



2022/2023 Steel Bridge Team

## **WHO WE ARE**

For 25 years, UBC Steel Bridge has been the representative design team for the University of British Columbia at various international steel bridge competitions and public engineering outreach events. The competitions challenge university students to design and fabricate a 1:10 scale steel bridge according to different design constraints each year.

As a student-run team, we offer our members the opportunity to obtain a well-rounded experience that simulates industry operations:



Structural design



Structural modeling and optimization



Construction and project management



Steel fabrication

Our primary goal is to design a bridge that is structurally efficient with optimal weight, stiffness, and constructibility. This enables promotion of student-led innovation and design, equipping future leaders and engineers from Canada's top Civil Engineering program with the skills they need to face an increasingly demanding industry.

### **CELEBRATING 25 YEARS**

Since 1999, UBC Steel Bridge has designed scale model steel bridges and competed in over 35 competitions across North America. As a team, we have achieved many accomplishments, placing in regionals or nationals each year. We are proud to celebrate 25 years of bridging theory and practice.

2022 Icebreaker Event



#### **COMMUNITY OUTREACH**

Building strong connections is the foundation to a successful team. In the past few years, we have focused on building a strong community within our team and with our sponsors. From large-scale social events to casual game nights, our team has the opportunity to connect and decompress outside of meetings. Similarily, sponsorship events such as Lunch and Learns enable us to strengthen our connections with our sponsors while learning more about the industry. Last year, we held 7 Lunch and Learn events with the help of our dedicated platinum sponsors.

2022 Lunch and Learn with a sponsor





2023 SSBC - Loading

In April 2023, we participated in the Student Steel Bridge Competition (SSBC Regionals) at Montana State University. Finishing 3<sup>rd</sup> at SSBC, we qualified for SSBC Nationals and went on to place 31<sup>st</sup> out of 176 teams in June.

At the Canadian National Steel Bridge Competition (CNSBC) in May 2023, we finished 3<sup>rd</sup> overall out of 13 competing teams.

We are proud of our accomplishments and strive to continue making improvements year-over-year at competitions. This year, through additional competitions, sponsor benefits and team-building events, we aim to further engage our community and propel our team to greater heights. We hope to reach our goals hand-in-hand with our sponsors.





### RECENT TEAM HISTORY

#### 2023

#### Canadian National Steel Bridge Competition - 3rd Place Overall /13 teams

• 1st Place: Video, Aesthetics

• 2<sup>nd</sup> Place: Construction Speed

• 3rd Place: Construction Economy

#### Student Steel Bridge Competition - Nationals - 31st Place Overall /176 teams

• 3rd Place: Video

• 6th Place: Construction Speed

• 14th Place: Aesthetics

#### 2022

#### Canadian National Steel Bridge Competition - 2<sup>nd</sup> Place Overall /8 teams

• Top Canadian Team and Top Canadian Cost

• 1st Place: Stiffness, Structural Efficiency, Video

• 2<sup>nd</sup> Place: Construction Speed, Lightness, Construction Economy, Cost Estimation

• 3rd Place: Oral Presentation

#### Student Steel Bridge Competition - Nationals - 14th Place Overall /144 teams

Team Engagement Award

• 1st Place: Video

• 2<sup>nd</sup> Place: Aesthetics

#### 2021

#### Canadian National Steel Bridge Competition - 1st Place Overall /12 teams

• 1st Place: Design and Analysis, Construction, Questions and Answers

• 3rd Place: Video

#### **Student Steel Bridge Competition - Regionals**

Guest School

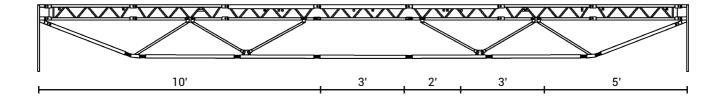
2023 SSBC Nationals - Construction



# 2022/2023 DESIGN

Our last year's design consisted of a modified Warren truss spanning 23 ft. We utilised innovative techniques to achieve an optimal bridge design. This included using "dual chord" members to maximize the strength-to-weight ratio, and maximizing deep truss depth to increase the moment arm. The lateral system creates a direct load path to the piers and is designed to minimize construction over the river. Our design prioritised constructability and ease of fabrication, making it a practical and effective solution.

#### **SCALED SIDE VIEW 2022/2023 BRIDGE DESIGN**



#### CONNECTIONS

To withstand demand loads and meet various constraints, four joints were designed. These connections aided in minimising construction time.



**East-West** Connection



L-Joint





**U-Joints** 

### **OUR EXPENSES**

Bringing our design to life and sharing our hard work is not a small feat. Our team incurs expenses for materials, equipment, fabrication, marketing, and sending our team to competitions - this is where sponsors' financial contributions are critical to our success. UBC Steel Bridge is aiming to attend three competitions across North America this year.

• CNSBC - Québec City, Québec

Social events, member budget

• SSBC Regionals - Vancouver, British Columbia

Regionals will be hosted at UBC! Sponsors are invited to attend the competition.

SSBC Nationals - Ruston, Louisiana

Your sponsorship will help us tremendously in achieving our goals as a team! Our goal is to enable as many members as possible to compete with design teams worldwide. We strongly value the importance of competition experience as this allows members to connect with passionate students and witness their hard work come together. As we grow, we strive to learn and improve our design year after year to compete nationally against the best.



SSBC Regionals	\$2,500
CNSBC	\$28,500
SSBC Nationals	\$27,500
Materials Materials, tools, and equipment for workshop	\$3,000
Fabrication & Welding	\$19,500
Sponsorship  Events, design and consultation meetings, t-shirts	\$6,000
General Expenses	\$2,000



2023 SSBC - Competition

## **SPONSOR BENEFITS**

As a sponsor, you will be supporting education and innovation, while making a direct positive impact on the success of our team. The material used, fabrication process, and attendance at our competitions all require financial assistance. With your support, our team will be able to continue providing experience-building opportunities for UBC Engineering students to learn and grow.

We ensure all of our sponsors publicity and recognition every step of the way. As a UBC Steel Bridge sponsor, you will also gain benefits through access, marketing, and visibility.

#### **ACCESS**

- Personal invitations to Steel Bridge networking events
- Exposure to our current team members, alumni, and UBC faculty
- Establish close working relationships with talented and hardworking UBC students

#### **MARKETING**

- Demonstrate your company's dedication to community outreach
- Connect with other industry professionals and corporate sponsors at events

#### **VISIBILITY**

- Showcase your company and logo at community outreach events and competitions
  - Steel Bridge Website
  - Steel Bridge Merchandise (Team Shirts)
  - Team Posters and Video Presentations
  - Social Media Posts (Linkedin, Instagram, Facebook, etc.)

## **2024 SPONSORSHIP LEVELS**

	<b>BRONZE</b> \$1,000-\$1,499	<b>SILVER</b> \$1,500-\$1,999	<b>GOLD</b> \$2,000-\$2,499	<b>PLATINUM</b> \$2,500+	STEEL CONTACT US!
<b>Networking</b> Invitation to Industry Events					
Apparel Representation on competition T-Shirts	Company Name (text)	Small Logo	Medium Logo	Large Logo	Featured
<b>Visibility</b> Company Logo on our website	Company Name (text)				Featured
Visibility Company Logo on our competition poster	Company Name (text)	Small Logo	Medium Logo	Large Logo	Large Logo
Visibility Company Logo on our competition video		Small Logo	Medium Logo	Large Logo	Large Logo
Social Media Sponsor Appreciation Post (Facebook, Instagram, LinkedIn)			Ø	Ø	
Networking Invitation to host Lunch & Learn (company presentation)					

Please note that the sponsorship levels are subject to change based on each year's conditions



### **THANK YOU 2022/2023 SPONSORS**

#### TITLE SPONSOR



#### **PLATINUM**







**GEORGE THIRD & SON** -STEEL CRAFTSMEN-Since 1910











#### **McElhanney**





RELIABLE • TUBE Inc.







**GOLD** 



















TY-LIN INTERNATIONAL CANADA INC

**BRONZE** 















## **THANK YOU**

Your contributions to our team are of great significance, as your company's financial support serves to extend our team's lifeline, year after year.

We ask you to see an investment in UBC Steel Bridge as more than just an amazing marketing opportunity, but as an investment in the future, creating and recruiting the next leaders, engineers, and scientists. An investment into the people who will shape the communities in which we all live, work, and play. With your help, we can reach our full potential.

Thank you for your time in reviewing this package and the consideration in supporting our design team. We look forward to representing UBC and your company at our local events, and most importantly, the 2024 national competitions.

Sincerely,

Adam Ho, Pius Lau, Justin Shou, and Goldspring Ha

UBC Steel Bridge Design Team University of British Columbia

Tel: (604) 764-6338

Email: sponsorship@ubcsteelbridge.ca



Adam Ho
Administration Lead



Pius Lau Sponsorship Lead



Justin Shou

Marketing and
Sponsorship Lead



Goldspring Ha
Marketing Lead

#### **UBC Steel Bridge Design Team**

Civil Engineering Design Studio 1005 - 6250 Applied Science Lane Vancouver, BC, V6T 1Z4



Company:						
Contact Name:						
Address:						
City:	Province:			Postal Code:		
Phone:		Email:				
Sponsorship Amoun	t:					

Sponsorship Level	Sponsorship Amount	Company Logo Size on Team Shirts	Company Logo on Team Website, Teachnical Poster, Video, and Events	Invitation to host Lunch & Learn
Steel	Please Contact Us!	Featured	Featured	Yes
Platinum	\$2,500+	Large	Large	Yes
Gold	\$2,000 - \$2,499	Medium	Medium	-
Silver	\$1,500 - \$1,999	Small	Small	-
Bronze	\$1,000 - \$1,499	Text	Text Video: n/a	-

There are three ways to provide the desired sponsorship amount this year:

- 1. Wire Tansfer/ EFT: Please contact us at sponsorship@ubcsteelbridge.ca for details
- 2. Online Payment/ Credit Card: Please visit UBC's Corporate Giving & Sponsorship website here
- 3. Cheque: Please make cheques payable to "The University of British Columbia"

To avoid delays in processing you sponsorship amount, please ensure the memo line on the cheque reads "Sponsorship for UBC Steel Bridge Ref#GF000325".

Complete the above form and mail it, along with your sponsorship cheque to UBC Steel Bridge Design Team
Attention: Ana Merino

UBC Development - Faculty of Applied Science
David Strangway Building
500 - 5950 University Blvd.
Vancouver, BC V6T 2B9

All sponsorships must be confirmed by January 31, 2024 to be acknowledged as an official sponsor. Sponsorship perks are in effect for the fiscal cycle February 1, 2024 to January 31, 2025. Please email your company logo to sponsorship@ubcsteelbridge.ca upon confirmation of your sponsorship. Thank you so much for your support!

Your information is collected under the authority of section 26(c) of the British Columbia Freedom of Information and Protection of Privacy Act. UBC will use this information to process your sponsorship, maintain contact, and keep you up-to-date with University information and events. UBC does not sell, rent, or trade donor lists, and it will treat your sponsorship as confidential, except as follows: UBC will disclose your identity and contact information to the student teams and project organizers for the purpose of recognition and communication. If you prefer that UBC not share your contact information as noted above or if you have any questions about the privacy of your donation, contact Annual Giving at 604.827.4111 or annual giving@ubc.ca



# LET'S CONNECT

Follow us on our social media platforms!



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