

## From the Desk of Maysoun Ismaiel...

I am pleased to announce that on December 5<sup>th</sup>, 2022, I began my role as CMDC/SMI masonry design coordinator. Before diving into my role, I would like to introduce myself and my background to the SMI community. I obtained my B.Sc. and M.Sc. degrees in structural engineering from Cairo University in Egypt. Then I moved to Canada where I completed my Ph.D. degree from the University of Alberta in Building Science Engineering. I focused on the thermal performance of concrete masonry cavity walls. I was the 2019 recipient of the Masonry Contractors Association of Alberta-Northern Region Graduate Scholarship in Civil Engineering. I was awarded for my research topic titled "A Practical Method to Estimate the Effective Thermal Resistance of Exterior Masonry Walls". Also, I was a recipient of the Alberta Graduate Excellence Scholarship in 2020. My research aims to provide efficient approaches for estimating the R-values of common concrete masonry cavity walls.

I became interested in masonry design through attending masonry courses, conferences, and symposiums during my Ph.D. program which introduced me to the masonry field and community. My work with the Masonry Contractors Association of Alberta (MCAA) during my Ph.D. program helped me to understand the needs and the vision of the masonry industry. Based on my multi-discipline engineering background, I am interested in applying my knowledge further in addressing the thermal and structural performance of masonry elements and applying my research to a larger scale. My multi-discipline engineering background will be significant

as the evaluation of the thermal resistance of building envelope elements is essential for a reliable assessment of the thermal behaviour and energy efficiency of masonry buildings as well as for improving the masonry building's sustainability.



I feel thrilled to be a member of the CMDC team in Saskatoon, where I can actively contribute to promoting high-quality masonry wall systems. Additionally, I am honoured to assist the local members and the design community in accessing the excellent services provided by CMDC. I am grateful for the opportunity to work with the exceptional CMDC team and the supportive group of SMI members who made my relocation to Saskatoon easy and put in considerable effort to train me in my role. With their help, I feel confident in continuing SMI's and CMDC's mission to encourage the use of superior masonry wall systems and to help in providing masonry contractors and designers across Canada with tools and resources to facilitate the proper design and construction of masonry structures.

Here are some updates on the latest happenings at CMDC. Our organization remains committed to fostering collaboration between the design community and the masonry construction industry. We do this by offering technical support and continuously improving the field of Masonry Design. Some of the noteworthy projects and plans that our staff are currently working on are:

- In December 2022, CMDC signed an agreement with the two British Columbia Masonry Contractor Associations, MCA of BC, and CMCA-BC & Yukon, to open a CMDC office in Vancouver. This will require the hiring of a new CMDC staff member. This marks another step for CMDC as a national association.
- Developing the next edition of the Masonry Structures Behaviour and Design Textbook is finished. By the end of July, the entirety of the textbook will be complete from both a technical standpoint and finalized in its publishable form. However, the first 7 chapters have been released to several universities including Roanne Kelln at the University of Saskatchewan to help with course development during the winter of 2023.
- The EMDC course is planned for Fall 2023 and Winter 2024. The EMDC would be a blend of in-person lectures and online learning. The tentative plan is for the Fall 2023 Courses to run in Mississauga and Ottawa and for Winter 2024 Courses to run in Western Provinces with cities to be determined.

- The entire CMDC team is dedicated to assisting working groups for CSA S304 in both organizational and technical aspects, despite the tight development timeline. We are grateful for the invaluable support provided by the CMDC staff, as we would not have been able to make progress without them. We are currently exploring significant changes that would greatly benefit designers and our industry. However, until these changes are finalized and voted on by the committee, there is no certainty that they will be adopted. Nonetheless, the investment made by CMDC and CCMPA into design and research communities has already paid off through the committee's composition and the valuable data we have collected to support technical improvements.



- In Saskatoon, lunch and learn events were organized to discuss the latest energy code requirements and their impact on masonry design and industry. The sessions provided insightful information on the topic and discussions about various methods for achieving and evaluating energy-efficient masonry design. Thanks to the SMI and all its members for their support in arranging and sponsoring these events.



- Continued support of masonry research across Canada in partnership with CCMPA and our local masonry associations.
- Continuing to provide complimentary copies of Masonry Structures Behaviour and Design and MASS software to students enrolled in the Masonry Design Class at the University of Saskatchewan.
- In the winter of 2023, I had the privilege of presenting a Masonry Software Demonstration using MASS software at the University of Saskatchewan for students who had enrolled in the Masonry course (Design in Masonry). I was thrilled to see the students' excitement about incorporating masonry design software in their coursework. I strongly believe that integrating technology in the classroom is an effective way to engage students and equip them for success in the industry and their future professions. I extend my sincere gratitude to the incredible lecturer Roanne Kelln, P.Eng., M.Sc., and the students at the University of Saskatchewan for their eagerness and willingness to learn masonry design.
- In February of 2023, I had the opportunity to visit the main office in Mississauga to join the CMDC for the development of CSA S304 standards. I was fortunate enough to receive some masonry-building skills at the CMDC training center. It was an enjoyable experience, and I am grateful for the assistance provided by Mario De Nicola, the masonry instructor, and Brad Crumb, P.Eng. Masonry Design Engineer of Engineering Technical Resources at the CMDC Mississauga office.





## Saskatchewan Centre for Masonry Design

The CMDC team is dedicated to ensuring seamless research support and coordination with the Saskatchewan Centre for Masonry Design (SCMD). In the upcoming 14<sup>th</sup> NAMC at Omaha, NB in June 2023, a group of U of S students will be presenting their work and contributing with a poster presentation. The CMDC staff is looking forward to meeting with the U of S team during the conference in Omaha, NE.

Let's take a moment to recognize Thomas Vachon, M.Sc., who recently graduated under the supervision of Dr. Lisa Feldman and is now employed at Simpson Gumpertz & Heger in Chicago, IL. Thomas has made a notable contribution to the field, having published a journal paper on their work in the Canadian Journal for Civil Engineering. Congratulations to Thomas on this accomplishment!

CMDC staff are looking forward to attending the thesis defense for Micah Heide which is expected to be in the early fall of 2023. Micah is an M.Sc. student (supervised by Dr. Lisa Feldman) conducting an experimental investigation related to the assessment of CMU geometry on the cracking, load-displacement behaviour, and capacity of partially grouted and reinforced walls subject to out-of-plane loading. Micah has completed all laboratory testing and is currently preparing his thesis. The current work being completed at the University of Saskatchewan will hopefully lead to significant advancements in masonry design.

CMDC staff are currently working with Will Pahl to expand on the research previously carried out by

Gordon Chui. Will, an undergraduate summer intern, is currently engaged in testing masonry prisms. These prisms have been built and are currently undergoing testing. The aim of Will's study is to provide insights that will contribute to the changes in the standard.



The research owes its success to the invaluable support of the Saskatchewan Masonry Institute, the Canadian Concrete Masonry Producers Association, and the Canada Masonry Design Centre. These associations' members recognize the significance of reinvesting in their industries and universities to guarantee the future prosperity of the masonry industry.

## CMCA's Annual Masonry Conference in Nashville, TN



### **Some of SMI's members who attended the conference.**

*Back row: Steph Iula, Scott Boyd, Ryan Winkler, Jesse Iula, Leann Iula, Ryan Leech, Monique Windjack  
Front row: Victor Iula, Maysoun Ismaiel, Candyce Poberznek, Trisha Winkler, Dominic Iula, Kathy Leech, Jamie Windjack*

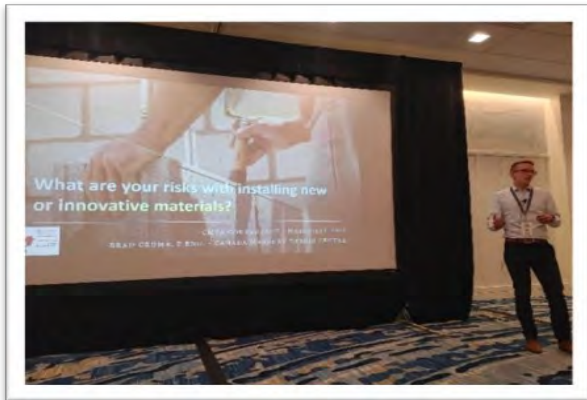
The CMDC board decided to bring all of its staff to Nashville for the CMCA conference this long weekend in May. With the association's growth and influx of new hires, it's become increasingly difficult to arrange gatherings for our entire staff to meet and connect with our national membership. After thorough discussion, the board chose to make the annual CMCA conference a recurring event for CMDC staff to meet in person. This will provide SMI members with the opportunity to meet some of the CMDC staff who they may not have the chance to meet due to geographical barriers.

To make the best use of the opportunity, our team strategized for increased participation from CMDC staff members in the CMCA conference. We selected three presentation topics that were aligned with

market demands and interests, based on the technical inquiries received by CMDC offices. These presentations were then delivered by our staff during the conference.



Monica Guzman, M.Sc., P.Eng., Masonry Design Engineer from the CMDC Calgary's office discussed how to manage problematic masonry specifications and details.





Brad Crumb, P.Eng., Masonry Design Engineer, Engineering Technical Resources at the CMDC main office in Mississauga presented some of the risks with installing new or innovative materials.



Andrew Smith M.Sc., P.Eng. Masonry Design Engineer from the CMDC Halifax office presented the updates to the CSA Z797 code of practice for access scaffold.



At the CMDC, we are dedicated to promoting cooperation between the design community and the masonry construction sector. Our goal is to enhance the field of Masonry Design through ongoing improvement and by offering advanced education in this area.

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## Tyndall Stone



Earlier this year, there was great news regarding the nomination of Tyndall Stone as a Heritage Stone. It had already been approved as a Global Heritage Stone Resource by the IUGS Sub-commission on Heritage Stones, which operates under the umbrella of UNESCO.

The SMI is dedicated to promoting the benefits of using Natural Stone in Green Building Projects. Stone is a natural product it does not require other materials to create it. There is an availability of various different textures, colours, shapes, and technical characteristics that make it possible for the stone to be used in a wide range of applications. The natural stone contains no harmful chemicals or toxins, which

assures a healthy interior environment. Stone is also available regionally and locally. Regionally manufactured and extracted materials reduce environmental impacts by reducing emissions of greenhouse gases during the transportation of the materials. Fortunately for environmentally conscious consumers, there are stone quarry sites within 500 miles of nearly any building site in the United States and Canada. Natural Stone stands out as the perfect choice to enhance sustainability.

Choosing natural stone shows a responsibility toward Earth by actively striving to preserve, restore, or improve the natural environment.

## Claybank Brick Plant National Historic Site

The Claybank Brick Plant was a successful Saskatchewan-based small industry, that specialized in the production of refractory brick. The changes in technology forced the plant to close after almost 75 years of continuous operation. However, the Claybank Brick Plant Historical Society has been actively educating the public about the history of the Claybank Brick Plant National Historic Site for nearly 25 years by arranging tours and events at the brick plant. These tours allow guests to step back in time and experience early 20th-century industrialization while experiencing the unique Saskatchewan landscape. The story of Claybank Brick Plant is an inspiration to everyone who enters the brick plant and learns how to create something that has been used to construct some of Canada's most recognized and iconic buildings such as Chateau Frontenac.



Over the past several years access to the site has been restricted causing frustration to tourists who have travelled great distances to find out that access to the plant is not possible because the building structures are expected to become a significant hazard. Saskatchewan Heritage Foundation has been doing recognized efforts to encourage investments

to prevent the removal of these heritage buildings and find possible solutions to continue their mission.



The Saskatchewan Masonry Institute recognizes the importance of heritage masonry buildings preservation to remember Saskatchewan's culture and interesting past. Therefore, the SMI Board of Directors voted on making a significant cash donation to the Claybank Brick Plant and encourages further support to be offered for the Claybank Brick Plant National Historic Site which is considered a visual reminder of Saskatchewan's cultural heritage and the people and industries that once played a key role in establishing the area and making it what it is today. <https://claybankbrick.ca/>





## **Considering a Career in Skilled Trades as a Bricklayer?**



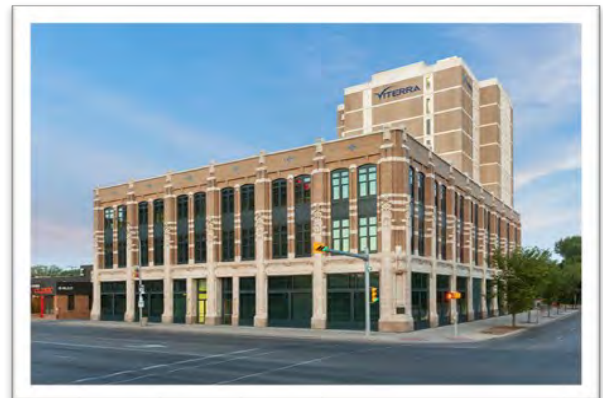
The construction industry continues to provide significant employment opportunities. Masons or bricklayers are skilled workers who install masonry building materials such as brick, block, stone, and other materials to build walls and buildings. They must have a strong knowledge of tools, materials and techniques to perform in the trade. They work in the outdoors, indoors, in different locations, at home, in the city next door, and around the world. They utilize their expertise in the most practical way to build the most magnificent and inspiring structures we have today.

Here are some of the top reasons why choosing a career in masonry is a great option; Many construction jobs do not require a college degree and offer on-the-job training as well as several opportunities for advancement. Starting a career without college loans makes a career in construction very attractive. A job that allows you to experience the outdoors while also engaging in physical activity has been shown health benefits such as lower blood pressure,

reduce stress, and increase one's overall feeling of happiness. Moreover, people in skilled trades are rewarded for their efforts with good pay. In fact, as an apprentice, you can 'earn while you learn' and start making money right away. The best part, though, is that as a tradesperson you get paid well for doing work you enjoy.

One of the top reasons many individuals choose to work in the construction or masonry industry is because of job security. The demand for new infrastructure projects remains high while the availability of skilled labour declines. Many companies are struggling to find enough individuals to meet the industry's growing demand. Many companies also offer mentorship programs to help employees learn and grow their skills in the field.

The above reasons are just a few examples of why working in the construction or masonry industry is a great idea for your career. If you're interested in a career in skilled trades as a bricklayer (mason) visit <https://saskmasonry.ca/a-career-in-masonry/> for more information.



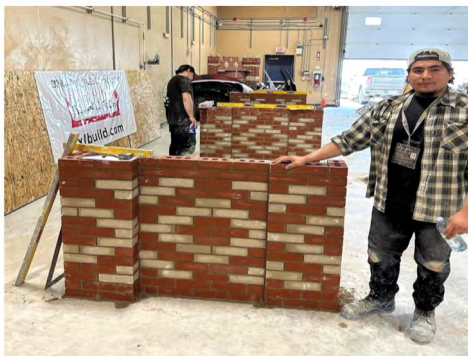
## 2023 Provincial Skills Competition - Bricklaying

On April 28, 2023, Skills Canada Saskatchewan held their bricklaying provincial competition at Saskatchewan Polytechnic Saskatoon where the union apprentices showcased their talents. The purpose of the challenge was to complete the masonry project, as per issued drawings using skills and knowledge they have gained from technical training and job site experiences.

The Gold Medal went to Adrien Bigchild, Union Apprentice with City Masonry. Silver Medal went to

Union Apprentice Noah Kobelsky and the Bronze Medal went to Union Apprentice Kyler Nieman with Brxton Masonry. Dominic Lula, Signatory Contractor with City Masonry and SMI Vice President, presented the winners with gift cards donated by SMI.

The Gold Medal winner, Adrien Bigchild, trained with BAC Local's Training Coordinator, John Walker, in preparation for the National Competition in Winnipeg where he received the Silver Medal. Congratulations, Adrien!



Gold Medal  
Adrien Bigchild



Silver Medal  
Noah Kobelsky



Bronze Medal  
Kyler Nieman





## SMI Golf Tournaments

The Saskatoon SMI Golf Tournament will be held at Riverside Country Club on Thursday, August 3, 2023.



The Regina SMI Golf Tournament will be held at Royal Regina Golf Club on Thursday, August 24, 2023.

