

For Immediate Release

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Next Generation of Wildlife Crossings *Un-Vailed* in ARC Competition
Designs aim to decrease wildlife-vehicle collisions that cost Americans
\$8 billion dollars annually

VAIL, COLORADO – Today, the ARC International Wildlife Crossing Infrastructure Design Competition unveiled its five finalist designs for a next generation wildlife crossing at West Vail Pass. The first-ever international design competition is intended to solve the problem of ensuring safe travel for humans and wildlife. Collisions between vehicles and wildlife have increased by 50 percent in the past 15 years threatening human and wildlife safety, and costing Americans \$8 billion dollars annually.

“Collectively, the designs have the capacity to transform what we think of as possible,” said Jane Wernick, ARC juror and structural engineer, director of Jane Wernick Associates, London.

The five finalist teams are:

1. Balmori Associates (New York)
2. HNTB Engineering with Michael Van Valkenburgh & Associates (New York)
3. The Olin Studio (Philadelphia)
4. Janet Rosenberg & Associates (Toronto)
5. Zwarts & Jansma (Amsterdam)

The five designs are now available for public viewing at <http://www.arc-competition.com/finalists.php>. The physical models will be on display at the Western Governors' Wildlife Council meeting in Denver on December 1, 2010. The winning design team will be announced at the Transportation Research Board 90th Annual Meeting in Washington, DC on January 23, 2011.

West Vail Pass was chosen as the location of the wildlife crossing because the I-70 corridor is the major transportation artery of Colorado while at the same time it is a barrier to wildlife movement in the Rocky Mountain region. The ARC competition was focused *in situ* in Colorado, however the winning design will serve as a model for the world in creating the next generation of wildlife crossings facilitating the movement and protection of wildlife and providing for the free flow of traffic and people. Once completed, Colorado will have a cost-effective solution that will provide safer roads and protect wildlife populations that generate more than \$3 billion a year in hunting, fishing and wildlife watching related revenues.

“All five teams responded to the challenge, we now have a thoughtful and robust foundation for the next generation of wildlife crossing structures,” said Jury Chair Charles Waldheim, chair of landscape architecture at Harvard University's Graduate School of Design.

The jury for the competition is comprised of world-renowned experts in landscape architecture, engineering, transportation and ecology. The finalist teams and the winning design will present a range of innovative design solutions that have the potential to transform the ways in which human infrastructure and animal movement coexist. The jurors are looking not only for sustainable, beautiful, compelling designs that meet the needs of people and wildlife, but also utilize materials that make infrastructure more affordable and, ultimately, roads safer. The five design finalists were chosen from 36 team submissions from nine countries, representing more than 100 firms worldwide.

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“The finalist designs truly represent a high caliber of structural and environmental expertise while establishing Colorado as a world leader in innovation,” said Tony Clevenger, senior research scientist at the Western Transportation Institute at Montana State University, and who is credited with establishing the ARC design competition. “These teams have shown that we have the research, the technology, and the talent to create a state-of-the art wildlife crossing that can be replicated throughout the United States and the world.”

The designers had to account for a set of challenges unique to the West Vail Pass area, including snow loads and severe weather, increasing volume of traffic, multiple species, native vegetative cover, high elevation and steep grades, a bike path, six lanes, an Advanced Guideway System (AGS), and construction under high recreational and commercial traffic volumes. To address these challenges, the designs for the structure were required to be:

- Cost effective
- Ecologically responsive
- Safe for humans and wildlife
- Flexible or modular for possible use in other locations
- Adaptive to facilitate wildlife mobility under changing climate and habitat conditions
- Sustainable in terms of materials and energy use
- Compatible with Preferred Alternative (Consensus Recommended) in the I-70 Mountain Corridor Draft PEIS, and
- Educational, revelatory, and easily communicated to the public.

The five finalist designs include an innovative range of features that illustrate the intended goals of the project. These include:

- Pillar-free structures to improve highway safety.
- Use of pre-fabricated, pre-vegetated structural modules that respond to local conditions. In some designs, these modules can be added or removed as needed and in others, the design can be modified for new locations if habitat conditions or climate changes.
- Use of an inverted arc shape that conveys the feeling of a valley for animals and results in more light for drivers and the roadway.
- Innovative use of color and materials, e.g. an iconic red bridge that attracts human interest but which remains unremarkable to color-blind mammals.
- Diversity of building materials including glued laminated timber, steel, glass reinforced plastic and wood core fiberglass, as well as innovative uses of everyday materials such as pre-cast concrete.
- Real-time monitoring of wildlife movement for both scientific and public educational purposes, e.g. placement of cameras on the bridge that will download to smart phone apps, websites, information kiosks, or local schools.

The international competition establishes and inspires a new category of public infrastructure that is both responsive and responsible to environmental concerns. A growing commitment to implementing wildlife crossing infrastructure will reconnect landscapes and habitats previously severed by roadways, and in the process make mobility safer for humans while protecting wildlife populations. The ARC competition addresses a global problem with a Colorado-based solution that will demonstrate the importance of international cooperation.

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