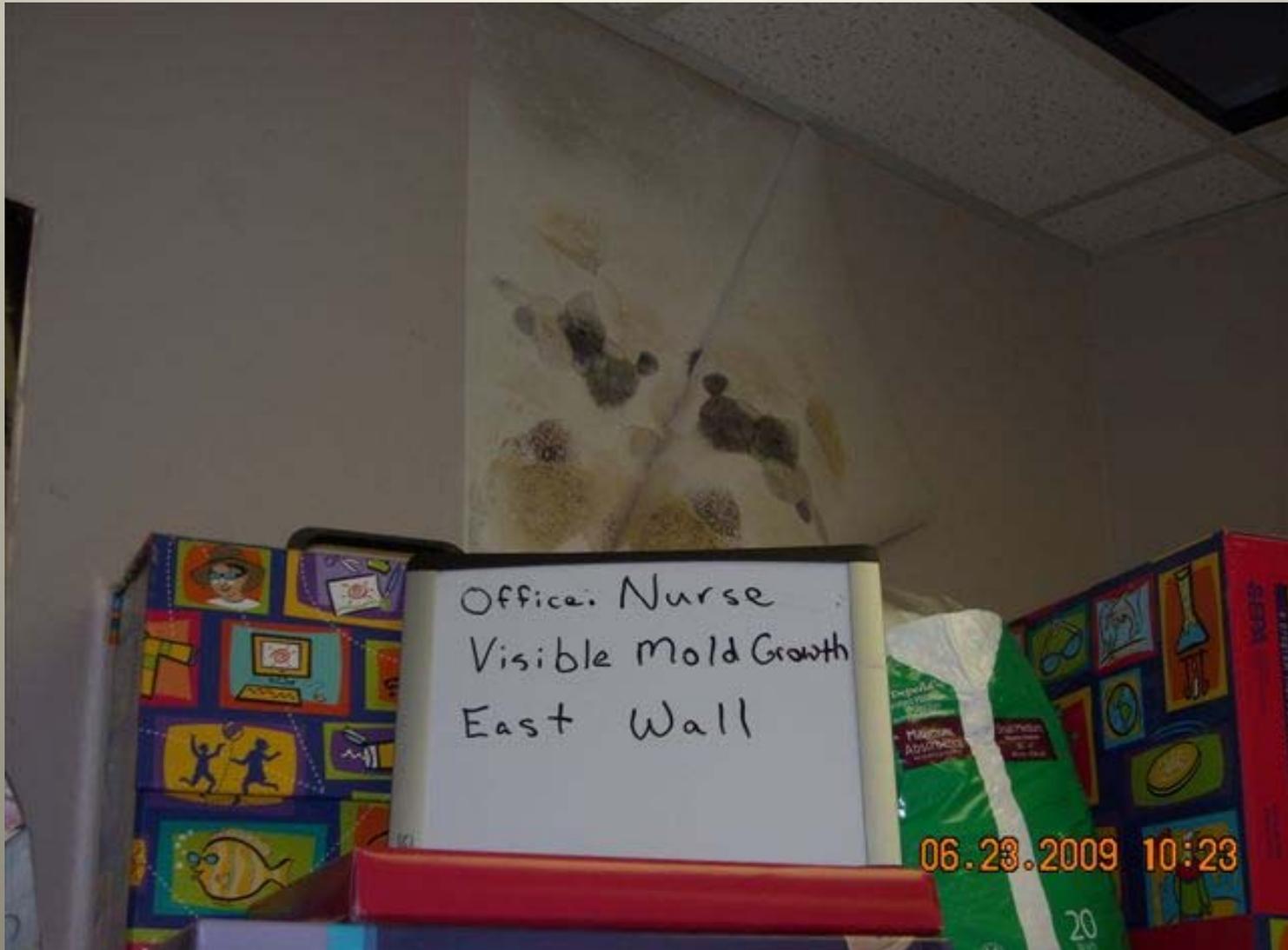
Water Intrusion



Water Intrusion



Effects of Water Intrusion



Effects of Water Intrusion



Effects of Water Intrusion



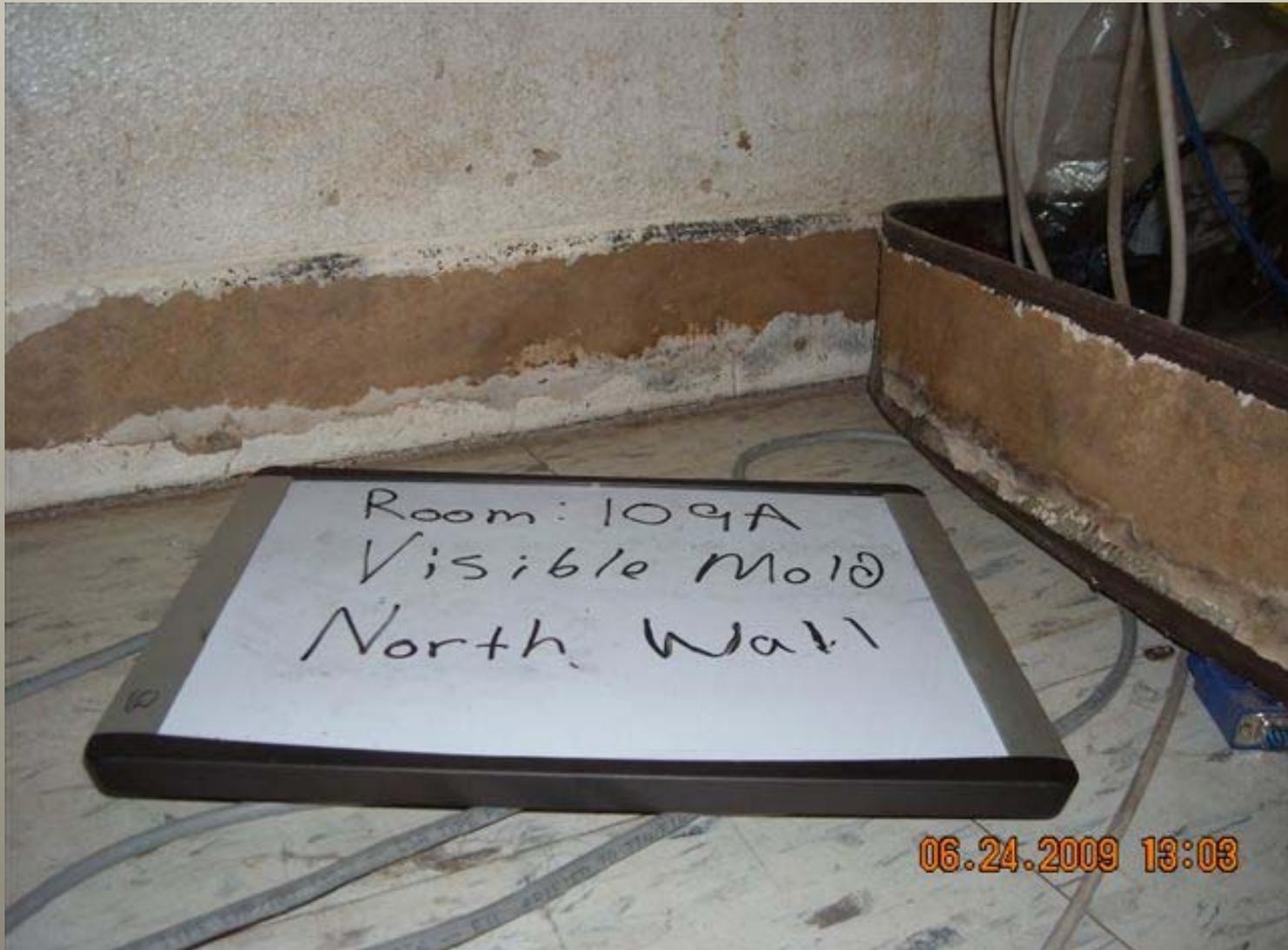
Effects of Water Intrusion



Room: 106
Visible Mold
West Wall

06.24.2009 10:27

Effects of Water Intrusion



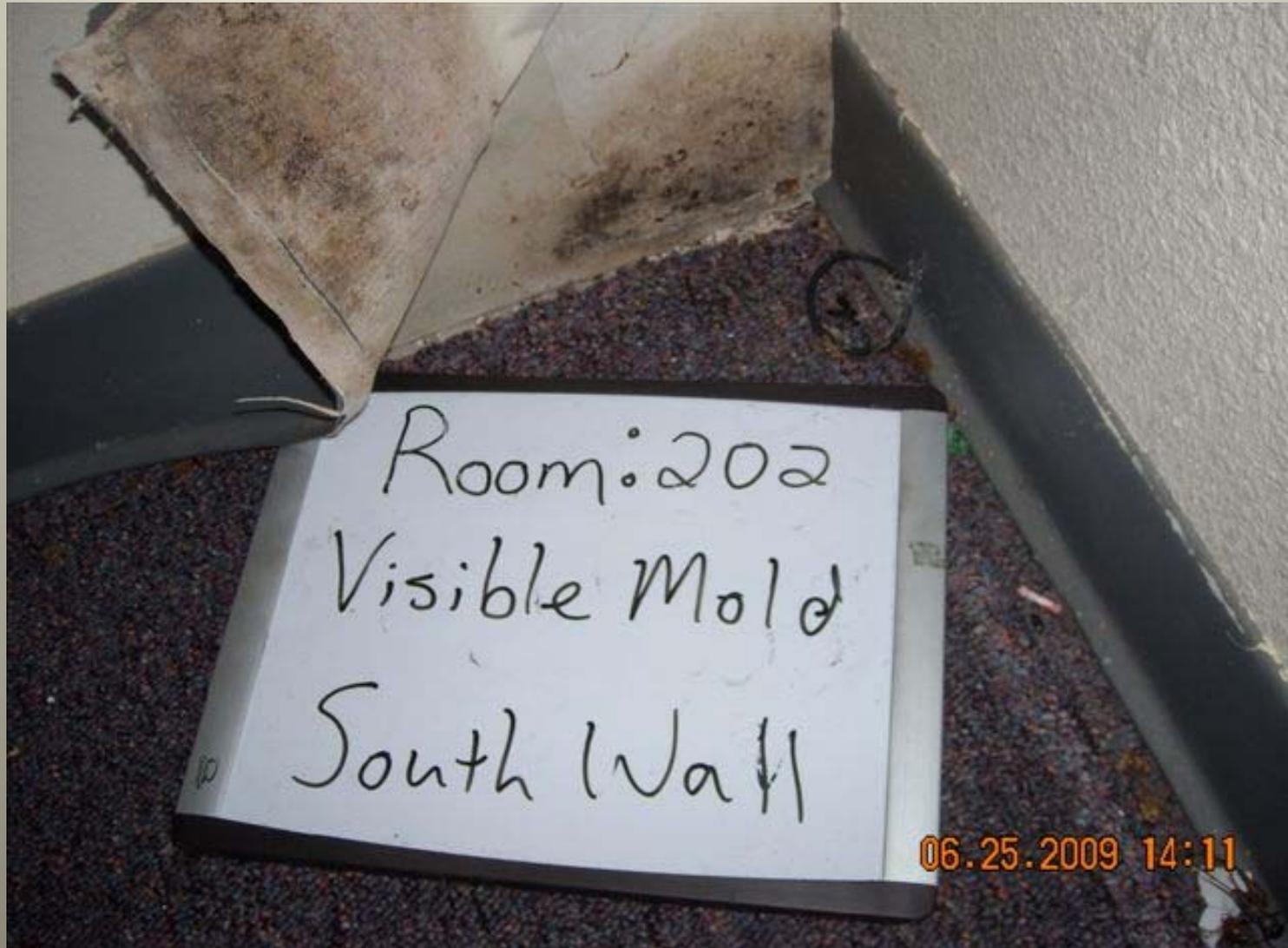
Effects of Water Intrusion



Effects of Water Intrusion



Effects of Water Intrusion



Solutions for Water Intrusion

- Keep water outside, no garden hoses indoors
- Paint and seal exterior walls
 - Rilem Tube type testing
- Seal windows and doors
- Don't pile dirt against exterior walls
- Check roof flashings and penetrations

ROOFING ISSUES???

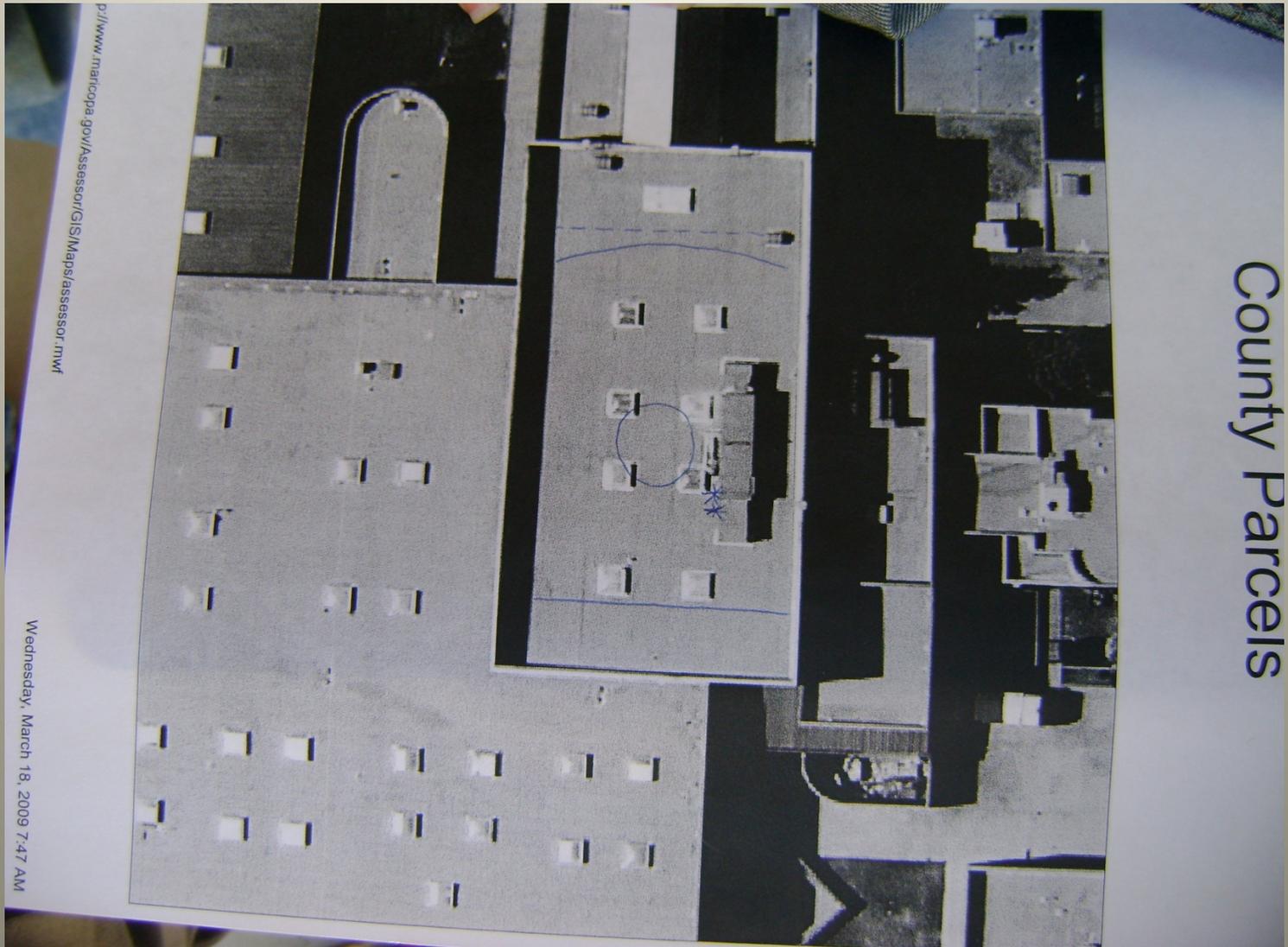
Rilem Tube Testing



Statewide Structural Analysis

- Why do structural analysis?
- SFB Inspections
 - Preventative Maintenance Inspections
 - 5-Year Assessments
- District routine preventative maintenance inspections (quarterly, semi-annually & annually)

Structural Failures (before)



Structural Failures (after)



Structural Failures



Structural Failures



Structural Failures



Structural Failures



Structural Failures



Structural Failures



Structural Failures



Structural Failures



Structural Failures



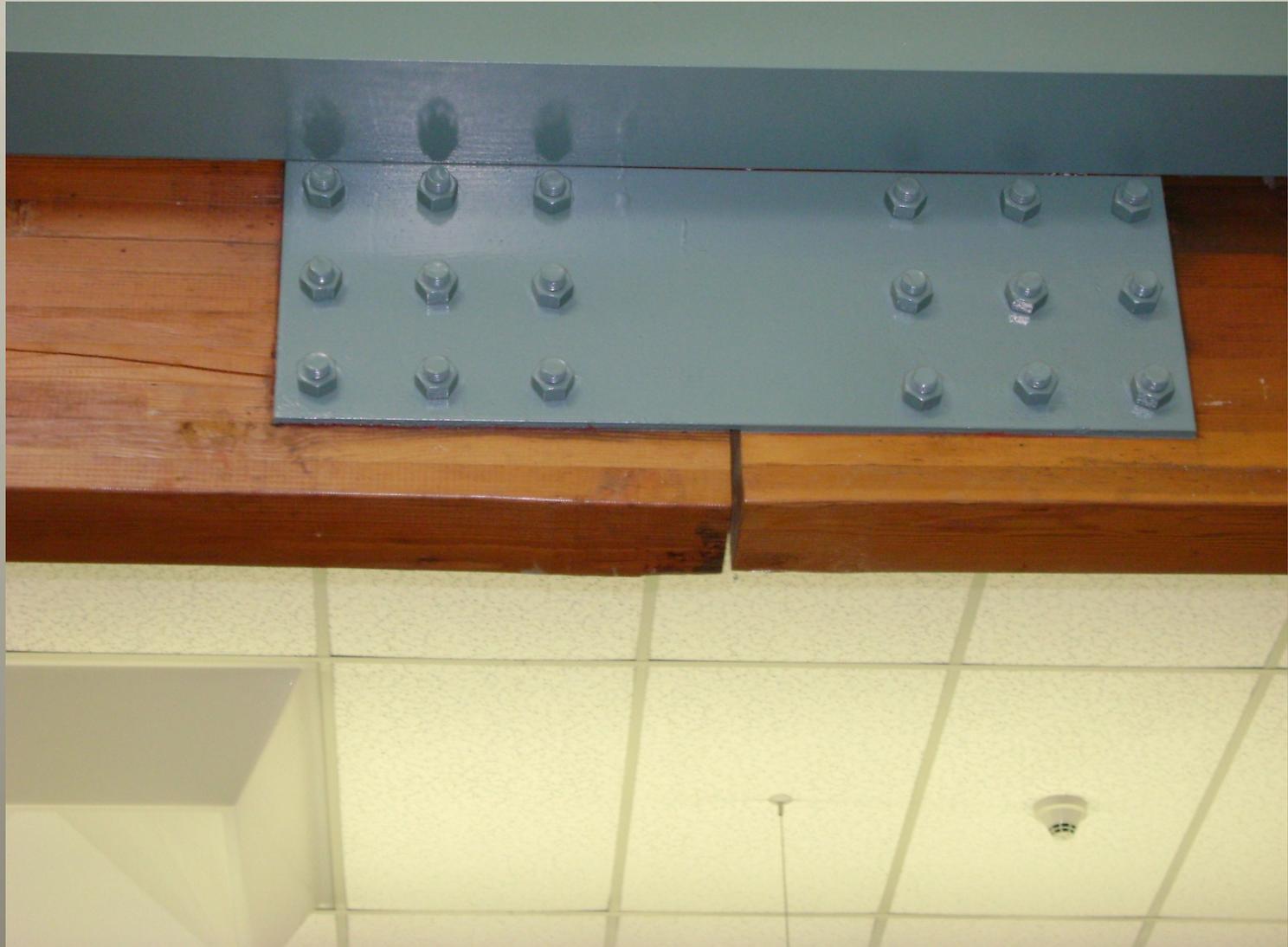
Structural Failures



Structural Failures



Structural Failures



Structural Failures



Structural Repairs



Structural Repairs



Structural Repairs



Structural Repairs



Structural Repairs



Structural Repairs



What to do?

- Call the Trust
- Structural Analysis when adding equipment and re-roofing
- Timely observation
 - Walk the roofs
 - Check for ceiling sags
 - Check for water-stained ceiling tiles

Trust Video Series

- <http://www.the-trust.org>
- Log in
- Under 'Resources & Training'
- Click on 'Streaming Videos'
- 'Intro' video, plus videos for:
 - Flat Roof Inspections
 - Sloped Roof Inspections

QUESTIONS???