SECURED BY DESIGN

Combining the principles of designing out crime with physical security to create safer communities
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Secured by Design (SBD), the national police crime prevention initiative, works with Police Forces around the UK, and many other organisations, to achieve sustainable reductions in crime to help people live in a safer society. Our partners include National and Local Government, British and European standards authorities, trade associations, the construction industry and manufacturers.

How we work
SBD trained police officers and staff in Police Forces work closely with architects, developers and local authority planners on new-build developments and major refurbishments – often from the drawing board stage through to construction – to design out crime.

These officers, known as Designing Out Crime Officers, promote the use of proven crime prevention techniques in the layout and landscaping of developments and seek to improve the security of buildings by recommending products like doors, windows and locks that are sufficiently robust to resist physical attack to deter opportunist burglars.

Our officers work across a range of building sectors including housing, commercial, retail, mixed use, transport, health, education, sport, leisure and many others.

The benefits of building in security are clear and independent research has proved time and again that consideration of security – both in the planning and layout of buildings and the physical security – reduce burglary rates and anti-social behaviour dramatically. Not only that, it also reduces the fear of crime and buildings’ maintenance costs.

The most common reason cited for not including security aspects in buildings is cost. It has been shown, though, that the cost increases are small, particularly when the security is built in from the start. To aid architects, builders and those commissioning projects, SBD publish a range of guidance documents encompassing homes, commercial properties, schools and other types of buildings, with more to come soon. These guides are comprehensive and supply all the technical information needed.

Advice is also available from the Designing Out Crime Officers working in Police Forces around the country. Contact information for these officers is available on the Secured by Design website at www.securedbydesign.com.

Recently, SBD developed a way for developers and builders to meet the security requirements within Part Q of the Building Regulation more easily. The scheme is called SBD National Building Approval and, in a nutshell, the developer becomes an SBD member and SBD does the due diligence on the products within the developer’s supplier list to ensure compliance with Part Q.

Product manufacturers, who have had their products tested and certificated by independent, third-party certification bodies, can also apply to have those products accredited by Secured by Design and are then able to use the Police Approved...
Specification logo on those products. A full list of these products is available on the SBD website.

**Why our Police Preferred Specification is so important**

The reason we work closely with manufacturers and companies is to encourage them to provide robust, quality products that can achieve our Police Preferred Specification award, which recognises that our minimum standards have been met to help keep buildings secure.

This standard requires certification from a UK Accreditation Service (UKAS) accredited independent third-party certification authority. It involves regular production audits and re-testing to ensure consistent quality over time and goes beyond the one-off testing required by Part Q of the Building Regulations, England, which became effective from October 2015.

SBD currently have more than 600 member companies, many of them leaders in their specialist fields and many operating in European and global marketplaces. SBD is the only way for companies to obtain Police accreditation for security products in the UK.

**Why we were set up**

SBD was created in 1989 following the housing boom of the 1960s–1980s when there was a huge and urgent demand for housing. Estates were built quickly and often cheaply with little consideration given to security. Sky walkways and subways were incorporated into many large estates to keep pedestrians and the rapidly growing number of vehicles apart. However, this created an environment where escape routes were everywhere and anonymity was absolute. The result was that crime increased significantly, particularly burglary. The Police Service response was to set up SBD to incorporate better physical security, constantly updated to take new criminal modus operandi into account, and to encourage the inclusion of crime prevention aspects within buildings and developments.

**What we have achieved for residents**

Over the last 28 years, tens of thousands of residents have moved into SBD homes and continue to benefit from the high standards of security. Independent research shows that SBD developments, that include crime prevention techniques in the built environment and accredited products in buildings, can reduce crimes like burglary by up to 75% in new-build homes and up to 63% in refurbishments.

Evidence suggests these figures are sustainable year-on-year and represent a significant reduction, especially as most SBD developments are in social housing, many of which are in deprived areas.

Better security has also been shown to reduce the fear of crime and result in happier communities. The inclusion of better quality products has benefits in the long term of reduced maintenance costs and lower void rates for rented properties.
The work that SBD does, is based on the field of Crime Prevention Through Environmental Design (known as CPTED). It’s a method of reducing crime through the design and manipulation of the built environment and the physical security of buildings by influencing planning strategy and policy. This can be on a macro scale, when dealing with large scale public projects, or on a much smaller scale when looking at the basic layout of a dwelling – and anything in-between.

How it works in practice
Research shows that criminals will be looking for suitable targets and the absence of capable guardians when weighing up the risk of whether or not they commit burglary. SBD will be seeking to stop them committing a crime by incorporating CPTED techniques into the architectural planning, ideally long before construction commences. Some of the key elements of CPTED in the built environment are increasing natural surveillance, limiting through movement, creating defensible space and increasing physical security.

Increasing natural surveillance
Increased surveillance can be achieved by, for example, positioning homes facing each other to allow residents to easily view who is around, or through good lighting and absence of recesses, which could become potential hiding places. Reducing the height of walls and hedges at the front of properties also makes it more difficult for a burglar to spend time breaking into a front door or window without being seen.

Limiting through movement
Access should be limited to defined areas or routes to avoid excessive permeability, which creates legitimacy for criminal activities. Something as simple as ensuring that fences are in good order can stop short-cut traffic through a site. Burglars would also be looking for a different way out to how they came in and are likely to regard something like an alleyway as a convenient escape route.

Creating defensible space
Defensible space, such as rumble strips, change of road surface by colour or texture, pillars, brick piers or narrowing of the entrance, all help to create the look and feel of an area in which residents take pride in their homes and where it feels like neighbours know each other. This is a difficult environment for burglars as it increases the likelihood of them being noticed and challenged.

Physical security
This is all about improving building security to make the physical security of homes more difficult to overcome quickly. Secured by Design does this by working with manufacturers to encourage them to make products like external doors, windows, rooflights and locks more robust and resistant to physical attack from opportunist burglars. Such products can achieve SBD’s Police Preferred Specification, which is our minimum security standard.

Crime reduction benefits of CPTED
Independent academic research by the Secure...
Societies Institute, University of Huddersfield (2009) shows that new SBD developments that incorporate crime prevention techniques and physical security are almost four times less likely to experience a burglary than non-SBD properties. The study focused on 16 SBD developments in West Yorkshire and found that these SBD dwellings had 5.8 burglary offences per 1,000 properties compared to 22.7 offences per 1,000 properties in the county overall. This represents a burglary rate of 75% lower within the SBD sample. All the evidence suggests that figures like these are sustainable year-on-year and represent a significant reduction. As part of the same research, SBD developments also outperformed their non-SBD counterparts in a visual audit, which included graffiti and vandalism, litter and broken windows.

Lower maintenance benefits too
Including crime prevention into the built environment reduces demand on police and council resources because there is less crime and anti-social behaviour, freeing up capacity, resources and budgets, which can then be allocated to more pressing issues and concerns. In addition, police accredited products like doors and windows are built to higher specifications, which means they last longer and require less maintenance, repair and replacement over time as well as providing a long-term legacy of safer, more cohesive and desirable communities where people choose to put down roots.

And it doesn’t add much to the costs
Further research from the University of Huddersfield found that providing extra security at the design stage does not add significant building costs – costs typically ranged from £70-£240 for upper and ground floor apartments respectively and £170 for a 2 or 3 bed detached house.

Even convicted burglars endorse the principles CPTED!
To find out what burglars think of the principles of CPTED, the University of Huddersfield showed 22 prolific burglars serving prison sentences a series of images of houses and asked whether they would target a particular house or avoid it. What they said confirmed the principles of CPTED as being effective in deterring burglary.

They said they would avoid:

- Open environments where properties overlook each other
- Homes where there is an absence of alleyways, which can act as escape routes
- ‘Complete’ cul-de-sacs where there is only one route in and out where they could be challenged by residents
- Roads and estates that had a private appearance where residents were likely to look out and notice when a stranger was around.

Instead the burglars said they would target properties that were hidden by high gates, hedges, walls and planting so they could operate unobserved from the road, with busy traffic an added bonus to cover the noise of breaking in.

University of Huddersfield research found that homes overlooked by three or more other properties experienced 38% less crime. In addition, through-roads experienced 93% more crime compared to a complete cul-de-sac.
Secured by Design principles work to reduce crime. Here are just a few examples of the benefits achieved by incorporating SBD into developments

**Kingdom Housing Association (KHA), Fife, Scotland**

KHA has built 3,000 homes on more than 150 developments to SBD’s high standards to deter burglars, reduce crime and keep residents safe. These are homes which have been designed to incorporate natural surveillance and limit through-movement in the layout and landscaping to increase the likelihood of burglars being noticed and challenged. In addition, these homes benefit from increased physical security, such as external doors and accessible windows, which have been accredited by SBD to be sufficiently robust to resist physical attack by opportunist burglars.

In September 2017, Scottish Police announced that KHA’s SBD developments had benefited from 87% fewer crimes compared to properties not similarly designed and protected, underlining KHA’s mission statement to provide ‘more than a home’.

Stuart Ward, SBD National Designing Out Crime Manager, who has responsibilities for all 13 Divisions of Police Scotland, said: “These results highlight the benefits of building to SBD security standards.”

Bill Banks, Group Chief Executive, Kingdom Housing Association, commented: “I feel all developers, and providers of new housing projects should be adopting the SBD standards of increased safety and security to enhance the well-being of residents in their respective developments.”

**Great Kneighton, Cambridgeshire**

More than 1,800 homes built near the Cambridge Biomedical Campus in areas known as Great Kneighton, Clay Farm and Trumpington Meadows, have been signed off by Designing Out Crime Officers to SBD standards. Figures produced by Cambridgeshire Constabulary show that over the last five years, these developments had just one burglary (where a brick was thrown through a patio door window) and five attempted burglaries, by forcing garage doors, but all failed. A further 2,000 homes are being built in the area – all to SBD standards.
Police and Crime Commissioner for Cambridgeshire, Jason Ablewhite, commented: “At a time of high demand for the Police Service, techniques such as these, are great examples of how partnership working can help prevent crime. I hope to see more new-builds benefit from this initiative.”

**North Prospect, Plymouth**
When Plymouth City Council transferred its housing stock of 14,000 homes to Plymouth Community Homes (PCH) in 2009, part of the deal was that the regeneration of North Prospect, two miles north of Plymouth City Centre, would be a high priority. The regeneration of the estate was long overdue, with building surveys highlighting structural cracking, wall tie failure and extensive and untreatable damp. Nearly 60% of homes failed even the basic Decent Homes Standard. The estate also had a reputation for crime and anti-social behaviour going back over many decades.

SBD was involved from the outset in this 11-year regeneration, which started 2011 and involves demolishing 800 homes, building 1,100 new homes and refurbishing a further 300 homes. In 2017 figures released by Devon & Cornwall Police showed that recorded crime in North Prospect had fallen by an average of 62% across four crime categories – burglary, criminal damage, vehicle offences and violence against the person – between 2007 and 2016. The Designing Out Crime Officer, who is embedded with Plymouth City Council, said: “It was great to have our improvements and crime prevention suggestions incorporated at the same time as all the building considerations.”

**Elephant Park, central London**
Global developer Lendlease took SBD crime prevention guidance on board at its 3,000 home regeneration at Elephant Park. Ed Mayes, Lendlease Development Director, Elephant Park, explained that getting SBD involved from the outset was critical to the success of Elephant Park, ensuring the masterplan layouts were inherently safe and would provide secure streets, public spaces and homes. “Having those officers involved in the design teams from the early stages avoided abortive work and ensured we were reducing our costs and, more importantly, leaving a legacy which is truly safe for years to come.”
When SBD was formed in 1989 there were large increases in numbers of burglaries. At the time, the Police Service was arresting and convicting more offenders than ever, but not seeing a reduction in these types of offences.

Analysis of how burglaries were being committed revealed that poor quality products, such as doors and windows, had been installed historically and were being easily entered as they were never designed with security in mind. It also became clear that new and replacement windows and doors were still not including security features. A prime example of this was externally glazed windows and doors, where the offender could simply reverse the installation process to lift out the double-glazing unit and climb through the frame.

Secured by Design started working with industry bodies, test houses and manufacturers to create standards intended to resist attacks by opportunistic offenders that would cover all elements of a door and window, rather than just focussing on the lock.

In 1999 SBD began to accredit products based on the manufacturer submitting doors and windows for a test against the standard on a one-off basis. However, over the next months and years burglaries continued to occur involving attacks on products supposedly manufactured in the same way as the tested product. These were seen to fail when attacked, either due to inconsistencies in the manufacturing process, or because the products were not being made to the same standard, but were being sold as such.

In 2005 SBD began to insist that products that were accredited by them also had to achieve third-party product certification by organisations that in themselves are accredited by the United Kingdom Accreditation Service (UKAS). Certification involves both initial testing of the products and regular re-tests and also requires inspections of the manufacturer's production facility to ensure that the correct processes are followed consistently, the aim being to ensure that every product that goes to site is made to the same quality as the tested sample. In all areas, SBD insists that accredited products have such certification where such a scheme exists. The Secured by Design website holds details of numerous accredited companies who hold this certification in relation to their doors, windows, locks and other security products and this has undoubtedly contributed to the academically proven reductions in burglary that have occurred where SBD accredited products have been installed.

**Systems Companies and Fabricators**

In addition to the requirement for certification, SBD also requires that the certification be held in the name of the fabricator and does not accept cases where certification is only held by the systems company. This is a further safeguard to ensure that the product that is purchased by the end user is of the standard required to reduce crime effectively.
Once their products have been produced to these standards and have been certificated by third-party independent UKAS accredited certification bodies, companies can apply to become Secured by Design members and, on payment of a membership fee, can apply the designation of Police Preferred Specification to their products. All accredited companies and products are listed on the Secured by Design website and this creates a great resource for specifiers and purchasers who can be assured that the listed products comply to all security requirements and that the due diligence to determine this has been done by Secured by Design.

Continuous Monitoring of Criminal Behaviour

Security standards do need to be continually monitored so that they keep abreast of changes in offending behaviour. Offenders will, of course, look for new methods to gain entry when a particular avenue is made too difficult for them. To this end, Secured by Design acts as a conduit between all UK Police Forces, who highlight these changes and methods, and the authors of the security standards, test laboratories, certification bodies and trade bodies so that necessary changes can be made to the standards. Where needed, new standards can be created. This partnership working allows the industry in the UK to stay up-to-date and continue to combat crime, regardless of changes in offender behaviour.

Complying with the Building Regulations for security

In addition to the close relationship Secured by Design (SBD) has with the Designing Out Crime Officers within UK Police Forces, they also work very closely with a wide range of other organisations, including National and Local Government, British and European Standards authorities, the construction industry, trade associations and manufacturers, to achieve sustainable reductions in crime. SBD bring their extensive experience and technical understanding to bear in their work with these organisations and also feed back changes in criminal behaviour, which helps to keep the guidance and advice relevant and up-to-date.
Secured by Design recently launched a new product called SBD National Building Approval (SBD NBA), which focuses on all aspects of building security. It’s a scheme that makes it simpler and quicker for companies seeking to deliver security and meet the Building Regulations for their new-build developments or major refurbishment schemes in the residential, commercial, leisure, transport, retail, mixed-use, educational or health sectors.

How does NBA work?
We engage with developers to agree on the basic level of physical security and carry out thorough due-diligence checks on their list of suppliers to ensure they meet the requirements of the Building Regulations and Police Preferred Specification standards. Captured in a Technical Schedule and its Appendix, this information acts as a template for future developments and is accepted by all Police Forces throughout the UK to discharge the requirements for the SBD Award.

SBD NBA members receive an SBD Silver Certificate which they can use as evidence to discharge new Building Regulations for security, as well as for any other third-party requirement, such as a planning obligation or client instruction. With the support of one of our Designing Out Crime Officers (DOCOs), members can go on to attain an SBD Gold Certificate, which shows they have also incorporated other proven crime prevention techniques into the external environment.

How SBD NBA assists planning and building control officers
Our work with the Department for Communities and Local Government, National House Building Council, Local Authority Building Control and the Building Control Alliance, means our SBD Silver Certificates can be used as evidence by the developer to discharge their third-party obligations under Part Q of Schedule 1 (Security) to the Building Regulations 2010 and the Scottish Building Standard 4.13 – Security.

“The Building Control Alliance welcomes the introduction of Secured by Design National Building Approval and acknowledges the award as one way of demonstrating compliance with Part Q of the Building Regulations (England).”

This helps Local Authority Building Control Officers and Approved Inspectors in their dealings with developers who tender one of our SBD Certificates. The due-diligence performed by both SBD and the wider police family ensures that the level of security provided exceeds that required of the developer by any building regulation.
SBD Development Officer Michael Brooke, who developed NBA as a product, said: “This has become an extremely popular scheme very quickly.

“It not only makes life easier for developers but also greatly assists in the planning process because our NBA Silver Certificates can be used as evidence that acceptable levels of security have been met after we have carried out considerable engagement with the developer and carried out due diligence on their supply chain.

“We expect SBD NBA to expand quickly over the coming months as professionals in the industry come to learn of its many benefits including the fact that it saves time and money, a crucial factor in today’s highly competitive, fast-moving and cost conscious new-build marketplace.”

Comment from Martin Conlon, Chair, The Building Control Alliance:"

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