Engineers' efforts build bridge to friendship in Guatemalan village

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UIC engineering students and professors take a break from work with members of their host family and other residents of Cerro Alto, where UIC's student chapter of Engineers Without Borders spent about two weeks improving the local school.

Photo: Nancy Cohen

Asking "How many engineering students and professors does it take to build a school wall?" sounds like a question in search of a punch line.

But the 18 people from UIC who went to Guatemala Jan. 3-15 helped renovate a school, put up a wall and build what they hope will be a lasting bridge of friendship.

Traveling at their own expense under the auspices of the aid organization Engineers Without Borders, the group journeyed to Cerro Alto, a mountain village of some 900 people about one hour's drive west of Guatemala City.

The village women's committee, Peace Corps volunteer Shelly Doherty and six schoolteachers wanted to surround their bare-essentials elementary school with a protective wall.

UIC's student chapter of Engineers Without Borders answered the call.

"It's part of the culture to enclose things you value," says Miiri Kotche, a doctoral student in bioengineering and chapter president.

"There were cows, horses, stray dogs and chickens walking all over the property. The school is on a busy thoroughfare with buses passing frequently. It's not very hygienic and not very safe," she says.

Planning the project took almost a year. The students and advisers came up with a building strategy and raised about $25,000 to buy materials for the wall, which runs about 600 feet long and more than nine feet high.
“It was a technical challenge for us as students,” Kotche admits.

The group knew it had to build on steep terrain, but had no idea of the actual site conditions.

“We had to do some impromptu, homemade engineering tests to get the soil bearing,” says civil engineering junior Daniel Atkins.

The UIC group worked alongside village laborers from early morning until late afternoon.

“We hauled thousands of cinder blocks, forming a chain and handing them down,” Kotche says.

“The only way to get concrete into the trench and set the footings was to carry it in buckets,” says Nancy Cohen, a chapter adviser and the College of Engineering’s interim assistant dean for advancement.

Students slept in sleeping bags at the village’s community center. Faculty and other adults stayed at a hotel a few miles away.

“They introduced us to their food, challenged us to soccer and helped us adjust,” says Sabri Cetinkunt, faculty adviser and professor of mechanical and industrial engineering.

The UIC group brought school supplies and Spanish-language books, plus dental supplies donated by the College of Dentistry.

By the end of the trip, about half the wall along the steepest, most challenging section was finished. Villagers will complete the project over the next two months, consulting the UIC students on the technical points.

Engineers Without Borders encourages its chapters to establish an ongoing relationship with a community, and UIC’s members plan another visit next year.

“We’re brainstorming next year’s project,” Cetinkunt says.

“We want to work with this community on continuing projects to improve both their livelihood and our skills,” Kotche adds.

For the UIC students, the villagers’ tenacity and hard work despite their relative poverty was a mirror for personal reflection.

“When you go on a trip like this, you realize how lucky you are,” says Shawon Carlstrom, a senior in civil engineering.

“I mean, how often do we not have water? Never! These people are without water every other day. Could you imagine what it’d be like if Americans didn’t have water for a day?”

“For the week we were down there, I felt we were in a sea of unconditional generosity,” observes Robert Geiger, an alumnus who serves as the Chicago professional Engineers Without Borders chapter liaison to the UIC group. The UIC chapter is open to all students, not just those in engineering.

“Getting to know the people was the highlight of the trip,” says Bryn Martin, a doctoral candidate in mechanical engineering. “Their work ethic, smiles and thanks will last a lifetime.”

**Below: Barbara Butz, wife of engineering alumnus Rob Geiger, reads to village children.**

*Photo: Nancy Cohen*