SAFETY WITHOUT BLIND SPOTS

A VigilanteX AI Case Study in Jobsite Visibility & Safety Risk Identification

Client
Ariozna Based Construction Contractor
Analysis Period
August 21 – September 4 (14 Days)
Hardware
1 Argos Mobile Surveillance Unit
Camera Coverage
PTZ • Wide-Angle • Perimeter

Summary

Over a 14-day period, VigilanteX deployed a single Argos mobile AI surveillance unit to provide continuous visibility into safety-related activities on an active construction jobsite.
The system identified and logged safety-relevant events based on predefined detection criteria, generating time-stamped video clips, AI classifications, and historical records that site leadership could review and evaluate.
This deployment demonstrated how continuous monitoring can reveal risk patterns and safety exposures that may not be captured through periodic manual inspections alone.

Key Findings

842 Total Safety Violations Detected
~60 Violations Per Day
During the analysis period, the system recorded 842 safety-related events, averaging approximately 60 events per day, based on configured detection parameters.
These events represented observable behaviors and conditions that site safety teams could review, validate, and address at their discretion.

Approximately 5.8 percent of recorded events involved scenarios potentially associated with missing or improper fall protection, a category widely recognized as high-risk within construction environments.
These observations provided site leadership with documented visibility into recurring exposure patterns that could be reviewed and addressed through existing safety processes.

Zero Blind Spots

Three camera views provided continuous coverage across primary work zones, access paths, equipment corridors, and staging areas, significantly reducing visibility gaps during active operations.
This level of coverage enabled consistent observation across areas that are often difficult to monitor simultaneously through manual supervision alone.

Behavioral Improvements Within 14 Days

The presence of continuous monitoring and documented event visibility appeared to support increased awareness of safety practices across the site during the deployment period.
While VigilanteX does not direct or enforce behavior, access to objective, time-stamped data can support safety teams in reinforcing existing training, supervision, and accountability processes.

OSHA Fine Avoidance ROI

To illustrate the potential financial relevance of improved visibility, publicly available OSHA penalty benchmarks were applied to a hypothetical scenario.
Using the 2024 average OSHA serious violation fine of $16,131, and assuming that a small percentage of observed events could have resulted in citations if left unaddressed, the modeled exposure over a 14-day period exceeded $600,000.
These figures are illustrative only and are not predictions of enforcement outcomes. Actual regulatory actions depend on numerous factors outside the control of VigilanteX, including site conditions, corrective actions, and regulatory discretion.

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Injury & Claims Cost Avoidance

Industry data from NIOSH and Liberty Mutual indicates that serious construction injuries can result in direct costs exceeding $100,000, with indirect costs often substantially higher.

By identifying recurring high-risk scenarios and providing documented visibility, systems like Argos may support earlier intervention by site safety teams, potentially reducing exposure to costly incidents when combined with appropriate corrective action.

Insurance ROI (EMR Reduction)

Insurance carriers often evaluate loss history, documented safety practices, and risk management programs when assessing premiums and EMR ratings.

Objective documentation of safety observations and corrective actions may support discussions with insurers regarding risk management performance, subject to carrier evaluation and underwriting criteria.

Schedule ROI (delays avoided)

Unplanned safety investigations, shutdowns, and rework can introduce significant schedule disruptions on active projects.

Enhanced visibility into safety-related activities may assist site teams in identifying and addressing issues earlier, potentially reducing the likelihood of operational interruptions when paired with timely corrective action.

Illustrative Risk Exposure Modeling (Hypothetical Scenario)

The following table presents a hypothetical financial model based on publicly available industry benchmarks and assumptions applied to observed site data. It is provided for illustrative purposes only and does not represent actual results, guarantees, or predictions of regulatory, safety, or insurance outcomes.

ROI Category	Conservative Estimated Value
Illustrative Regulatory Exposure (Modeled)	$677,502
Illustrative Injury Cost Exposure	$100,000
Potential Insurance Considerations (Illustrative)	$100,000/year
Potential Schedule Impact (Illustrative)	$25,000

Conclusion

This case study demonstrates how mobile AI surveillance can provide continuous, documented visibility into jobsite activities, enabling safety teams to identify risk patterns, prioritize corrective actions, and maintain historical records.

When combined with effective safety leadership and response, this level of insight may deliver meaningful operational and financial value relative to the cost of deployment. Actual outcomes will vary by site, conditions, and customer implementation.