

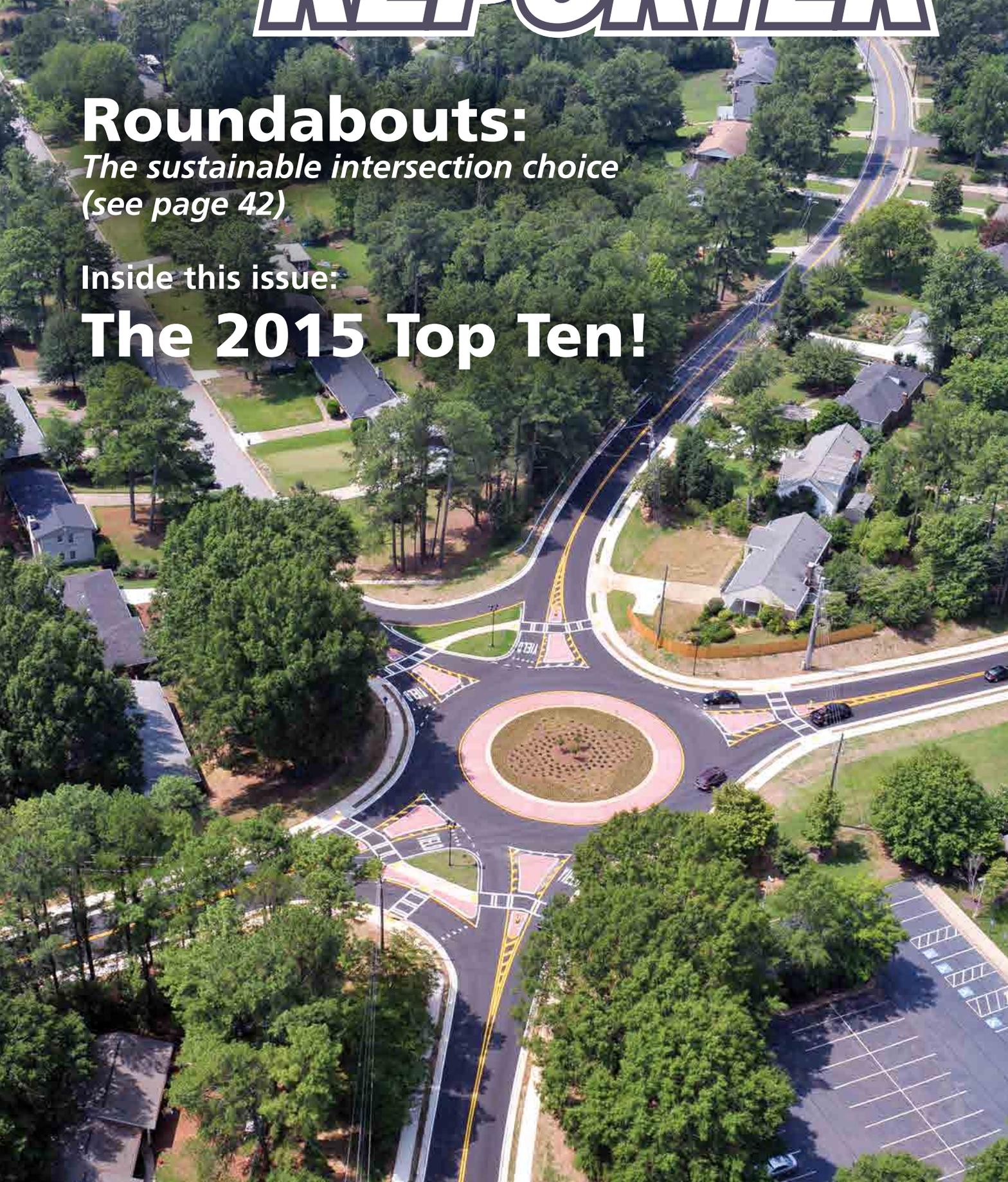
# APWA REPORTER

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*The sustainable intersection choice  
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## The 2015 Top Ten!



# How adopting the Envision® rating system toolset can result in positive returns

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Every APWA member should be aware of APWA's role as co-founder of the infrastructure rating system, Envision, which helps public agencies in guiding and developing civil infrastructure projects to meet environmental and financial sustainability goals. APWA is a co-founder, along with the American Society of Civil Engineers (ASCE) and the American Council of Engineering Companies (ACEC), of the Institute for Sustainable Infrastructure (ISI), whose purpose is to promote and maintain the rating system. But, how much do you know about the Envision toolset? Did you know there are various tools online, at no charge to download and use?

This article focuses on the benefits of the Envision tools available at no charge. These tools require little to no special training to use, will improve your understanding of the environmental performance of your projects, and can increase the efficiency and resilience of your efforts in resource use and preparation for the future.

With just a small amount of time adopting the ISI's Envision toolset, your organization can see positive returns in three significant ways. First, the tools will promote environmental sustainability, leading to a better understanding of sustainability by staff, leadership, and the public. Second, the tools are aligned with

project management principles, resulting in better planned and implemented projects. And third, the tools provide a consistent and replicable process that benefits internal staff on evaluating goals and objectives and for vendors responding to proposals.

## What is the Envision Toolset?

The Envision rating system is a series of tools for evaluating the sustainability of civil infrastructure. The overall purpose is to foster a dramatic and necessary improvement in the performance and resiliency of our physical infrastructure across the full dimensions of sustainability. The set includes:

- Guidance materials for developing sustainable infrastructure
- A self-assessment checklist
- A comprehensive self-assessment tool
- Life-cycle economic analysis spreadsheets
- A third-party verification and recognition program
- A credential program for individuals

The first three tools are available at no charge from the ISI website; however, there is an initial investment of time to familiarize yourself with the tools. No special training or education is required to understand or utilize these excellent guides.

## Promotes Environmental Sustainability Application

Envision requires everyone involved in project decisions to deliberate and participate in meeting environmental and financial sustainability goals. The self-assessment checklist helps planners, designers, and developers ask if projects are meeting the Triple Bottom Line approach of including environmental, economic, and equity issues in the decision-making process.

The self-assessment checklist, used for quick project analysis, is a simple Yes/No/NA questionnaire that takes a minimal amount of time for project team members to review and answer. The guidance materials and self-assessment tool goes several steps further by expanding on the checklist, providing in-depth questions, considerations, and quantitative goals and analysis on how well the project achieves resource efficiency and resiliency.

Utilizing the tools will ensure that management, project teams, and vendors will review and contemplate important sustainability considerations when using the tools.

## Promotes Better Project Management Practices

The tools are aligned with and follow typical project management approaches to planning, scheduling, and controlling projects. Specifically, there are five life-cycle phases to a project:

- Conceptual
- Definition
- Production
- Operational
- Divestment

These phases were originally introduced by David I. Cleland and William R. King in *Systems Analysis and Project Management*, and are included in the Project Management Institute's bible, *Project Management*, by Harold Kerzner. The Envision toolset includes questions and analysis that meet the requirements of each of the life-cycle phases.

The quantitative requirements in different categories of Envision also promote the inclusion of Total Quality Management (TQM) principles through the application of metrics. In effect, by using the tools, your projects will be required to include and meet each phase of project management and TQM necessities.

### Provides Consistent and Replicable Process

Envision tools also allow the adoption of a consistent process to planning, designing, and implementing infrastructure projects. To an agency, this means your project teams will use a toolset that meets project management principles and includes the questions and analysis to prompt and promote sustainable thinking. If your staff develops additional questions, these can be easily introduced and added to questionnaires, guides, and proposals. These tools can also be used to match and compare against daily internal processes.

Externally, using the tools allows your staffs and those that respond to proposals to be on the same page for project requirements and responses. By including Envision principles in project language, your agency is not

only requesting similar platform responses, you're also promoting responders to propose an approach that incorporates best management sustainability practices. This will allow your team to more closely compare apples-to-apples on responses, versus different project methodologies to develop responses that might overlook an important aspect.

The Envision infrastructure rating system has multiple benefits that support both financial and environmental sustainability efforts and goals. The three tools and benefits discussed in this article, available at [www.sustainableinfrastructure.org](http://www.sustainableinfrastructure.org), easily justify their use on a regular basis. By adopting Envision, your agency will select the right projects and solutions that provide sustainable investments for your customers and end-users.

*JC Alonzo is a Sustainability Consultant with Shockey Consulting Services. He works on management and sustainability planning and has been involved with incorporating Envision into agency planning guides and projects. He currently sits on the Leadership Team of APWA's Center for Sustainability and the Professional Development Committee for ISI. He is an Envision Sustainability Professional (ENV SP) and an ISI Approved Trainer for ENV SP credentialing. He can be reached at (816) 304-3177 or [JC@shockeyconsulting.com](mailto:JC@shockeyconsulting.com).*

*Envision was developed in joint collaboration between the Zofnass Program for Sustainable Infrastructure at the Harvard University Graduate School of Design and ISI. ISI is a not-for-profit education and research organization founded by APWA, the American Council of Engineering Companies and the American Society of Civil Engineers.*

## PORTABLE LOAD SCANNER

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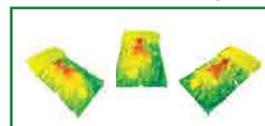
### System Deliverables

- In-motion payload monitoring
- Carry back monitoring
- Real-time material density per load
- Real-time stockpile inventories
- Cycle time tracking
- Optimize loading practices
- Interface to existing site monitoring systems
- Optional web based reporting
- Portable trailer operation



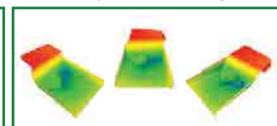
Walz Laser Scanner & Payload Scanner App

Production Monitoring



Payload: 22 cubic yards  
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 Material Density: 1.35 T/Cubic Yard

Carry Back Monitoring



Carry Back Alert:  
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