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Practice, Education and Research
for Sustainable Infrastructure

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Modeling of land use and
transportation

INFRASTRUCTURE



- Supports and shelters all human activities
 - **Buildings** of all types
 - **Transportation** of all modes
 - **Energy** generation and distribution
 - **Water** supply and **waste** treatment
 - **Communications**
- One-eighth of GDP
- Two-thirds of renewable wealth

SUSTAINABLE DEVELOPMENT

The **challenge of meeting human needs** for natural resources, industrial products, energy, food, transportation, shelter, and waste management **while conserving and protecting** external and internal environmental quality and the natural, economic and social **resources essential for future development.**

SCOPE



- All types of constructed facilities
- Whole life cycle of facilities
- All key private sector organizations
- All concerned public agencies
- Include resilience in sustainability
- **Practice**, Education and Research

VISION AND MISSION FOR PERSI

- **Vision:** Sustainable infrastructure supports a high and sustainable quality of life for all people in a changing world.
- **Mission:** To advance and incorporate concepts and knowledge for sustainability into the standards and practices used throughout the life cycle of infrastructure systems. PERSI will not itself produce standards and practices, but will help its member organizations address sustainability consistently in their practices and standards.

PERSI PARTICIPANTS

- American Institute of Architects
- American Institute of Chemical Engineers
- American Planning Association
- American Society of Civil Engineers
- American Society of Interior Designers
- American Society of Landscape Architects
- American Society of Mechanical Engineers
- American Society of Heating, Refrigerating and Air Conditioning Engineers
- ASTM International

PERSI PARTICIPANTS

- American Water Works Association
- Autodesk
- Congress for the New Urbanism
- Construction Specifications Institute
- Institute of Electrical and Electronics Engineers
- National Institute of Building Sciences
- National Institute of Standards and Technology
- U.S. Green Building Council

ULTIMATE OBJECTIVES FOR PERSI

- Provide practices needed for sustainable development and renewal of America's infrastructure.
- Embed sustainability provisions in practices regularly used.
- Incorporate sustainability principles in educational programs.
- Establish an enduring program of research.
- Engage the U.S. in international efforts for sustainability.

IMMEDIATE OBJECTIVES FOR PERSI

Assessment and Agendas

- Best current practices
- Agenda for improvements in practices
- Educational programs for implementation
- Agenda for research

RESULTS TO DATE

- Proposed Plan for Assessment of Knowledge and Practices for Sustainable Infrastructure. Not yet funded.
- Draft National Assessment Protocol available at www.persi.us
- Studies on Geomatics available at www.persi.us
- Planning Infrastructure to Sustain America available at www.persi.us