

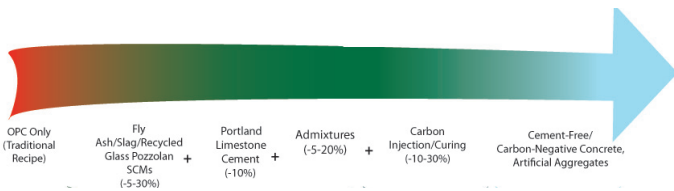


# What is Low-Carbon Concrete... ...and why do Girl Scout Troops #1477 & #1952 want everyone to use it???

There are different ways to make ready-mix and precast concrete with less climate impact:

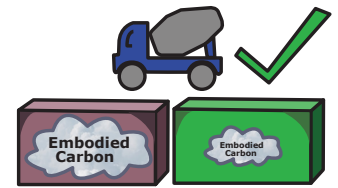
- Use less cement by using supplementary cementitious materials and admixtures
- Sequester waste CO<sub>2</sub> from industry in the concrete through carbon injection, carbon curing, or artificial aggregates (rock made out of CO<sub>2</sub>)

These approaches can be used together to make concrete that is between 20% less CO<sub>2</sub> all the way to carbon negative! They are already being used on major projects all around the world, and aren't even necessarily more expensive.



Low-carbon concrete has a smaller carbon footprint, called **"embodied carbon,"** than regular concrete, which matters because producing concrete makes 8% of global CO<sub>2</sub> emissions!

Small changes in concrete's recipe make a BIG difference: Reducing the embodied CO<sub>2</sub> of the concrete by just 20% on one large building can cut climate impact as much as taking 50 cars off the road for a year!



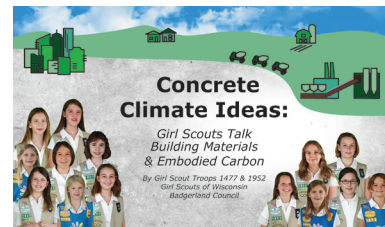
## How can the Urban Design Commission of the City of Madison make a BIG difference?

- Use your role in evaluating large private projects in our city to make embodied carbon, the carbon footprint of building materials, part of the discussion for designers and developers from the very beginning of the design process
- Encourage use of Life Cycle Analysis, Environmental Product Declarations (carbon nutrition facts for materials) and low-carbon concrete mixes and precast concrete products as part of sustainability for building projects

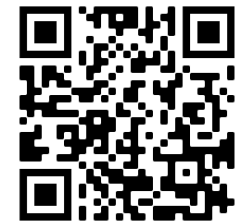
### Check out our videos to learn more! >>>

*I hope that people who are planning buildings will see our videos and talk with architects and engineers. They can encourage them to think about their materials in terms of what they need them to do and be open to using lower carbon concrete. I hope we inspire them to look up more detailed information. Some of the greener options are just as good at doing the job and give off less CO<sub>2</sub>.*

— Kara King, age 11



<https://tinyurl.com/GirlScoutsforGreenConcrete>



<https://tinyurl.com/LowCarbonConcreteMusicVideo>

Disclaimer: The information and views presented above are solely of Troops 1477 & 1952 and do not represent the views of Girl Scouts of Wisconsin Badgerland or Girl Scouts of the USA. These materials are for education purposes and do not endorse any particular commercial products. The troops' project is an entirely volunteer effort without any institutional financial support.





Our troop decided to do a project about concrete because we were interested in the topic of global warming. The fact that concrete is responsible for 8% of global carbon emissions helped us decide to help the cause. There are many ways to solve this, so it is important to think about how you can make concrete greener. I think it is important for everybody, especially kids, to care about embodied carbon and concrete because the more people know, the more people can help reduce CO2.

— Everly Johnson, age 11



## About “Concrete Climate Ideas” A Take Action Project by Girl Scout Troops #1477 & #1952, Girl Scouts of Wisconsin Badgerland

Since December 2020, Girl Scout Troop #1477 (ages 11-13) has been on a mission to reduce the climate impact of new buildings and structures!

They have been learning about the importance of **embodied carbon** (carbon footprint) of materials on climate change and advocating for use of low-carbon concrete, Environmental Product Declarations (carbon “nutrition facts” for building materials) and Life Cycle Analysis in the building industry.

Together with their sister troop #1952 (ages 6-9), they have produced two videos shared around the world, spoken in public listening sessions and city meetings, presented at industry gatherings and conferences, done TV and radio segments, and hosted a virtual roundtable for industry professionals. Their project is featured by the Carbon Leadership Forum and Girls Scouts of the USA, and it was honored at the American Concrete Institute 2022 national conference.

They are proud to be part of a global movement to address embodied carbon, and excited that their advocacy can help. The troops are grateful their home city of Madison, WI has begun using low-carbon concrete for City of Madison Engineering projects and excited that embodied carbon was an action item in Governor Ever’s Clean Energy Plan for the State of Wisconsin.

You can help share their videos and bring up the topic with friends and colleagues. Their project is ongoing, and they continue to seek opportunities to raise greater awareness on their topic, so feel free to reach out!

The girls and their troop leaders, Julia Pooler and Madeline Norton, can be contacted at: [GirlScoutsforGreenConcrete@gmail.com](mailto:GirlScoutsforGreenConcrete@gmail.com)  
[@GS\\_Troop\\_1477](https://www.instagram.com/GS_Troop_1477)



**Accelerating Use of Low-Carbon Concrete in Wisconsin**  
Virtual Roundtable  
For:  
- AEC Professionals  
- Agency Staff  
- State Officials  
- Planners and Developers  
Friday, January 21, 2022 10am

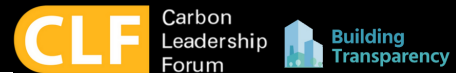
Low-carbon concrete matters a lot for the climate and our future. It would be so exciting to see our state be a leader in this issue!  
— Everly Johnson, Age 12

We want to bring the people who can make a difference together so they can figure out ways to make low-carbon concrete common here in Wisconsin. Come learn about what other states are doing and share your ideas!  
— Kara King, age 12

Hosted by the Girl Scouts of Troop #1477  
Girl Scouts of Wisconsin Badgerland Council  
The girls behind the “Concrete Climate Ideas” Video  
Virtual event platform provided by the Carbon Leadership Forum  
**CLF**  
<https://tinyurl.com/GirlScoutsforGreenConcrete>



Thanks for your time and help with our project and videos!



**AMERICAN CONCRETE INSTITUTE** recognizes  
Girl Scout Troops #1477 & #1952  
Wisconsin Badgerland Council  
for their efforts on the  
**Industry Climate Solutions Outreach Project**  
March 2022

**girlscouts of wisconsin badgerland**  
Contact our troops at:  
[GirlScoutsforGreenConcrete@gmail.com](mailto:GirlScoutsforGreenConcrete@gmail.com)  
[@GS\\_Troop\\_1477](https://www.instagram.com/GS_Troop_1477)