EDUCATIONAL OUTREACH

PR-11

REQUIRED

GOAL

Increase public, agency and stakeholder awareness of roadway sustainability activities.

REQUIREMENTS

Incorporate a comprehensive public educational outreach program into the operational phase of the roadway facility project.

A minimum of three out of the following eight educational elements, to be installed within the roadway project limits or within the purview of the lead agency, must be completed to meet the intent of this project requirement:

1. Install and maintain a permanent project-oriented signage program along the roadway right-of-way. During construction registered projects may use temporary signs to display factual information about the Greenroads™ certification level being pursued, as noted in the Greenroads trademark policy (available on the website).
2. Install and maintain at least one offroad, permanent point-of-interest kiosk that displays the Greenroads certification level pursued, project information, and the certification level actually achieved.
3. Provide a publicly available and maintained informational project website with capacity for submitting feedback and comments.
4. Develop an agency and/or stakeholder guide, specification, or policy that incorporates or otherwise clearly references and reflects the ideals and intents of Greenroads.
5. Institute an internal agency continuing professional education and training program related to Greenroads.
6. Perform at least two presentations about the project for primary and secondary schools.
7. Perform one professional technical presentation.
8. Document the project experience using Greenroads (i.e. conduct a detailed case study for the roadway project).

Details

Note that the official Greenroads logo may only be used on project signs, public installations or project documents by permission of Greenroads.

DOCUMENTATION

The following correspond to the numbered sequence in the preceding section.

1. Provide photos of temporary and permanent signs installed in the right-of-way.
2. Provide a text or printed copy of the information offered at the kiosk (i.e. brochure or static installation) AND a photo of the kiosk structure and location as installed.
3. Provide the website address. (Note: hyperlinks must be live.)
4. Provide a copy of the agency guide, manual or specification.
5. Provide a copy of the learning objectives and schedule for the training program.
6. Provide a copy of each presentation and the time and date of the presentation.
7. Provide a copy of the abstract along with the technical paper and/or presentation.
8. Provide a copy of the completed case study.

RELATED CREDITS

- ✓ PR-1 Environmental Review Process
- ✓ CA-2 Environmental Training
- ✓ AE-8 Scenic Views
- ✓ AE-9 Cultural Outreach

SUSTAINABILITY COMPONENTS

- ✓ Equity
- ✓ Expectations
- ✓ Exposure

BENEFITS

- ✓ Increases Awareness

APPROACHES & STRATEGIES

- Use the environmental review process (see PR-1) as a starting point for establishing public awareness needs.
- Involve business development personnel, marketing professionals, and public relations officers early in the project planning process.
- Expand construction team health and safety training meetings to incorporate Greenroads goals for the project (see CA-2).
- Identify people within the project team, agency or company who may be interested in leading external and internal educational efforts relative to incorporating Greenroads and sustainability in the organization.
- Consider collaboration with professional website developers.
- Contact the Greenroads Team if interested in participating in a case study. Resources, such as report templates and scorecards, are available by request.
- Follow the guidelines for active outreach (and related public interaction topics) outlined in the "Public Involvement Techniques for Transportation Decision-making" (FHWA-PD-96-031). This document contains a number of potential activities that could be used alone or in combination to meet the intent of this Project Requirement, as well as several additional useful references and resources.

Example: Kickinghorse Canyon Project — British Columbia Ministry of Transportation

The Kickinghorse Canyon Project on the Trans-Canada Highway (Highway 1) by the British Columbia Ministry of Transportation offers an excellent example of a comprehensive public educational outreach program.

This project has a detailed website (http://www.th.gov.bc.ca/kickinghorse/index.htm), a printable fact sheet (available http://www.th.gov.bc.ca/kickinghorse/updates/KHCP_Fact_Sheet.pdf), and has completed a case study (available by written request). Additionally, the completed project includes improvements to a rest area which will incorporate project and historical information for the site.

POTENTIAL ISSUES

1. Graffiti on installed signs or public information kiosks.
2. Potentially inflammatory or offensive comments or spam on project websites.

RESEARCH

At the heart of the Greenroads program is encouragement of broad sustainability education for people who use, design, and build transportation infrastructure. Public outreach programs are encouraged at most transportation agencies and often required on many projects as part of the initial planning process (such as during environmental review). However, most of these open-communication-oriented initiatives are relevant only during the decision-making process and are not deliberately educational over the long-term life of the project. Greenroads seeks to support roadway projects that offer built-in educational resources for the benefit of public interest and professional learning and development.

Need & Opportunity

The Brundtland Report notes "…the changes in attitudes, in social values, and in aspirations….will depend on vast campaigns of education, debate and public participation" (WCED, 1987, p. 16). Sustainability has certainly become a popular literature topic, but the volume of research on education is too vast to summarize here. Many authors on sustainability as well as other environmental organizations suggest or explicitly stress the importance of sustainability education (Edwards, 2005; Benyus, 2002; WCED, 1987; USGBC, 2009; Wilson, 2002; Daly, 2005; Robèrt, 1997, 2002; Kibert, 2005), but few offer actionable solutions or implementation. In most cases, current educational efforts occur internally within companies or agencies, or are directed toward children and young adults in elementary schools through college. Specific academic research on either the success or failure of implementing roadway-based public outreach programs for sustainability education is difficult to find (or, more likely, it simply does not exist yet).

Roadways present a unique opportunity to interact with their main stakeholder, the public, throughout the life of the project. Over 100 hours per person per year are spent commuting to work in the United States (Buckner & Gonzales, 2005). This exceeds the amount of personal vacation time for most traditional salaried positions, is twice as long as spring breaks for most schools, and is two to five times the amount of time that most states require for Continuing Education Units (CEU) for licensed professionals like engineers, doctors, and lawyers. Clearly, time spent on a roadway provides ample opportunity for Exposure to different sustainability topics, as well as time for reflection, repetition and reinforcement on a nearly daily basis for most commuters. However, when the project ownership changes into the public hands, often any learning opportunities pertaining to the project (such as how a new pavement technology was implemented, how energy use was reduced in the lighting, or what types of stormwater treatments were used) are lost.

In addition to institutional learning, professional and technical organizations also play a vital role in furthering knowledge of sustainability throughout their membership. Organizations like the Transportation Research Board (TRB), whose mission statement is oriented toward promoting information exchange and interdisciplinary research (TRB, 2009), and other government bodies promote continuing education of the transportation professional community. Conference presentations, technical papers, and presentations to local schools are all considered to be worthwhile efforts made to forward sustainability education through outreach.

Finally, rating systems like Greenroads offer unique opportunities for agencies and organizations to track and measure internal processes. Using a sustainability rating system is a simple way to measure progress and improvements over the long-term and stimulate innovation within an agency. Case studies can provide valuable snapshots of overall performance on the project and be used to develop agency-specific benchmarks for sustainability for future projects.

Precedence in Buildings

The LEED® Green Building Rating System awards one point in all of its rating system programs for instituting a project-oriented Educational Outreach program that meets the intent of the credit category called Innovation in Design, which rewards superior performance and creative implementation of ideas or technologies (USGBC, 2008). This credit awarded for the built environment establishes precedence for the need, validity and acceptance of such educational programs and public awareness programs. Transportation and infrastructure have a similar need for such precedence.

Further, though using a building as a model for cost of roadways is not ideal, the availability of an educational opportunity such as a roadside point-of-interest or signs lining the street may be perceived as a large value-added benefit for the public at a very minimal added cost to the design budget. A cost analysis of such educational programs, signage and/or displays incorporated in LEED-rated buildings (using a generic building model) showed only minor added costs for implementation to the project bottom line (Steven Winter Associates, 2004). Additionally, this study showed that most of these costs are “soft costs” that are typically administrative in nature.

The primary mode of establishing and communicating public values in transportation and infrastructure is consensus-based political mandate or other regulatory rulings. Also, a federal mandate was recently instituted for high performance and green buildings as Executive Order (EO) 13423: Strengthening Federal Environmental, Energy, and Transportation Management (2007). EO Section 3(c) makes federal agency leads accountable for establishment of internal agency programs for environmental training, including management, compliance and audit, and leadership recognition. This could be considered a premonition for mandated sustainability training and education in roadway system projects and for internal programs in transportation agencies and organizations.

Ongoing sustainability education programs can teach people to understand the consequences of their actions, such as the impact of personal resource use, and to relate their values and behaviors to current political and environmental conditions (Palmer, 1998). Roads are highly accessible to the public; thus, roads can offer a creative means of exposure to sustainability concepts which can help users make more informed decisions regarding sustainability in their daily lives, communities and cultures. Greenroads adds education as another step toward establishing a connection between people and the places that they live, travel, work and recreate.

GLOSSARY

EO	United States Executive Order
Kiosk	A small structure that can be used to access information, such as a newsstand or computer terminal
LEED	Leadership in Energy & Environmental Design, a rating system for green buildings by the United States Green Building Council
TRB	Transportation Research Board
USGBC	United States Green Building Council

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