



PURPOSE &
BACKGROUND

PROGRAM DESCRIPTION &
REQUIREMENTS

PAST BUILD DAY
COMMUNITY PROJECTS

2021

PROGRAM BRIEF

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Thornton **Tomasetti** Foundation

PURPOSE & BACKGROUND

Build Day is a collaborative project design and build initiative that brings together young engineers, technical experts, and community leaders to create sustainable change in their local communities. Engineers will work alongside community partners and organizations to identify a locally pressing sustainability issue (e.g. food deserts, resilient infrastructure, clean water access, or disaster preparation) and design and implement innovative sustainable solutions. These solutions will improve a community's resilience to climate change and sudden shocks and stresses—especially for underserved and marginalized communities. Build Day provides young engineers the opportunity to work directly in the field and gain real-world design build experience.



PROGRAM DESCRIPTION & REQUIREMENTS

Engineers are vital to solving today and tomorrow's biggest engineering challenges. These challenges often include ethical, social, and economic realities that can't be replicated in the classroom. Likewise, communities face pressing infrastructure needs that could be addressed through collaboration with technically minded groups such as engineers and scientists. Many engineering problems involve complex or ambiguous social, political, and economic issues. The goal is to create engineers better equipped to tackle large social problems and to understand their ethical responsibilities as technical experts.

Build Day allows the community-at-large to take part directly in the design build process. Having engineers and community leaders work side-by-side is crucial to building a better world that's more sustainable, resilient, and socially equitable.

Eligibility

Applicants must meet all eligibility requirements below to submit a proposal for consideration:

- Chapter is in Good Standing;
- Chapter has not participated in a Build Day project within the past year;
- Teams should include a Project Leader, Finance, and Designers;
- At least one team member must have experience managing a local, community project. All levels of experience and majors are encouraged to apply.

Build Day Benefits:

PROJECT RESOURCES

Without funding, communities are unable to implement innovative sustainable solutions. Build Day offers teams up to \$1,500 in project resources for materials and supplies.

PUBLICITY & RECOGNITION

Not only does Build Day grow awareness for community issues and projects, teams have been recognized in the local press and TV, online articles, social media, and podcasts.

LEADERSHIP & PROFESSIONAL DEVELOPMENT

Teams gain valuable field experience in project management and communication skills useful for future projects, careers, references, and professional connections.



How to Apply

Interested teams must submit a brief proposal for Build Day by **12am Eastern Time on October 15, 2021** to Program Coordinator, Allyson Schroepfer, at aschroepfer@eswusa.org. Please fill out the Build Day Project Questionnaire on the buildday.org website. Submit your application as a PDF. A committee will review all proposals after submissions close. ESW-HQ may shortlist chapters for interviews. Selected teams will be notified via email by **November 5**. Up to three teams may be chosen for the 2021 cycle.

Proposal Requirements

Applicants should fill out the Build Day Project Questionnaire provided on the buildday.org website. Keep answers thorough and concise. Components of the proposal include

- Project Description and Summary
- Project Problem Statement and Importance
- Proposed Timeline
- Contact Information and List of Collaborators
- Estimated Budget
- Community Partner Engagement Plan
- Project Logistics and SMART Goals
- Team Pictures
- Team Bios



Highly Desirable Criteria:

- Strong chapter leadership, organization, and relevant project experience similar in size and scope. Demonstrates experience in creative engineering approaches, interdisciplinary research and development, human-centered design, and sustainable and resilient design.
- Understands community's background, history, and demographics.
- Considers the impact of environmental justice, public policy, and climate action.

CALL FOR PROPOSALS	TEAM SELECTION	KICKOFF & DEVELOPMENT	BUILD PREP & LAUNCH
September 1 RFP released Submissions opened	October 15 Submissions closed November 5 Team decisions	Mid-November Build Day kickoff meetings Winter to Spring Research, design, and prototyping	Early Spring 2022 Team design reviews Spring 2022 Build Day launch!

Expected Timeline

This timeline is a rough outline of the Build Day program's different phases. Your team will be responsible for creating a more detailed timeline with specific project milestones for deliverables. ESW-HQ will host regular Q&A sessions and monthly check-ins as needed.

Deliverables

Deliverables are due at various stages of the project dependent on the team's pace and progress. All items must be completed and submitted before project closeout. Further details about each deliverable will be discussed during the kickoff meeting. Additional deliverables may be required.

- Signed Memorandum of Understanding (MoU)
- Detailed project timeline
- Itemized project budget
- Preliminary and final designs
- Final project report
- Team and project photos



PAST BUILD DAY COMMUNITY PROJECTS

First Market Farm Rainwater

Rainwater irrigation and storage system saving Taproot Collective hundreds in water utility costs

RIT designed a system that would direct water from greenhouse roofs and store them in large water tanks. Connected pipes would funnel downhill to the garden at First Market Farm in Rochester, NY.



IMPACT

- 42 volunteers
- 252 volunteer hours
- 235 people Impacted
- Economic impact: \$6,200



IMPACT

- 33 volunteers
- 198 volunteer hours
- 200 residents impacted
- Economic impact: \$4,890

Solar Sprouts Project

Solar-powered and rainwater capture tabletop ADA compliant and accessible garden

Solar Sprouts brought accessible therapeutic gardening to the Care Center in Buffalo, NY enabling short- and long-term residents and people with disabilities to grow their own plants.



TERMS & CONDITIONS

Proposal Restrictions:

Teams may not submit projects that have been fully implemented or near completion before applying to the Build Day program. Agencies or contractors cannot submit a proposal on behalf of the proposed team. Teams may submit original project ideas and concepts developed for other coursework or independent work. You must notify ESW-HQ and community partner(s) of any changes to the proposed team or project.

Proposal Submissions:

Teams must submit their complete proposal and materials by the deadline. We will not accept incomplete submissions. You must contact the Build Day Program Director if your team is unable to meet the deadline. We have the right to deny extensions if contact is not made prior to the deadline.

Use of Submitted Works:

Teams retain the rights to work submitted in the program. Teams are free to use their own work outside the program including as a project for other coursework or independent work. By submitting this proposal, each Build Day team agrees to grant the Build Day program and its partners non-exclusive, royalty-free rights to use, publish, edit, modify, alter, reproduce, distribute, broadcast, display, or use materials for non-commercial use for all submitted material.

Copyright Infringement and Intellectual Property:

All submitted proposals must be a team's own original work. Teams are responsible for ensuring that any work submitted does not infringe upon the intellectual rights and property of any third-party, including but not limited to copyrights, trademarks, logos, and design rights.

BUILD DAY RESOURCES

Additional resources are available online at buildday.org. Contact Allyson Schroefer below if you have any questions about the program, eligibility, requirements, or if you have a project idea.

Build Day Program Coordinator

Allyson Schroefer

aschroefer@eswusa.org

Programs Team

Jesse Morales, Program Director

Sebastien Selarque, Program Coordinator

Sohn Cook, Deputy Director



