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Norfolk House
7 Norfolk Street
Manchester
M2 1DW

Your Ref: 131892/FO/2021
Our Ref: 2021/0529/SBD/01

F.A.O. Joseph Smith

Date: 10th May 2022

Dear Sir,

Re: SECURED BY DESIGN (SBD) – Building 401, Avro Way, Manchester.

Thank you for your SBD application in relation to the above development.

The following checklist forms the site-specific requirements for this scheme to achieve the SBD Award. A final inspection of the scheme will be required (which I advise is carried out 1-2 weeks before handover), upon which the items within the checklist can be verified. Please contact me as this time approaches to organise the inspection. Other items which relate to technical information (door, window or shutter specifications for example) must be satisfied through the production of product test certificates, or SBD supplier certificates (if the supplier is an SBD-registered company).

Should you have any queries regarding the contents of this letter and attached checklist, or the availability of SBD compliant products, please do not hesitate to contact me.

Yours faithfully



Bradley Hart MTCP
Consultant

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To potentially be installed at a future date by a tenant - not included as part of basebuild works by McLaren Construction

Secured by Design Checklist

2021/0529/SBD/01
Building 401, Avro Way, Manchester



1.0 Doors

- ☐ All external doors (single and double leaf) must be compliant with and certified to BS PAS 24, STS 202, or LPS 1175 SR2. It is crucial that the door ironmongery to any escape-only doors is permitted under the security certification of the product. All escape-only doors should be of steel construction, **alarmed (audible upon opening)** and designed without visible external ironmongery.
- ☐ **Access through the main entrance of each unit should be capable of being controlled remotely by reception/office staff, to ensure any visitors are vetted or are greeted/escorted before being allowed access into the unit (see Section 5 for more information).**
- ☐ Any sectional loading bay doors must be tested and certified to LPS 1175 SR2. If circumstances could prevent this, please consult with Design for Security.
- ☐ Internal doors/frames to any offices, meeting rooms, back-of-house plant/service/stores etc. within the units should be robust/solid-core (minimum 44mm thick) and capable of being secured when unoccupied. Staff should be able to store their belongings in a secure area while at work.

2.0 Windows & Shutters

- ☐ All windows, where possible, should be certificated to BS PAS 24. All other window designs/dimensions should take account of the requirements of the above standards, as certified products can carry dimensional restrictions. Any curtain walling panels should include laminated glazing (see below) and should be securely fixed.
- ☐ Any opening lights (escape requirements permitting) must be lockable and have fixed/lockable opening restrictors (not releasable from the outside) limited to 100mm.
- ☐ **Any shutters should be certified to LPS 1175 SR2 (or SR1 if perforated laths are required) and installed in accordance with manufacturer's instructions. Shutters should either be provided internally or, if they are to be externally mounted, shutter boxes and guides built into the fabric of the building (where they would be less visually intrusive and less vulnerable to damage).**

3.0 Glazing & Building Fabric

- ☐ All glazing should incorporate an inner pane with a 1.5mm PVB interlayer (e.g. 7.5mm laminated glass), or a glass rated as P4A under EN 356. The remaining outer pane in a double glazed unit may be toughened glass.
- ☐ There should be a block work wall or material of similar strength (e.g. welded-steel mesh or expamet mesh) behind any areas of cladding to the building, to a minimum height of 2000mm from external ground level, to ensure that the building fabric itself is not vulnerable to attack. Internal walls between the units themselves should be similarly robust to prevent unauthorised access from one unit into another.

4.0 Alarms

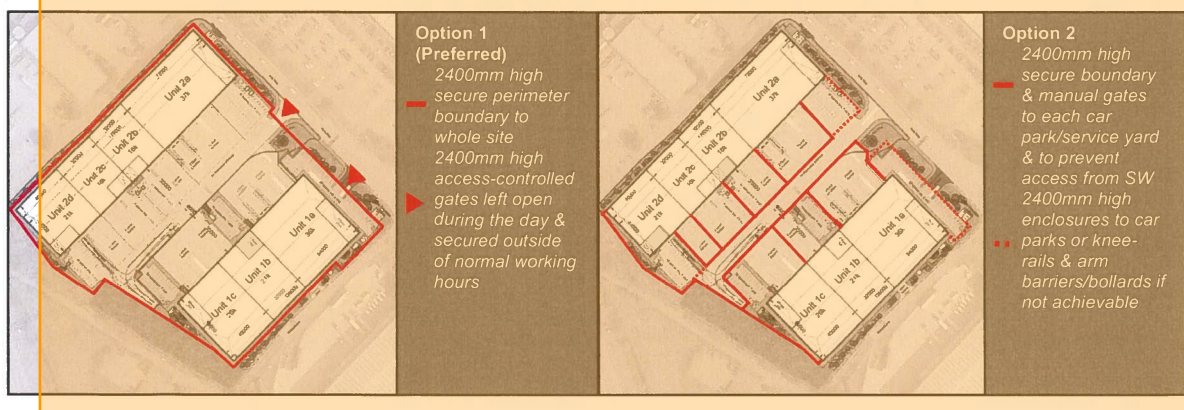
- ☐ **A monitored alarm system should be installed to each unit, linked to contacts on all external doors/shutters and PIR detectors covering all ground floor areas with windows, with a signal terminating at a recognized Alarm Receiving Centre (ARC) or security control room.**

5.0 Access Controls

- ☐ Access control systems should be operable by swipe card or fob, and not numeric key pads (as codes can be easily observed/shared and are rarely changed). The following doors/gates should operate on access control:
 - If the whole site is to be enclosed within a secure perimeter fenceline (see Section 6 below for illustration/description), the vehicular gate/s at the entrance to the site should be controlled on access and egress via staff key-fob/proximity reader (or via an audio/visual access-control system linked to each unit if required) outside of normal working hours (e.g. 6pm-7am).
 - The main entrance doors to each unit (particularly if there is no staffed reception desk during operational hours).
 - Any internal doors providing access to obvious high risk areas (e.g. server rooms, storage areas, staff changing facilities/lockers etc.)
- ☐ The electric locking system to be used throughout the site/units should be fully auditable (i.e. allowing the retention of data, such as who accessed where and when), to allow for a better investigation into any incidents. Staff cards/fobs should be capable of being easily and quickly activated/disabled to ensure that mis-use is prevented. Staff should only be allowed access to areas required for their work and keys/passes should only be carried if required for duties and should be accounted for at all times.

6.0 Boundaries

- ☐ It is highly recommended that the whole site (i.e. both Building 401 and Building 402, as well as the access road serving them), including all unit facades and all parking/servicing areas are enclosed within a 2400mm high robust and secure perimeter fenceline (see Option 1 illustration below), with an access-controlled vehicular gate off Avro Way to prevent unauthorised access outside of normal working hours. This would provide an additional layer of security to the building shells – particularly where side/rear doors that benefit from more limited levels of overlooking/surveillance could be vulnerable to attack unseen (particularly at night). If this is not achievable, at least the parking areas/service yards serving each of the units should be securely enclosed and gated (see Option 2 illustration below) to allow them to be individually secured when required. If the car park serving Unit 1a along the Avro Way frontage of the site cannot be enclosed within a secure perimeter fenceline as described above, it should at least be enclosed with robust steel knee-rails and an vehicle arm barrier/retractable bollards at the entrance, to allow it to be secured out-of-hours if/when required - preventing unauthorised vehicles from getting close to the frontage of the unit and the car park from being mis-used (e.g. by visitors to the airport, by travellers etc.). The site should still be enclosed along the south-western boundary to prevent access from the adjacent woodland area.



If whole site is enclosed (Option 1 – Preferred)

- ☐ The site perimeter should be securely enclosed by 2400mm high rigid-panel, welded-wire mesh fencing (ideally 358 gauge, with small apertures to deter scaling and cutting) with anti-tamper fixings to secure the panels to posts (please see <https://www.securedbydesign.com/member-companies/accredited-product-search> for a list of Police approved perimeter security suppliers) and gates. The fenceline should be returned to the rear elevation of Unit 1a at either side of the level access door, in order to maintain the secure perimeter of the site whilst allowing for access to the rear shutter door off Pinfold Lane.
- ☐ 2400mm high automatic sliding vehicular gates are preferred to the site entrance, but if double gates are used they should overlap when closed and should not be capable of being forced open. The gate/s should be operated on access and egress by staff key fob/proximity reader (or via an audio/video access control system linked to each unit if required) outside of normal working hours (e.g. 6pm-7am). A manual gate securing such a large site with multiple users is unlikely to be utilised effectively.

If individual parking/service yards are enclosed (Option 2)

- ☐ The parking areas/service yards serving each of the units should be securely enclosed by 2400mm high rigid-panel, welded-wire mesh fencing (ideally 358 gauge, with small apertures to deter scaling and cutting) and manual gates, to allow them to be individually secured out-of-hours/when required.
- ☐ If the car park serving Unit 1a along the Avro Way frontage of the site cannot be enclosed within a secure perimeter fenceline, they should at least be enclosed with robust steel knee-rails and a vehicle arm barrier/retractable bollards at the vehicular entrance, to allow it to be secured out-of-hours/when required.
- ☐ The south-western boundary of the site should be secured with a 2400mm high rigid-panel, welded-wire mesh fenceline to prevent access to/from the adjacent woodland area.

General

- ☐ Care should be taken to ensure that any level changes do not inadvertently facilitate climbing or leave large gaps underneath the panels/gates. There should be no centrally located horizontal bars to aid climbing and the gates should be located away from other climbing aids, such as low walls, street lights, trees etc. Exposed hinges and large sliding bolt apertures/locking points to any gates should be avoided, or fitted with shrouding/protective plates (see opposite) to avoid the creation of footholds. The gap at the bottom of any gates should be small enough to stop anyone crawling through. If panic mechanisms are required on the inner face of any pedestrian gates for escape purposes, they should not be capable of being reached/operated from the external face of the fencelines/gates.
- ☐ Care should also be taken to ensure there are no trees or any other hard/soft landscaping features (such as lighting columns, street furniture etc.) immediately adjacent and on the publicly accessible side of any secure boundaries that could be used as a climbing aid to scale the fencing. Any such features should be pruned or removed where possible. The site boundary treatment should also be positioned on hard standing ground. Where this is not possible, the ground conditions should be reviewed as extra measures may be required to create a secure boundary.
- ☐ It is highly recommended that condition of any fencing/gates are regularly inspected for signs of damage/attack and are repaired immediately if any incidents are experienced. Where exposed, the perimeter fencing to the service yards may need to be protected on the inner side from potential damage from large vehicles, using crash barriers or rails, to deflect any encroachment and maintain a secure boundary.



7.0 Parking Areas

- ☐ Lighting to all parking areas should be in accordance with BS 5489, with an average lux level 20 and a uniformity level of no less than 25%.
- ☐ The surface of the parking and servicing areas should be even concrete or similar. The integrity of the surface treatment should be maintained to ensure that there is no loose material that can be used to commit crime.
- ☐ Bays and directional markings should be clearly demarcated to avoid confusion or conflict, with pedestrian routes/directions and servicing areas clearly signed.

8.0 Lighting

- ☐ External lighting must be provided to the access road, parking areas and service yards within the site, in accordance with BS 5489.
- ☐ Fittings should produce 'white' light, as opposed to yellow/orange light. LED, 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.

9.0 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: the entrance to the site, all external facades of the building, all service/parking areas and the entrance lobbies and loading bays doors of each of the units.

10.0 Landscaping

- ☐ In vulnerable locations such as around site/building entrances, parking/servicing areas and footpaths, low planting should not exceed 1000mm in height and tree canopies should fall no lower than 2000mm from the ground. This is in order to allow unimpeded surveillance and eliminate hiding places. A maintenance agreement should stipulate that these planting dimensions would be adhered to.
- ☐ 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).
- ☐ Planting must be avoided that will aid climbing over boundary treatments. The security of fences can be compromised if trees or street furniture are placed close by.

11.0 Other

- ☐ There should be no features of the building (such as projecting window cills/cladding features, exposed rainwater down pipes etc.) or nearby hard/soft landscaping features (such as nearby boundaries, trees, lighting columns, handrails etc.) that may provide climbing aids up to high level windows or onto roof areas.
- ☐ The position of ancillary structures, parked trailers and any external storage areas should be carefully considered in relation to the following:
 - Their potential to block sight lines and create hiding places.
 - Their potential to obscure CCTV and lighting.
 - Their potential to create climbing aids that would assist unauthorised exit/entry over boundary fencing.
 - Their potential to obscure damage to fencelines.Any proposed lighting columns, street furniture, tree/shrub planting etc. within or external to the site perimeter should also be reviewed in relation to the above issues.
- ☐ Any proposed cycle stores should be located where they can be overlooked from routinely occupied rooms. They should include 'Sheffield' style racks, or similar, that allow staff to lock both wheels and the crossbar to a stand, rather than just the crossbar (wheel slots and butterfly racks are not suitable). For further information, please refer to our cycle storage guidance document: <http://designforsecurity.org/all-downloads/>.
- ☐ Any external bin/recycling stores should be a secure, lockable and fire resistant enclosure. A strategy should be defined to ensure waste collection can take place whilst retaining a secure development.
- ☐ Any lockers within staff changing facilities must be robust/secure and all users should be encouraged to use them and not leave belongs unattended in changing areas.

Please inform us of any alterations to the scheme following receipt of this letter, as the criteria within may be affected.