OZINGA®

Ozinga Builds SUSTAINABLY

Ozinga is a fourth-generation, family-owned business providing ready-mix concrete, building materials, logistics networks and alternative fuel solutions. Since 1928, Ozinga has been working to serve our customers, coworkers and communities in a positive way while striving to be good stewards of our environment. With a public commitment to sustainability, Ozinga is always looking for new processes or products to help our customers build *sustainably.*

NRMCA Certified EPD Mix Design

The National Ready-Mix Concrete Association is an Environmental Product Declaration (EPD) Program Operator in an effort to help concrete producers and suppliers meet new requirements in green building rating systems such as LEED v4 and other standards such as International Green Construction Code (IgCC) and initiatives like the Architecture 2030 Challenge for Products. Ozinga is a proud sponsor and long-time partner of the NRMCA and has plant and mix-specific EPDs for numerous locations and has participated in industry-wide EPDs for all locations that are third-party verified.

NRMCA® CERTIFIED EPD

Potential Embodied Carbon Reduction with Ozinga Solution

23% Average Recycled SCMs

6% Average CarbonCure Reduction

29% Average total CO_2 Reduction

Sustainable Raw Materials

Ozinga is proud to offer sustainable ingredients through the procurement of supplementary cementitious materials (SCMs). We also handle and distribute these byproducts directly from the source. Using SCMs like Fly Ash, Slag, and Silica Fume we can produce mixes with up to 70 percent recycled cementitious materials. It reduces the amount of virgin material required and eliminates waste products going to landfills. SCMs contribute to a more sustainable future and can help earn LEED certification without sacrificing strength and durability of roads, high rises, and driveways.

Performance Optimized Mixes

Ozinga works closely with engineers, architects, and product specifiers to create performance optimized mixes that meet or exceed specific job requirements. Using high-quality, well-graded aggregate, reduces the amount of Portland cement in the mixes while maintaining a premium product that helps sustain the environment.

Highly specialized mix designs are created and tested in our fully AASHTO-accredited research & development lab

Modulus of Elasticity:

The ability of concrete to withstand buckling or distortion based on the applied stress

(modulus of elasticity is important because it means less concrete needed, therefore less CO2)

7.8 average KSI

High-Rise Application

385,000 sq ft Office Building at the corner of Fulton & Ogden in downtown Chicago.

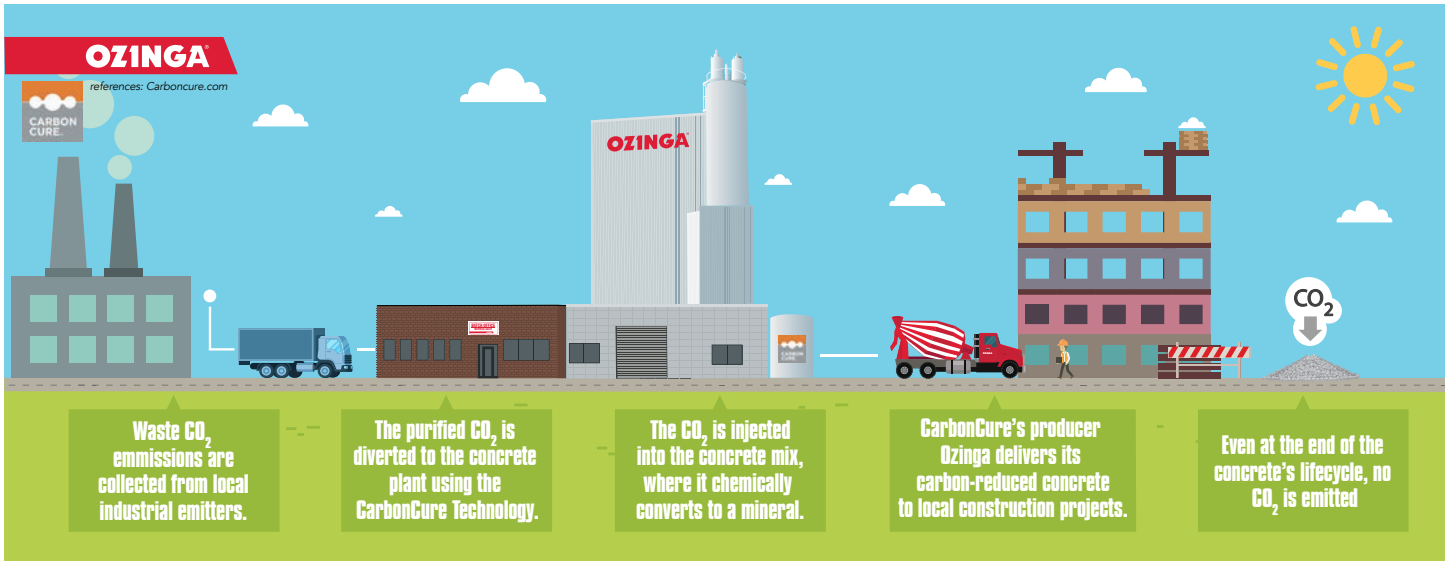
32,000 Square Foot Floor Decks
Single Monolithic Pours on a 5-day Cycle
15,801 Cubic Yards

Finished 2 months ahead of schedule

CarbonCure

CarbonCure technology mixes recycled CO_2 into the concrete using our plant's existing batching system. Once injected, the CO_2 chemically converts into a mineral and becomes permanently embedded in the concrete. By sequestering the recycled CO_2 within the concrete and using less cementitious materials, the carbon footprint is reduced by approximately 30 pounds of CO_2 per cubic yard (sequestered + avoided CO_2).

CarbonCure improves the compressive strength of the concrete which means further reduction of cement needed



McDonald's Flagship Location

600 N. CLARK STREET *chicago, illinois*

In 2018, Ozinga partnered with Ross Barney Architects on the renovation of McDonald's iconic flagship Chicago restaurant at Clark and Ontario.

During the design process, McDonald's was interested in incorporating sustainable elements throughout the structure, including solar panels and energy efficient kitchen and HVAC equipment, so CarbonCure was a natural fit.

"I have worked with Ozinga for a long time," said Carol Ross Barney, design principal at Ross Barney Architects. "They've been great at suggesting new technologies to us and letting us know where the industry and the market is—they (Ozinga) suggested CarbonCure, which turned out to be a great answer for McDonald's."

THE MCDONALD'S REMODEL
sequestered about
30,000 LBS
of CO_2 in the concrete

THE EQUIVALENT OF A
16 ACRE FOREST

Recycled Crushed Concrete

At Ozinga we understand that many unnecessary items end up in landfills or dump sites. We that in mind we recycle 100% of our leftover returned concrete. Some of it is crushed and turn it into a high-quality sustainable aggregate that can be used in backfill and base applications.

- **ILEPA TACO Tier 1 Certified** - suitable for environmental and remediation jobs.
- **95%+** compaction rating saving contractors time while reducing fuel and emissions during grading.

Concrete Blocks

Our blocks also come from 100% leftover returned concrete poured into forms across our entire Ready-Mix operation. They are then sold for creating barriers to aid in traffic control, site security, or storage bins to store salt, landscaping materials, aggregates, or other bulk materials. It is one more way we reduce, reuse, and recycle.

Filtercrete

Filtercrete Pervious concrete is an innovative building material with many environmental, economic, and structural advantages. By allowing for various size voids in the concrete, Filtercrete allows water to pass through, allowing rainwater to filter through the ground. This prevents harmful runoff into our local river, lakes and streams and watershed problems into our sewer systems. Filtercrete also has a wide array of applications, ranging from streets and alleys to residential and architectural use.

Filtercrete Applications

Studio Gang

Poured exterior for Eleanor Boathouse on Chicago River (photo below)

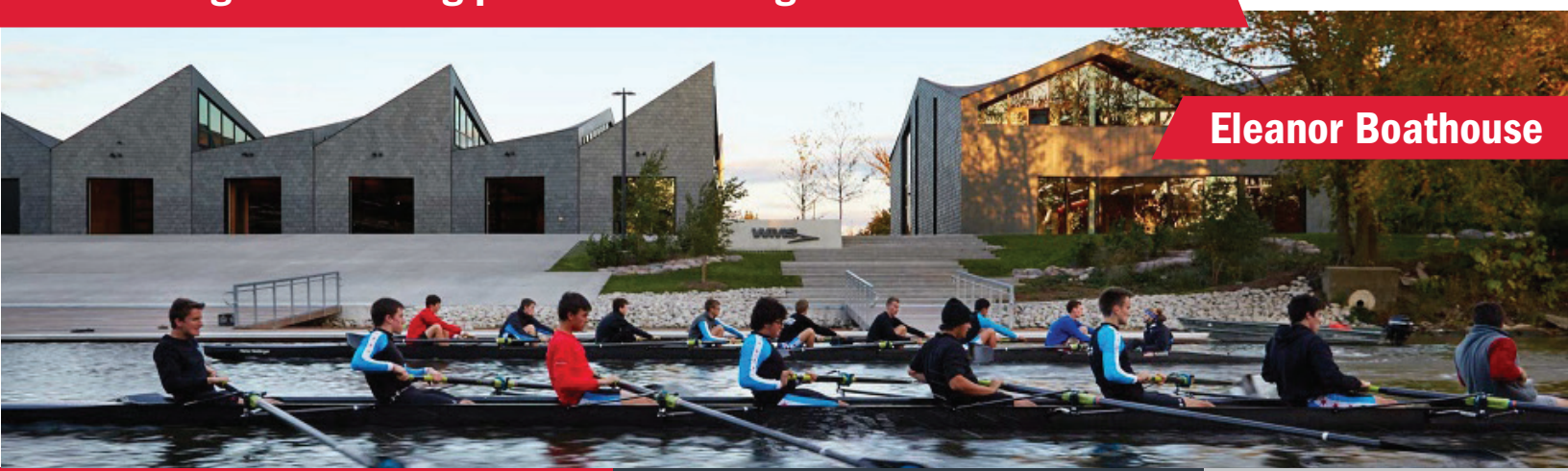
Village of Des Plaines

Alleyway application to combat flooding issues

Lawrence Fishery

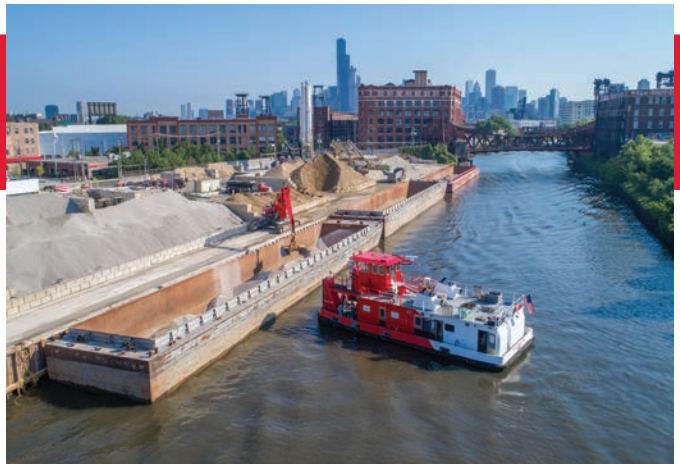
Commercial use in conjunction with pavers

We partner with forward thinking companies who utilize green building practices creating a cleaner future



Ozinga Moves SUSTAINABLY

Ozinga is a bulk materials transportation provider offering customized solutions for customers. A vast transportation network combines highly skilled and experienced professionals with the latest in transportation planning and scheduling technology to ensure your job keeps running on time and on budget.



Ozinga moves over 3 million tons of materials a year through the IL river system

Barging and Towing

Supplying our business with raw materials is a major logistical undertaking. Ozinga uses a fleet of 6 towboats providing the capability to move large quantities swiftly on America's unsung hero of transportation. Having mastered our own supply chain we now provide a sustainable service to other companies.

DID YOU KNOW:

One 8-barge tow is equivalent to 107 train cars and 464 large semis.

Reduced Fuel Consumption

Barge Transportation consumes 77.9% less fuel than by truck

Increased Efficiency

One barge holds roughly 1,500 tons
A railcar can carry 100 tons
25 tons is the avg semi load

Improved Air Quality

Transporting material via barge reduces CO_2 emissions by 89.9% compared to semis

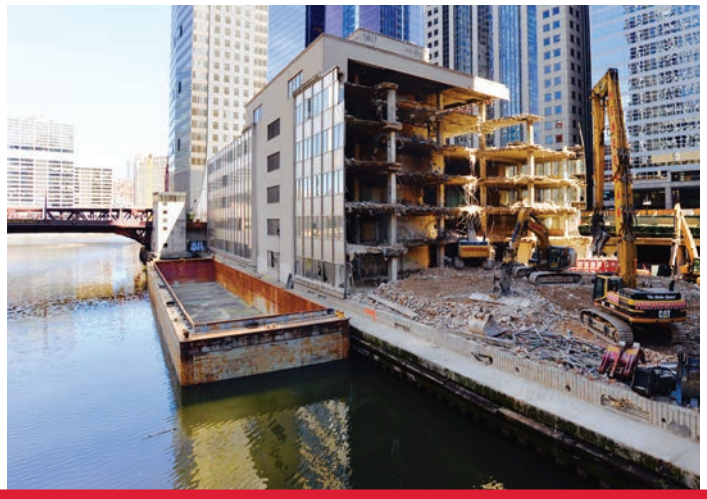
Source: nationalwaterwaysfoundation.org & tti.tamu.edu

Inland River Terminals

Ozinga has amassed 10 river-based terminals from Peoria to northwest Indiana providing hubs for the trans-loading of construction material, agricultural or industrial goods, and the resources to move products connecting road, river, and rail. This reduces the need for extensive “last mile” hauling.

Rail Transportation

Chicago is known for its importance in the rail industry and we utilize this mode of transportation effectively to move construction materials like aggregates and cementitious materials nationally with access to the Class 1 rail system.



Howard Hughes Corporation

110 N WACKER DRIVE *chicago, illinois*

In 2017 Heneghan Wrecking was faced with a land locked demolition project at one of the busiest intersections in Chicago. With commuter both vehicular and pedestrian it was important to keep the roadways free from congestion, work safely, and accomplish the demolition on time.

Ozinga provided the solution in the from of hauling debris out via barge on the Chicago river to a location where it would be crushed into reusable aggregate. This sustainable option saved the day.

“It was the first time we used the river to remove demolision debris and it turned out to be the best plan. Ozinga had the best solution with the right expertise, personnel, and equipment to get the job done.”

- Patrick Heneghan, Owner & President of Heneghan Wrecking

Demolition

Used 11.58 barges

Removed 17,382 tons of debris

Equivalent to 668 semis

Construction

Used 1 barge to deliver framing

Equivalent to 30 semis

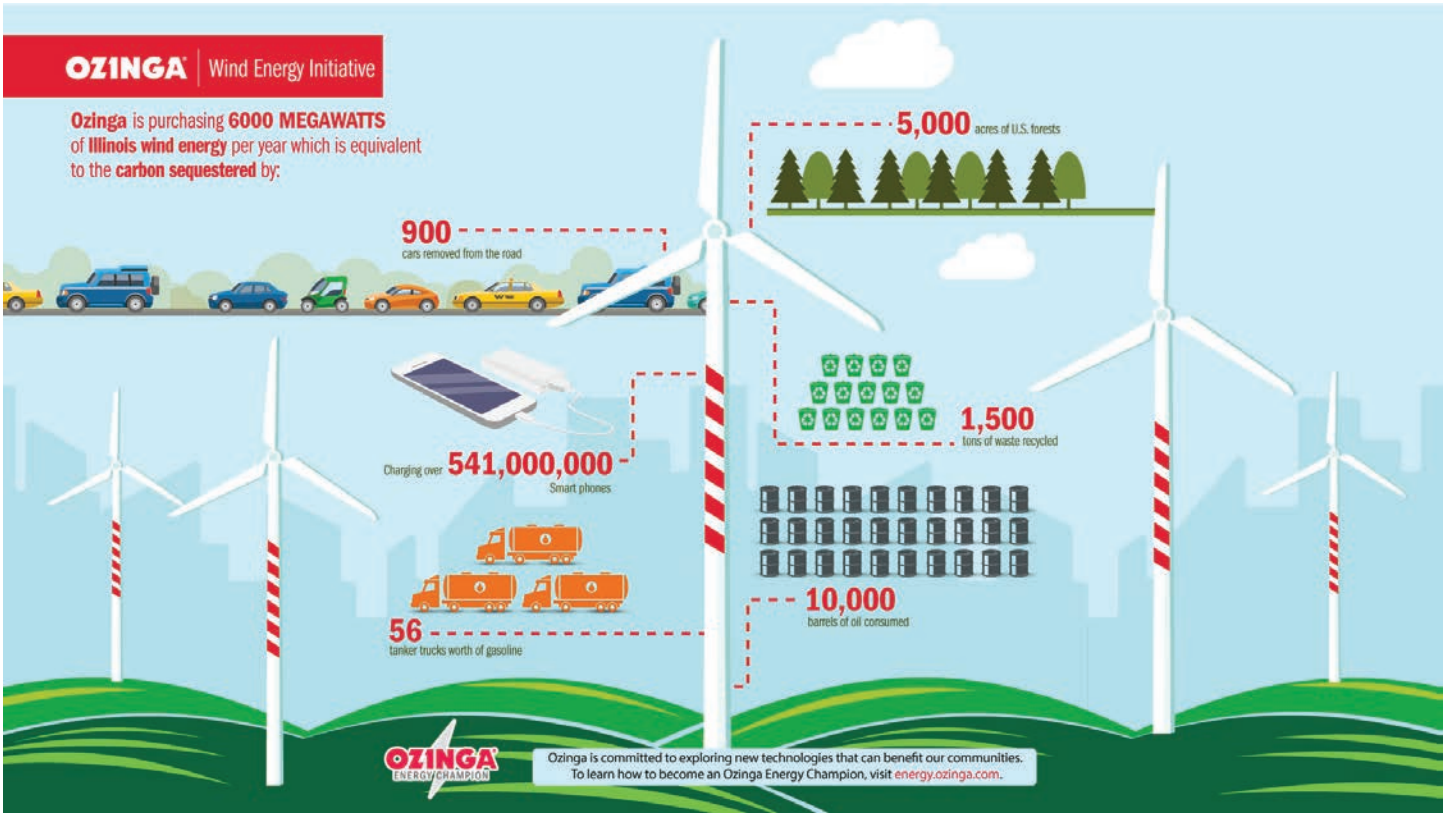
Took weeks off project’s timeline

Material Handling

Not only do we value using eco-friendly methods of transportation, we bring that passion into our everyday work. We do this by purchasing and implementing the latest equipment which offers reduced fuel consumption, increased efficiency and on-board technology to limit our carbon footprint while handling the materials needed to keep our partners supply chains moving.

Wind Energy Credits

Realizing that our carbon footprint is impacted by the offices and batch plants, and facilities we have across 6 states we invest in renewable energy to help alleviate and bring the places we do business to a carbon neutral balance.



Ozinga Fuels SUSTAINABLY

Ozinga has been helping expand the use of compressed natural gas since we debuted our first CNG-powered concrete mixer in 2011. Since then, hundreds more CNG-powered mixers have been added to Ozinga's fleet along with public and private CNG stations for third-party customers. As of spring 2019, Ozinga fueling stations run on renewable natural gas, which has a negative carbon footprint compared to other alternative fuels.

Ozinga Fleet Running on RNG

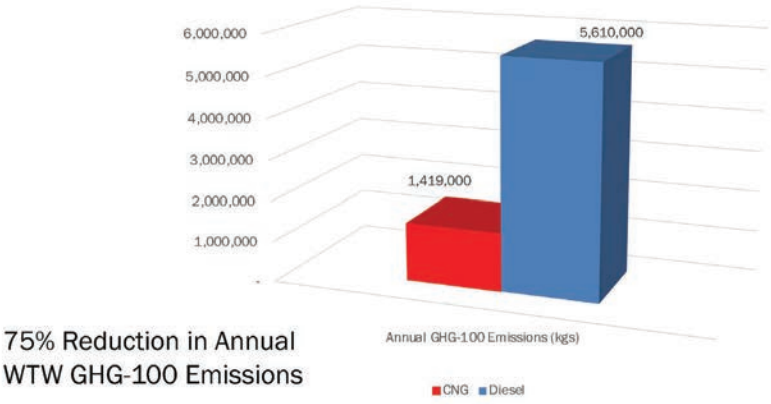
The majority of all front and rear discharge ready mix trucks in Chicago run on renewable natural gas captured from US landfills. This gas is produced by the decomposition of organic matter, most commonly from organic waste from dairy farms. Renewable natural gas offsets the damage caused by diesel because it is considered carbon neutral. RNG produced by US dairy farms actually captures more greenhouse gases than it emits making dairy gas from Ozinga trucks a carbon negative fuel.

2019 Sustainability Champion

"Above and Beyond" Award 2019

2020 Partner of the Year

Ozinga Emissions Savings



75% Reduction in Annual WTW GHG-100 Emissions