

OVERLOOKED CONSTRUCTION DETAILS THAT CAN UNDERMINE CAMPUS SECURITY AT TECHNICAL COLLEGES

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Campus construction is usually seen as progress. New buildings and renovations are meant to improve learning spaces, accessibility, and campus life. But when security is not intentionally addressed during planning and construction, these projects can introduce risks that last long after the work is complete. Many campus security vulnerabilities are not the result of complex threats. They stem from routine design decisions where safety, emergency response, and risk management were not part of the conversation early enough. This is especially true for open-access and commuter campuses, where buildings are designed to be welcoming and accessible for extended hours.

Below are several construction-related details that are often overlooked by designers and architects but can negatively affect campus security:

Sightline and Visibility

Recessed entrances, decorative walls, heavy landscaping and angular design elements of buildings all create blind spots. Blind spots reduce the potential effectiveness of security cameras, hinder the ability of staff or police to visually survey an area, and can make it easier for unauthorized individuals to enter a building without being detected. Moreover, reduced sight lines can also cause problems for emergency response, specifically during evening hours and/or when buildings are underutilized. Sightline assessments, part of CPTED, should be done both during the design phase and again after the installation of site elements to ensure that landscaping and lighting are installed to promote visibility instead of obscuring it.

Overuse of Entrances

The addition of new entrances to a building during renovation or expansion increases the total number of entrances into a building and decreases the effectiveness of access control methods. Having too many entrances can also confuse students, faculty, and staff about what entrances are used for the public, restricted users or monitored entrances. Doors originally designed to serve as secondary entrances can quickly become primary entrances if located closer to parking lots or pedestrian paths. Each entrance should have a clear purpose related to access control, monitoring or staffing. If a purpose cannot be easily identified, then the entrance can pose an undue risk.

Construction Phases as Security Vulnerabilities

Security risks do not pause during construction. Temporary fencing, unsecured loading zones, scaffolding, and propped doors can provide easy access into occupied buildings. Contractors may also require after-hours access that bypasses standard procedures. Planning for construction should include temporary security measures, contractor credentialing, access protocols and communication plans to educate the campus community about the changing nature of security risks during each phase of the project.

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Aesthetic Lighting

Lighting is frequently designed primarily for aesthetics or energy efficiency purposes rather than for function. Decorative lighting fixtures and indirect lighting can leave significant portions of building entrances, walkways and parking facilities poorly lit. Furthermore, insufficient lighting negatively impacts employee and student perceptions of their own safety, camera performance, and security officer effectiveness. Plans for lighting should be reviewed in conjunction with security operational needs to focus on coverage, consistency, and long-term maintenance.

Materials and Hardware Decisions Made Too Late

Door hardware, locks, glazing and interior layouts are often determined late in the design process without input from security management. Campuses may select products that are not compatible with existing access control systems, difficult to maintain, or unable to be secured during lock-down/shelter-in-place events. Security personnel should be involved in material/hardware selection processes prior to installation to avoid costly modifications to existing infrastructure.

Emergency Response Elements Added as an Afterthought

Panic buttons, emergency systems and safety signs are often installed as an after-thought post-construction. This can result in poor placement, inconsistent coverage and lack of visibility. Effective emergency communications are best realized when integrated into the overall design along with other elements (lighting, sightlines, camera coverage, etc).

Designing Security into Construction Planning

Federal guidance and industry best practice repeatedly demonstrate that security is both most effective and least costly when considered in the early stages of the construction planning process. Retro-fitting security into an already constructed facility is generally much more expensive and less effective than considering security in the design of a new facility.

Colleges that involve campus safety, risk management, facilities, and emergency management teams early are better positioned to balance openness with safety. Early engagement supports compliance, minimizes long term costs, and promotes confidence in campus security.

Resources:

- 5 Overlooked School Construction Details That Compromise Campus Security: <https://www.campussafetymagazine.com/insights/5-overlooked-school-construction-details-that-compromise-campus-security/176876/>
- Federal Guidance for Security Design and Campus Safety for Colleges and Universities: <https://www.taftlaw.com/news-events/law-bulletins/federal-guidance-for-security-design-and-campus-safety-for-colleges-and-universities/>
- Safety and Security Planning Guidelines: https://www.memphis.edu/cpd/pdf/06302022_ssp.pdf
- Campus Security 101: Modern Solutions for Safer Higher Education: <https://www.trackforce.com/blog/campus-security-101-modern-solutions-for-safer-higher-education/>
- Five Ways to Improve Campus Safety and Security: <https://www.everbridge.com/blog/five-ways-to-improve-campus-safety-and-security/>

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