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ANNUAL REPORT 2018
AMERICAN SOCIETY OF CIVIL ENGINEERS
STUDENT CHAPTER



Contact Information

*Oregon State University ASCE Student Chapter
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Executive Officers

April 2017 – March 2018



President: Nicholas Hossley
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Vice President: Antonio Mititiero
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Secretary: Nicholas Edwards
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Treasurer: William Blackburn
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Executive Chair: Hannah Helwig
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Executive Officers

April 2018 – March 2019



President: Madison Hall
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Vice President: Amy McKee-Daviscourt
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Secretary: Haley Madland
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Treasurer: Bret Burch
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Executive Chair: Josephine Crofoot
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Advisors



Faculty Advisor: Tom Miller
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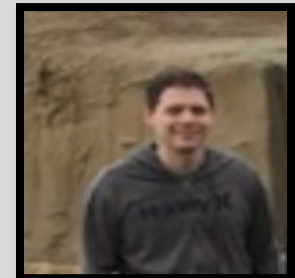
Practitioner Advisor: Todd Whitaker
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Practitioner Advisor Emeritus: Ken Archibald
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Practitioner Advisor: Josh Goodall
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Financial Summary

Dues Structure: One-time fee of \$15 for new members.

As of December 31, 2018:

- Total income: \$17,571.00
- Total expenditures: \$31,985.36
- Cash balance: (\$14,414.36)
- Accounts receivable: \$0.00
- Accounts payable: \$0.00

Goals and Objectives

“The objectives of the OSU ASCE Student Chapter are the advancement of the art and science of engineering, the professional improvement of its members, the encouragement of civil responsibility of its members and the encouragement of professional and social interaction between students of civil engineering and between such students and practicing engineers.”

6 long-term goals were established to meet these objectives.



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Goals and Objectives

1. Have 75% of Student Members be National ASCE Members
2. Complete 8 Service Projects
3. Qualify both Steel Bridge and Concrete Canoe Teams for Nationals
4. Hold at least 12 Speaker Meetings
5. Achieve National Recognition for Annual Report
6. Hold 7 Joint Events with other Clubs on Campus

Have 75% of Members be National Members

Detailed Description of Goal:

Have 75% of the average number of student chapter members during the year be national members of ASCE.

Action Plan:

In 2018, we continued to focus on reaching out to the underclass students and informing them about the opportunities of ASCE after graduation. Meet-a-CE Day and ASCE Families were special programs used to recruit and maintain members.

Have 75% of Members be National Members

Assessment:

Achieved:

Average student chapter membership in 2018 was 99 and average national student membership was 149, 150% of the chapter membership.

Follow-up:

There are 3 aspects of registration: joining a student club on campus, paying chapter dues to join the chapter, and joining ASCE national. We need to combine these steps in 2019 and emphasize the need to join the chapter and pay dues at the same time as joining national for free. This is a new challenge that has never been seen before at OSU, and our on-line form needs revision and we must regularly remind students to join the chapter. Extra effort will also be made to recruit graduate students, many who come to OSU as Student Members.

Complete 8 Service Projects

Detailed Description of Goal:

Perform 8 community service projects and outreach efforts.

Action Plan:

Increase the total number of design and construction projects. Officers will reach out to new sources of volunteers in the chapter, especially underclassmen. Continue the successful Habitat for Humanity projects and outreach to local schools.

Complete 8 Service Projects

Assessment:

Nearly Achieved:

6 projects completed by ASCE in 2018, including one with design and construction components. These include Habitat for Humanity, Adopt-A-Highway, and outreach to elementary and high school students.

Follow-up:

Work more with AGC to develop construction projects. Continue to work with local Habitat for Humanity contact, as the projects have been extremely successful. Also, maintain efforts to complete this goal in 2019 by planning service projects as soon as possible.

Qualify Competition Teams for Nationals

Detailed Description of Goal:

Both steel bridge and concrete canoe teams place at regional PNW Student Conference to qualify for national competition. However, steel bridge will no longer be part of the ASCE conference in 2019 and the goal will need revision.

Action Plan:

Each of the team captains focused on weaknesses in previous contests: refining the construction process for the bridge and improving racing/paddling for the canoe.

Qualify Competition Teams for Nationals

Assessment:

Did Not Achieve:

The teams both competed at the Pacific Northwest Student Conference in 2018. Concrete Canoe placed 2nd overall – not first as required for nationals, while Steel Bridge was disqualified due to a failure from a faulty weld.

Follow-up:

In 2019, the concrete canoe team is emphasizing both dry workouts and paddling practices to improve that aspect. There was a strong possibility of not having a location for canoe fabrication, but a local school provided a place. Need to develop a new organizational structure for steel bridge.

Host at least 12 Speaker Meetings

Detailed Description of Goal:

12 professional speaker meetings, including industry practitioners and researchers/professors to discuss projects and the CE profession.

Action Plan:

The plan for the year was to keep a successful speaker program going. In 2017, 24 speaker meetings were held, including jointly-sponsored ones. Invite these speakers to return, and seek new ones in more varied disciplines. New tracking system was developed by the VP to better manage speaker meetings.

Host at least 12 Speaker Meetings

Assessment:

Achieved:

17 speaker meetings/joint speaker meetings were held during the 2018 year (including ethics topics and joint-sponsored meetings).

Follow-up:

The plan for 2019 is to maintain quality of meetings and increase the variety of disciplines involved. We will continue to invite speakers to help with the cost of refreshments for students. This will hopefully increase attendance, and help to completely cover the food costs for meetings during the year. Finally, the speaker meeting tracking system will be used and improvements made.



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Earn National Recognition for Annual Report

Detailed Description of Goal:

Prepare an annual report that highlights the chapter's accomplishments effectively and in a clear and concise format, and recognition with a Certificate of Commendation.

Action Plan:

The Secretary will work on the membership roster and collection of activity and project reports throughout the year. Have regular executive officer meetings to keep everyone informed and working together as a group. Historians will attend events to help collect pictures for the report.



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Earn National Recognition for Annual Report

Assessment:

Achieved:

Earned 2018 Certificate of Commendation for 2017 annual report.

Follow-up:

Continue to improve recording of activities during the year and work to expand community service efforts by including students who are not involved in ASCE in other ways. Improve membership registration process by making changes to on-line form. Manage ASCE/AISC organizational changes. Make modifications to constitution to reflect this and also Code of Student Conduct.

OSU Chapter History of Excellence

The OSU ASCE Student Chapter was first established in 1921, and only six other student chapters are older. They were established in 1920. We have been recognized consistently as one of the top chapters in the country:

Certificates of Commendation (1972, 1978, 1979, 1987, 1992, 1993, 1994, 1995, 1996, 1998, 2002, 2003, 2004, 2005, 2006, 2008, 2011, 2013, 2015, 2018) for the annual report of the prior year.

Letters of Honorable Mention (1999, 2000, 2001, 2007, 2009, 2010, 2012, 2016, 2017) for the annual report of the prior year.

Outstanding Community Service Award (1996)

Service Certificate of Commendation (2004 and 2008)

Service Award (2010)

Distinguished Chapter Award for Region 8 (AK, AZ, HI, ID, MT, OR, UT, WA) (2014)

Richard J. Scranton Outstanding Community Service Award (2014) & Finalist (2016)



Hold 7 Joint Events with other Clubs on Campus

Detailed Description of Goal:

Hold at least 7 social, professional or service events with a number of other student groups on campus.

Action Plan:

Expand our set of collaborative functions with groups outside ITE and the AGC student chapter such as; Women in Science and Engineering, EERI and the SEI Student Chapter. This would give the chapter a voice to people who are less likely to hear about ASCE, but might still be interested and broaden perspectives for our members.

Hold 7 Joint Events with other Clubs on Campus

Assessment:

Achieved:

The chapter had 7 joint activities with AGC, ITE, EERI, and AREMA others. These included sports events, speaker meetings, social events and service projects. 3 of the meetings were sponsored by the ASCE-SEI group within our chapter.

Follow-up:

The continuing goal is to work with many groups on campus and expand the joint speaker meetings and activities to new student clubs, especially those involving minority and women students.



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Membership Statistics

99 = average # chapter members in 2018 (132 total)

149 = average # ASCE National members from OSU in 2018 (199 total)

150% of chapter members are Society-level members (Society-level/chapter members) (using average numbers)

54 = average # of chapter members w/ Jr & Sr status (64 total)

253 Juniors and Seniors eligible to join ASCE (CE declared majors)

21% of eligible Juniors and Seniors that are members (Jr & Sr members / Jr & Sr eligible)

238 total members from OSU in 2018 who were either chapter and/or national members.



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Meeting Statistics

11 professional meetings with an invited speaker

8 meetings with student presentations and/or paper(s) presented

2 professional licensure meetings and/or ethics topics presented

0 field trips

5 social functions

5 Section/Branch meetings attended

0 Younger Members meetings attended

Popular Meetings and Activities

Cotton Candy and Clubs

Beaver Community Fair

Officer Retreat

ASCE Families

Mentoring Study Sessions

Executive Officer BBQ

Bowling Night

Meet a CE Day

AGC and ASCE Spring Picnic

ASCE vs AGC Basketball



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Cotton Candy and Clubs

Every year OSU holds a club fair during Fall Term for incoming freshman to have an opportunity to learn about the many different engineering student organizations. At the ASCE table there was information about the Concrete Canoe team, and various ASCE projects. A total of 9 Student member officers attended and worked the booth.





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Beaver Community Fair

The Beaver Community Fair is held every year to showcase all student clubs to the student body. ASCE's booth showcased both the concrete canoe team and various ASCE community service projects.

9 Student members attended, as well as our faculty advisor.





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Officer Retreat

The ASCE Officer Retreat was held in Pacific City, OR, this year. The purpose of the retreat is to both welcome new student officers, share plans and ideas for the upcoming school year, and to participate in team building activities and have fun!

14 Officers were able to attend, along with 2 practitioner advisors and our faculty advisor.



ASCE Families

ASCE Families, a mentorship program that OSU ASCE began last year continued on this year.

The goal of ASCE Families is to encourage younger members to become more active in ASCE, and retain older members by keeping them involved as mentors.

This year, there were 11 total participants in ASCE Families.





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Mentoring Study Sessions



ASCE plans mentoring study sessions once a term to both help students prepare for their upcoming exams and to help facilitate students in getting to know peers in their classes.



A total of **18** students attended.



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Executive Officer BBQ

Every year ASCE holds an executive officer BBQ to celebrate the work the previous year's officers have accomplished, and to welcome the newly elected officers. A total of 16 Student members attended, as well as our faculty advisor, at his house.





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Bowling Night

The annual ASCE bowling night was held on campus, and included an ugly sweater contest! It gave student members and officers a chance to take a break before finals, and get to know each other.

30 Student members attended, as well as our faculty advisor.





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Meet-A-CE Day

Meet-A-CE Day was held at the University of Portland. Haley Madland from Oregon State University was awarded the Byron Jones Scholarship, and all the students attending got the opportunity to meet and talk with practicing engineers from Portland.

12 Student members attended, as well as our faculty advisor.



ASCE and AGC Spring Picnic

The ASCE and AGC combined spring picnic is held annually, and games such as Spike Ball and football were played.



11 Student members attended, as well as our faculty advisor and practitioner advisor.

ASCE vs AGC Basketball

OSU's ASCE and AGC chapters picked up teams and competed against each in friendly games of Basketball.



17 Student members attended.



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PNW Student Conference

Held at Oregon Institute of Technology

Klamath Falls, OR

April 6-7, 2018

42 students attended

Concrete Canoe Team:

- Placed 2nd Overall

Steel Bridge Team:

- Bridge DQ'd - failed



Concrete Canoe

This past year OSU's Concrete Canoe team built *Gorgeous* – a 20 ft long and 230 lb canoe. In order to incorporate more sustainable practices, the team increased the amount of recycled and reused materials, and reduced the use of polymeric spheres.

The team took **2nd** place overall at this year's Pacific Northwest Student Conference.

Presentation: **1st Place**
Design Paper: **3rd Place**
Final Product: **5th Place**
Races: **Cancelled**



Steel Bridge

The Steel Bridge Team created a deck bridge, the first of this type that OSU has created in the last 5 years.

Unfortunately, although this was the lightest bridge at competition this year, the team was disqualified due to the bridge collapsing from a weld failure.

The team also underwent some significant changes, with 2018 being the last year of Steel Bridge being held under the umbrella of ASCE.





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Leadership Development

Workshop for Student Chapter Leaders (WSCL)

- Las Vegas, Nevada
- January 11-14, 2018
- Students: Bret Burch, Lauren Kerr, Zachary Blowers
- Faculty Advisor: Tom Miller





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Special Projects

Habitat for Humanity

ASCE/ITE Adopt-a-Highway

CH2M/OSU High School Bridge Contest

Outreach: Family Science and Engineering Night

Unprepared Documentary



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Habitat for Humanity #1

DESCRIPTION

ASCE student members helped with a Habitat for Humanity house building project. The house was located on the south side of Corvallis. Student members did the exterior painting for the house on 2/3/18.

ENGINEERING COMPONENT

Student members were exposed to the process of building a wood-frame home, along with some discussion with the builders on how foundations and structural integrity are inspected.





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Habitat for Humanity #1

PROJECT IMPACT

ASCE student members gave back to the community and helped give a family a home of their own – a home they helped construct themselves.

PARTICIPATION

8 OSU ASCE student members and the ASCE faculty advisor participated for the **24 person-hour project.**





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Habitat for Humanity #2

DESCRIPTION

OSU ASCE student members helped with another Habitat for Humanity project which involved placing gravel as a floor. We unloaded the gravel to the garage and leveled it for the house on 11/03/2018.

ENGINEERING COMPONENT

Student members were exposed to the process of laying gravel for the sub-floor, along with having the opportunity to ask questions about why specific steps, such as compacting the gravel, are important. The overall building construction was exposed and discussed too.





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Habitat for Humanity #2

PROJECT IMPACT

ASCE student members gave back to the community and helped a family in the process of building their home!

PARTICIPATION

12 OSU ASCE student members and the ASCE faculty advisor participated for a total of a **24 person-hour project.**





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ASCE-ITE Adopt-a-Highway

DESCRIPTION

OSU ASCE students participated with ITE students in an Adopt-a-Highway event to help clean up two miles of Hwy 34 east of Corvallis on two separate occasions, 3/3/18 and 5/19/18.

ENGINEERING COMPONENT

Students who participated in the event had the opportunity to observe civil engineering features along the highway, such as culverts and signage, and helped in maintaining a clean transportation link between Corvallis and I-5.



ASCE-ITE Adopt-a-Highway

PROJECT IMPACT

This event gave students an opportunity to give back to the community and provide a clean highway to people travelling along Hwy 34.

Students from both the OSU ASCE and ITE chapters worked together as a combined OSU CCE community. The groups ate lunch together afterwards.

PARTICIPATION

23 OSU ASCE student members and the ASCE faculty advisor participated for **58 person-hours** in the execution of the two different clean-ups.





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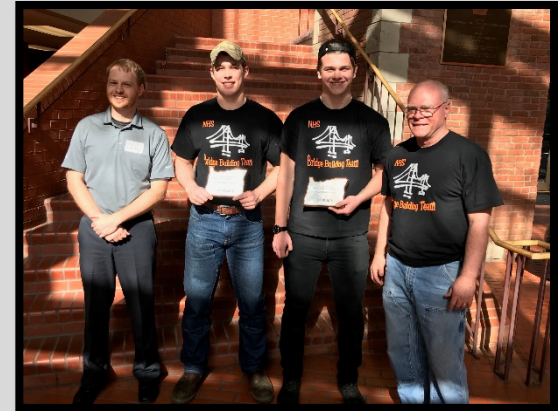
Jacobs/OSU Bridge Contest

DESCRIPTION:

The 49th annual contest occurred on February 24th from 7:00 AM to 2:00 PM in Owen Hall on Oregon State University's campus. HS students competed to design the most efficient bridge and the winners were judged based on the ratio of the load carried to the weight of the bridge.

ENGINEERING COMPONENT:

Participants learned and observed structural behavior concepts such as tension and compression and the importance of good connections and how they affect design. Design to a specification is also essential. During the event, campus tours and a presentation on CE disciplines and ASCE were provided to the attendees.



Jacobs/OSU Bridge Contest

PROJECT IMPACT:

The competitive atmosphere inspires students to improve from the following year. 136 bridges were tested, and the most efficient bridge carried 5,260 times its own weight of 9.5g. ASCE plans to expand its outreach to several schools not involved this year.

PARTICIPATION:

Approximately **32** OSU student volunteers and several ASCE advisors and engineering faculty were present. **110 person-hours**. The students in Oregon State's wood design class participated as well. The following high schools attended the event: Riverdale, Springfield, Nestucca, Yoncalla and West Albany.



Family Engineering Night

DESCRIPTION

OSU ASCE students traveled to Franklin Elementary in Corvallis, OR to participate in the Family Science and Engineering Night to teach grade school kids about civil engineering.

ENGINEERING COMPONENT

Structural Analysis: The kids were given marshmallows and toothpicks and were challenged to build the tallest structure.

Buoyant Forces: The kids also built “Flinkers” by placing a foam peanut in water and adding different weights with paper clips. When the buoyant forces are equal, the foam peanut “flinks” instead of floating or sinking.



Family Engineering Night

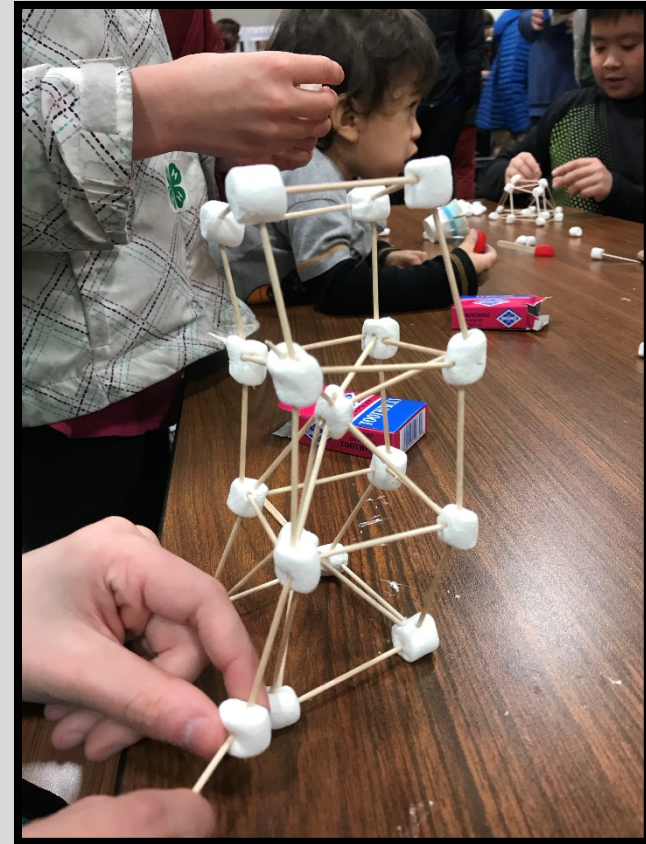
PROJECT IMPACT

The event taught the kids about some of the things a civil engineer does, while entertaining them and allowing them to have fun with hands-on activities.

The event also allowed two student members to gain experience in public speaking and gave them an opportunity to give back to the community.

PARTICIPATION

2 OSU ASCE student members participated for a total of 4 person-hours in the execution of the event.





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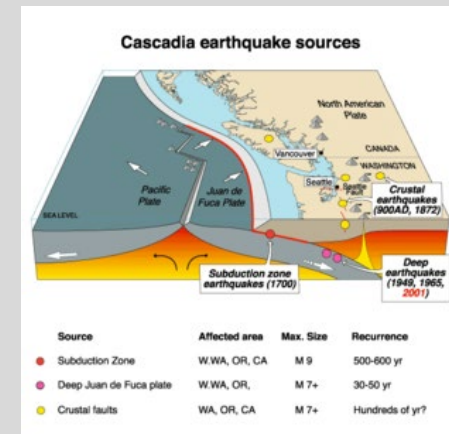
Unprepared Documentary

DESCRIPTION

The “Unprepared” OPB documentary was presented to the OSU and Corvallis communities to make them more aware of the effects from a M9 Cascadia Subduction Zone (CSZ) earthquake and help them to prepare for its impacts on Oregon and their personal lives.

PROJECT IMPACT

The audience was informed about the severe hazards from a future earthquake and how to prepare themselves and their families. As engineers and citizens they were encouraged to be involved in State and local actions to be ready for the eventual disaster and mitigate the effects beforehand.



Unprepared Documentary

ENGINEERING COMPONENT

All engineering aspects of the earthquake were discussed from ground shaking and liquefaction to tsunamis. Effects on hospitals, schools, bridges, airports, and fuel storage facilities were all explained.

PARTICIPATION

Almost 200 people attended the event. The expert panel discussion included 3 OSU faculty from various disciplines across campus, the OSU emergency manager and a geotechnical engineer. Cooperation with the ASCE Oregon Section President was essential. 2 ASCE officers and the faculty advisor were involved in planning for about 5 person hours.





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Summary and Questions

Significant Events:

- Continuation of ASCE Families Program
- Completed 225 person-hours of Special Projects

Significant Challenges:

- Determining next steps for the Steel Bridge team
- Finding a permanent build space for competition teams

