Environmental Sustainability in Transportation

- Practical Tools for Project Decisions
- Applying the Eco-Logical Framework
- Roadside Vegetation: Green Infrastructure
- Orchestrating Soundscapes
- Airspace System Initiatives
- Plus Quieter Pavements, Recycled Materials—and More
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ENVIRONMENTAL SUSTAINABILITY IN TRANSPORTATION

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Robert M. O’Loughlin
Transportation agencies have refined their organizational goals to foster sustainable strategies and approaches to problems from the perspective of the “triple bottom line”—environment, economy, and social equity.

4 Evaluating Sustainable Development: A Quality-of-Life Focus for Transportation Decision Making
Adjo A. Amekudzi
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14 Integrating Vegetation and Green Infrastructure into Sustainable Transportation Planning
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22 Eco-Logical in Practice: Implementing an Ecosystem-Based Approach, Streamlining Environmental Processes for Transportation Projects
Julianne Schwarzer and Haley Peckett
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Kenneth D. Polcak and Nicholas P. Miller
To pursue desirable soundscapes as part of the transportation planning process, policy makers, engineers, and design professionals will need to understand subjective judgments about the sonic environment, the authors note. Soundscape considerations are likely to alter the analysis and design processes, particularly in relation to noise barriers, quieter pavement, and source reduction.

COVER: Parks and other natural settings grapple with transportation noise mitigation. Government agencies and state departments of transportation deploy sustainability initiatives suited to specific community and environmental needs. (Photo: Volpe Center)
features articles on innovative and timely research and development activities in all modes of transportation. Brief news items of interest to the transportation community are also included, along with profiles of transportation professionals, meeting announcements, summaries of new publications, and news of Transportation Research Board activities.

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Precast integral abutments produced for the Vermont Agency of Transportation (VTrans), which piloted the SHRP 2 accelerated bridge construction (ABC) toolkit. VTrans faced many emergency bridge replacement projects after tropical storm Irene in August 2011; these abutments were for the agency’s first ABC project, Hancock Bridge on Route 125, constructed in May and June 2013.