

# Landscape Performance Series Case Studies

Recipient: Landscape Architecture Foundation

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

Completion: 2018

Fact Sheet 13



## 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.

A screenshot of the Landscape Performance Series website. The top left features the 'LANDSCAPE PERFORMANCE SERIES' logo in large green letters, with 'by the Landscape Architecture Foundation' in smaller text below it. To the right of the logo are four menu items: 'Case Study Briefs', 'Fast Fact Library', 'Benefits Toolkit', and 'Collections'. Below 'Collections' is a link that says 'Browse and Search hundreds of Landscape Performance Series Resources &gt;'. On the far right of the top navigation bar is a search icon. The main content area is divided into two columns. The left column has a large heading 'Segmental Concrete Pavement for Multiple Benefits' and a portrait of David R. Smith. Below the portrait is a caption: 'Curated by David R. Smith'. At the bottom of the left column is a paragraph of text describing David R. Smith's role and the benefits of segmental concrete paving. The right column has a heading 'RELATED CONTENT FROM THE LANDSCAPE PERFORMANCE SERIES' and lists 'CASE STUDY BRIEFS' with a link to 'Phoenix Civic Space Park Phoenix, Arizona'. Below that is 'FAST FACT LIBRARY' with a link to '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 right column is '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.