



MISSION CRITICAL

Delivering Reliability in a Rapidly
Evolving Market

The Data Center Boom

Data center growth is accelerating industry-wide, driven by unprecedented growth in digital infrastructure, rising AI workloads, and the need for localized data delivery. But speed alone does not ensure success. The real differentiator is a partner who can navigate complexity, mitigate development risk, and move seamlessly from pre-planning to design. CESO brings that partnership to life.

We work across the full spectrum of site and building development, supporting some of the country's most demanding projects. Our integrated team of civil engineers, architects, MEP engineers, and survey professionals provides the strategic insight and executional strength required to meet aggressive timelines while building for long-term performance.

The global data center market size is expected to reach \$517 billion by 2030, growing at a CAGR of 10.5% from 2023 to 2030.

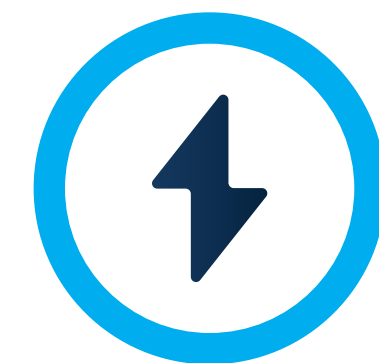
(Source: Allied Market Research)



The ability to accelerate delivery without sacrificing quality has become a defining advantage in today's data center market."

- CBRE Data Center Solutions, 2024

A Development Partner That Delivers



Power-Ready Site Strategies

We know how to evaluate and design for high-load infrastructure needs. From utility coordination and due diligence to master utility planning, we help clients secure the necessary resources to move forward.



Jurisdictional Insight, National Reach

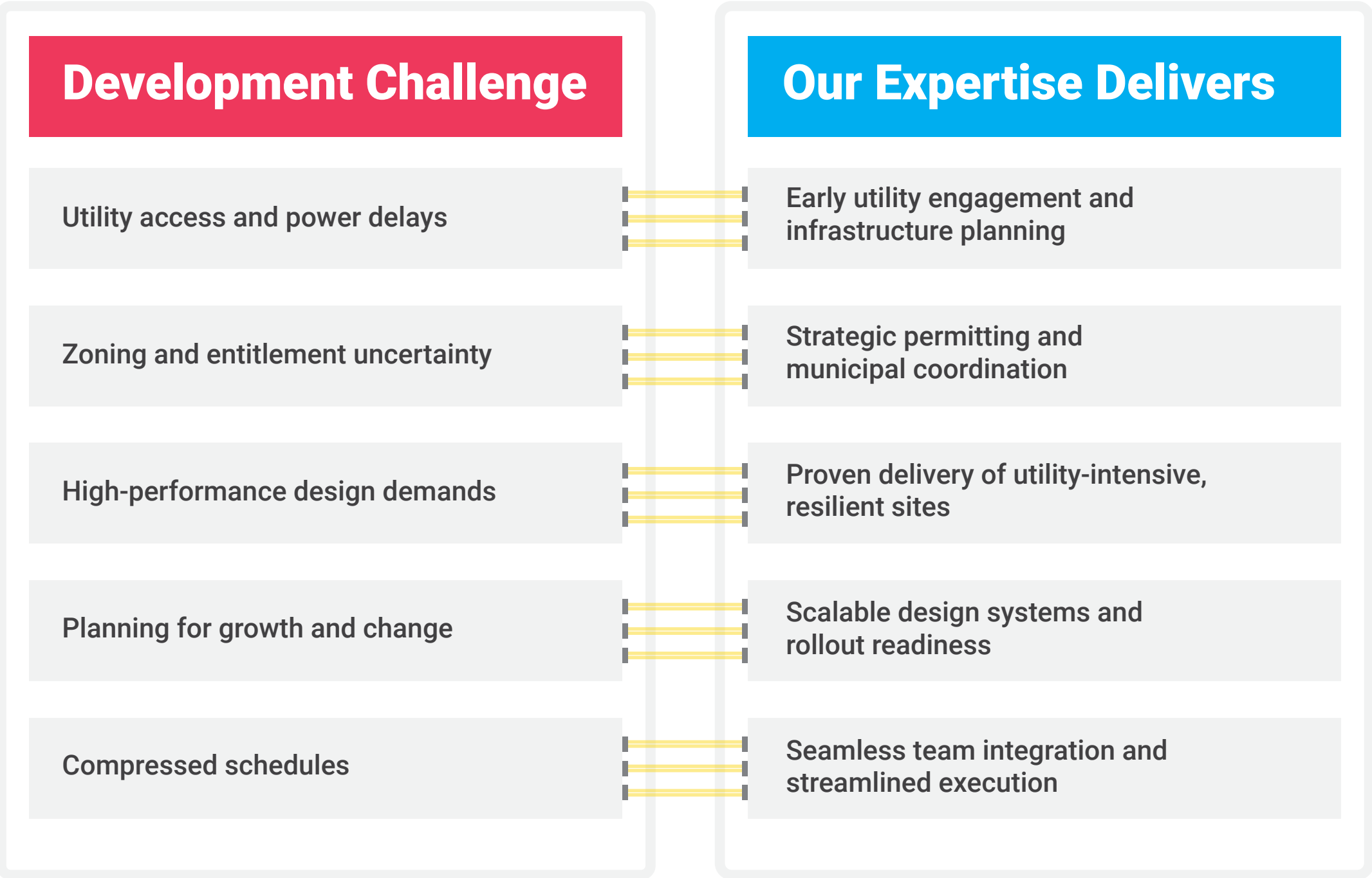
With a footprint spanning across the country, we combine national program experience with regional permitting knowledge to keep projects moving. Our team anticipates regulatory hurdles and delivers clear entitlement pathways.



Accelerated Timelines, No Shortcuts

We're built for speed. Our integrated team compresses timelines without sacrificing quality: driven by streamlined processes, agility, and decisive execution.

What We Solve



Services That Power Development

- Site Evaluation and Feasibility
 - Utility Due Diligence and Design
 - Zoning, Permitting & Entitlement Strategy
 - Full Civil, Architectural, and MEP Design
 - Energy-Efficient and Sustainable Design
- Resiliency and Redundancy Planning
 - Modular and Scalable Site Layouts
 - BIM and Clash Detection
 - Construction Administration
 - Surveying Services



A Trusted Team for High-Stakes Development

Our work supports high-performance industrial campuses, mission-critical operations, and large-scale national development programs. Clients trust us because we anticipate roadblocks, build momentum, and focus on long-term value. We are proud to partner with top developers nationwide.

Data centers demand precision, power, and speed, and our teams are equipped to deliver. Whether supporting site selection, solving infrastructure constraints, or designing full-scope systems, CESO brings the confidence your project deserves. Our strategies support phased development and rising power needs, helping clients adapt quickly to evolving technologies and secure critical infrastructure.



Future-Ready Thinking. Proven Processes.

Data centers demand precision, power, and speed —and our teams are uniquely equipped to deliver. Whether supporting a site selection process, solving infrastructure constraints, or designing full-scope building systems, CESO brings the confidence and coordination your project deserves.

Let’s talk about how we can help you power what is next.



To learn more about our comprehensive suite of site and building services, visit cesoinc.com.

Global power demand from data centers is expected to **increase by 50% by 2027 and by as much as 165% by 2030** compared to 2023 levels. This significant growth underscores the escalating energy requirements of data centers in the coming years.

- Goldman Sachs Research – 2024 Forecast



Project Experience

Mission-Critical Readiness

Our project portfolio reflects the technical intensity, scale, and urgency that define the data center market. CESO's work spans high-load industrial campuses, mission-critical environments, and large-scale logistics infrastructure. This positions our team with the practical experience and systems-based thinking necessary to support data center development from site selection to delivery.



Data Center Campus & Facility Due Diligence

We are partnering on a campus in the Midwest that will house approximately 200 MW across multiple buildings. Our team provided site land surveying services, supporting this complex development's foundational planning.

CESO has also supported several large new data center campus transactions in the Midwest by providing surveying, site planning and test fits, utility service requests, and environmental studies. We also carry extensive experience investigating facilities with plans to upgrade, relocate, or expand existing capabilities.



Telecommunications Facility Upgrades

Our engineers have designed systems upgrades for mission-critical telecom sites, including campus facilities for large governmental operators, integrating redundancy, modernizing outdated infrastructure, planning for scalability, and addressing the rigorous uptime requirements associated with data transmission and digital services through phasing and coordination.

Chiller Plant and Mechanical Infrastructure Design

Our team has delivered critical MEP upgrades for facilities with high cooling demands, including large chiller plant systems designed for 24/7 operational continuity.

Public Safety Infrastructure

We have engineered essential facilities for public safety agencies with redundant systems, hardened structures, and long-term service continuity to ensure uptime and dependability under stress, with the resilience demanded by the mission-critical market.

Robotic Fulfillment Facilities | National Portfolio

With 50+ million SF of complex, power-intensive fulfillment centers, we have supported clients in deploying scalable utility infrastructure, microgrid solutions, and EV charging integration, offering critical expertise in advanced power system coordination.

Prototype Leadership for Scalable Rollouts

CESO serves as the prototype architect and engineer for high-growth national clients. We help standardize designs that speed entitlement, compress delivery, and simplify utility coordination. These strategies are well-suited to fast-paced data center development.



Confidential Client Project Highlight

This first-mile distribution facility introduces an innovative approach to large-scale logistics. Designed for a confidential client, the facility is part of a select group of similar projects currently under development in the United States. **The design maximizes efficiency while integrating sustainable elements to align with the client’s carbon neutrality goals.**

Spanning over 1 million square feet, the facility features a layout that enhances docking capacity, accommodating 4x the traditional cross dock number found in mid-mile distribution centers. This configuration optimizes throughput and efficiency in goods movement. The project required adapting a developing prototype design, fostering a highly collaborative effort between the project team and the client. Constructing the facility presented unique regulatory and environmental challenges. Stringent permitting requirements, seismic considerations, and Title 24 energy compliance measures necessitated close coordination with local jurisdictions. **The project team successfully navigated these complexities through proactive communication and strategic partnerships.**



Sustainability and zero carbon solutions were a key consideration, with strategies implemented to reduce the building’s environmental impact. The structural design incorporated open-web truss systems and expansion joints to minimize steel usage, while composite exterior panels reduced concrete demand. On-site casting of these panels further lessened transportation needs, aligning with the project’s sustainability objectives.

Meeting the facility’s high energy demands required a proactive power generation strategy. With an estimated full-capacity requirement of 26 MW, the local power provider needed to implement infrastructure upgrades. **To mitigate delays, the team implemented a microgrid system, integrating 8 MW of rooftop solar panels covering 800,000 square feet, battery storage systems, and backup power solutions.** This microgrid approach enhances energy resilience by enabling the facility to generate, store, and manage its own power while reducing dependency on external infrastructure. While early plans included gas-powered generators, ongoing refinements and improved power availability led to a revised approach prioritizing solar and grid power.

Project timelines required the team to advance design efforts while the prototype continued to evolve. Close collaboration—including weekly coordination meetings—ensured alignment, resolved challenges, and refined solutions to meet permitting deadlines. The lessons learned through this process will inform future developments of similar scale and complexity.

Client Testimonials

“Your **partnership** has been instrumental in driving our success, and I want to express my sincere gratitude for your contributions.”

“Your team’s efforts in planning, scoping, and scheduling permitting have set a new bar.”

“The team consistently goes far and beyond to deliver high-quality drawings, provide creative options to achieve already compressed schedules, and provide valuable input and critique on design guidance and standards for the program.”