ACI’s Role in Sustainable Development

Nothing is really ever new. Take the current sustainable development movement. An ancient American Indian proverb states, “Treat the earth well: We do not inherit the earth from our ancestors, we borrow it from our children.” This is pretty much our present day definition of sustainable development as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs.”

Today, the focus is on carbon dioxide and the potential for global warming. But sustainable development is more than just reducing the carbon footprint of concrete and cement. Sustainable development includes the social, economic, and environmental aspects of how we use our resources.

ACI has been involved in sustainability efforts since 2000 when the Task Group on Sustainable Development was formed and ACI became an early member of the U.S. Green Building Council. ACI now has both a Board-level advisory committee and a technical committee on sustainability. And ACI will be hosting a workshop prior to our Fall 2008 Convention in St. Louis, MO, at the request of the Chair of ISO/TC 71 Subcommittee 8, Environmental Management for Concrete and Concrete Structures, to further explore the issues relating to concrete, sustainability, and standardization.

Engineers tend to gravitate toward the technical aspects of concrete, and we look at sustainability as a social impact, but not necessarily science. We understand the numerous social, environmental, and economic benefits of concrete. We know concrete is readily available; regionally produced; versatile; cost effective with a low ecological cost; and, when designed and constructed properly, extremely durable and long lasting. So we’re disappointed when others constantly challenge concrete’s carbon footprint and the intense energy needs to produce cement. Every material has its benefits and detriments.

We must be involved in advising owners, architects, developers of rating systems, and legislators on sound practices of sustainable development using concrete. And the industry must also be proactive in mitigating the environmental shortcomings of concrete. ACI’s efforts will be centered on doing what we do best—providing sound and credible technical information on concrete and how it can be used to create a sustainable built environment.

The ACI Board of Direction approved ACI’s new strategic plan this past spring in Los Angeles, CA. For the first time, our strategic plan includes sustainability as one of its primary goals. The second of five goals states, “ACI will lead efforts that position concrete as sustainable and environmentally friendly.” The plan calls for expanding understanding of the sustainability issue among membership, expanding resources to support sustainability issues, increasing the content on sustainability in ACI documents and products, and improving the perception of concrete relative to sustainability.

ACI’s commitment to leadership was put into practical terms at this summer’s Executive Committee meeting held at ACI headquarters in Farmington Hills, MI. As President, I will be challenging the Institute and several of its Board committees to develop a plan of action to begin the immediate implementation of Goal #2 of our strategic plan. Vice President Florian Barth indicated that ACI’s role in concrete and sustainable development will be the hallmark of his presidency in 2009-2010. Vice President Richard Stehly currently chairs ACI’s Board Advisory Committee on Sustainable Development and is the Chair of new ACI Committee 130, Sustainability of Concrete. And during 2007-2008, ACI Past President David Darwin participated in industry efforts to develop a vision/road map for the North American concrete industry and sustainability.

We must strive to use concrete in the most sustainable manner, utilizing best practices by the designer and contractor; educating decision makers including architects, engineers, and owners; and reducing the carbon footprint of concrete. ACI’s role in this effort will be to: 1) identify issues, problems, and opportunities; 2) involve ACI members and the concrete industry in the development of technical information; and 3) inform ACI members, the construction industry, and the public of concrete’s benefits.

Construction with concrete is essential to developing a sustainable built environment. We need to ensure concrete is used properly and that we improve its carbon footprint along the way.

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