

An aerial photograph of a large, modern industrial building with a dark facade. The roof is covered with numerous rows of solar panels. The building is situated in a green field. In the foreground, there are several pieces of industrial equipment on pallets, including what appears to be a generator or power unit. The sky is clear and blue.

From Legacy Campus to Hyperscale Data Center

Delivering a 1.3M sq. ft retrofit under tight timelines with seamlessly integrated, mission-critical fire protection.

THE CHALLENGE: A Race Against Time

When a globally recognized firm acquired an aging semiconductor facility, the objective was clear: convert it into a hyperscale colocation data center capable of supporting mission-critical operations at scale.

The challenge was immediate. At handoff, the project was already **four months behind schedule**, impacted by contract delays and engineering setbacks. With fixed timelines and billions of dollars in infrastructure, revenue, and reputation at stake, failure was not an option.

The complexity extended beyond schedule pressure. The project required a full retrofit of an existing semiconductor facility, protection across highly technical environments—including data halls, power systems, and cooling infrastructure—and delivery of a **reliable, fully integrated fire protection system** across all critical areas.

The end user needed more than a contractor—they needed a partner who could **stabilize execution and deliver with confidence**.

The Solution: Unparalleled Expertise & Seamless Execution

Awarded the project in **August 2022** and mobilized by **December 2022**, ORR quickly embedded into a fast-moving, multi-contractor environment alongside DPR Construction and HITT Construction.

From the outset, ORR operated as more than a systems provider. The team became a trusted voice in high-level construction and design meetings, helping guide decisions, reduce risk, and align execution across stakeholders.

Managing a **1.3 million sq. ft., four-level retrofit across three buildings**, ORR coordinated closely with all trades to maintain momentum. The team adapted in real time to evolving conditions, minimized conflicts across workstreams, and maintained alignment between design, installation, and commissioning.

The result was a disciplined, coordinated approach that **recovered schedule without compromising quality or safety**.



CLIENT PERSPECTIVE

“A project with tremendous challenges from Day 1, but with effective construction management and quality practices, we exceeded project stakeholder expectations.”

— MARK MORIARTY,
ORR ACCOUNT MANAGER

SCOPE OF WORK: Fire Protection Excellence

ORR delivered a comprehensive, end-to-end fire protection solution aligned with hyperscale data center requirements.

The project spanned 1.3 million square feet across four levels and three buildings, covering a wide range of mission-critical environments, including data center whitespace, classified spaces, offices, and support areas, along with complex electrical and mechanical infrastructure such as PDUs, CRACs, CRAHs, power systems, load banks, generators, and battery storage.

These systems support operations where **downtime equates to millions—and risk to billions**, demanding precision in execution and long-term reliability.

The solution incorporated a **Notifier fire alarm system** and **Xtralis VESDA detection**, integrated via Siemens. System performance and visibility were enhanced through:

- Dual-path monitoring (cellular + CLSS)
- Real-time life-safety data integration into the Building Management System (BMS)

ORR also provided a three-year extended service agreement to ensure system stability and mission-critical uptime.

THE OUTCOME: A Successful Retrofit With a Trusted Partner

ORR helped recover a delayed project and achieve the **August 2023** completion milestone, enabling full operational readiness.

From Delay to Delivery

Through active coordination, real-time visibility, and rapid response to field conditions, ORR stabilized execution and delivered a successful hyperscale deployment.

A High-Performance End State

The result is a fully operational colocation / hyperscale data center, supported by an integrated, industry-leading fire protection system. The transition from construction to operations was seamless, and the project continues to expand with ORR as a long-term partner.

Why Industry Leaders Trust ORR

ORR operates as a **strategic partner in mission-critical environments**, combining technical depth with disciplined execution.

Their expertise includes generator pod and enclosure protection, underground pump systems, PIV infrastructure, and full system commissioning—enabling them to close coordination gaps and deliver consistently in complex, high-stakes environments.

By aligning fire protection systems with broader facility operations, ORR ensures **safety, system visibility, and uptime—where failure is not an option.**

KEY TAKEAWAY

Delivering hyperscale infrastructure requires more than technical capability—it demands execution, coordination, and trust. ORR delivered all three, transforming a delayed retrofit into a high-performing, mission-critical data center and a foundation for continued growth.



Ready to protect your mission-critical infrastructure? **Contact ORR today.**

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