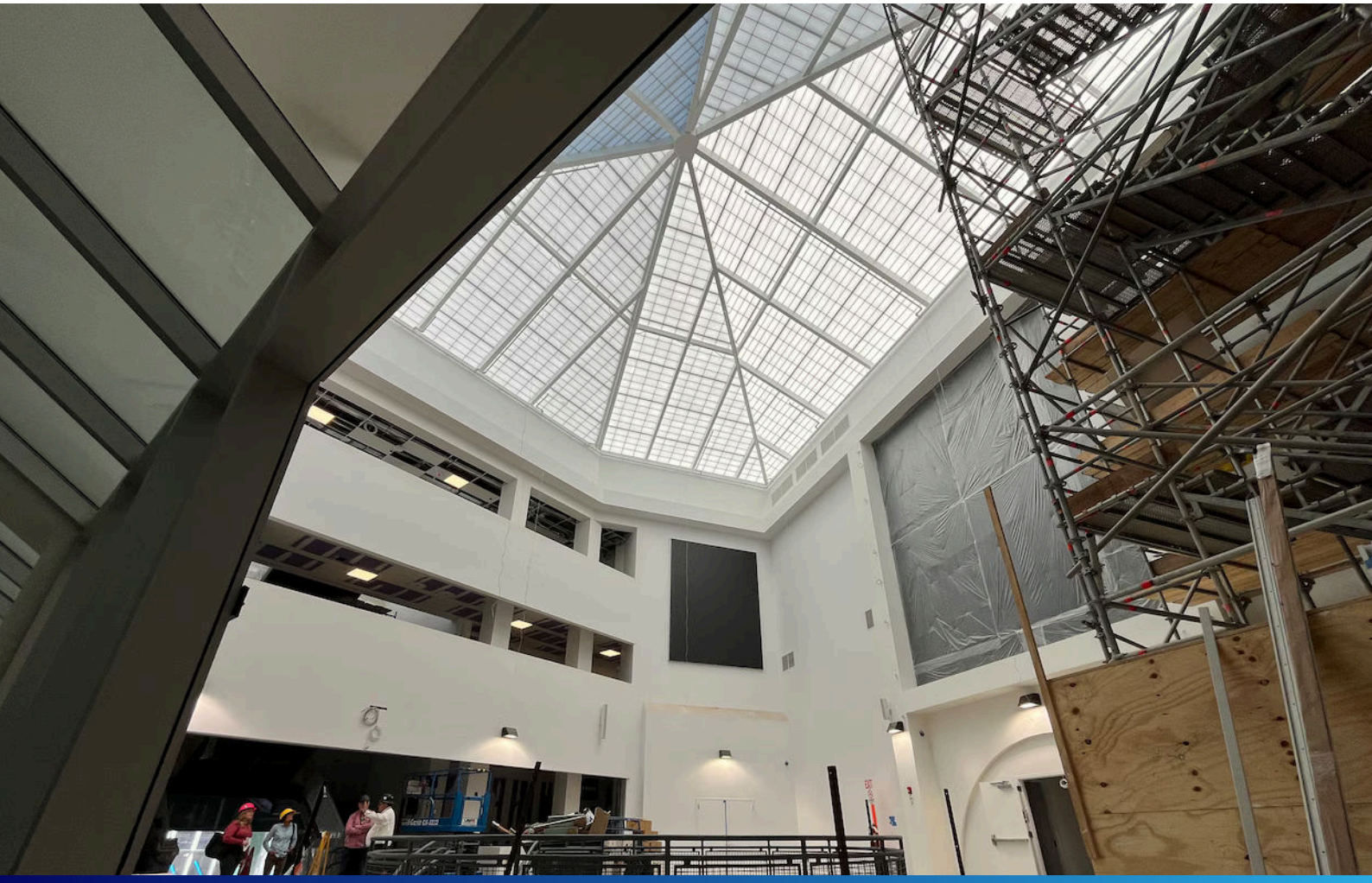
MHT Technologies

CASE STUDY



CHARTER SCHOOL

New World Preparatory Charter School

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Project Details

To implement a full-scale PoE lighting upgrade with smart controls that enhance energy efficiency, automation, and adaptability across classrooms, hallways, and common areas while providing centralized monitoring and management through MHT Technologies' Inspextor software.

Project Name:

- New World Preparatory Charter School

Vertical:

- Education

Date of Completion:

- TBD

Location:

- Staten Island, New York

Primary Use Case:

- Smart lighting and control

Project Size:

- TBD

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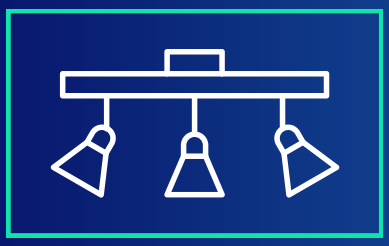
Project Needs

In response to the need for a more energy-efficient and adaptable learning environment, New World Preparatory Charter School is implementing a PoE lighting system with smart controls to enhance sustainability and building automation.



PoE-enabled fixtures

IoT & PoE-enabled software

Customization and control

Solution

1

Installation

MHT provided installs with MHT Lighting fixtures and/or compatible PoE-enabled fixtures with a variety of vendors.

2

Setup

Our team of experts ensured a streamlined setup with our Inspextor software and provided users with ample training.

3

Control

Total control and customization is now available at the users' fingertips with our Inspextor software, which allows for automated settings and real-time control.

Process

Project Proposal → **Need Assessment** → **Installation/ Completion**

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Overview:

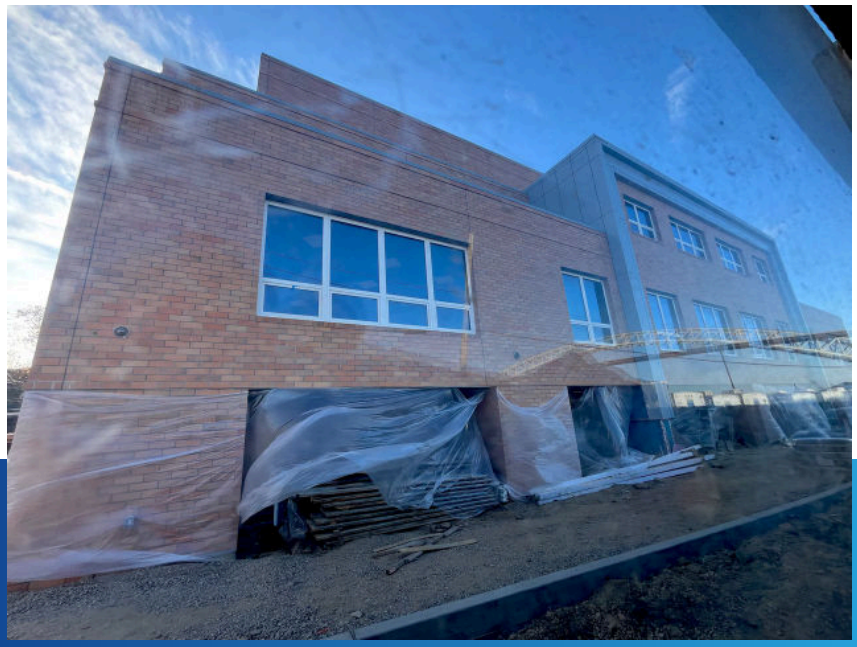
New World Preparatory Charter School, located in Staten Island, New York, embarked on a project to enhance its educational environment through the integration of advanced lighting and control systems. The school partnered with MHT Technologies to implement a comprehensive PoE lighting solution, aiming to improve energy efficiency, occupant comfort, and overall building management.

Scope of Work:

New World Preparatory Charter School implemented a PoE lighting upgrade to enhance energy efficiency and automation. 1,081 fixtures, including linear, panel, and volumetric models, were installed across classrooms and common areas, powered by 541 PoE node drivers and 150 splitters for reliable low-voltage operation.

To optimize energy use, 256 occupancy sensors enabled automated lighting adjustments, while 140 smart wall switches provided manual control. 25 Cisco 24-port PoE switches ensured seamless power and data transmission, with a core network switch managing traffic.

At the project's core, MHT Technologies' Inspextor software enabled centralized monitoring, scheduling, and remote control. The system was fully commissioned with staff training, ensuring ease of use. This upgrade reduced energy costs and created a more intelligent learning environment, future-proofing the school for additional smart building integrations.



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Project Inception:

New World Preparatory Charter School chose to implement PoE technology to enhance energy efficiency, streamline installation with simplified Ethernet cabling, provide advanced lighting controls for a more adaptable learning environment, and ensure scalability for future smart building upgrades.

- **Energy Efficiency:** PoE systems deliver low-voltage, efficient DC power and bi-directional data over a single Ethernet cable, reducing energy consumption and operational costs.
- **Simplified Installation:** Utilizing Ethernet cabling simplifies the installation process, reducing the need for extensive electrical infrastructure.
- **Enhanced Control:** PoE allows for advanced lighting controls, enabling customization and automation to create optimal learning environments.
- **Scalability:** The system can be easily expanded or reconfigured to accommodate future needs.

> **We approach each project with its unique needs in mind.**

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Smart Control and Integration:

The project utilized MHT Technologies' Inspextor software, an intelligent PoE-based solution for smart buildings. This platform provided:

- **Real-Time Monitoring:** Continuous oversight of lighting systems and energy usage.
- **Automated Scheduling:** Ability to program lighting schedules based on occupancy and time of day.
- **Occupancy Sensing:** Integration with PIR sensors to adjust lighting based on room occupancy.
- **User Control:** Wall-mounted switches offering manual control options for staff and students.

Key Benefits and Outcomes:

- **Improved Energy Efficiency:** Significant reduction in energy consumption due to efficient LED fixtures and intelligent controls.
- **Enhanced Learning Environment:** Better lighting quality and control contribute to a more comfortable and adaptable educational setting.
- **Operational Savings:** Lower maintenance and energy costs result in financial savings for the institution.
- **Future-Ready Infrastructure:** The scalable PoE system positions the school to integrate additional smart technologies as needed.

> **Our goal with this project was to create a smarter, more energy-efficient learning environment that enhances student and staff experiences while laying the foundation for future innovation.**

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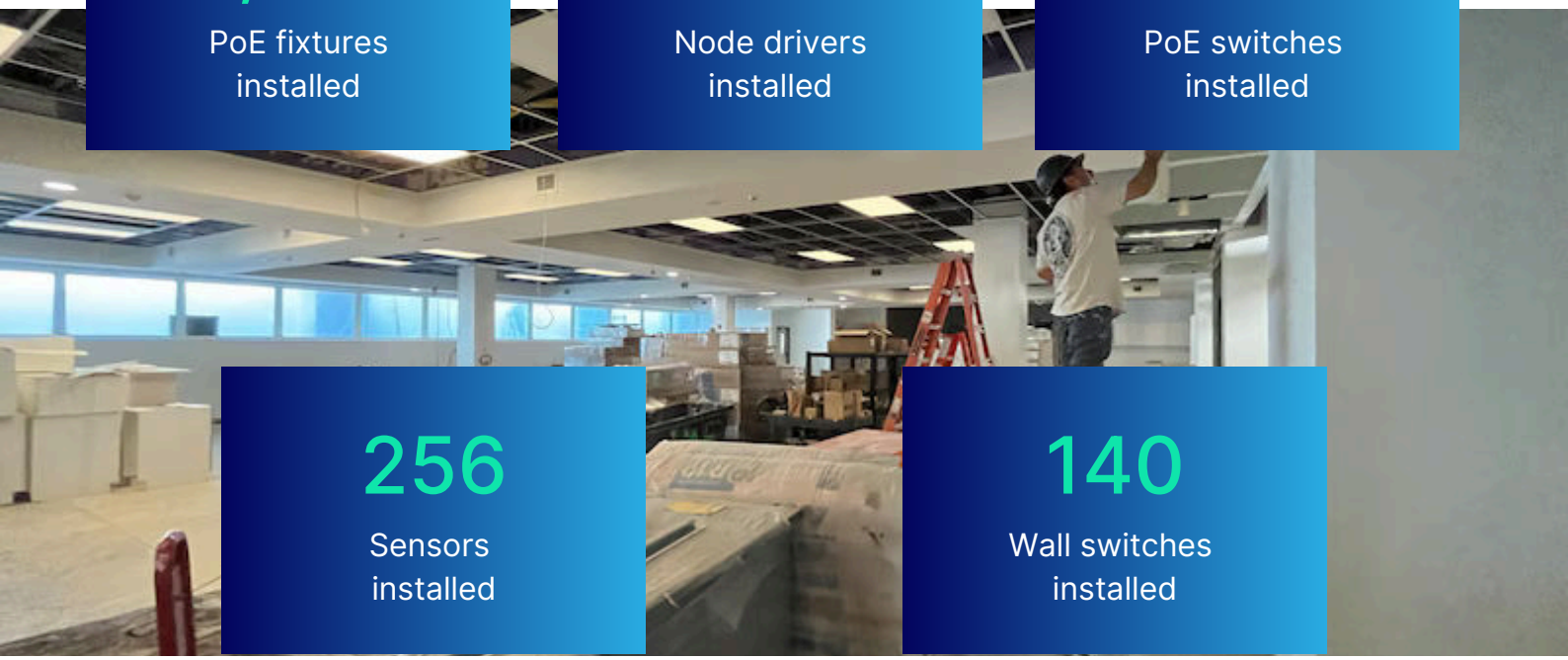
Quick Facts

The New World Preparatory Charter School project involved a large-scale deployment of PoE-powered lighting, sensors, and smart controls, ensuring seamless automation, enhanced energy efficiency, and an optimized learning environment tailored to the school's needs.

1,081
PoE fixtures installed

541
Node drivers installed

25
PoE switches installed



256
Sensors installed

140
Wall switches installed

Key Benefits

Customization

Energy-efficient

Control

CONCLUSION

The integration of MHT Technologies' PoE lighting and Inspextor smart building platform at New World Preparatory Charter School exemplifies the transformative impact of advanced technology in educational facilities. The project not only achieved significant energy savings and operational efficiencies but also enhanced the overall learning environment, demonstrating the value of smart building solutions in the education sector.

2025

Project Completion

37,700

Square feet of site improvements

1,081

PoE Fixtures installed

INSPEXTOR

MHT LIGHTING

Products Used

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About MHT Technologies

Nearly in 2009, MHT Technologies (MHT) began as MHT Lighting, a company focused on the early development of LED, low-voltage, and PoE-based lighting fixtures. By 2015, the company started developing Inspextor, a PoE-based software solution for smart buildings.

Today, we are a technology company that provides a software-based solution that takes sensor-based feedback and turns it into actionable data to provide a safer, more productive, sustainable, and lower-cost space for owners and occupants. Our PoE smart building technology platform, Inspextor, is a market-leading software solution to connect your devices and systems into one easy-to-manage interface. MHT has been granted three (3) U.S. Patents on Inspextor, which sets it apart in the PoE industry.

MHT's 55,000 sq/ft facility, located in New York, has received ETL, UL and ISO 9001:2015 listings and certifications. MHT Technologies continues to product PoE and line voltage lighting fixtures under the MHT Lighting product line.

Our staff of engineers, software developers and lighting designers provide MHT's clients with the experience necessary to take their lighting project from the drawing board to implementation.

AKRAM "AK" KHALIS

MHT Technologies CEO & Inspextor Co-founder

> ***Guiding MHT Technologies is about transcending limits and redefining what's possible. As CEO, my focus is on creating a company culture where we are united by a vision to improve customer experiences and shape the future of smart building technology.***

CONTACT MHT

Phone +1-718-524-4370

Email sales@mht-technologies.com

Website www.mht-technologies.com