



## Corporate Social Responsibility

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Opening the May 2010 issue of STRUCTURE® magazine, I was struck by the notion that the engineering profession is held captive to society on both an intellectual and social level (The Social Captivity of Engineering, May 2010). The genius of our profession (albeit my biased opinion) is indisputable from a technical standpoint and, perhaps just as relevant, from a social perspective as well. Ever greater numbers of professionals are offering their time and resources to help others, outside office hours and far beyond borders. Whether designing a potable water project in Ghana, reconstructing a school in Haiti, or designing a 70-meter cable pedestrian bridge in East Timor, engineers are using their professional knowledge to make a positive impact in rural communities around the world.



*“Of all of the bridges that I have built and will build, this will be the one I will remember the most.”*

– Travis Davis, Field Engineer, Flatiron Construction

Nearly half of the world’s population – over three billion people – live on less than \$2.50 per day.\* A morning run to Starbucks would cover an average Zambian’s daily food, education, housing and transportation expenditures. Considering this daily budget, what is the likelihood that development projects could be a local financial priority? Perhaps an organization, supplementing the role of government, provides housing, education or infrastructure, but rarely are financial or technical resources available to provide all desired services. Partnering these communities and organizations with professional expertise is still developing, but critical, keystone.

International non-profit organizations such as Bridges to Prosperity, Engineers Without Borders and Engineering Missions International recognize that engineers have much to offer and are actively engaging

professionals to work with communities who lack access to the most basic amenities. As professional interest continues to increase, support of volunteering from the corporate level is both useful and necessary. There is no shortage of communities in need or technical experts willing to contribute. Coupled with corporate programs designed to support socially responsible employees, there is benefit for all.

Bridges to Prosperity relies on assistance from independent volunteers, but contributions from an organization or company are most effectively leveraged. When a group makes the commitment to fully develop a technology over several design-build iterations, institutional memory is sustained, providing opportunity for improvements and modifications to suit varying local conditions. Furthermore, design efforts that have been developed collectively are most likely to result in locally-appropriate and innovative solutions, particularly given design challenges that vary greatly from the parameters of an equivalent industry project. Company support also allows our mission to be supported from the home office. Parsons Brinckerhoff staff and employees assisted our field staff by transferring designs into CAD files, usable by trainees for design modifications.

McNary Bergeron & Associates, and Flatiron Construction, both of Colorado, partnered with Bridges to Prosperity to develop a sustainable, cost-effective solution for seasonal flooding in low-lying riverbeds. This spring, nearly two dozen employees traveled to Guatemala and Honduras to construct their innovative suspension cable bridge design. Two prototype 40-meter span bridges were constructed using materials transported via human power or by mules, including the limited number of hand tools. Faced with the need to balance cost efficiency and constructability in the absence of mechanical equipment, McNary led the design effort and Flatiron acted as the contractor while developing the construction plans. The product of the relationship is an economical design solution that is able to be replicated throughout the region and, eventually, throughout the world. Bridges to Prosperity will leverage this contribution of time and knowledge through standardization and the inclusion of the technology in our training programs.

Team building, leadership, employee recruitment and retention are all stated benefits of this particular project, not to mention the life-changing contribution to the villagers who now have year-round access to school, markets and medical facilities. This is an excellent example of how industry leaders can use their professional knowledge to the benefit of rural communities worldwide. Changing lives, one bridge at a time.■

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\* Shaohua Chen and Martin Ravallion, *The Developing World is Poorer than we Thought, but no Less Successful in the Fight Against Poverty*. World Bank, August 2008.

For more information about Bridges to Prosperity, visit their website at: [www.bridgestoprosperty.org](http://www.bridgestoprosperty.org)