A State of the Iowa Concrete Industry Address

- Sustainability
- Concrete
- Volume demand
- Supply Tightening
- Future of Concrete

Roadmap to Carbon Neutrality

America’s cement manufacturers have committed to the goal of reaching carbon neutrality throughout the cement-concrete-construction value chain by 2050.
What is Sustainability?

- Appropriate designs
- Locally sourced ingredients
- Long lasting products
- Lowest environmental impact
- Recyclable

Example: Pavements, FHWA

Concrete

- There are nearly 7 tons (approx. 1.5 cubic yards) of concrete produced each year for every human on the planet, making it the most used man-made product in the world. Concrete production and concrete construction have an impact on almost every facet of human existence, particularly in developed nations.

- Concrete usage is at least twice as much as wood, steel, plastic, and aluminum combined. When you consider it, there are not many structures that don’t include some type of cement-based building product.

Other than water, concrete is the most-used material on the planet, representing about 50% of all manmade materials by mass. Because society places so much concrete each year, even small changes to its formulation can have dramatic effects on the construction industry’s annual carbon footprint—and benefits everyone on the planet.

U.S. Greenhouse Gas Emissions and Sinks (MMT CO₂ Equivalents)

- Concrete is the 2nd Most Consumed Product on Earth
- Behind water


Concrete is the second most consumed product on earth. Yet, by comparison, concrete construction represents millions of more jobs and a much greater economic return than water. In fact, sustainable water projects rely heavily on concrete for storage, distribution, and reclamation.
Winter?

Cement Supply Survey
Existence of Supply Shortfall Based on Industry Survey

Where Are We Now?

Apparent cement consumption in the U.S. from 2010 to 2021
(in 1,000 metric tons)
Cement import affected


<table>
<thead>
<tr>
<th>Type of cement</th>
<th>Imported in short tons</th>
<th>Domestic in short tons</th>
<th>Domestic in barrels</th>
<th>Total in short tons</th>
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<tbody>
<tr>
<td>2012</td>
<td>12,018</td>
<td>15,457</td>
<td>18,879</td>
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<tr>
<td>2013</td>
<td>14,910</td>
<td>17,267</td>
<td>20,485</td>
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<tr>
<td>2014</td>
<td>17,228</td>
<td>18,735</td>
<td>22,527</td>
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<tr>
<td>2015</td>
<td>20,708</td>
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<td>24,732</td>
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<tr>
<td>2016</td>
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<td>2019</td>
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<td>38,085</td>
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<td>2020</td>
<td>38,373</td>
<td>38,373</td>
<td>42,040</td>
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</tbody>
</table>

Driver Shortage


WE ARE HIRING
JOIN US
VACANCY WELCOME
NOW HIRING
APPLY TODAY
WANTED
<table>
<thead>
<tr>
<th>Railroad</th>
<th>Barges</th>
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<td><img src="image1.jpg" alt="Record Fuel Prices" /></td>
<td><img src="image2.jpg" alt="Looming Industry-Wide Railroad Strike" /></td>
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<td><img src="image3.jpg" alt="Railroad Image" /></td>
<td><img src="image4.jpg" alt="Barges Image" /></td>
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</table>
2022 Supply Tightened

Add to the Logistics and supply

- 2022 saw random occasions of lower strength samples
- In depth review of what is important for your concrete design.
  - Is strength the most important characteristic?
  - Is 4,000 PSI all you want in a mix?
- QC is very important.
Interesting times!

- Market demand
- Winter
- The war?
- Truck drivers are more available
- Fuel Prices? (hopefully peaked)
- Cement production adapting

Concrete of today, concrete of the future

What's next

- Concrete is a needed commodity for advanced civilization.
- Concrete is important to local and global economies.
- Really smart people are working on concrete, concrete mixes, making it more resilient to the new environments and environmental conditions.
- Concrete will be here into the future.