Control Risks

Integrating fire safety and security

Best practices for development in East Africa

Foreign investment into Africa is increasing across diverse sectors including hospitality, green energy developments, infrastructure, and data centres. These developments require both security – physical and digital – and fire safety solutions to be implemented to meet minimum global operating standards.

While fire safety and security may seem to take different approaches to protect assets, they share a common purpose: to keep buildings and their occupants safe and mitigate risks. Integrating fire safety and security measures from the earliest stages of development can provide multiple benefits. It can also mitigate or entirely prevent incidents that could bring an organisation's duty of care into question or increase their overall exposure to losses – human, financial, or reputational.

In parts of the world where infrastructure and built environment developments are increasing, there is an opportunity to build smarter by taking an integrated approach. Retrofitting buildings for security or safety upgrades adds substantially to costs and can limit the life of some structures, or even force them offline for upgrades. The following should be considered for an integrated approach at each phase of the project lifecycle.

Integrating security and fire safety from project inception to completion

To successfully incorporate both security and fire safety in a new build, it is critical to begin early in the facility lifecycle. A phase-by-phase approach can help to guide decisions and identify opportunities to maximise technology-enabled solutions, avoid duplication of costs and develop solutions to overcome roadblocks.

Project conception

- Strategic risk assessments
- Resilience planning
- ESG strategy development
- Compliance and anti-corruption strategies

Fundraising and investment

- Business intelligence and risk mitigation through stakeholder analysis
- Cyber risk consulting
- Transaction and asset due diligence

Inception and feasibility

- Compliance with building codes
- Applicable international standards
- Sectoral or location -specific risk assessments

Project development

- Threat-led approach to fire safety and security planning
- End-user-focused design

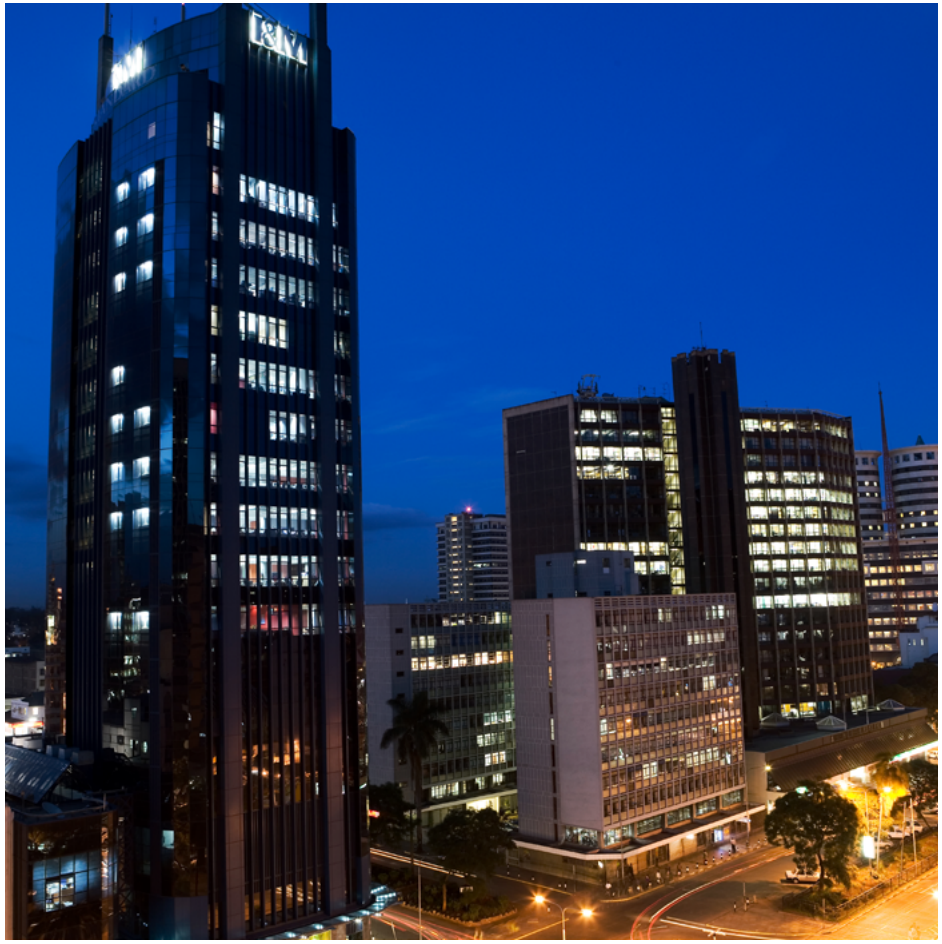
Construction

- Procurement standards
- Supply chain diligence
- Third-party screening

Post completion

- Operational readiness
- Testing
- Ongoing compliance with standards/regulations

Project development: independent and end-user focused designs



Taking an integrated, risk-based approach is one way to mitigate threats and likely events. To effectively adhere to both fire safety and security regulations specific to the region, building type and end-user, constructive third-party and stakeholder engagement ensures the required expertise is not discounted at critical moments of the project.

In Kenya, for example, the baseline security and safety requirements and needs of an office block aimed at high-profile tenants such as international NGOs, financial institutions and diplomatic envoys will be very different from the needs of an office block aimed at local businesses. Conformance to standards and certification of products/solutions to be implemented will vary depending on the profile of the tenants. The duty of care that the tenants have towards their staff and the global minimum standards they must adhere to may influence their decision to approve or reject a location. An investor who is unaware of such standards may not only lose out on their initial investment but might make a loss or incur additional expenses.

Construction: avoiding sub-standard products and workmanship

There are a multitude of suppliers, standards and products within the fire safety and security industry. As a result, some organisations could find themselves overspending or procuring equipment that does not meet their actual needs if their specific requirements are not known. In this scenario, the organisation remains exposed to various risks, likely events and potential loss.

Within East Africa, the proliferation of sub-standard products from unscrupulous manufacturers coupled with end-users prioritising cost over the technical aspects of the equipment needed mean products that are unfit for purpose are often purchased. They might not carry warranties, perform as desired and are usually sold by individuals or organisations that do not have the necessary technical skills to maintain them. This leads to a waste of investment and becomes a hazard by providing occupants with a false sense of safety and security, creating a potential threat.

Strong supplier due diligence practices are essential to procure fit-for-purpose, reliable and certified products that can be integrated into fire safety and security systems. Taking the time to get this right can ensure the products supplied can be relied upon when you need them most.

Post-completion

Compliance ensures that the right solutions are put in place, not only safeguarding against liability but also performing a necessary duty of care. This compliance helps individuals feel safe and secure in the building where they live, work, play or study.

Tests, inspections, and commissioning are crucial to the process. In this final phase, the concepts of fire safety and security embedded in the design are tested in the real world to validate, calibrate, and certify every aspect of protection. In locations where development activity is increasing, building codes and standards may be dynamic. Ongoing compliance will be the key to maintaining the required level of security and continuing mitigation of fire and security risks.

Fire safety or security? Both

Fire safety and security need to not only meet their individual goals, but achieve common objectives. This can be in direct conflict with each other at times.

For example, determining the type of door and locking system to be used for an emergency exit could have potentially fatal repercussions. If the building occupants are unfamiliar with the emergency exit systems there could be panic and obstruction; however, if exit doors are too easy to open, they can pose a security risk to the occupants from external actors.

A comprehensive approach must be taken to compliment the ease of emergency evacuation with the need for robust security measures. Integrating technologies such as fail-safe systems can be used to balance these conflicting interests, for example automatically unlocking doors in emergencies. Both security and fire safety experts can agree that clear and easily understood emergency procedures, reinforced through regular drills, can supplement the physical environment to ensure effective evacuation in emergencies.

Integrating for better outcomes

From project conception to completion, integrating designs for fire and security not only guarantees compliance to various building codes, but also ensures objectives like safety and security are deployed adequately, achieving duty of care requirements and more.

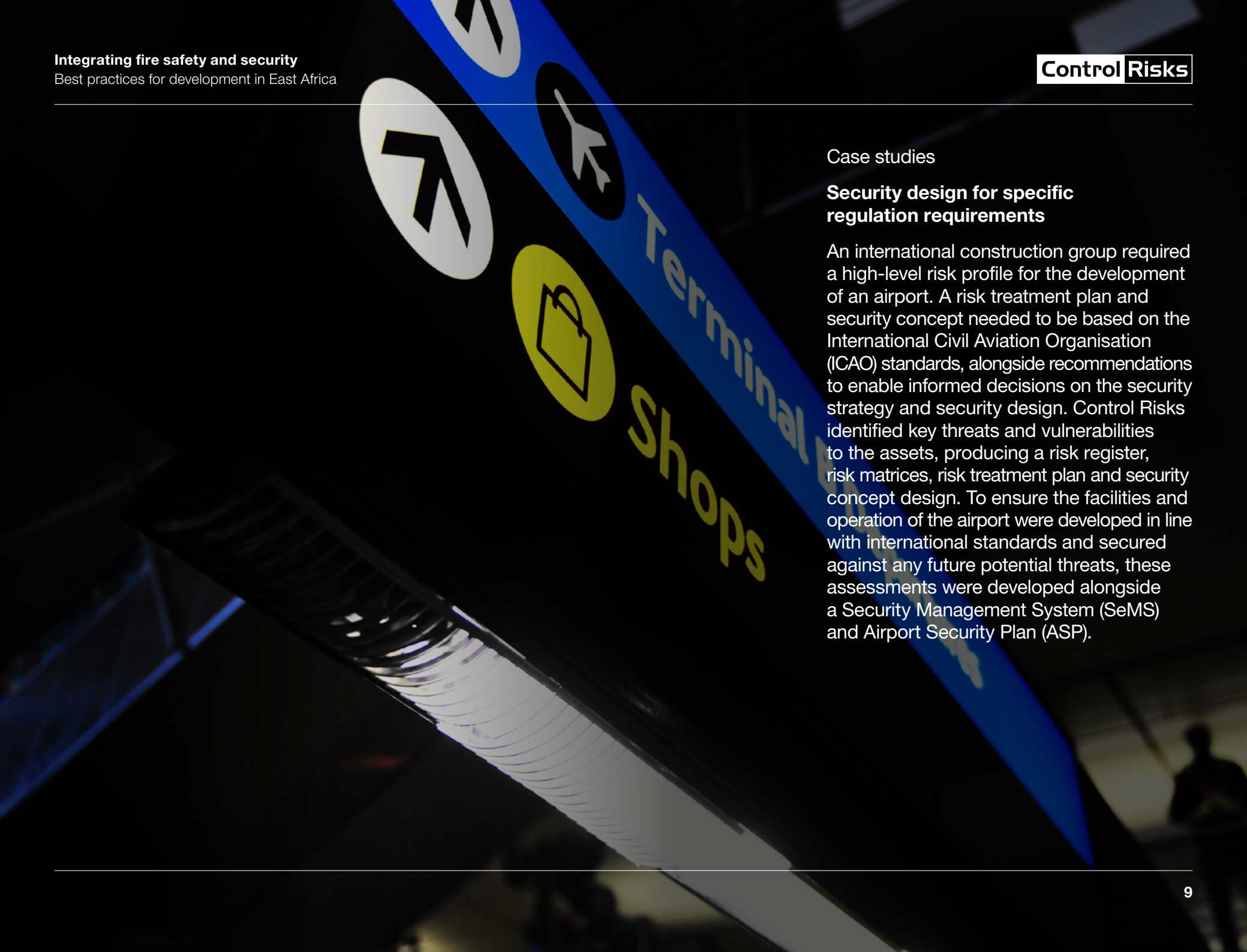
Before undertaking any capital expenditures, investors should work with professionals to understand the existing code in the project's location and any anticipated changes. Working with professionals who can combine technical design knowledge with risk assessment skills will ensure that investments yield maximum benefit for their intended purpose.


Case studies

Case studies

Security focus on the regional threat landscape

An international financial institution developing a new office complex in East Africa required assistance in assessing security design due to a history of extremist attacks against national and international institutions in the area. A requirement had been identified to incorporate proportionate and scalable physical and technical security measures that were sympathetic to the architect's design intent. Control Risks assessed the credible explosive-based attack scenarios to develop a digital model of the proposed development and ran various explosion modelling to identify the likely building and façade response. Appropriate mitigation measures were incorporated into the building's structural design. A blast mitigation performance requirement was developed for the façade tender, ensuring appropriate blast mitigation measures were incorporated to secure the building from the heightened security threat landscape of the region.



Case studies

Security design for specific regulation requirements

An international construction group required a high-level risk profile for the development of an airport. A risk treatment plan and security concept needed to be based on the International Civil Aviation Organisation (ICAO) standards, alongside recommendations to enable informed decisions on the security strategy and security design. Control Risks identified key threats and vulnerabilities to the assets, producing a risk register, risk matrices, risk treatment plan and security concept design. To ensure the facilities and operation of the airport were developed in line with international standards and secured against any future potential threats, these assessments were developed alongside a Security Management System (SeMS) and Airport Security Plan (ASP).

Case studies

Built infrastructure expansion to international security standards

A prominent global organisation, which provides conferencing venues and office space for governmental and non-governmental entities with a presence in East Africa for over 40 years, required an overhaul and expansion of its current built infrastructure. The updated infrastructure needed to be sustainable, accessible, and secure, while ensuring the safety of all occupants.

Control Risks was engaged to provide a security design solution that aligned with the client's goals while also meeting international security standards. The approach incorporated key elements such as Crime Prevention Through Environmental Design (CPTED) and landscaping, in addition to the specific risks associated with the location.

The challenge of maintaining business continuity during construction including safety measures such as potential evacuations, while ensuring security was addressed through measures like hostile vehicle mitigation and the installation of bespoke fencing. By working closely with the design team, Control Risks ensured that the facility remained resilient and functional throughout the project.

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