

Fundraising

Fundraising is vital to our ability to continue using our Rose-Hulman education to impact developing communities worldwide. The cost of travel and construction materials is extremely high, but both are necessary for our chapter.

Through school organizations, such as the Student Government Association, we are able to raise some funds for our projects. This only covers a fraction of the total amount needed to complete our projects—especially for material costs. We rely on private donors like you to support our projects and make a difference in third-world communities.

Donating to EWB

Contributions can be made to “Rose-Hulman Institute of Technology”, directed to “Engineers Without Borders” in the memo.

For more information, contact our Co-Presidents at:

Grpewbpres@rosehulman.onmicrosoft.com

Contact Us

Please contact us at Grpewbpres@rosehulman.onmicrosoft.com if you have any questions or would like to become more involved.

More information can also be found on our website at:

<https://wordpress.rose-hulman.edu/ewb/>



Rose-Hulman Institute of Technology

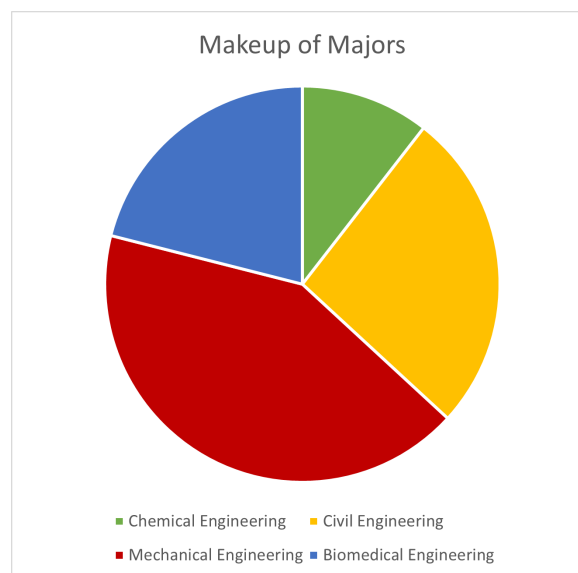
EWB Highway Clean-Up

EWB takes pride in volunteering around Terre Haute. EWB adopted a mile-long stretch of Wabash Avenue near the Rose-Hulman campus. The club regularly participates in cleanups to beautify this roadway. On October 2nd, a group of club members walked along the side of the highway and picked up as much trash as we could carry. Some of the more notable items included a neon yellow hoodie and several cans of diet rites. Below is a photo from the highway cleanup.



Volunteer members with the refuse collected.

EWB Major Distribution



There is major misconception about EWB here at Rose-Hulman. There is common belief on campus, that EWB is club meant for civil engineers. This is not true at all as EWB-RHIT is accepting of all members no matter what major they may. As you can see from the graphic on the left, we currently have member form four different majors! Even the current officer board has members form other majors as only two are civils. EWB accepts anyone that is willing and wanting to make a change in the world.

ENGINEERING A MORE SUSTAINABLE
WORLD—ONE COMMUNITY AT A TIME



ISSUE
26
Fall
2022

Engineers Without Borders

Rose-Hulman Institute of Technology



This issue

El Sembrador School Project	P.2-3
Ecuador Fun Facts	P.3
Highway Clean Up	P.4
Major Distribution	P.4

What is Engineers Without Borders?

EWB-RHIT is part of the national Engineers Without Borders USA organization. EWB-USA is a non-profit humanitarian organization established to partner with developing communities worldwide in order to improve their quality of life. Since its founding in 2000, EWB-USA has run more than 80 projects in 35 countries. The projects we work on are initiated by and completed with contributions from the host community, which helps ensure that our work will be maintained after we leave.

Our **VISION** is a world in which the communities we serve have the capacity to sustainably meet their basic human needs and that our members have enriched global perspectives.

Our **MISSION** is to support community-driven development programs worldwide by collaborating with local partners to design and implement sustainable engineering projects, while creating transformative experiences and responsible leaders.



In this Issue

Unfortunately this summer brought our water distribution project, in Ecuador, to an end. At the end of the day there were land ownership issues associated with the spring that the club was planning to use as the water source for the project. They could not be worked around, and we were left with no other viable option then to close out the project. However, this also means we had the opportunity to start a new project. EWB-RHIT will be working on making structural additions to the partially constructed El Sembrador School in Ecuador. In this issue, we will cover more about this new project in detail as well as general updates about the club



ENGINEERING. SUSTAINABILITY. COMMUNITY.

The EWB-RHIT Team

Co-Presidents

Will Lawton

Junior., Civil Engineering

Kayla Martinez

Junior, Mechanical Engineering

Co-Engineering Team Managers

David Lincoln

Soph., Mechanical Engineering

Makayla Ray

Soph., Civil Engineering

Co-Fundraising and Marketing Team Managers

Walker Coffy

Senior, Chemical Engineering

Treasurer

Ben King

Soph., Mechanical Engineering

Secretary

Walker Grove

Soph., Civil Engineering

Local Outreach Chair

Tracy Orgera

Junior, Chemical Engineering

El Sembrador School Project

Project History

In 2018, the Methodist purchased a piece of land and donated it to the “El Sembrador” school to expand the education service. The objective of the school is to provide access to education to low-income young people in the rural community.

The Methodist Church has requested that EWB-RHIT help complete the existing structure, which consists of several classrooms. At this moment, the floor has several cracks that extend multiple meters. In the space the Methodist Church has built, there are some classroom and a water system in place, but they will not be operational until the enclosure is finished.



Plans for the Project

Our new project consists of making improvements to a school in Pasto Calle, Ecuador in the Cotopaxi province. This school is a fiscal educational institution with the goal of expanding educational services in the area, by increasing the area’s student capacity by 30%. Currently a small classroom building and a latrine building have already been finished, but the Ecuadorian Ministry of Education will not allow it to be occupied until the rest of the project is completed.

Our job is to complete a structural analysis of an existing concrete slab and concrete columns and then design and construct a reinforcement system as needed. From what we understand there is significant segregation and cracking that is likely to present major challenges. In addition to this work, we will have to design and build a wall system, roof, and an electrical system. Per Ecuadorian code a fence will have to be constructed around the perimeter of the site.



Plans for the Project

Technical work on this project is already well underway as we look into various alternatives to address the project scope. We plan on taking an assessment trip to the school in early March of 2023. During this trip, members will collect data on current conditions and information needed to begin analyzing the structure itself to assess the actual condition of the concrete slab and columns and what structural enhancements may be needed. We will also collect the data needed to complete the design of the retaining walls. Our tentative plans are to begin construction the following year and hope to wrap up the project within three to five years.

We are excited to get underway on this project, and look forward to sharing details as we progress with this project !

Ecuador Trivia

- Rosalía Arteaga was the first female president of Ecuador. She in office for only a few days before being reinstated as vice president.
- Guayaquil is the largest city in Ecuador
- Ecuador’s flag is yellow, blue and red. Yellow for the country’s soil and crops, blue for the sky and ocean, and red for the blood of those who fought for independence.
- Ecuador was a part of the Incan Empire during its reign
- Ecuador has 1,638 bird species (a full 15% of the known species worldwide)



EWB-RHIT Mentors

Technical Mentors

Roger Ward, P.E.

CEO

Roger Ward Engineering

Liam Sawyer, P.E.

Land Development Analyst

Kimley-Horn

Jed Holt, P.E.

Retired

Faculty Mentors

John Gardner, Ph.D.

Professor of Spanish

Rose-Hulman Inst. of Tech.

John Aidoo, Ph.D.

Professor of Civil Engineering

Rose-Hulman Inst. of Tech.

Kyle Kershaw, Ph.D., P.E.

Assoc. Professor of Civil Engineering

Rose-Hulman Inst. of Tech.

