

Updated report examines parking structure live loads in era of electric vehicles

The Charles Pankow Foundation has released an updated final report for research grant agreement 5-24, *Safe and Sustainable Parking Garage Live Loads in the Age of the Electric Vehicle*, now available for download.

The study evaluated whether the growing adoption of electric vehicles, which can weigh more than conventional vehicles due to their battery systems, warrants changes to prescribed parking structure design live load in the American Society of Civil Engineers' ASCE 7, *Minimum Design Loads and Associated Criteria for Buildings and Other Structures*. Using a stochastic live-load method based on current U.S. vehicle fleet data, researchers assessed present and projected loading scenarios, including the clustering of electric vehicle charging stations.

Results show that in nearly all modeled scenarios, equivalent uniform design loads remain at or below the current 40 lb/ft² (1.92 kPa) value specified in ASCE 7. In the limited cases where calculated loads exceeded 40 lb/ft², the report notes that load factors in structural design combinations provide additional safety margin. Simulation of column forces across multiple levels also supports a 10% reduction in live load for columns supporting stacked parking structure levels.

The research was led by Ross B. Corotis, principal investigator, of the University of Colorado Boulder, with co-investigator Sanjay Arwade of the University of Massachusetts in Amherst.

Industry champions included Emily Guglielmo of Martin/Martin; Cole Graveen of Rath, Rath & Johnson; and Erik Madsen of DCI + Madsen. Pankow Foundation allies included ASCE 7-28 Dead and Live Load Subcommittee of ASCE/Structural Engineering Institute (SEI), the Structural Engineers Association of New York, and the New York City Department of Buildings. Supporters included PCI, Simpson Gumpertz & Heger, HGA Architects, Desimone Engineering, National Council of Structural Engineers Associations, Rimkus, Walter P Moore, Martin/Martin, DCI Engineering, and the Parking Consultants Council.

The updated report is available for download at https://www.pankowfoundation.org/site/assets/files/2499/rga_5-24_garage_ll_report_final-1.pdf.

—Source: Pankow Foundation

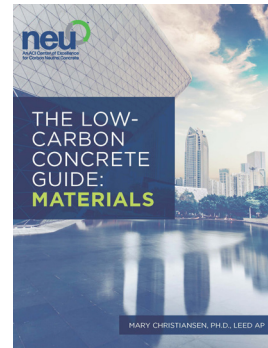
NEU releases low-carbon concrete materials guide

NEU: An ACI Center of Excellence for Carbon Neutral Concrete has released *The Low-Carbon Concrete Guide: Materials*, a new publication authored by Mary Christiansen.

This guide presents data-driven strategies for reducing the carbon footprint of concrete, with an emphasis on the material and mixture decisions made at the project level. It addresses life-cycle considerations, carbon quantification tools, and binder-level strategies, including supplementary cementitious materials, mineral fillers, blended cements, low-carbon portland cements, and alternative cements. It also introduces aggregate, reinforcement, and water-level pathways, along with supporting concepts such as mixture optimization and durability, as well as advanced concrete technologies to illustrate how material choices interact with long-term performance.

The guide is available from the ACI store.

—Source: NEU



ACI and GLOBE sign MOU to advance sustainable construction

The American Concrete Institute (ACI) and the Global Consensus on Sustainability in the Built Environment (GLOBE) have signed a memorandum of understanding (MOU) to promote collaboration aimed at improving sustainable concrete construction worldwide.

Under the agreement, the organizations will share technical expertise through publications, meetings, conferences, committee participation, and related initiatives. ACI and GLOBE say that the partnership encourages industry stakeholders to exchange knowledge and support changes in current practices to reduce greenhouse gas emissions and advance sustainable construction.

—Source: ACI

INDUSTRY CALENDAR

Event details are subject to change.

CONEXPO-CON/AGG 2026

Las Vegas, Nev.

March 3-7, 2026

ACI Concrete Convention

Hyatt Regency O'Hare, Rosemont, Ill.

March 29-April 2, 2026

AASHTO Spring Meeting

Savannah, Ga.

April 12-15, 2026

National Concrete Bridge Council Concepts for Extending Spans Seminar

Austin, Tex.

April 23-24, 2026

2026 IEEE-IAS/ACA Cement Conference

Ft. Lauderdale, Fla.

April 26-30, 2026

ASCE Structures Congress 2026

Boston, Mass.

April 29-May 1, 2026

2026 PTI Convention

Long Beach, Calif.

May 4-7, 2026

fib Congress 2026

Lisbon, Portugal

June 15-18, 2026

2026 Federal Design-Build Symposium

Hyatt Regency Reston, Reston, Va.

August 11-12, 2026

PTI 2026 Committee Days

Cancun, Mexico

September 29-October 2, 2026

ACI Concrete Convention

Hilton Atlanta, Atlanta, Ga.

October 11-15, 2026

Greenbuild

New York, N.Y.

October 20-23, 2026

2026 Design-Build Conference & Expo

Cleveland, Ohio

November 4-6, 2026

38th Annual ASBI Convention

Grand Hyatt Riverwalk, San Antonio, Tex.

November 8-12, 2026

AASHTO Annual Meeting

Louisville, Ky.

November 15-18, 2026

2027 TRB Annual Meeting

Walter E. Washington Convention Center and Marriott Marquis, Washington, D.C.

January 10-14, 2027

World of Concrete

Las Vegas, Nev.

January 18-21, 2027

ASCE2027

Philadelphia, Pa.

March 1-5, 2027

ACI Concrete Convention

Caesars Palace Las Vegas, Las Vegas, Nev.

March 21-24, 2027

PTI Convention

Lake Buena Vista, Fla.

May 3-6, 2027

fib Symposium 2027

Dresden, Germany

June 7-9, 2027