

Security Needs Assessment Welcomb Street, Manchester



Figure 01 - Existing Site Plan (Source: Google Maps)

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1 Executive Summary

This report describes a Security Needs Assessment (SNA) completed by Graphite Security in support of the design and construction of the proposed Industrial Units at Welcomb Street, City Works Business Park, Ashton Old Road, Openshaw, Manchester M11 2NB.

The SNA considers security threats to the proposed development and security vulnerabilities apparent in the architectural designs and proposed uses. The SNA follows a security design methodology to provide security recommendations that should be designed and specified in future project stages. These recommendations are specifically intended to mitigate security risks to the development, its users and the surrounding area.

1.1 BREEAM Hea 06 Security credits

The activities are undertaken and the structure and content of this report are aligned to the requirements of BREEAM NC 2018 Hea 06.

1.2 Security Recommendations

This SNA report provides a suite of security risk mitigation options for consideration. These recommendations aim to mitigate the security risks to the development in a pragmatic and proportionate manner while considering their potential impact on the proposed budget, operation and appearance of the building.

Comments on the security recommendations in this report are invited from the client and design team, in order to ensure compatibility with the operation, design and budget.

2 Tenant Security Provision

Recommendations in this report include provisions for the security and convenience of building tenants and their fit-out, e.g. facilitating ease of installation of security systems. However, the decision on whether and what security systems to provide within a tenant's demise is theirs and is outside of the scope of this report.

Electronic security measures within each tenant's demise are assumed to be provided by those tenants subject to their own security risk assessment and operational requirements.

Physical security measures to the perimeter of each tenant's demise are recommended in this report, based on our assessment of threats and vulnerabilities at the design stage. This does not preclude tenants from making their own security risk assessments and providing further enhancements.

Recommended security provision included within this assessment is based on a fit-out that offers full protection (within what would be termed a turnkey standard).

The provision will likely be to the minimum standard to allow the future tenant to complete a risk commensurate installation. This (minimum) Category A fit-out will negate some security provisions as listed below.

The SQSS has however ensured that items to promote future fit-out have been included as part of the initial build phase (ducting, pre-wiring, etc. as required).

3 BREEAM NC 2018 Hea 06 Security – Requirements

“A Suitably Qualified Security Specialist (SQSS) conducts an evidence-based Security Needs Assessment (SNA) during or prior to Concept Design (RIBA Stage 2 or equivalent)”

Nasr Haque of Graphite Security Ltd acted as SQSS for this Security Needs Assessment.

Nasr is listed as an SQSS by BRE, as shown at [Graphite-Security: SQSS](#).

Nasr is listed as a fully licenced Secured by Design consultant, as shown at [Graphite-Security: SBD Consultant](#).

The SNA requirements were completed in June 2022, during RIBA Stages 2.

“The SQSS develops a set of recommendations or solutions during or prior to Concept Design (RIBA Stage 2 or equivalent). These recommendations or solutions aim to ensure that the design of buildings, public and private car parks and public or amenity space are planned, designed and specified to address the issues identified in the preceding SNA”

Security recommendations are described in this report, covering each area listed above where relevant.

“A visual audit of the site and surroundings, identifying environmental cues and features pertinent to the security of the proposed development”

BREEAM permits the completion of the visual audit via a "review of relevant project information and drawings, provided the SQSS is satisfied that these are sufficient to inform their SNA & associated security recommendations".

A visual audit was therefore completed using Google Maps, and open-source crime data including crime statistics from police.uk.

“Formal consultation with relevant stakeholders, including the local ALO, CPDA & CTSA (as applicable), in order to obtain a summary of crime and disorder issues in the immediate vicinity of the proposed development”

A meeting with a Greater Manchester Police Service Designing Out Crime Officer was requested. We are yet to hear back.

“Identify risks specific to the proposed, likely or potential use of the building(s)”

“Identify risks specific to the proposed, likely or potential user groups of the building(s)”

“Identify any detrimental effects the development may have on the existing community”

- Described in the relevant section of this report.

“The recommendations or solutions proposed by the SQSS are implemented”

- To be confirmed by the BREEAM Assessor on completion of the project.

4 Development & Surroundings

4.1 Visual Audit



Figure 02 - Existing Site Location (Source: Google Maps)

The site sits within the local council of Manchester City Council and within the City Works business park with surrounding buildings with similar uses.

The development will be located on Welcomb Street accessible by a range of transport options and multiple public transport nodes along Ashton Old Road along the North side of the site.

5 Site Survey



Figure 03 - Visual Audit (Source: Google Maps)

Schedule of Accommodation							
Unit	Ground Floor GIA	First Floor GIA	TOTAL UNIT GIA	TOTAL UNIT GEA	Total Parking Inc. (Acc.) [EV]	Parking Ratio (m²)	Height to underside of Haunch
Unit 1	616m² / 6,630ft²	97 m² / 1,044ft²	713m² / 7,674ft²	777m² / 8,363ft²	11 (2) [2]	1:70	8.0m
Unit 2	989m² / 10,645ft²	110m² / 1,184ft²	1,099m² / 11,829ft²	1,182m² / 12,722ft²	18 (2) [3]	1:66	8.0m
Unit 3	2,460m² / 26,479 ft²	275m² / 2,960ft²	2,735m² / 29,439ft²	2,869m² / 30,881ft²	35 (3) [5]	1:82	10m
Unit 4	2,175m² / 23,411.5ft²	262m² / 2,820ft²	2,437m² / 26,231ft²	2,579m² / 27,760ft²	34 (4) [7]	1:76	10m
TOTAL GIA			6,984m² / 75,175ft²	7,407m² / 79,728ft²	98 (11) [17]	1:76	

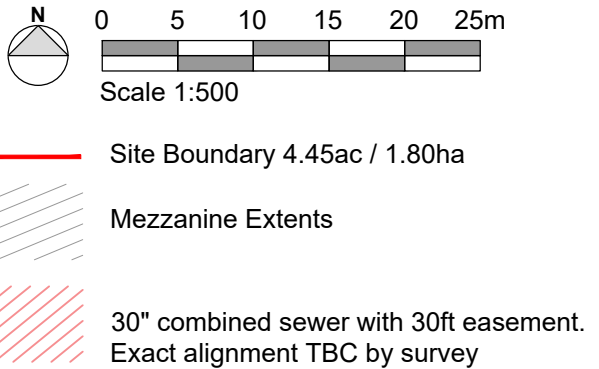


NOTES

- All dimensions and levels are to be checked on site.
- Any discrepancies are to be reported to the architect before any work commences
- This drawing shall not be scaled to ascertain any dimensions. Work to figured dimensions only.
- This drawing shall not be reproduced without express written permission from AEW.
- Title overlay drawings and ownership boundaries are produced using all reasonable endeavors. AEW cannot be responsible for the accuracy or scale discrepancy of base plans supplied to them.
- All works are to be undertaken in accordance with Building Regulations and the latest British Standards.
- All proprietary materials and products are to be used strictly in accordance with the manufacturers recommendations.

CDM 2015

Client notified of duties: 07/04/21
Principal Designer: Client
Unless noted below, all known hazards have been highlighted on the drawing:



- Footprint of existing Zone A + B
- Landscape Planting to Landscape Architect Specification. Existing trees and shrubs to be retained where possible.
- Existing trees to be retained
- Proposed tree planting
- Manchester City Council Maximum parking standards:
B2 = 1:45 sq.m
B8 = 1:100 sq.m
- Proposed Bin store
- Pedestrian gate with panic hardware
- Electrical Vehicle Charging spaces
- Future provision Electrical Vehicle Charging spaces with cable routes

NOTES

HGV circulation subject to tracking analysis

P12	16/04/24	MW	DRS
Planning Issue			
REV	Date	Drawn by: -	Checked by: -
Status	Purpose of Issue		
S4	For Planning		
drawing stage	Stage 3		
client	Network Space		

project
Welcomb Street
Openshaw

drawing title
Proposed Site Plan

date	Apr 2024	drawn	MW
scale@A1	1:500	checked	DRS

Rev
P12

Job No
12481-AEW-XX-XX-DR-A-0503

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aew

7 Crime Risk Assessment

Graphite uses police crime statistics to support our assessments of crime risks. Police statistics consider the development site to be within the Openshaw 'policing neighbourhood' within the Greater Manchester Police Service force area.

Due to the lack of crime recordings from the Greater Manchester Police, we have taken the crime statistics available from 2018-22.

7.1 Openshaw

<https://www.police.uk/your-area/greater-manchester-police/openshaw/>



Figure 07 - Openshaw 'Policing Neighbourhood'

Information accessible on www.police.uk reveals that crime and disorder in that area within the preceding 36 months were dominated by:

- Violence and Sexual Offences
- Shoplifting
- Anti-social Behaviour
- Criminal Damage and Arson

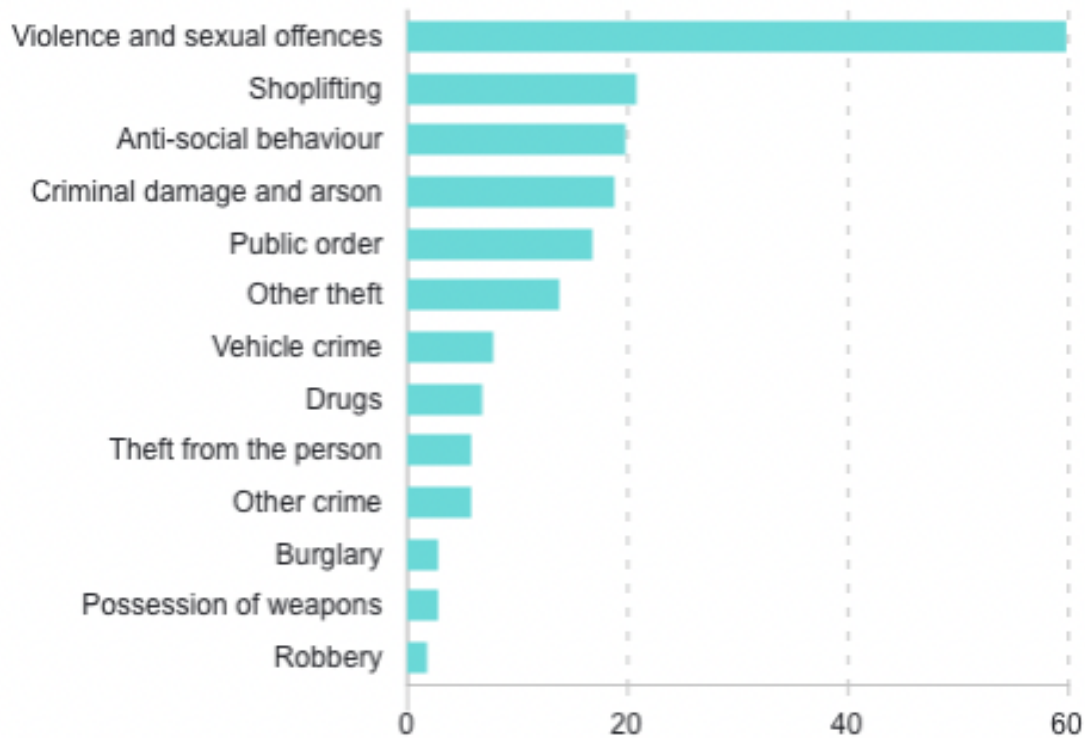


Figure 08 - All crime types in Openshaw between July 2019 to April 2022.

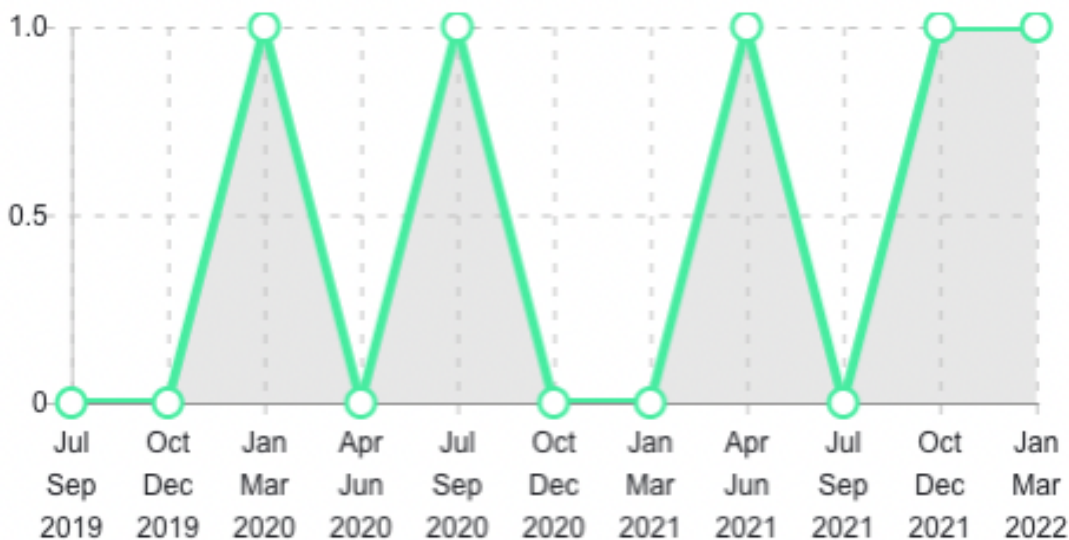


Figure 09 - All crime levels in Openshaw between July 2019 to April 2022.

Due to the lack of crime statics provided by Greater Manchester Police, we cannot determine the highest and lowest months of criminal activity, we can still deduce the highest crime types within the area and provide recommendations to reduce the chances of those specific criminal activities.

Threat Actors	Description	Reasonable Worst-Case Scenario
Threat - Opportunist Theft	<p>Opportunist theft affects industrial type properties where a criminal in a legitimate location (e.g. Car Park or Pubic Area) can readily observe a security vulnerability. Anecdotaly, including police crime reporting, most opportunistic theft involving intrusion occurs through doors that have been left open, unlocked or unattended.</p> <p>The capability of opportunist thieves is also typically considered to be low, as they are unwilling to carry tools that could be considered as 'going equipped'.</p>	<p>A single threat actor attempts to breach the building envelope through open or unlocked doors or windows.</p> <p>Novice attackers with no tools.</p> <p>Covert.</p>
Threat - Deception Theft	<p>Similarly to opportunist theft, the use of deception to enter a premises is often seen as a lower risk on the part of the criminal. Commonly reported examples to include criminals posing as services engineers or the authorities to convince staff to allow them access to a property, or a wide range of deceptions in order to effect the opening of a door to enable a violent entry.</p>	<p>A single threat actor attempts to breach the building by posing as a service engineer or the authorities to convince staff to allow them access to a property.</p> <p>Not categorised as overt or covert.</p>
Threat - Targeted Theft	<p>Industrial type properties can be targeted by professional organised criminals for intrusion and theft if they are perceived to contain high-value portable items such as cash, electronic devices, expensive stored items and high-end goods.</p>	<p>Multiple threat actors attempt to breach the building envelope and internal security features using a range of hand tools.</p> <p>Overt.</p> <p>Experienced and knowledgeable attackers, using concealable hand tools and electronic devices.</p> <p>Covert.</p>

7.2 Security Threat Categories

The table below categorises the previously discussed threats based on capability and intent, i.e. the number of attackers, their level of expertise and fitness, willingness to be caught or harmed and the tools and weapons available to them.

The table below combines similar threat actors into the same attack category, to provide a summary of potential 'reasonable worst-case' threats.

Attack Category	Reasonable Worst-Case Threat
Opportunistic Theft	A single threat actor attempts to breach the building envelope through open or unlocked doors or windows. Novice attackers with no tools. Covert.
Vandalism	A single or multiple actors deliberately destroying of or damage to public or private property. Novice attackers with improvised tools. Overt.
Anti-social Behaviour	Multiple actors causing harassment, alarm, or distress to a community, public spaces, or buildings. Novice attackers with no tools. Overt.
Targeted Theft	Multiple threat actors attempt to breach the building envelope and internal security features using a range of hand tools. Overt. Experienced and knowledgeable attackers, using concealable hand tools and electronic devices. Covert.
Mob Attack	Multiple threat actors attempt to damage the building and to breach the building envelope. Novice attackers with improvised tools. Overt.

7.3 Layering Security Measures

The effectiveness of security risk mitigation measures in combination is typically considered using a layered, or onion skin model comprising:

- Electronic security measures including intruder detection, video surveillance and access control to provide to alert responders to threats.
- Physical security measures including fences, vehicle barriers, walls, doors and safes to deny or delay threat actors reaching their targets.
- Operational security measures including procedures, risk assessment, monitoring, patrolling and response.

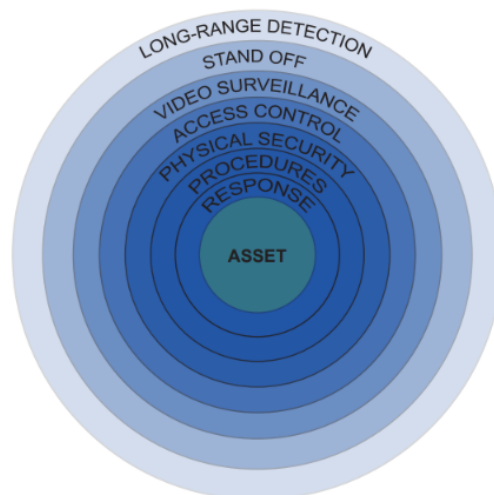


Figure 10 - 'Onion Ring' Model

In an urban setting, these layers are typically represented by:

- External Intrusion Detection Systems
- Boundary treatments and landscaping
- Video Surveillance
- Doors and Windows
- Internal Intruder Detection Systems
- Hold-up Alarm Systems (panic buttons)
- Refuge Areas
- Security guards, third-party security or police response

8 Security Design Requirements

8.1 Design Basis Threats

Based upon the threat categories highlighted earlier, the following table focuses on the 'reasonable worst-case' attack types that are proposed for specifying security measures. These are used as the 'design basis threats' (DBTs) for the specification of security measures.

8.2 Site-specific DBT's

Attack Category	Description
Opportunistic theft: Opportunistic entry without physical force or violence.	A single threat actor attempts to gain illicit access to the building without forced entry or violence. The attacker will not carry significant tools or use techniques that make noise.
Targeted theft: Experienced forced entry using tools and/or violence.	Two experienced aggressors using concealable hand tools to attempt entry into the building. The attackers will be willing to generate noise. Examples could include forced entry via a fire escape in order to access tenant areas.

9 Security Requirements Statements

The Security Requirements Statement:

1. Categorises the various influencing factors into clear statements that can be addressed through security design and operating procedures
2. Ensures that security needs and project constraints are understood before security solutions are considered
3. Forms the basis for the specification of security measures and is referred back to during design development

This statement is intended as a succinct summary of the security requirements for the property.

It forms the basis of subsequent security recommendations and, once approved, should be referred back to during design and construction.

9.1 Security Requirements Statement

The security requirements for the Welcombe Street development are:

- To provide security features that support the marketing and operation of the development through meeting or exceeding likely guest requirements.
- To provide security that is visible and reassuring without being imposing.
- To provide a safe and secure environment for staff, guests and assets so that the security risk to them is 'as low as reasonably practicable' based on 'reasonable worst-case' security threats.
- To provide a robust property boundary and building envelope that will deter and delay threat actors from entering the site, harming the occupants or removing property.
- To provide the above against the following Design Basis Threat:
 - Opportunistic entry and theft
 - Experienced Forced entry using manual attack

10 Recommendations – Building Operations

10.1 Crime Prevention Through Environmental Design

Recommendations are included below for consideration in the design of the development, based on the established principles of Crime Prevention through Environmental Design (CPTED); natural surveillance, natural access control, territorial reinforcement, maintenance and activity support.

Recommendations	Function
Provide suitable illumination to accessible areas around the buildings, including public open areas, all pedestrian routes, and service roads.	To provide even illumination, and good colour rendition, during hours of darkness.
Provide lighting to all parking areas in accordance with BS EN 5489, with an average lux level of 20.	To provide illumination to parking areas during hours of darkness.
Provide suitable illumination to service areas in and around the buildings.	To provide even illumination, and good colour rendition, during hours of darkness.
Provide detector-activated lighting to recesses and doorways.	To provide illumination when a person enters a recess.
Provide security signage at entrance points. Consider signage describing video surveillance (required by legislation) and security patrols.	To clearly indicate the security measures in place around and within the development.
Maintain shrub planting so that it does not exceed 1000mm in height. Maintain tree canopies so that they fall no lower than 2000mm from the ground.	To ensure clear sightlines.

11 Recommendation – Physical Security

11.1 Physical Security - Boundary Treatment

Recommendations	Function
Consider providing a secure fence line to the site as a whole a minimum height of 1.8m. We would recommend welded mesh fencing.	To provide a secure boundary treatment to the site creating a secure fence line and reducing the chances of intrusion.

11.2 Physical Security - Site Access

We would recommend that the vehicular access should be controlled by a set of vehicular barriers set back from the entrance/egress point.

Recommendations	Function
Provide vehicle entrance and egress points with operable vehicle control measures, e.g. rising arm barrier, drop bollards or sliding gates.	To restrict vehicle access to building users and authorised third-party vehicles e.g. delivery vans, waste collection and visitors.

11.4 Physical Security - External Doors

As there is a credible threat of intrusion and criminal damage to the unit, due to the high crime rates, the specification of external doors should be considered.

Recommendations	Function
Provide back of house external doors, e.g. the delivery and dispatch area and fire exits, with doorsets certified to LPS 1175 (noisy manual attacks) Security Rating 2 or LPS 2081 (stealth attacks) Security Rating B.	LPS 1175 SR2 products provide resistance to opportunist attempts at forced entry, using bodily physical force and a range of hand tools, including those that create noise.

11.4 Physical Security - Cycle Storage

To reduce the risk of theft of bicycles from bike storage areas, provide suitably robust furniture for staff and visitors to lock their bikes too.

Recommendations	Function
<p>Provide cycle racks, hoops or similar of robust construction, securely fixed to the ground and designed to allow cycles to be locked at three points.</p> <p>Cycle racks, hoops or similar should be located so as to benefit from natural surveillance.</p>	<p>To provide a secure location for cycle storage.</p> <p>To provide clear sightlines of cycle storage.</p>

12 Recommendations – Intruder Alarm

12.1 Intruder and Hold-Up Alarm

The provision of any intruder and hold-up alarm to the building will be the responsibility of the tenant. The recommendations below are intended to assist them in installing appropriate equipment and to support the client in attracting security-conscious tenants.

Recommendations	Function
<p>Provide an allocated space for an intruder alarm panel in the main building.</p> <p>Consider providing an allocated unswitched fused spur adjacent to the panel location.</p>	<p>To allow buildings tenants to install an intruder alarm system with minimum disruption.</p>

13 Recommendation – Access Control

To facilitate legitimate access to and within the units and to reduce the risk of intrusion occurring through deception, tailgating etc a layered access control system should be provided.

13.1 Access Control - Site Access

Tenants expect that the landlord will manage access into the building for their staff, visitors and contractors. These recommendations will support those processes and mitigate relevant security risks.

Recommendations	Function
Provide access control and intercom system to all vehicle access points (e.g. raising arm barrier)	To allow management of access to the site outside of office hours.

13.2 Access Control - Building

We recommend that the following provision would mitigate security risks and support building management.

Recommendations	Function
Prepare doors into tenant-demised areas e.g staff-only areas and back of house use for access control.	To allow for ease of installation of access control for tenants.

14 Recommendation – Video Surveillance

Video surveillance cameras have been suggested for those areas to deter and support the detection of crime and anti-social behaviour as well as fly-tipping.

14.1 Video Surveillance - Building Envelope and External

Recommendations	Function
Provide fixed external cameras viewing building entrances.	To provide a view of a person entering each building.
Provide fixed external cameras viewing the pedestrian access routes to the site via external amenity spaces, service roads and streets.	To provide a view of vehicles and pedestrians entering the site.
Provide fixed external cameras viewing all designated parking spaces.	To provide a view of parked vehicles.
Consider providing fixed vandal-resistant cameras inside the Cycle Stores.	To provide a view of people entering the Cycle Store.
Consider providing fixed external camera(s) at the vehicle entrance and egress points.	To provide a view of vehicles entering the site.
Consider providing Automated Number Plate Recognition (ANPR).	To provide automated entry for authorised vehicles.

14.2 Video Surveillance - Buildings Internal

Recommendations	Function
Provide a fixed, vandal-resistant camera inside each fire escape door.	To provide a view of people entering through each fire escape.

15 Summary

It is concluded that security provision across all areas is proportionate to the risk with the levels of protection afforded through the physical protection elements. The additional layers of protection already within the security strategy can only serve to reinforce the physical security approach at this particular location.

With the above included, I am able to confirm that credits available under Hea06 should be claimed.

This report has been produced based on all information collated, including but not restricted to, site drawing plans and associated documents, site survey, environmental visual audit, and by subsequent correspondence. Should any amendment to the design or build specification be necessary, I should be notified in order that this security assessment can be modified as required.



Nasr Haque