



CRIME IMPACT STATEMENT

Didsbury Technology Park
Offices (82,549sqft) and Multi-storey Car Park

For: **Bruntwood Works**

Greater Manchester Police

Version D: **11/07/22**

design**for**security

Ref: **2020/0696/CIS/01**

Didsbury Technology Park

2020/0696/CIS/01

EXECUTIVE SUMMARY

Development supported

This development has been assessed against the principles of 'Crime Prevention Through Environmental Design' (CPTED), in order to reduce the opportunities for crime and the fear of crime.

The layout of the proposed scheme is considered acceptable, as long as the issues discussed in more detail within Section 3.3 of this report are addressed, namely:

- Robust control of access in/and around the buildings.

If these issues can be addressed as described within the report and the other physical security measures are incorporated, I would be happy to support the development.

Please note: At the planning application stage, Greater Manchester Police Design for Security will make representations to Manchester Planning to require the inclusion of a condition requiring the completed development to achieve Secured by Design (SBD), accreditation. Should the recommendations as listed within Section 4 of this report be adopted, I have every confidence that the scheme will achieve the award and the condition met.



David Maher *Dip Arch*

Design for Security Consultant

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1 Visual Audit

The development site is indicated by the red outline on the plan adjacent and is supported with existing site context photographs taken around the site.

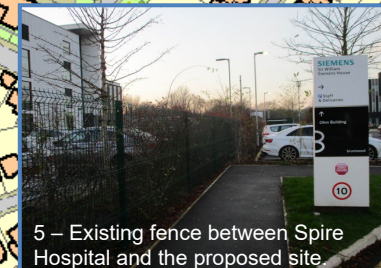
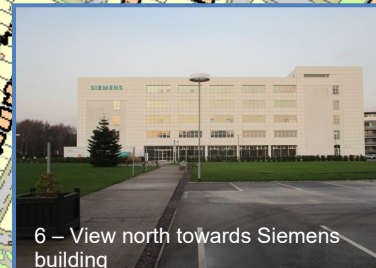
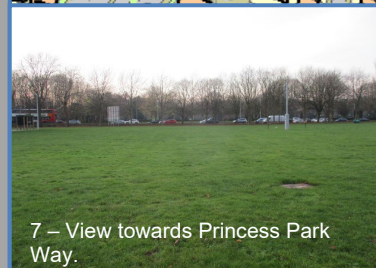
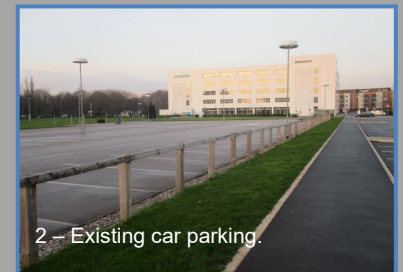
The proposed site is located in the West Didsbury district on the out-skirts Manchester city centre. The site is situated within an existing business park; Didsbury Technology Park. The development site is bounded by the Siemens building, The Spire Hospital; Princess Parkway and a new residential development to the east.

The area is mainly residential with pockets of commercial activity. Historically the housing stock is predominately populated with private low rise housing to the north, south & east of the site. However over the last two decades significant redevelopment has changed the local population demographic to a more private young professional mix.

The site is currently vacant green open space and car parking for the adjacent commercial office buildings. Vehicle access into the site is controlled via a barrier system from Barlow Moor Rd and off Nell Lane.

The site is situated off Princess Park Way. The Withington Metrolink Tram stop leading to the East Didsbury or M/cr city centre is approx. 0.5km north of the site.

Generally the site is very well managed & maintained. Pedestrians can traverse the site from Barlow Moor Rd to Nell Lane however there are no signs of ASB across the site which might be associated to open public access.



2 Crime Statistics & Analysis

All data below is based on crimes recorded between 1st July 2018 to 30th June 2019.

2.1 Crime Summary

Figure 1: Recorded Crime within 500m of Site

Domestic Burglary	Non-Domestic Burglary	Criminal Damage	Less Serious Wounding	Theft	Robbery	Serious Wounding	Theft from Motor Vehicle	Theft of Motor Vehicle	Bicycle Theft
42	5	15	29	15	<5	<5	32	6	10

- 2.1.1 The overall crime rate in the local area is relatively low for Manchester with less serious wounding, domestic burglary and vehicle crime being the highest recorded offences taking place in the local area. The proposed site is located on Princess Road, which is major transport route connecting the City Centre and the South of Manchester. Across the way from the site, to the west, is a large cemetery, crime in this area is extremely low due to the low volume of foot fall and large open space. West Didsbury police station is located to the east of the proposed site, just behind Didsbury Technology Park, which is where a large volume of crime has taken place. The crimes taking place in the local area are common in residential suburbs.

2.2 Common Use-Specific M.O.s (Modus Operandi)

- 2.2.1 Secure windows and doors have been forced open using body pressure, implements and tools to gain access to the building.

Possible Solution – All external doors should be certified to recognised security standards (see Section 4.1), which are independently proven to reduce the risk of forced entry and thus increase the chances of detection. Security-certified doors are the best long-term measure to address this risk and can be obtained to suit virtually all operational requirements. Avoid locating openings in concealed areas where a concerted attack from an offender is unlikely to be witnessed.

- 2.2.2 Organised burglars targeting expensive I.T. equipment.

Possible Solution - Secure store rooms, where such items can be kept, should be incorporated into the design of the building. These rooms should have solid blockwork walls or be reinforced with expanded metal mesh and certified door sets (to BS PAS 24). Valuable items should not be easy to remove, and should be uniquely identified using an appropriate property marking system. Portable equipment should not be positioned in communal areas where there may be regular visitor access. Effective access controls within the building should assist in restricting entry of visitors and potential intruders.

- 2.2.3 Offenders posing as legitimate customers, visitors or employees have gained unauthorised access to staff only areas to steal property.

Possible Solution - There should be a robust access control system in place to ensure that visitors to the buildings are vetted and / or met and escorted before being allowed further access into the building. All individual rooms should be capable of being secured when unoccupied and there should be a secure area for staff to store their belongings while at work.

- 2.2.4 Glazing within windows and doors has been smashed to gain unauthorised access.

Possible Solution - All ground floor or otherwise accessible glazing should include a laminated pane, which forms a much more robust barrier against shattering and penetration. Where possible, the size of any glazed elements within or directly adjacent to doors should be reduced and set well away from locking points. Windows in secluded locations may require additional protection from criminal damage, such as shutters or grilles.

- 2.2.5 Shutters have been prised open to target doors / windows behind them.

Possible Solution - All shutters should be certified to a recognised burglary-resistant standard (i.e. LPS 1175 SR 2). Shutters certified to this standard can resist most attempts by offenders to gain access with the use of force. In high risk situations, shutters rated to a higher standard of resistance should be installed, and retractable bollards can be used to protect section overhead doors and shutters.

2.2.6 Entering premises and removing personal items (mostly mobile phones and bags) belonging to customers.

Possible Solution – Consideration should be given to tables and chairs designed to facilitate secure storage of belongings or adapted with ‘Chelsea Clips’ to reduce the opportunities to steal bags / coats. The internal layout of the premises can also increase surveillance opportunities and help deter offenders. It should be generally uncluttered, allowing clear views of all spaces and avoiding any pinch points or areas of concealment. The precise arrangement of internal furnishings should aid circulation and aim to achieve a balance between intimacy and visibility.

2.2.7 Theft of motor vehicles.

Possible Solution – To minimise the risk of theft of vehicles:

- *include vehicle barriers, which can only be activated with a code, token or key card;*
- *prevent offenders casually entering the car park by installing high, visually permeable, perimeter fencing;*
- *limit the number of entry points to the car park and try to ensure entrances are in a location where there is an element of passive supervision;*
- *employ an attendant should to supervise the car park and assist customers as required;*
- *install a CCTV system; and, install appropriate lighting.*

2.2.8 Theft from motor vehicles.

Possible Solution - To minimise the risk of theft from vehicles:

- *prevent offenders casually entering the car park by installing high, visually permeable, perimeter fencing;*
- *limit the number of entry points to the car park and try to ensure entrances are in a location where there is an element of passive supervision;*
- *employ an attendant should to supervise the car park and assist customers as required;*
- *signs should be erected to remind customers not to leave valuable visible with their vehicle;*
- *CCTV cameras should monitor the car park; and, the site should be illuminated in accordance with the British Standards for car parking lighting.*

2.2.9 Criminal / accidental damage to motor vehicles.

Possible Solution - To minimise the risk damage to vehicles in the car park:

- *prevent desire lines forming between cars by clearly defining pedestrian routes that are connect directly to car park entry points and pay points;*

do not located pay points in areas where pedestrians may come into conflict with vehicles; and, if defined, parking bays should large enough to accommodate larger vehicles.

2.3 Risk Factors - Offices

The typical security risks for a development of this nature are:

- Burglary
- Violence towards staff
- Theft of personal belongings at work
- Criminal damage to property and vehicles
- Unauthorised access to buildings/private space
- Arson
- Cycle theft

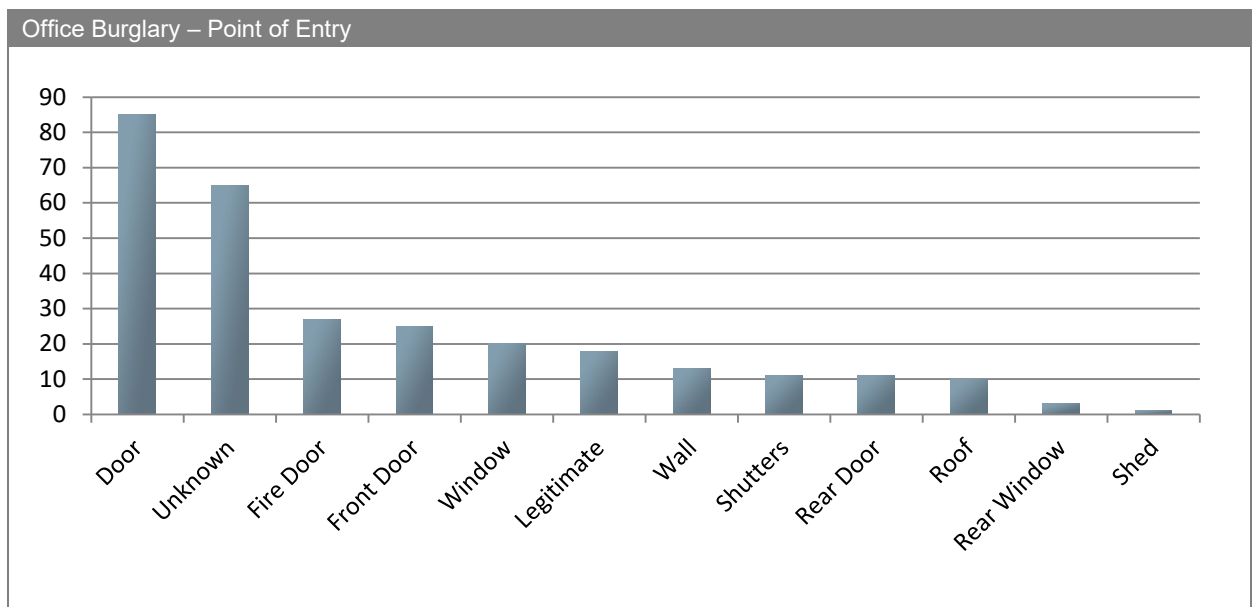
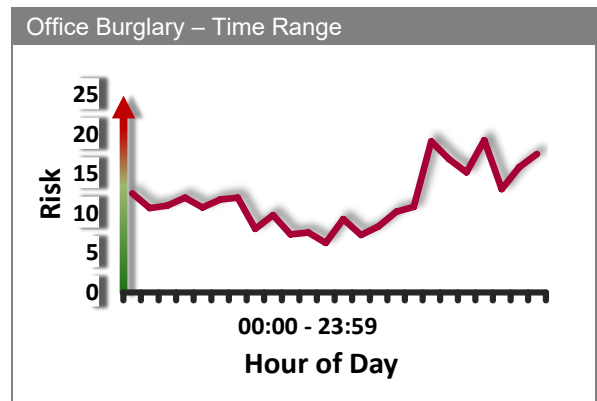
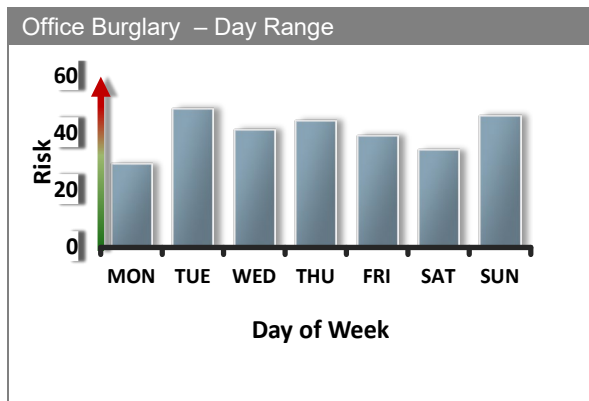
2.4 Risk Factors - Car Parks

The typical security risks for a development of this nature are:

-
- Other theft from premises
 - Theft of/from parked cars
 - Unauthorised access to non-public areas
 - Criminal damage to property and vehicles
 - Arson
 - Violence towards staff and other users
 - Cycle security
 - Theft and criminal damage during the construction period
 - Cash robbery/attacks on vending machines
 - Controlled access (staff/user only)
 - Safety of children
 - Loitering groups
 - Tailgating (pedestrian and vehicular)
 - Robbery
 - Employee theft
 - Theft of personal belongings at work
 - Unauthorised access to buildings/private space

2.5 Non-Domestic Burglary Offices: Risk Analysis

The data below relates to non-domestic burglary offences within / against offices, recorded in the Manchester area.



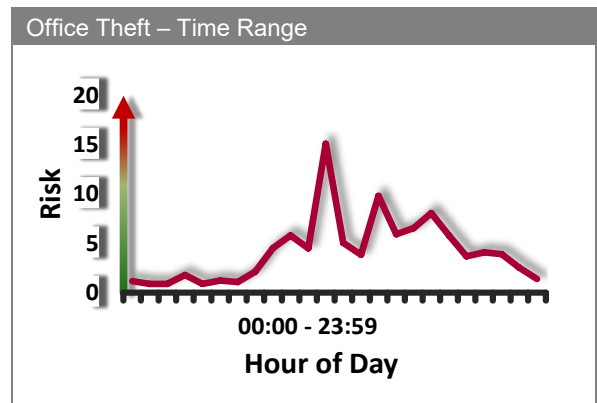
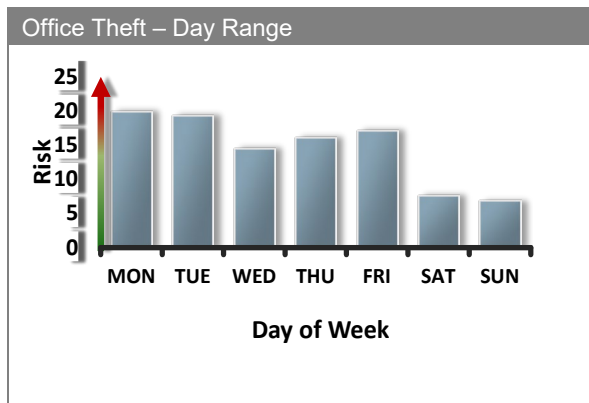
2.5.1 **Day / Time Range:** During the week, the risk of burglary at office premises in Manchester peaks on Tuesday and Sunday. During the day, the risk of burglary rises at night / into the early hours of the morning. Such premises are often targeted at these times when they are closed and unoccupied, meaning offenders can attempt to gain unauthorised access without fear of being disturbed or identified.

2.5.2 **Point of Entry:** In the local area, the following entry points have been utilised most frequently:

- Secure doors have been forced open using body pressure, implements and tools. Many burglaries committed in Manchester office buildings do not appear to be opportunistic, with offenders often bringing equipment with them that can be used to force open doors and cut locks.
- A large proportion of burglaries have been committed through 'unknown' points of entry, which are likely to have been where offenders (posing as legitimate customers, visitors or employees) have gained unauthorised access to staff only areas (i.e. through insecure doors, tailgating etc.) to steal property.
- Glazing within windows and doors has been smashed to gain unauthorised access.
- Shutters have been prised open to target doors and windows behind them.

2.6 Theft Offices: Risk Analysis

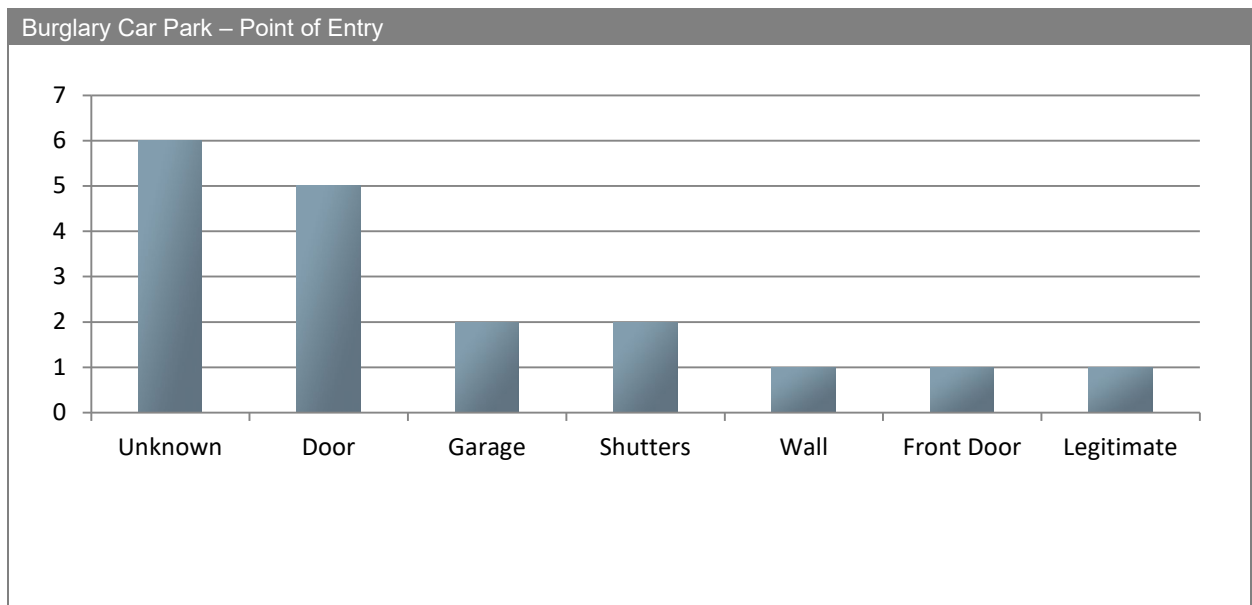
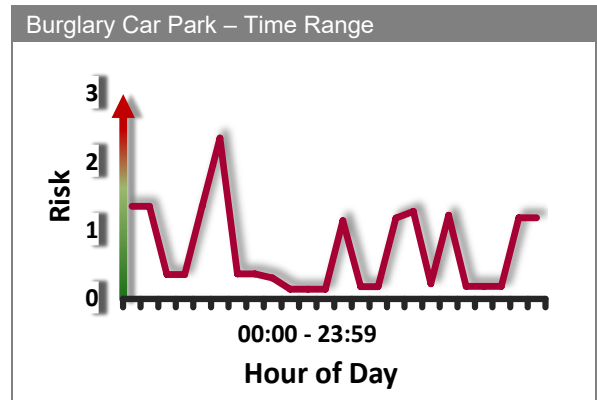
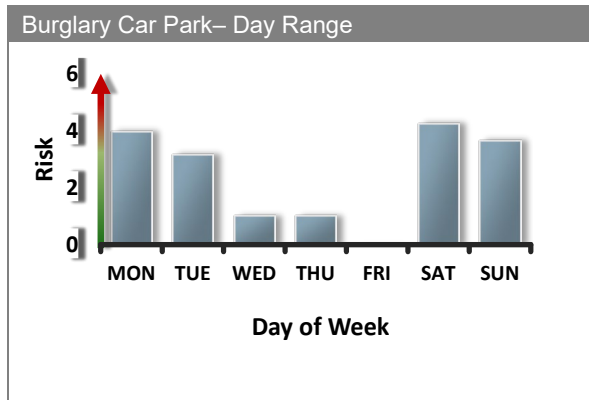
The data below relates to thefts within / against offices, recorded in the Manchester area.



- 2.6.1 **Day / Time Range:** During the week, the risk of theft at Manchester offices is greatest during the working week, when the opportunities to offend are greater, and is significantly lower at the weekend, when many offices premises are closed or operate on reduced opening hours / staffing levels. During the day, the risk of theft is concentrated during normal working hours – peaking around midday. During these times, many office workers will take their lunch breaks, leaving unattended property at desks or in insecure areas. Thefts can also often happen at the end of the working day, when members of staff are finishing work and premises is likely to be less secure, such as while cleaning operations are carried out.

2.7 Non-Domestic Burglary Car Park: Risk Analysis

The data below relates to non-domestic burglary offences within/against Car Park, recorded in the Manchester area.



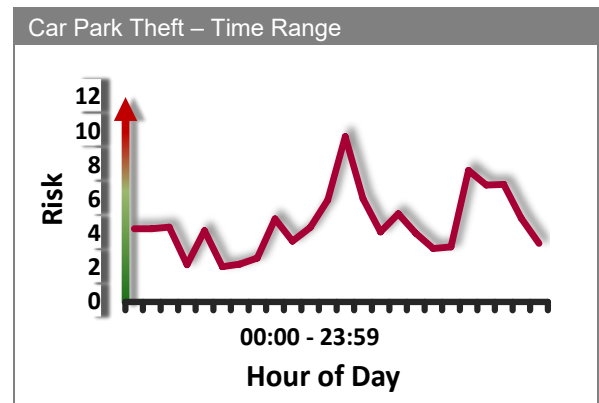
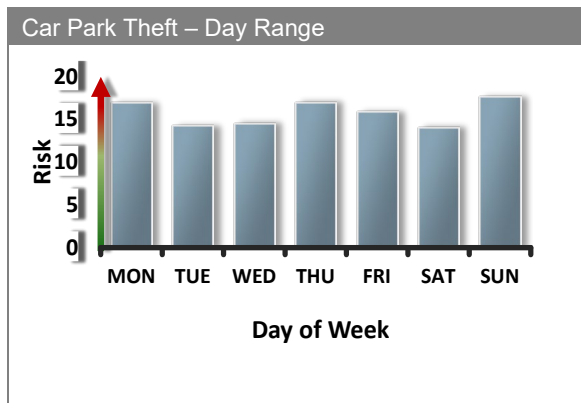
2.7.1 **Day/Time Range:** The risk of burglary at car parking premises in Manchester peaks on a Monday and Saturday during the early hours of the morning (3am – 6am). Offenders target properties during the early hours of the morning when it is usually dark and there is less foot fall in the area, giving offenders the perception that there is a lower risk of being caught or identified.

2.7.2 **Point of Entry:** In the local area the following entry points and MO's have been utilised most frequently:

- Forcing open shutters using implements in order to gain entry.
- Tailgating residents/ employees into secure car parking areas.
- Posing as a legitimate visitor to residential apartments and by means of tailgating staff/ exploitation of insecure doors gain access to communal areas.
- Forcing open secure windows and doors

2.8 Theft Car Park: Risk Analysis

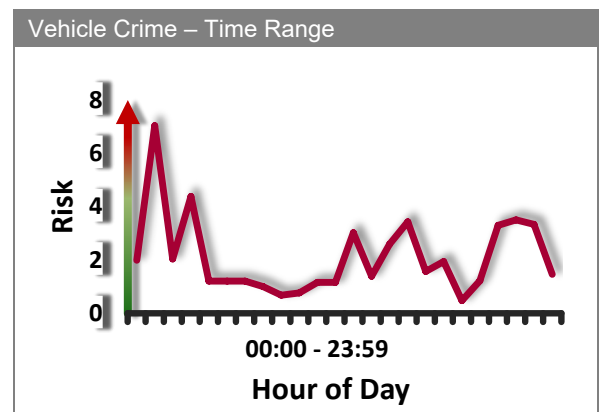
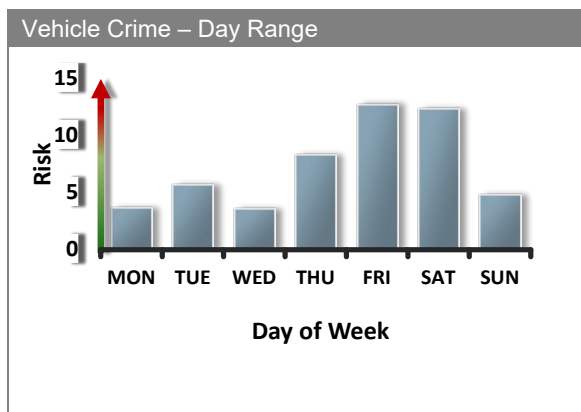
The data below relates to thefts within/against car park, recorded in the Manchester area.



- 2.8.1 **Day/Time Range:** The risk of theft at car parking facilities in Manchester is consistently high throughout the week peaking on a Thursday and Sunday during the morning and into the afternoon (9am – 2:30pm). Offenders have targeted parked vehicles and by means of broken glazing, gained entry to vehicles and removed personal belongings.

2.9 Vehicle Crime: Risk Analysis

The data below relates to vehicle crime committed within 500m of the site.



- 2.9.1 **Day/Time Range:** The risk of vehicle crime in the local area peaks on a Friday and Saturday during the early hours of the morning (12am - 4am). Offenders often target vehicles in the early hours of the morning when it is dark and owners are unlikely to be insight of their vehicle, creating a low risk opportunity for the offender(s). Theft from motor vehicles has been the highest recorded vehicle crime, whereby offenders are smashing glazing and using implements to override the locking mechanism. The M.O's are common in residential areas.

3 Layout Appraisal

3.1 Proposed development

- 3.1.1 The development comprises construction of a purpose-built commercial office building and a multi-storey car park, all within the Didsbury Technology Park.
- 3.1.2 Construction of a ground plus five storey commercial building for use as offices (Use Class E(g)(i)) with ancillary café on ground floor (Use Class E(b)), erection of ground plus two storey multi-storey car park (Sui Generis) together with landscaping and highway works, a new access and other associated works.

3.2 Positive Aspects of the Proposal

The following proposed features would make a positive contribution to the prevention of crime and fear of crime.

- 3.2.1 The site sits within an established business estate that is already securely enclosed with high fencing and gates to prevent unauthorised access at night/when closed.
- 3.2.2 The development will bring greater levels of activity and surveillance to the centre of the site and additional pedestrian and vehicular activity, particularly during the day.
- 3.2.3 The principle elevation of the buildings will be overlooked from the proposed parking area and will be capable of being overlooked from the neighbouring office buildings.
- 3.2.4 The proposed buildings will have a simple footprint that will provide few potential places of concealment and will also be sufficiently tall enough to make unauthorised access to the roof difficult.
- 3.2.5 **Car Park:** Facilities with multiple entrances and exits can often provide offenders and those antisocially minded with various escape routes, facilitating offending. The plans indicate that customers will be directed through a single entrance/exit (the pay machine lobby) rather than having a choice of multiple entrances/exits.
- 3.2.6 **Car Park:** The car park will have a one-way system which will reduce the potential for collisions.
- 3.2.7 **Car Park:** The design of the proposed cladding system at ground floor will make it difficult to deface (i.e. by spray painting graffiti).
- 3.2.8 **Car Park:** Bays and directional markings will be clearly demarcated.
- 3.2.9 **General:** The site will be covered by a comprehensive monitored CCTV and lighting system
- 3.2.10 The proposed development provides the opportunity to include security features built into the design and construction of the building and avoid the need for obtrusive retro-fitted security measures that can increase the fear of crime. Security measures carefully incorporated into the design can ensure the units are reasonably secure, without visibly announcing that the design was concerned about crime

3.3 Recommendations

The following points have been identified for further consideration and would need to be addressed for Design for Security to support the proposed scheme.

- 3.3.1 The layout appears generally free of obstacles impeding vision thus allowing people to see and be seen within the area and maintains sight lines across the site. Planting and street furniture has been aligned to avoid creating potential hiding places and avoids blocking sight lines. However, the choice of trees and other plant species should allow some visible permeability through the canopies and foliage so that people cannot be concealed within the public spaces.
- 3.3.2 Street furniture and landscape features should be used to prevent unwanted parking or access onto pedestrian only surfaces. It should be very clear in which spaces, or on which streets, vehicle parking is authorised.
- 3.3.3 Lighting should provide good visual guidance and orientation, and support visibility for pedestrians, cyclists as well as for motorists. Due to the poor spread of light, bollard lighting is not encouraged.
- 3.3.4 Consideration for safe bicycle storage should be embedded within the landscape design. Short-stay cycle parking stands should be located where they can be readily observed. The location of cycle stores

within proposed buildings should consider the position, inherent physical security and safety of cyclists using the facility.

3.3.5 Multi-Storey Car Park

- 3.3.6 The car park should include access controls on all entrances – vehicular and pedestrian. Access should only be available to those holding an appropriate ticket/permit. Electronically operated barriers should secure the vehicles entrance and exit, whilst electronic locks should secure the pedestrian doors.
- 3.3.7 All external pedestrian doors should include door closers which fully engage the locking mechanisms upon closure. Escape doors should be used for escape purposes only and not for general circulation. Escape doors should be signed and alarmed to deter customers from using these routes.
- 3.3.8 Help points should be positioned on each floor so that users of the facility can speak to a member of the security team if necessary (i.e. in the case of an emergency).
- 3.3.9 The car park should be illuminated in accordance with to BS 5489 – see table L1 below.
- 3.3.10 Parking bays should be generous enough to accommodate large vehicles (i.e. SUV, Crossover & 4x4) to reduce the potential for conflict between users.
- 3.3.11 Clear signage should direct traffic and pedestrians to the appropriate exit.
- 3.3.12 There should be a comprehensive CCTV system covering the parking facility. Cameras should cover all pedestrian and vehicular entrance points, all parking floors, and the building elevations.

3.3.13 Further Recommendations

- The CCTV system and site lighting should be adapted to reflect the changing layout of the site. CCTV cameras should be capable of identifying all vehicle and pedestrian movements into and out of the site as well as each building. An audible warning system should be employed to alert to intruders that they have been detected and a response has been generated. To facilitate the CCTV system, dusk until dawn lighting should be provided for the site, particularly around the access doors/gates and loading bays. Signage should be located at the site entrance to inform visitors that their movements will be recorded.
 - Signage should be used to direct people through the development - to the appropriate parking spaces, service areas and office entrances.
 - Staff lockers should be provided, and in a location where there is a high level of activity and surveillance, so that staff can safely store personal items during the working day.
 - Internally, the buildings should be capable of zoning so that entry to parts of the premises can be effectively controlled. Movements in and out of the buildings should be confined to specific areas and access controls used to ensure only authorised staff can enter controlled areas.
- 3.3.14 It is essential that all of the physical security measures listed below are incorporated into the scheme. Integrated, risk-commensurate security measures aim to place secure physical barriers or surveillance in the path of the criminal – making crime harder to commit and raising the risk of detection and possible capture, as well as promoting a feeling of safety in users.

4 Physical Security – Office + Public Realm

The following checklist forms the physical security requirements for this scheme to achieve Secured by Design accreditation.

4.1 Doors

- ☐ External doors must be compliant with and certified to BS PAS 24, STS02, or LPS 1175 SR2.
- ☐ Garage or sectional overhead doors must be tested and certified to LPS 1175 SR2. If circumstances could prevent this, please consult with Design for Security.
- ☐ All internal doors / frames to staff areas / stores / offices should be robust/solid core (minimum 44mm thick) and fitted with auditable access controls. Staff should only be allowed access to areas required for their work. Keys / passes should only be carried if required for duties and should be accounted for at all times.

- ☐ Sliding doors should be tested and certified to ENV 1627-30 (WK2+). If circumstances could prevent this, please consult with Design for Security.
- ☐ External escape-only doors (as with external doors in general) should be certified to BS PAS 24:2012, or LPS 1175 SR2. It is crucial that the door ironmongery is permitted for use on these doors under the security certification of the product.

4.2 Shutters

- ☐ Where grilles or shutters are required for additional protection the minimum certification required is:
 - LPS 1175: Issue 7 Security Rating 1
 - STS 202: Issue 3, Burglary Rating 1

4.3 Windows

- ☐ Windows must be compliant with and certified to BS PAS 24 or BS 7950.
- ☐ Ground floor and easily accessible opening lights (escape requirements permitting) must be key-lockable, and have fixed/lockable opening restrictors (not releasable from the outside) limited to 100mm.

4.4 Glazing

- ☐ Glazing to a height of 2400mm (or if otherwise accessible) must incorporate at least one pane of glass rated as P4A under EN 356. The remaining pane in a double glazed unit may be toughened glass.

4.5 Curtain Walling

- ☐ Secured by Design recognises four distinct types of glazed wall systems. These are:
 - Large glazed units connected by 'spider clamp' system.
 - Glazed units directly retained within a framing system (usually aluminium)
 - Framed windows installed within a separate framing system.
 - Framed windows connected to other framed windows to create a window wall.
- ☐ Glazed curtain walling must be installed using a secure glazing retention system. The method of retaining glass must include one or more of the following:
 - Security glazing tape
 - Dedicated security sealant or gasket
 - A secure mechanical fixing system (Evidence will be required to prove the system is secure. This may be achieved by utilising the specific glazing retention test within PAS 24:2012 or by indicative test on the retention system to LPS 1175: Issue 7, SR1 or STS 202: Issue 3, BR1)
- ☐ Framed windows (3 and 4 above) used within the construction of a window wall must be certified to one of the following requirements:
 - BS PAS 24:2016
 - STS 204 Issue 3: 2012
- ☐ LPS 1175 Issue 7:2010 Security Rating 1

4.6 Alarms

- ☐ A monitored alarm system should be installed to cover all building on the site, linked to contacts on all external doors/shutters and PIR detectors covering all ground floor areas with windows, with a signal terminating at a recognized Alarm Receiving Centre (ARC) or security control room.

4.7 Access Control

- ☐ Access control systems should be operable by swipe card or fob, and not numeric key pads. The following doors should operate on access control:
 - All external doors where regular staff access is required.
 - Doors separating internal zones / lobbies
 - Any internal doors to obvious high risk or controlled areas (e.g. storage / server / locker rooms)
 - Cycle store

4.8 Lighting

- ☐ External lighting must be provided to pedestrian routes within the site in accordance with BS 5489.
- ☐ Lighting to vehicle circulation areas, service yards and car parks should be in accordance with BS 5489, and display an average lux level of 20 with a uniformity level of no less than 25%. These figures should be evidenced by a lighting layout/lux plan.
- ☐ Dusk 'til dawn lights, operated by photoelectric cell/daylight sensor, should be installed to all external doors.
- ☐ Fittings should produce 'white' light, as opposed to yellow/orange light. Metal halide (or bulbs with a comparable output) should be used, as these offer superior colour rendition over alternatives such as high and low pressure sodium bulbs.
- ☐ Lighting fixtures must not be positioned to provide climbing aids over boundary treatments. Electrical and architectural layouts should be developed together to avoid this.
- ☐ Internal lighting should be operated by detection devices which will automatically switch lights on with movement activity in each room.

4.9 Landscaping

- ☐ In vulnerable locations such as entrances, parking areas and footpaths, low planting should not exceed 1200mm in height; unless greater height would see such landscaping features provide a specific security benefit. Tree canopies should fall no lower than 2m from the ground. This is in order to allow people to see their surroundings better, make a rational choice of routes and eliminate hiding places. A maintenance agreement should stipulate that these planting dimensions would be adhered to.
- ☐ Street furniture should be designed to withstand casual acts of vandalism. When selecting or designing street furniture, consider how easily and quickly items can be repaired or replaced following damage. When commissioning bespoke street furniture and public artworks it is also important to be mindful of the potential for attack and ease of repair. These features are best positioned where there is plenty of formal and informal surveillance, so any criminal acts are more likely to be witnessed.
- ☐ To avoid compromising the security of buildings gardens/balconies, street furniture must be avoided that will aid climbing over boundary treatments or onto first floor balconies. Security can be compromised if trees or street furniture are placed close to fencing.
- ☐ Tree Establishment. Avoid the use of tree stakes by using an underground guying system. Irrigation systems / pipes should include tamper-proof coverings to avoid potential criminal damage / blockage.
- ☐ Use of loose surface materials in the publicly accessible areas of the scheme should be avoided. Small fragments of ground covering can be used as missiles against people and premises (both to gain entry and to commit criminal damage).
- ☐ Surfaces that could be vulnerable to graffiti should be formed of a resistant material or have a resistant coating applied at the outset in order to facilitate rapid removal, e.g. 'easy-on' (see www.urbanhygiene.com for details).
- ☐ Cycle stands intended for short-stay use should enable cyclists to secure both wheels and the frame and obtained from an SBD-approved supplier.
- ☐ Security Bollards

- Fixed and raising bollards should be successfully tested to PAS 68-1:2013
- Bollards providing passive protection should be successfully tested to BS 170-1

4.10 Communal Areas

- Any public open space or amenity areas not under the ownership of residents should be subject to an effective maintenance contract. This should ensure that all damage is rectified in a timely manner, and that any such space will not be detrimental to its surroundings.

4.11 Gates

- ☐ Design of Gates. Gates will need to prevent people from clambering (or being tempted to climb) round them. Consideration should be given to inclusion of an emergency release button / device to allow anyone trapped inside to get out and reduce potential for entrapment (this should be beyond reach of people outside the gate and should also include an alert relay to the CCTV control room on activation of the gate at these times).
- ☐ Ease of repair. It is likely that gates will be subject to criminal damage to make them difficult to close or lock. The design should be sufficiently robust to withstand this kind of attack, but also should be capable of rapid repair. Use of bespoke components may create delays in obtaining replacements.
- ☐ There should be minimal ground clearance beneath the gate, to reduce the potential for crawling into the secure area.

4.12 CCTV

- ☐ Any CCTV system that may be used within this proposal will require certain specifications and intelligent placement of cameras to compliment the design of the development. Designers should consider the following points when planning a CCTV strategy:
- ☐ CCTV systems (and lighting that support them) require regular cleaning and maintenance to remain effective.
- ☐ Where necessary cameras that are vulnerable to damage should be protected from attack either by relocation to a higher level and using a bigger lens to achieve the view required or through the fitting of a vandal resistant housing.
- ☐ With regards to the retention of footage, the police prefer quality over quantity. The overall retention period should be dictated by what the system is designed to achieve, though it would be better to have good quality images over a 14-day period than poor ones over a 30-day period.
- ☐ Procedures for recovery of recordings are recommended to be established (e.g. trained staff / the CCTV system instruction manual to be readily available). This is to ensure that the images produced will be of an acceptable standard that will allow for identification of an individual which will stand up to scrutiny in court.
- ☐ Acceptable Standard - this generally requires a resolution of 720x576 pixels at a real time frame rate of 25 frames per second. (N.B. Both the camera and DVR must be capable of this – if the camera will only send low resolution images then it does not matter how high the resolution of the recording unit is).
- ☐ Identification – One of three levels of field of view. To identify an individual, the image must capture no less than 120% of the field of view (at least from the top of the individuals head to their knees). The remaining two levels of field of view are 'Overview' and 'Recognition', which whilst effective for observational purposes, are less likely to result in the identification of a person/offender.
- ☐ The intelligent placement of cameras helps to provide clear facial identification of individuals. Suitable locations would be: Entrances to site, external areas all around the new building and ancillary facilities, external doors including emergency egresses / hatches, access-controlled doors & cycle parking areas.

5 Physical Security – Multi-Storey Car Park

The following checklist forms the physical security requirements for this scheme to achieve Secured by Design accreditation.

5.1 Doors, Windows, Glazing, & Building Fabric

- ☐ External doors (including escape doors) must be compliant with and certified to BS PAS 24, STS202, or LPS 1175 SR2.
- ☐ All external and internal doors into lift/stair lobby areas must have viewing windows incorporated. The glazing within these doors must be laminated (see below) and the push and pull door furniture must be robust.
- ☐ Ground floor glazing must incorporate laminated glass with a minimum of 1.5mm PVB interlayer (e.g. 7.5mm laminated glass), or a glass rated as P4A under EN 356.
- ☐ Any curtain walling panels should include laminated glazing and should be securely fixed directly to the floor slabs where possible, rather than to perimeter columns.

5.2 Lighting

- ☐ The way in which any parking facility is lit has a major impact on crime. Increased lighting levels in dark areas can reduce the fear of crime and reduce the opportunity for an offender to commit crime. The whole of the car park should also be lit to an adequate and uniform level and in accordance with BS 5489, see table L1 below.

Table L1: Lighting requirements for multi-storey/enclosed car parks

Areas	Av. lux	Min. lux	Uniformity
Parking bays and lanes	75	50	0.6
Ramps, corners and junctions	150	75	0.5
Vehicular entrances/exits	75 (night) 300 (day)	n/a	n/a
Pedestrian areas (stairs, lobbies etc)	100	50	0.5
Open roof level	30	10	0.33

Please Note:

- The Av (average) lux is the maintained average horizontal illuminance on the floor
- The Min (minimum) lux is the minimum horizontal illuminance at any location
- Reference should be made to BS 5489 part 9, for further information and guidance
- There may be scope for compromise on the above levels due to external factors

Fittings should produce 'white' light, as opposed to yellow/orange light. Metal halide

(or bulbs with a comparable output) should be used, as these offer superior colour rendition over alternatives such as high and low pressure sodium bulbs.

- ☐ Dusk 'til dawn lights, operated by photoelectric cell/daylight sensor, should be installed to all external doors.
- ☐ To assist with the spread of lighting within the car park decks, the surface materials should have a light-coloured finish.
- ☐ Special attention should be given to the levels of lighting around payment machines to ensure that people are not in darkness or shadow when handling cash.

5.3 Help Points, & Signage

- ☐ Help points should be positioned on each floor so that users of the facility can speak to a member of the security team if necessary (i.e. in the case of an emergency).
- ☐ Effective signage should be used throughout the site to direct users to spaces and exits, and include safety and security information. Security information is important to assist people in feeling comfortable using the facility and should be provided at all pay machines. This should include information about how the car park is managed and what to do / who to contact in case of emergency, or simply if they wish to report a broken lamp or offensive graffiti.

5.4 Lighting

- ☐ External lighting must be provided to pedestrian routes within the site in accordance with BS 5489.
- ☐ Fittings should produce 'white' light, as opposed to yellow/orange light. Metal halide (or bulbs with a comparable output) should be used, as these offer superior colour rendition over alternatives such as high and low pressure sodium bulbs.
- ☐ Dusk 'til dawn lights, operated by photoelectric cell/daylight sensor, should be installed to all external doors.
- ☐ Lighting fixtures must not be positioned to provide climbing aids over boundary treatments. Electrical and architectural layouts should be developed together to avoid this.

5.5 CCTV

- ☐ Any CCTV system that may be used within this proposal will require certain specifications and intelligent placement of cameras to compliment the design of the development. Designers should consider the following points when planning a CCTV strategy:
- ☐ CCTV systems (and lighting that support them) require regular cleaning and maintenance to remain effective.
- ☐ Where necessary cameras that are vulnerable to damage should be protected from attack either by relocation to a higher level and using a bigger lens to achieve the view required or through the fitting of a vandal resistant housing.
- ☐ With regards to the retention of footage, the police prefer quality over quantity. The overall retention period should be dictated by what the system is designed to achieve, though it would be better to have good quality images over a 14-day period than poor ones over a 30-day period.
- ☐ Procedures for recovery of recordings are recommended to be established (e.g. trained staff / the CCTV system instruction manual to be readily available). This is to ensure that the images produced will be of an acceptable standard that will allow for identification of an individual which will stand up to scrutiny in court.
- ☐ **Acceptable Standard** - this generally requires a resolution of 720x576 pixels at a real time frame rate of 25 frames per second. (N.B. Both the camera and DVR must be capable of this – if the camera will only send low resolution images then it does not matter how high the resolution of the recording unit is).
- ☐ **Identification** – One of three levels of field of view. To identify an individual, the image must capture no less than 120% of the field of view (at least from the top of the individuals head to their knees). The remaining two levels of field of view are 'Overview' and 'Recognition', which whilst effective for observational purposes, are less likely to result in the identification of a person/offender.
- ☐ The intelligent placement of cameras helps to provide clear facial identification of individuals.

6 Management & Maintenance

- ☐ There should be a comprehensive security regime in place for the day-to-day running of the site. There should be regular reviews/exercises to ensure that it remains accurate, workable and up-to-date. All staff should understand and accept the need for security measures and it should be made easy for people to raise concerns or report observations.
- ☐ The upkeep of a development over its lifetime can be crucial to the level of security and safety within. Aspects of a development, which are left to deteriorate, have the potential to attract further crime – a process known as 'the broken window theory'. A maintenance plan should be drawn up to address issues such as:
 - Regular inspection, repair and servicing of security features (lighting, signage, access controls, barriers, CCTV, pay machines, and help points).

- Security staff should conduct regular patrols of the facility
- Litter / graffiti removal



Landscaped/amenity areas around the site perimeter should be subject to an effective maintenance contract. This should ensure that all damage is rectified in a timely manner, and that any such space will not be detrimental to its surroundings

7 Construction

- 7.1.1 Untidy sites and their surroundings can be littered with debris accessible to vandals who often use loose materials as missiles to commit crime. The client should take measures appropriate to secure their site during construction, and control pedestrian and vehicular access in to and out of the site curtilage. It is also recommended that the contractor on this scheme is a member of the 'Considerate Constructors Scheme', who has committed to be a considerate and good neighbour, as well as clean, respectful, safe, environmentally conscious, responsible and accountable.
- 7.1.2 Site security contractors should be SIA (Security Industry Authority) approved to ensure professional standards are adhered to (please see <http://www.sia.homeoffice.gov.uk/pages/acs-intro.aspx> for more details).

8 Useful References

8.1 Secured by Design (SBD)

- 8.1.1 Secured by Design focuses on crime prevention at the design, layout and construction stages of homes and commercial premises and promotes the use of security standards for a wide range of applications and products. To apply for Secured by Design certification for your development, visit our online application form at: <http://www.designforsecurity.org/secured-by-design/sbd-accreditation/>

A Contact register

Date	Contact With	Summary of Contact
06/11/20	Deloitte	CIS application submitted
25/11/20	Deloitte	Client confirmation
07/12/20	DfS	Site visit
03/02/21	Design team	Project presentation
04/02/21	DfS	CIS Issued
17/05/22	Design team	Project presentation
24/06/222	DfS	CIS Issued
04/07/222	DfS	Revised CIS Issued
11/07/222	DfS	Applicant name revised

B Associated Documents

This report is based on the following drawings and supplementary information submitted by the applicant.

Drawing No.	Drawing Title	Date	Rev
159-LYR-XX-XX-DWG-L-1007	Planning Application Boundary (On Existing)	27/10/20	0
	5949-SRA-CP-00-DR-A-20200	24/06/22	
	5949-SRA-CP-01-DR-A-20201	24/06/22	
	5949-SRA-CP-02-DR-A-20202	24/06/22	
	5949-SRA-D1-00-DR-A-20-200	24/06/22	
	5949-SRA-D1-01-DR-A-20-201	24/06/22	
	5949-SRA-D1-05-DR-A-20-205	24/06/22	
	5949-SRA-D1-XX-SH-A-00902_RevP03	24/06/22	

PLEASE NOTE - In the event of any subsequent material changes to the scheme, it will be necessary for Design for Security to reassess the comments made within this report.

C CIS Version History

Version	Revisions Made	Date
A		
B	Minor amendments to the scheme design	24/06/22
C	Proposed scheme description updated	04/07/22
D	Applicant name revised	11/07/22

D Glossary

Burglary Resistance Standards

BS PAS 23-1, 1999

General performance requirements for door/window assemblies.

A performance standard for door sets and windows, which certifies that a particular door set is fit for purpose. Door products must also have BS PAS 24 certification.

BS PAS 24-1, 2012

General security performance requirements for door/window assemblies.

An attack test standard for door sets and windows. This is the minimum police requirement for Secured by Design dwellings, and is also applicable to French/double doors, and sliding doors.

ENV 1627-30 (Security Ratings WK1 to WK6)

Windows, doors, shutters - Burglar resistance Requirements and classification

The classification system used in ENV 1627-30 is aimed at the commercial market and is based on five elements:

- a) Resistance of glazing*
- b) Performance of hardware*
- c) Resistance to static loading*
- d) Resistance to dynamic loading*
- e) Burglary resistance by manual intervention*

LPS 1175 (Security Ratings 1 to 6)

Specification for testing and classifying the burglary resistance of building components

This includes doors, shutters, garage doors and grilles typically for commercial premises and higher risk domestic premises and is acceptable to the ABI and the Police. The standard has 6 levels, 6 being the highest, with levels 1 and 2 equivalent in many respects to BS PAS 24 and BS 7950.

STS201 Issue 4: 2012

Enhanced security requirements for door-sets and door assemblies for dwellings to satisfy the requirements of PAS23 and PAS24

STS202 Issue 3: 2011

Requirements for burglary resistance of construction products including hinged, pivoted, folding or sliding door-sets, windows, curtain walling, security grilles, garage doors and shutters.

This specifies a broadly similar range of attack tools and times to those specified at the lower levels of LPS1175.

EN 356, 2000 (Ratings P1A to P8A)

Glass in building. Security glazing. Testing and classification of resistance against manual attack.

A performance standard for manual attacks on glazing. P2A is comparable to the performance of a

6.8mm laminated glass, and P4A to that of a 9.5mm laminated glass.

Commonly Used Acronyms

CIT

Cash in transit (refers to vehicles, personnel and routines).

CPTED

Crime Prevention Through Environmental Design

CRS

Crime Reduction Specialist. Sometimes known as CPO (Crime Prevention Officer)

INPT

Integrated Neighbourhood Policing Team.

PVB / PolyVinyl Butyral (Glazing interlayer)

A commonly used interlayer used in the production of laminated glass.

LPCB (Loss Prevention Certification Board)

A brand of the BRE Global (Building Research Establishment) family. The LPCB work with insurers, Government, police, designers, manufacturers, contractors and end users to develop methods of assessing performance and reliability of security products to ensure their fitness for purpose.

UKAS (United Kingdom Accreditation Service)

The sole national accreditation body recognised by government to assess, against internationally agreed standards, organisations that provide certification, testing, inspections and calibration services.

Useful Websites

Design for Security

www.designforsecurity.org

Secured by Design

www.securedbydesign.com

RIBA Product Selector

www.ribaproductselector.com

LPCB – Red Book Live

www.redbooklive.com

Crime Reduction (Home Office)

www.crimereduction.homeoffice.gov.uk

DAC (Design Against Crime) Solution Centre

www.designagainstcrime.org

Building for Life

www.buildingforlife.org

CLG (Communities and Local Government)

www.communities.gov.uk