

Landscape Performance Series Case Studies

Recipient: Landscape Architecture Foundation

Grant: \$75,000 PI: David R. Smith

Completion: 2018

Project Summary: 13



icpi

Foundation for
Education and Research

Background and Need

The Landscape Architecture Foundation maintains a website with tools and models that assist practicing landscape architects in measuring economic, environmental and social performance of landscape systems. In addition, the LA Foundation maintains a growing stable of project case studies demonstrating how landscape performance is measured.

Objectives

Segmental concrete paving is a well-used landscape system as evidenced by its presence in many case studies on the Landscape Performance Series website. The first grant objective included curation (collection and commentary) by ICPI of ten case studies on performance of projects using ICP and PICP. This was completed in 2017 and joined other curated collections.

The screenshot shows the website interface for the Landscape Performance Series. At the top left is the logo 'LANDSCAPE PERFORMANCE SERIES by the Landscape Architecture Foundation'. To the right are navigation links: 'Case Study Briefs', 'Fast Fact Library', 'Benefits Toolkit', and 'Collections'. Below 'Collections' is a link: 'Browse and Search hundreds of Landscape Performance Series Resources >'. On the far right is a search icon and a list of links: 'About Landscape Performance', 'Blog', 'Training', 'Guide to Evaluate Performance', 'Resources for Educators', and 'Contact'. The main content area features a large heading 'Segmental Concrete Pavement for Multiple Benefits' with a photo of David R. Smith. Below the photo is a caption: 'Curated by David R. Smith'. A paragraph of text follows: 'David R. Smith is the Technical Director of the Interlocking Concrete Pavement Institute (ICPI), a trade association for the segmental paving industry, which includes concrete pavers, permeable pavers, and paving slabs. While paved areas play an essential role in transportation, they often have low or even damaging environmental and social performance. Here, David highlights exemplary projects where segmental concrete pavement is part of a human landscape system that provides environmental, social and economic benefits. When appropriately designed, constructed and maintained, segmental paving'. To the right of the main content is a sidebar with the heading 'RELATED CONTENT FROM THE LANDSCAPE PERFORMANCE SERIES'. It contains two sections: 'CASE STUDY BRIEFS' with a link for 'Phoenix Civic Space Park Phoenix, Arizona' and 'FAST FACT LIBRARY' with a link for 'Using cool roofs, urban shade trees, and high-albedo pavements to mitigate urban heat islands, can potentially reduce U.S. energy use for...'. At the bottom of the sidebar is a link for 'BENEFITS TOOLKIT'.

The second objective was development, presentation, and housing of a one-hour February 27, 2018 [webinar](#) on the LA Foundation website. Developed by the ICPI Foundation, the training presentation covers how to measure the performance of segmental concrete paving. The webinar uses The Sustainable SITES® Initiative evaluation system to measure economic, environmental and social performance of the family of segmental concrete paving systems. The family evaluated includes:

- Interlocking concrete pavement;

- Permeable interlocking concrete pavement;
- Segmental concrete paving slabs;
- Planks (linear paving units); and
- Concrete grid pavements.



Outcomes

The 47-slide presentation (title slide shown above) uses various projects in the U.S. and Canada to demonstrate how segmental concrete paving measurably enhanced landscape performance.

Learning objectives include:

- Understand the economic inputs & outputs for life-cycle cost analysis for pavements
- Use analysis tools & performance criteria from SITES® v2 to evaluate environmental & social performance of segmental concrete pavements
- Underscore the growing importance of life cycle analysis of environmental impacts from pavements
- Review assembly options for segmental concrete pavement

The last bullet consists of slides that summarize assembly selection and vehicular performance limits to assist in successful applications for each type of system. The presentation earns one credit hour of professional development from the Continuing Education System managed by the American Society of Landscape Architects.