Construction Site Security Guidance

Version 1
Designing Out Crime Group

Introduction

In order to promote a continuous level of security for a project, the security of the construction phase should be considered. Crime on building sites and construction sites often contribute to spikes in crime figures for the local area. This guide is designed to give advice on how best to secure the construction site in order to offer the benefits of a low crime development from the moment the hoarding goes up until the development is handed over to the client.

There is a duty for the principal contractor to "take reasonable steps to prevent access by unauthorised persons to the construction site" under The Construction (Design and Management) Regulations."

The purpose of this guide is to improve Construction Site security and to prevent crime.

The guide is intended for use by staff who are responsible for and work within large or small construction sites to help them review and improve the security of their site, using proven crime prevention methodologies.

The advice may need to be tailored according to the size and scope of each individual site, which can limit the effectiveness of the measures suggested.

**PC James Smith
Designing Out Crime Officer**

Hoarding

1.1 Consideration should be given to the placing of the hoarding at an early stage. Avoid sharp corners and alcoves by rounding the corners and edges of hoarding using angled boards. This will increase natural surveillance and will prevent hiding points, which will reduce anti-social behaviour and loitering.

1.2 When putting in pedestrian and vehicle entrances for the site, care should be taken not to create climbing aids when installing lock mechanisms. Often, a hole will be cut out of the plywood hoarding for the locking bar to be accommodated and this then creates a useful step for unauthorised access to the site. One suggestion to mitigate the risk would be an angled plate above the hole if this is to be implemented.

1.3 Street cabinetry can be used as a foothold for climbing. If possible, hoarding should be positioned in such a way that the cabinetry or existing street furniture cannot be used to climb.

1.4 If hoarding is positioned flush with street furniture, in order to prevent steps to gain unauthorised access to the site, using a sheet material such as plywood to create a smooth transition into the hoarding will eliminate footholds.

1.5 The Workplace Regulations 1992 make it a requirement for floors to be kept free from obstructions. From a security point of view, it is good practice to maintain a clear floor adjacent to hoarding and fencing to prevent climbing. Ensure building materials or any other items are not stacked up alongside hoardings or fencing as doing so creates a climbing point into the site.

1.6 Angled extensions or "fans" fitted to the top of hoardings make climbing more difficult as well as reducing problems with litter or other materials being thrown over hoardings.

1.7 Hoarding should be a minimum of 2.4 metres high and of sturdy construction. Painting hoarding a light colour can make the development a more attractive place to pass by, particularly at night. Refer to local council planning department for guidance.

1.8 Blind alleys should be avoided to prevent hiding places for potential offenders.

1.9 A regular maintenance program to clear any graffiti off the hoarding should be employed. Graffiti tends to multiply and attracts other crime types, such as littering and anti-social behaviour.

Doors and Gates

2.1 Entrances to the site should be kept to a minimum to make it harder for unauthorised people to gain access and for easier management of access.

2.2 Operating hours should be utilised and communicated to everyone working on site. This will make it easier to detect when someone should not be on site.

2.3 24/7 Security guards will prevent the casual or opportunistic thief. This, in conjunction with a fixed security post allows for greater control in and out of the site.

2.4 Security personnel must have a well-defined role. Security duties should not fall to traffic marshals and vice versa.

2.5 A management strategy for visitors and contractors sign-in will ensure only people entitled to be on site are. The Health and Safety at Work act makes it a legal requirement to ensure the site is secure from casual entry.

2.6 Pedestrian access to the site should be controlled. For smaller sites, a signing in book at the site entrance and a locked door can be used. For larger sites, this could be via security guards with a signing in system or by electronic access control systems such as PIN codes, electronic fobs or cards, or a combination of these.

2.7 Biometric access control can be used, but consider that some tradesmen may not have easily readable fingerprints due to the practices and materials inherent in their trade.

2.8 Turnstiles are a good way of controlling access to a site. Particularly when paired to an electronic access control system.

2.9 Gates should be constructed so as to have a minimal gap underneath and to match the height of the surrounding hoarding.

2.10 Locking systems and gates should be constructed to prevent easy access from outside. Shrouding locks and chains with a locking plate will achieve this.

2.11 Hinges on gates should not be able to be easily undone from outside and should be fixed to prevent the gate from being lifted.

2.12 Gates should be protected by a good standard of lock. Sold Secure and Secured By Design are the Police preferred standard for padlocks and chains. Battery operated auditable locking systems are also available.

2.13 Chains should be of an appropriate length, not excessively hanging down and the majority of the chain should be on the secure side of the gate.

Site Offices

3.1 Site offices should include protection from arson as well as burglary. Steel construction with security doors, multiple locks and window shutters secured from inside will assist. Refer to the HSE guide on **Fire Safety in Construction.**

3.2 All security measures must work alongside any implemented fire strategies and precautions. Fire exits must be useable when the building is occupied.

3.3 An adequate level of cyber security, coupled with physical security in site offices, will help prevent cyber-crime to the company and offers data protection to payrolls and personal data. Further information is available on the **National Cyber Security Centre's website**.

3.4 Restrict access to keys. Consider using a key safe and a system for signing keys in and out. The **Secured by Design website** has examples of key safes suitable for construction sites.

3.5 Issuing of security passes and a policy of challenging anyone not wearing one, creates an atmosphere of vigilance from everyone on site.

Lighting

4.1 Lighting is often a deterrent to site intruders as well as assisting security patrols and making the area feel safer at night.

4.2 Hoardings should have a uniform lighting level on the exterior in order that the entire perimeter of the site is suitably illuminated.

4.3 Lighting inside the site should also be of a uniform level. Although high powered floodlighting will light up an area well, it can also have the effect of creating dark pools where an offender can be hidden from view. Low wattage lighting throughout the site will eliminate these areas of high contrast.

4.4 Lighting on the outside of the hoarding should be tamper proof and a maintenance schedule should be implemented.

4.5 All entrance and exits points should be well illuminated.

4.6 Wiring for site lighting should only be accessible to authorised personnel. This is particularly important for bulkhead style lights employed on the exterior of the perimeter hoarding. Exposed lighting cables should be enclosed in a steel conduit when it is accessible.

4.7 An interference detection circuit connected to an alarm will also help with maintenance. In any case, security lighting systems should be routinely inspected and maintained.

4.8 Should recesses or hidden points exist, these should have particular attention paid to them with lighting and mirrors to increase visibility.

CCTV

5.1   CCTV on a site is a good deterrent provided it is used and installed correctly. The office of the **Surveillance Camera Commissioner** offers guidance on the subject.

5.2   CCTV cameras should be positioned to achieve recognition quality and should be positioned in such a way that site lighting does not interfere with picture quality. Refer to the **Home Office Operational Requirements Manual for CCTV**.

5.3   CCTV footage can be recorded and monitored on site or from a remote location and this should be considered as part of a larger security plan.

5.4   Site security lighting should complement CCTV. Ensure that lighting does not create 'white out glare'.

5.5   Infrared operation or low light operation should also be considered.

5.6   There are several portable CCTV systems available and these often work well for construction sites. They are easily moved so as the site progresses and the CCTV needs change, these systems can change with the site. If these systems are to be used, the company providing them will advise on the built in security products and systems.

5.7   For a large site, consider an Automatic Number Plate Reader (ANPR) enhancement to the CCTV system. This is an effective way to manage vehicles coming onto site and monitoring any unauthorised vehicles that may attempt to enter.

Plant and Tools

6.1   All vehicles and plant should have ignition keys removed, and if possible, immobilised at the end of each day.

6.2   Record all Vehicle Identification Numbers (VIN) as well as chassis and engine numbers for all vehicles.

6.3   Secure marking of plant is recommended to aid stolen item retrieval and is widely available. These schemes record details of members' items, making it easier to identify and then return them if stolen.

6.4   Consider using a fuel tank alarm on fuel stores. The **Secured by Design website** has a list of companies offering products.

6.5   Any electrical infrastructure that could be utilised to commit thefts to be disabled at the end of each working day. This includes generators and transformers used to power cutting tools.

6.6   Internal signage encouraging all contractors and personnel on site to mark their tools helps protect smaller tools and items. Postcode marking, painting tools an unusual colour as well as covert methods such as permanent marking inside drill housings make it easier to return stolen items.

6.7   Forensic property marking systems can be utilised for property marking. They invisibly mark your valuable items, making it easier for Police to return recovered stolen items.

6.8   If tools are to be left on site overnight, consideration should be given to using tool safes, or other high security storage sheds.

6.9   New technology advances in smart tools make it easier to secure small power tools. Tracking chips and internal security systems that render the tool inoperable by anyone other than the authorised user are now available.

6.10   A regime of checking vehicles leaving the site should be considered to mitigate against vehicles being used to convey stolen items away from sites.

6.11   Cranes should be adequately protected. Rather than a large perimeter fence which tends to have materials and equipment stacked up against it, consider using a weld mesh fence of at least 3m high around the base of the crane mast, with a solid door and access control system protecting it.

Urban Explorers

7.1   Urban Explorers are a group of people who explore urban structures such as abandoned sewers or underground railways or the roofs of skyscrapers.

7.2   The following is a non-exhaustive list of things to consider with regards to identifying Urban Explorers.

- Individuals or groups looking for access points (perimeter fences, doors, access panels or vents).

- Individuals or groups emerging from drains or buildings after dark.

- Carrying day sacks/rucksacks to hold their camera equipment as well as access equipment (bolt cutters, skeleton keys, lock picks, ropes etc.).

- Possession of a Drone.

- Known to wear hi-visibility clothing to look official.

- They generally operate during hours of darkness but will often carry out reconnaissance during daylight hours.

- They are security aware and have been known to distract security staff multiple times until they stop responding before entering locations.

- Known to befriend security to gain access without site owners' knowledge or permission.

- Will try to talk themselves out of trouble when stopped, saying 'only taking photos'.

7.3   Participants have caused damage to gain entry to sites and on some occasions have suffered serious injuries. The disruption to construction sites should this happen are severe and can lead to lengthy investigations which will ultimately incur high cost.

7.4   Cranes should be adequately protected. See Section 6.12 for more details.

7.5   Anti-climb paint in vulnerable areas, particularly any place where a climbing rope could be utilised, will put off an Urban Explorer. Should this be employed, adequate signage should be used, as anti-climb paint can cause considerable damage to expensive climbing ropes.

7.6   Forensic property marking spray systems are now available as a crime prevention method. There are various products which will transfer onto offenders.

General Advice

8.1 A culture of challenging anyone on site who should not be there, or does not have the correct ID is a simple method of monitoring who is on site.

8.2 All security personnel working on site must be contracted security personnel and be appropriately trained and briefed on any particular issues a site has.

8.3 Report suspicious behaviour to security or Police and report any thefts immediately. Using online reporting to your local force is an easy and quick way to report crime.

8.4 Display warning notices of the security measures installed to put off opportunist thieves.

8.5 Valuable building materials should be stored securely and protected by CCTV, security patrols and intruder alarms.

8.6 When nearing the completion of projects, special attention should be paid to the security of white goods, boilers and kitchen/bathroom suites.

8.7 Scaffolding is often utilised as a climbing aid. Scaffolding, in particular towers and ladders, should be kept secured when not in use.

8.8 Joining the local Business Crime Reduction Scheme (BCRP) is a good way of sharing and obtaining intelligence about local areas, particularly if the site is operating over a prolonged period of time.

8.9 For any further information on Police accredited security products, visit the **Secured By Design Website.**

8.10 Consideration should be given to using a Premises Information Box at the main site entrance. These are used by the Fire Service and contain useful information for them in emergency situations. Up to date site plans, locations of hazardous and flammable materials and contact details during out of hours can all be contained within.

> **Whilst security is important, users of the guide must adhere to all existing guidance and legislation including; local council Planning Conditions, Building Regulations, environmental legislation, Health and Safety and Fire Regulations. Responsibility lies with the contractor in charge of the individual site.**

Crimestoppers

Crimestoppers is an independent charity and is **not part of the police**. Contacting Crimestoppers allows anyone with details of criminal activity to pass it on anonymously. Calls are not recorded, there is no caller ID facility and callers will not be asked for their names. Calling Crimestoppers can help make your community safer.

Crimestoppers can be contacted on **0800 555 111** or through the **Crimestoppers website**.

Crimestoppers is not an emergency service and if you see a crime taking place you must call 999 to report it immediately. If you are a victim of crime, you should report this to your local Police.

Advice To Stay Safe

While the chances of being caught up in a terrorist incident remain rare, it is important to be prepared and know how to protect yourself if the need arises.

Counter Terrorism Policing has released guidance that sets out three key steps for keeping safe in the event of a firearms or weapons attack.

If you are caught up in an incident our advice is to 'Run, Hide and Tell' – guidance which can be applied to many places and situations. We know from case studies and testimony of people who have survived attacks that this advice can save lives.

Find out more on the **Counter Terrorism Policing website** about how to stay safe and how both the public and industry can help report suspicious activity.
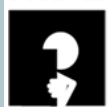
RUN Run to a place of safety. This is a far better option than to surrender or negotiate. If there's nowhere to go, then...
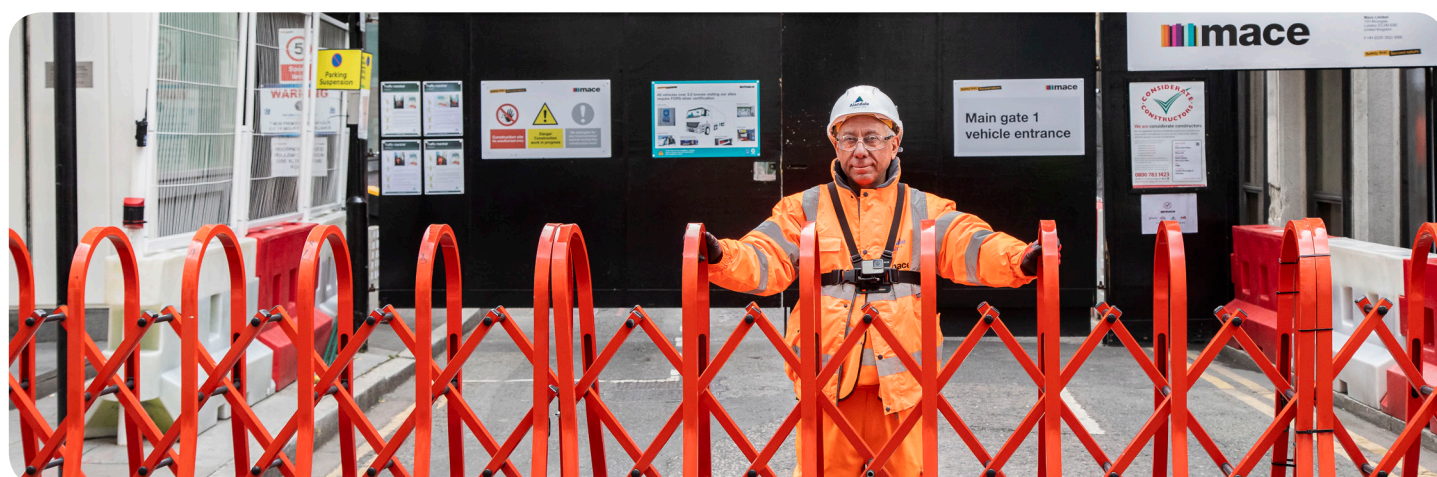
HIDE It's better to hide than to confront. Remember to turn your phone to silent and turn off vibrate. Barricade yourself in if you can. Then finally and only when is it safe to do so...

TELL Tell the police by calling 999.

Credits and acknowledgements

With thanks to the following people and organisations;

Metropolitan Police Service

Considerate Constructors Scheme

National Business Crime Centre

London Fire Brigade

Secured by Design

Police Scotland

Crimestoppers

Sold Secure

Centre for the Protection of National Infrastructure

Transport for London

National Counter Terrorism Security Office

LFB Fire Safety Regulations Team

National Plant Hirers Forum

National Police Chiefs Council

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Useful Links

Best Practice Hub:
http://bit.ly/bestpracticehub

Counter Terrorism Policing:
http://bit.ly/CounterTerrorismPolice

Crimestoppers:
http://bit.ly/CrimeStoppersUK

HSE Fire Safety in Construction:
http://bit.ly/FireSafetyInConstruction

Operational Requirements Manual for CCTV:
http://bit.ly/HomeOfficeCCTVManual

National Cyber Security Centre:
http://bit.ly/NationalCyberSecurityCentre

Secured by Design:
http://bit.ly/SecuredByDesign

Surveillance Camera Commissioner:
http://bit.ly/CameraCommissioner