FRI-CO1
Resiliency in University Planning: Risks and Opportunities

How prepared are university campuses to resist and recover — in a timely, economical, and efficient way — from disasters, climate change, and natural hazards? This charrette is led by a university representative and noted professionals in planning, ecological engineering, and earthquake engineering to deliver a roadmap to resilience for facilities planning.

Learning Objectives:

- Discover strategies for engaging the campus leadership in resiliency planning;
- Acquire tools to conduct resiliency planning on your campus, providing the tools for attendees to become "resilience ambassadors";
- Determine and identify opportunities to integrate resiliency planning into ongoing physical, financial and capital planning cycles;
- Learn the best questions to engage your colleagues in discussions regarding the campus’ ability to withstand a natural hazard or disaster.
Agenda

Context
Chris Smith, President, EQC Global

Why Integrate Resilience in Campus Planning?
Beth Foster, Associate Principal, Page

San Francisco Bay Area Campus Examples
Jason Loiselle, Senior Associate, Sherwood Design Engineers

The Ohio State University Case Study
Brett Garrett, Technical Services Director and Special Assistant to the Associate Vice President, The Ohio State University

Scenario Exercise

Conclusions

RESILIENCE ROADMAP

ASSESS
Set / Vet Campus Goals & Objectives
Create Baseline

DISCOVERY
Stakeholder Engagement
Goals & Principles
Space Needs Assessment
Data Collection & Analysis

PREPARE
Build Probability Scenarios
Prioritize Risk Factors
Scenario Planning
Risk Analysis

EXPLORATION
Options for Near-Term & Long-Term Development

RESPOND
Risk Management Plans
Phasing & Implementation

SYNTHESIS
Integrated Master Plan Design Guidelines
Phasing & Implementation Capital Planning

Integrating Resilience Into Your Campus Plan
Notes:

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Planning Exercise

The Ohio State University Resilience Planning Flood Scenario

**Toolkit Questions**

**Assess / Discovery**

Do you know the top 5 natural hazard resilience related issues for your site?

Do you know the potential impacts (number and type of buildings or sites, daily cost of unusable space, ingress/egress, insurance exposure, personnel, community, etc.)?

**Prepare / Exploration**

Do you need to survey and study potentially affected buildings or landscapes?

Do you have a short-term (draft response plan, material/equipment on hand) and long-term plan (permanent fix) in case a disaster were to occur?

Have you effectively conveyed the risks to stakeholders and decision makers?

**Respond / Synthesis**

Is there a comprehensive team considering resilience planning for the campus (academic affairs, finance, facilities, planning, risk management, etc.)?

Do you have leadership support and funding?
Christopher Smith | President
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Chris Smith is President of EQC Global and has considerable experience overseeing projects focused on seismic resiliency and seismic improvement. As an advisor to international and domestic governments as well as non-governmental organizations, Chris has contributed to reducing their vulnerability from natural disasters and has provided guidance in attracting mitigation funding. Using his distinctive expertise in earthquake response, recovery and disaster mitigation, he has expedited damage assessments and emergency response plans in California, Turkey, Romania and Haiti.

Beth Foster, AICP, LEED AP | Associate Principal
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Beth is an Associate Principal and senior planner with Page and has extensive experience in leading campus and community master planning projects. Her experience also includes cultural landscape planning for the National Park Service and planning and landscape architecture projects for municipal clients. She is skilled in project development, management, and facilitation and is gifted at engaging campus administrators, faculty, staff, students, and community stakeholders in the master planning process. Beth is a frequent speaker at conferences including the Society for College and University Planning where she has addressed integrating sustainability in the master planning process and working with neighborhood associations.

Jason Loiselle, LEED AP | Partner
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Jason is a professional engineer and partner at Sherwood Design Engineers. He leads the NYC Office on multiple projects including Hudson Yards, Brooklyn Bridge Park, Croton Water Treatment Plant and Battery Park Play Space. His passion and expertise lie in water systems: from flood management, to sea level rise, and water reuse. He lectures at the Columbia University Urban Design Lab on infrastructure, resiliency and public space. Prior to joining Sherwood he worked for Sasaki Associates and managed the site infrastructure components of projects at UMASS Amherst; Trinity College; Harvard University; University of Michigan; Auburn University; University of Mississippi and Sacred Heart University.

Brett Garrett | Director of Technical Services
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Brett Garrett, P.E. is the Director of Technical Services in the Facilities Design and Construction Department at The Ohio State University. He also acts as the Special Assistant to Lynn Readey, Associate Vice President. Brett graduated in 1995 from The University of Toledo with a BS in Civil Engineering. He is a professional engineer and has worked 7 ½ years in the private sector and 12 ½ years at OSU. He has worked in various areas of Facilities Operations and Development, Facilities Design and Construction and the Development Administration Office.
Earthquake Damage at the University of Southern Mississippi

Flooding at the University of Iowa

Resources

http://secondnature.org/programs/resilience/resources

http://www.ctgreenschools.org/Resilience.htm