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Dynamics

SENTINEL

Leveraging Sentinel's AI-assisted Video Surveillance for Enhanced Security at New Construction Sites

Introduction

In the construction industry, securing job sites and ensuring the safety of workers and equipment is paramount. Unauthorized access, potential accidents, and theft are constant threats that demand vigilant attention. This case study explores how a new real estate construction site has successfully harnessed Sentinel's state-of-the-art AI video surveillance technology to mitigate security and safety issues.

In the construction industry, securing job sites and ensuring the safety of workers and equipment is paramount. Unauthorized access, potential accidents, and theft are constant threats that demand vigilant attention.

The Challenge

The new construction site, spanning over a significant area and bustling with workers, equipment, and machinery, faced significant challenges in managing safety and security. Unauthorized access, potential accidents due to line crossing, improper use of safety equipment, and crowd management were primary concerns. Traditional surveillance methods were proving inadequate due to the vast scale of the site and the need for round-the-clock monitoring.

The Solution

In response to these challenges, the site deployed Sentinel's AI-assisted video surveillance system. This comprehensive surveillance solution uses sophisticated artificial intelligence to provide real-time detection capabilities such as people detection, line crossing, crowd analytics, and much more.

Security

One of the primary features utilized was Sentinel's real-time detection capabilities for person intelligence. The system could identify individuals moving in restricted areas, crossing predefined safety lines, and detect tailgating. Moreover, its ability to recognize suspicious objects and lighting changes boosted the site's overall security level, limiting unauthorized access significantly.

The automated pan, tilt, and zoom (PTZ) feature also allowed for continuous monitoring of the site with autonomous PTZ target tracking. Any suspicious activity triggered immediate alerts, enabling security personnel to respond promptly.

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Safety: To enhance worker safety, the Sentinel system was programmed to detect unsafe behavior and procedural violations in real-time. This included actions like workers not wearing helmets or other required safety gear, entering dangerous areas alone, or not following established safety protocols.The system also performed real-time condition monitoring of critical assets, identifying failing or malfunctioning machinery, and reducing the chances of accidents due to equipment failure. The AI-backed system could differentiate between safe and unsafe practices, immediately raising an alert when necessary safety procedures were disregarded.

Crowd Analytics: With Sentinel's AI technology, the construction site also managed crowding and occupancy effectively. The system alerted the management if there was an unexpected gathering of people or if certain areas exceeded the safe occupancy levels. This feature proved beneficial for managing workers effectively and ensuring the enforcement of social distancing norms to prevent any communicable disease spread.

ROI and Outcomes: The introduction of Sentinel's AI-assisted video surveillance technology led to a significant reduction in unauthorized access incidents and safety violations, leading to fewer accidents and a safer working environment.

The Sentinel system's cost-effectiveness was clear. Tangible benefits included fewer work injury claims and better utilization of security personnel. Intangible benefits included reduced risks of damage to reputation due to enhanced site security and improved public safety. This combination of benefits resulted in a substantial return on investment (ROI).

Conclusion : Sentinel's AI-assisted video surveillance system proved to be an indispensable tool for maintaining security and safety in the new real estate construction site. Its real-time detection capabilities, combined with its versatility and cost-effectiveness, provide robust and reliable solutions that traditional surveillance methods can't match. As construction sites continue to face dynamic safety and security challenges, advanced surveillance technologies like Sentinel become essential to ensure a secure and productive working environment.

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