RAISING THE BAR

Iain Entwistle *reports on how a layered approach to physical security can help to make buildings more secure*

Protecting buildings from physical attack poses unique challenges because they are required to withstand threats ranging from vehicles driven at speed into perimeter defences, to lone criminals using tools to force their way through a building's façade entrance. At the same time, any physical barrier needs to allow the free, unencumbered passage of legitimate building users, while retaining architectural appeal.

Clearly, physical security is required primarily to prevent and deter the entry of unauthorised personnel. Items being stolen or staff being attacked are just some of the risks of cutting corners when it comes to physical entry barriers. Traditionally, larger premises have relied on a manned gatehouse at the perimeter and reception or security team at the building entrance, although as criminals become more sophisticated, or simply tailgate their way in by closely following an unsuspecting person, more specifiers are now taking their lead from Loss Prevention Certification Board's (LPCB) LPS 1175 rating when it comes to protecting the building facade.

THE LIKELIHOOD OF A VEHICLE RAMMING ATTACK IS ALL TOO OFTEN UNDERESTIMATED

Loss Prevention Standard (LPS) 1175: Issue 8 is an important security standard when it comes to protecting building facades against attack by those with wilful intent. It covers a broad range of physical security products and services, including, for the first time, security portals and revolving doors. Specifying products that are approved to LPCB's LPS 1175 is a requirement on projects in many different sectors including: education, finance, healthcare, manufacturing, the public sector, residential, retail and utilities.

Issue 8 of LPS 1175 is the latest version of the standard. It retains the same rigorous testing procedures as Issue 7 with the addition of several new tests to reflect a broader spectrum of threat scenarios. Important updates include changes to reflect the scope of tools now available, size of tools, access to the tools, portability of tools, power and effectiveness. The new 'matrix' style security ratings defined within the revised standard facilitate LPS 1175 being applied to a far wider scope of threat scenarios and supports the use of layer security to deliver extended delays.

That means the previous single-digit performance classification within Issue 7 (Security Ratings SR1 to 8) has been extended to form two elements that classify performance in terms of: threat level (letter A to H), corresponding with the tool kit used to evaluate the product's intruder resistance and the number of attackers involved. The second element assigns a numeric value (1, 3, 5, 10, 15 and 20), corresponding with the minimum delay (in minutes) provided by the product when placed in a locked position.

A revolving door or security portal that is approved to Loss Prevention Standard (LPS) 1175: Issue 8 should also provide ease of transit. These can include options for wheelchairs, bikes, prams or trolleys *etc*. They are a good choice where 24/7 unmanned access control is required or can be used in conjunction with a security team and here anti-tailgating detection can trigger an alarm if anyone attempts to make an unauthorised entry. That means the security team does not have to be permanently in the immediate vicinity of the entry point.

Where a revolving door is preferred, but LPS 1175 is still a requirement, Meesons A.I. has developed a solution for specifiers that remains the world's first to meet this standard. It achieves LPS 1175: Issue 8 up to C5 (SR3) during normal operation and is also accredited by Secured by Design. It is Document Q compliant, so suitable for those looking to specify products for entrances to dwellings as well as commercial buildings. It is in a permanent state of attack-readiness, meaning it requires no user intervention, or secondary layer of defence, to stop criminals who are prepared to use force.

While other revolving doors may rely on a secondary barrier, such as a night shutter, this version is a fully attack-ready solution that combines functionality and forced entry protection into a single product. Legitimate building users can present their ID card or biometric data in order to traverse through the revolving door. When specified with anti-tailgating detection the single-person authentication prevents unauthorised individuals from piggybacking their way into the facility by closely following the person in front.

Disrupting our way of life is something that all terrorists are intent on achieving. Irrespective of whether they carry out an attack, they take some satisfaction from knowing that more security checks, longer delays and a fearful public is somehow an achievement. However, careful choice of HVM as part of a layered approach can help mitigate some of these consequences and without being obtrusive or causing inconvenience to people.

The likelihood of a vehicle ramming attack is often underestimated, although recent events have proven that it is more common than it should be and when it happens it can have very serious consequences. Taking steps now by deploying HVM measures can harden your perimeter to vehicle-borne attack, while still maintaining an open and inclusive aesthetic as part of a proportionate and risk-based approach to security.

HVM solutions are now routinely specified to provide perimeter protection for a wide range of applications from Government, utility, logistics centres, data centres through to stadiums. Vehicle-borne attacks appear to be on the rise, which is why a multi-layered approach to security is the best way of slowing and ultimately thwarting criminals and terrorists before they reach the intended asset. The key to choosing the appropriate HVM is to take a methodical and risk-assessed approach to determine project objectives and highlight security vulnerabilities. This is where a qualified specialist security consultant can provide further advice as there may be other factors that should be considered. Based on the outcome of this assessment, it is then possible to specify a range of HVM solutions that can form part of a layered approach as part of a wider security strategy.

Prevention is at the core of decisions around how best to protect the public and critical national infrastructure. Criminals will use a variety of techniques to breach a perimeter barrier, not just vehicle-borne attack; false documents, encroachment (tailgating an authorised vehicle), duress or a

German police stand at the site where a man drove a heavy truck into a Christmas market in a terrorist attack in 2016

Picture credit: Getty

combination of attack methods on the physical barrier using mechanical tools. Increasingly, and more worryingly, the threat of a vehicle-borne attack appears to be on the rise considering recent events in London. When calculating the most appropriate HVM for these scenarios there are several specific factors that need to be considered – type and weight of the vehicle, and speed. PAS68, IWA14-1, ASTM and CPNI offer guidance and there are useful industry websites such as Perimeter Security Suppliers Association (PSSA) HVM Hub and Secured by Design.

Vehicle-borne threats, where cars and trucks are driven into barriers, mean that more sites are now incorporating Hostile Vehicle Mitigation (HVM) solutions at the perimeter. There are several sectors where these kinds of solutions are required, including airports, Government buildings, industrial sites, powerplants, financial sector and entertainment venues.

A REVOLVING DOOR APPROVED TO LPS 1175: ISSUE 8 SHOULD ALSO PROVIDE EASE OF TRANSIT

Meesons A.I. recently announced an exclusive agreement with Perimeter Protection Group (PPG) to distribute its Hostile Vehicle Mitigation (HVM) solutions, a company that leads the world in this area. The solutions comply with PAS68, IWA14-1 and ASTM. The perimeter protection products are tried and tested and have been installed in numerous high-profile locations in the UK and worldwide where they prevent hostile vehicles reaching their intended targets. The range complements the existing LPS 1175-approved Revolving Doors and Security Portals that are specified as anti-tailgating physical barriers for internal secure spaces and building façades.

Several industry bodies are encouraging the uptake of LPS 1175. Richard Flint, LPCB's Physical Security Certification Scheme Manager, notes: "When assessing the overall level of risk, correctly specified security products are critical in protecting buildings and their users against crime. We encourage the use of LPS 1175-certified products wherever possible because it hardens premises against criminal attack. Specifiers should refer to the LPCB Red Book when looking for LPS 1175-certified physical security products. Security Portals and Revolving Doors certified to these standards are able to resist experienced attempts by criminals at forced entry using a wide range of tools."

He adds: "LPCB's LPS 1175 standard sets the bar in providing specifiers with confidence in specifying physical entrance security that is able to withstand forced attack. Choosing products which have been independently tested and certified to LPS 1175 provides confidence that they will perform as claimed, whereas in our experience as many as 95 percent of untested products may not work as well as expected."

Until relatively recently, there were no revolving doors or security portals certified to LPS 1175. Historically, that meant compromises had to be made between security and aesthetics, resulting in the former winning through and often creating a building that was fortress-like with little architectural appeal. However, that has now changed, with LPS 1175-certified revolving doors and security portals removing the need for multiple or secondary security barriers and which are also aesthetically pleasing.

Even before criminals get to the building façade, the wider range of Hostile Vehicle Mitigation solutions are an effective way of creating a layered defence against a wider scope of threats ●

Iain Entwistle, Product Marketing Manager at Meesons A.I. Ltd, has a background in security and product development. He has been active in the design, patenting and development of a range of innovative security portals, speed gates and supporting safety technology for the UK and European markets.

Tracked gates such as this one are designed to stop all potential threats

Picture credit: Meesons A.I. Ltd