Sustainable & Resilient Buildings

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Problems

- Climate Change
- Population Growth
- Water Shortages
- Industrial Impact
Solutions

Mitigation Efforts

Conservation of Resources & Recycling

Research Energy Production & Transportation Alternatives
What is Sustainability and Resilience?

Sustainability Definition: the process of people maintaining change in a balanced environment

Resilience Definition: the ability to recover, withstand, and adapt from a challenge/hazard
Net Zero Buildings

Paisano Green Community – Senior Housing
Resilient Buildings

Mexico Beach, FL

Tokyo, Japan

San Francisco, CA
Mitigation Efforts: Pre-Hazard

Risk Assessment

Seismic

Rupture

Building Response

Downtime & Loss
Mitigation Efforts: Pre-Hazard

Ground Motions & Structural Dynamics
Mitigation Efforts: Pre-Hazard

Building Inventory

Building Features
- Height
- Number of Stories
- Footprint
- Material
City of El Paso & UTEP

Mitigation Efforts: Pre-Hazard
Mitigation Efforts: Post-Hazard

Field & Virtual Assessments

Building Resilience through Reconnaissance

Rehabilitation & Recovery

Prevention & Mitigation
How can you improve our community?

Think Green
Think Quality of Life
Transportation
Safety
Wildlife Conservation
Infrastructure
Innovation
Thank You

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