



ASSESSMENT OF SECURITY

OF

FITZROY YARD

FITZROY ROAD

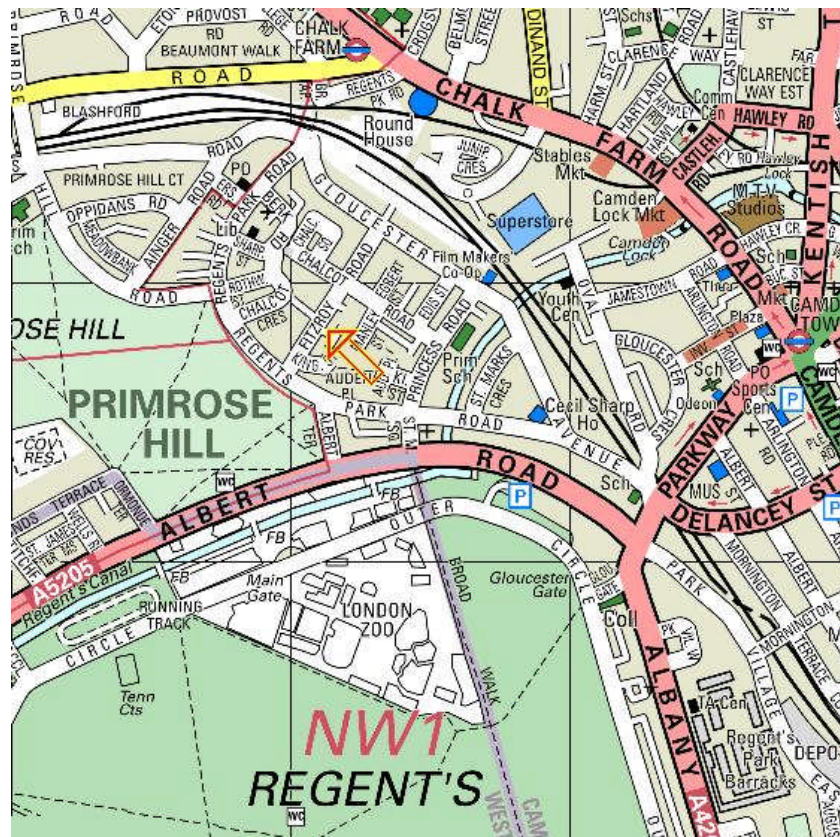
LONDON – NW1 8TP

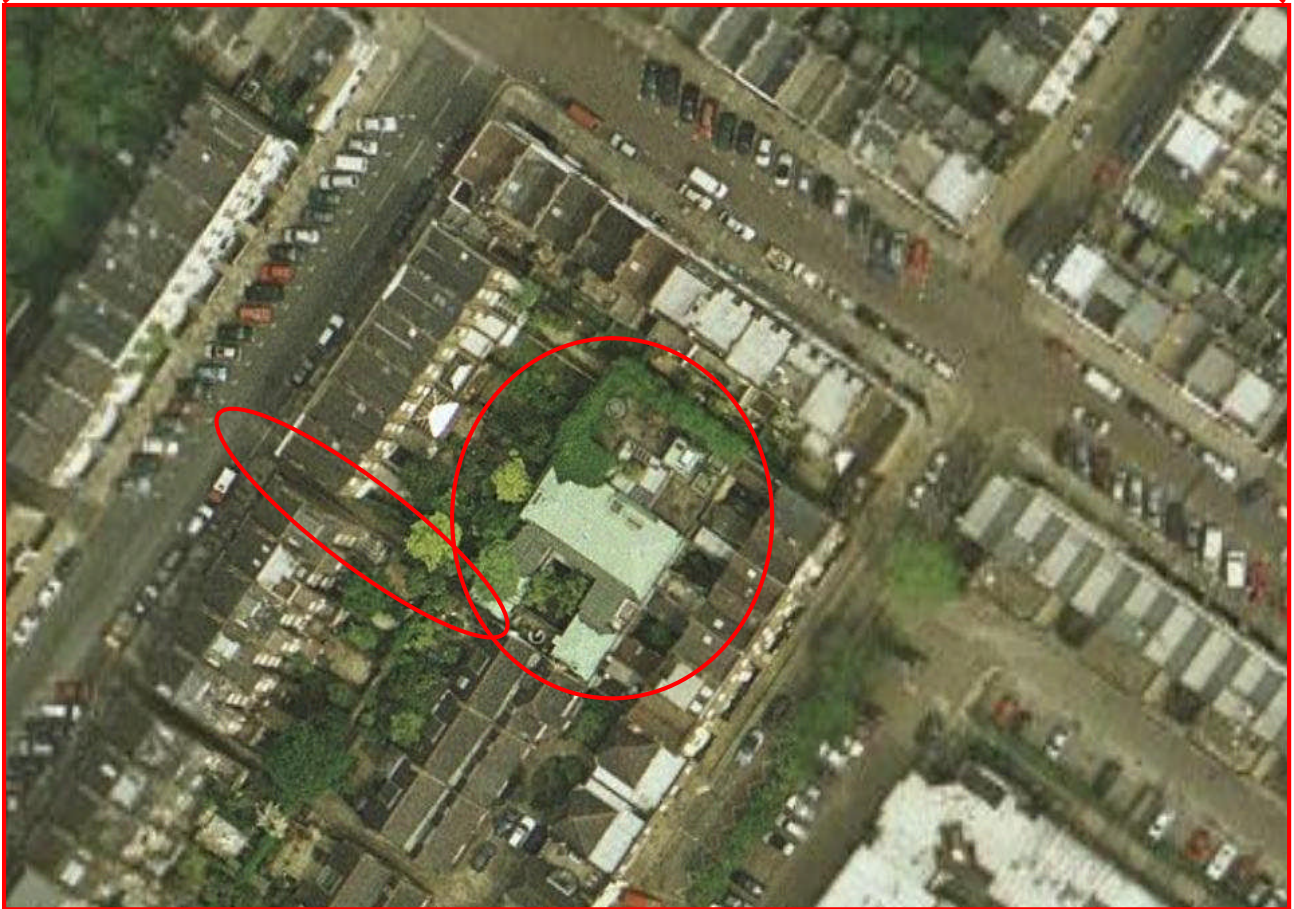
31 JULY 2006

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36 pages





Aerial Photographs of Fitzroy Yard, NW1 8TP – and surrounding area



Architects Plans of Fitzroy Yard – NW1 8TP

SECTION ONE – EXECUTIVE SUMMARY

1. Introduction. This security audit has been commissioned by TSM to appraise security procedures for Fitzroy Yard (the “Premises”) in Fitzroy Road, London, NW1 8TP.
2. Aim. The aim of this security audit is to examine the existing arrangements and layout, examine the plans of the building works, identify potential vulnerabilities of the Premises, and to make recommendations for improvement.
3. Scope of Work. The security audit has been limited to the Premises itself. The Premises was visited on 17-21 July 2006 during daylight and night-time hours during the summer. The scope of this report covers an overview of the potential vulnerabilities and risks identified during summer months on a warm/hot day; the report has also considered vulnerabilities that could also occur during winter months.
4. Assumptions. It is assumed that the Premises will be occupied by the owners as a residential property. It is assumed that visitors will occasionally visit the premises.
5. References. Architects plans of 14 July 2006.

SECTION TWO – RISK ASSESSMENT

6. The Country. The UK is part of the European Union and is a popular country for businesses, investment, tourism and visitors. London is the capital city; it is one of the key cities for global trade and investment, particularly the financial markets. It is an extremely popular city for visitors and the city attracts many prestigious global figures.

7. Profile.

- a. Area. 243,000 sq km.
- b. Population. 60.27 million.
- c. Languages. English, Welsh, Irish Gaelic, Scottish Gaelic.
- d. Religions. Church of England (Anglican), Roman Catholic, Church of Scotland (Presbyterian), Muslim.
- e. Currency. Sterling/GB Pound.
- f. Head of State. Her Majesty Queen Elizabeth II.
- g. Prime Minister (Head of Government). The Rt. Hon. Tony Blair, MP.
- h. Home Secretary. The Rt. Hon. John Reid, MP.
- i. Foreign Minister. The Rt. Hon. Margaret Beckett, MP.

8. London and Primrose Hill. The city of London is situated in the southeast of England. Primrose Hill is in the heart of the city and is a prestigious area to live in. Other buildings in the area include London Zoo and Regents Park. Many celebrities live in the general area including Jude Law, Sian Lloyd, Zoe Ball, Julian Clary, Jonathan Miller, Meg Matthews, Joan Bakewell, Sam Mendes and Kate Winslet.

9. Assessment of Identified Threats.

- a. Theft. [*The wrongful taking of someone else's property without that person's wilful consent*]. Sensible precautions should be taken to protect against street and car crime. Avoid carrying passports, credit cards, travel documents and money together in handbags or pockets. When entertaining, ensure small high value items are locked away from staff and guests.
- b. Burglary. [*Breaking and entering the dwelling of another with the intention to commit a crime therein*]. Several buildings in the area have been broken into. The Premises has boundaries with approximately 22 other properties and is vulnerable to burglary.
- c. Assault. [*Assault is a crime of violence against another person*]. All areas/boroughs of London have had incidents of assault. Primrose Hill has a lower element of assault but

incidents do occur. Assaults have occurred on public transport late at night; the incidence of pick pocketing and street theft at tourist destinations and on public transport is rising.

d. Other Threats. An assessment has not been conducted on the owner. The following threats may or may not directly apply to the owner or guests/visitors; these threats may increase/decrease at certain times of the day/year, and when more high profile guests visit the premises or when general threat levels increase/decrease.

(1) Terrorism. *[The calculated use of unlawful violence or threat of unlawful violence to inculcate fear; intended to coerce or to intimidate governments or societies in the pursuit of goals that are generally political, religious, or ideological].*

(a) The UK shares with the rest of Europe a threat from international terrorism. Attacks could be indiscriminate and against civilian targets. The British Government has to date exercised a strong counter terrorism policy. UK authorities have raised their level of security, particularly at airports and on the railway and underground systems.

(b) On 7 July 2005, four terrorist bomb attacks occurred on the transport system of central London resulting in a significant number of casualties. British authorities have warned that further attacks cannot be ruled out. On 21 July, explosions or attempted explosions took place at three underground stations in London and on a bus in Hackney.

(2) Kidnap and Ransom. *[Illegal capture and detention of a person against their will, regardless of age, for ransom].*

(a) Kidnapping is not as visible as it used to be. In many areas of the world, kidnapping is now big business and kidnappers are motivated by profit rather than principle. Economic kidnapping is one of the fastest growing criminal industries; it is estimated that kidnappers globally take home well over \$500 million each year, and rising.

(b) Kidnapping has changed, but despite the differences between economic and political kidnapping, and the fact that the current policy framework is best suited to responding to the latter, there has not yet been a full discussion in the UK about what the policy objectives should be for economic kidnapping. It is no longer clear where boundaries of responsibility for safety lie, or what the role of each group should be in the policy process: the government, businesses and NGOs. Responsibility for these changes largely lies with the end of the Cold War.

(3) Extortion. *[Extortion is a criminal offence, which occurs when a person obtains money, behaviour, or other goods and/or services from another by wrongfully threatening or inflicting harm to his person, reputation, or property].*

(4) Coercion. *[Coercion is the practice of compelling a person to act by employing threat of harm].*

(5) Blackmail. *[Blackmail is the crime of threatening to reveal substantially true information about a person to the public, a family member, or associates unless a monetary demand is met].*

(6) Embezzlement. [*Embezzlement is the fraudulent conversion of property from a property owner*].

(7) Sabotage. [*Sabotage is a deliberate action aimed at weakening an enemy through subversion, obstruction, disruption, and/or destruction*].

(8) Espionage. [*Espionage is the practice of obtaining secrets (spying) from rivals or enemies for military, political, or economic advantage*].

e. Additional Threats. It is assessed that the following threats, although present in society and vulnerable to anyone, are not particularly relevant to the Owner and in the context of this report are: arson, bribery, conspiracy, forgery, manslaughter, murder, perjury and rape.

10. Assessment. It is assessed that the main areas for concern against this property is: burglary, theft, and possible assault.

SECTION THREE – AUDIT



GENERAL INFORMATION

11. Address. Fitzroy Yard, Fitzroy Road, London, NW1 8TP. Latitude/Longitude position 51° 32.38'N, 000° 09.25'W.
12. Property. The property has two floors, ground and first floor with access on to the roof.



SE side on ground floor



Facing west



Facing north from roof



Facing SW on ground floor

13. Layout. The Premises is accessed from one entrance only, the main drive way from Fitzroy Road. There is a relatively narrow path about 25 metres long. There is a door in the drive leading to a neighbouring property that is boarded up. The Premises is rectangular and has walls on each boundary that border with around 22 other properties; the property therefore “looks into itself”.

14. Neighbours. There are approximately 22 neighbours. Properties all vary; some have gardens adjacent to the Premises, there are balconies next to the roof line, and there are roof eaves that lead to roof terrace. In essence, the perimeter security needs to be able to cater for each variable.

15. Ground and General Area. The Premises is situated on a relatively quiet two-way street off Fitzroy Yard. There are many houses, businesses and shops in the vicinity. There is currently an open entrance to the Premises.



Entrance to Fitzroy Yard

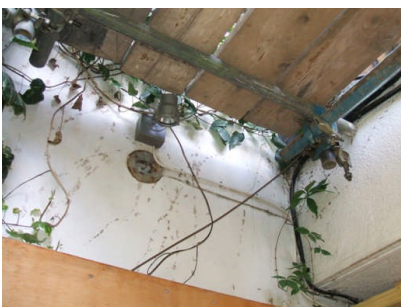


Entrance from Premises looking NW

16. Night. At night, there was no one in the building; no lights could be seen inside the property. The front door was locked. The passage way was dark.

BUILDING AUDIT

17. Road Entrance. The front entrance is approached from the driveway. There are walls (approx 7 foot high) either side. The building has restricted access at the front. Overhanging trees make the area relatively dark.



Entrance Light



Walls to Entrance



Door to Neighbour

18. Front Entrance (Existing Entrance Gate). Currently there is a normal lock. There are no “stand off” measures, nor ability to view the front driveway.

19. Car Parking. There is an off-road parking area at the front/inside of the Premises; there is also street parking through a Council permit system. It is planned to have a double garage and a turn-table to manoeuvre vehicles in order to turn around rather than reverse back up the narrow drive. The maximum width of the driveway is just over 2.5 metres; there is a plinth at both corners that reduces the width at tyre level – therefore it is not possible to drive large/wide vehicles into the Premises, which covers most large service and emergency vehicles.



Entrance from Premises looking NW



Tyre guides left & right

20. Stairs. There are stairs that lead from the external courtyard to the roof terrace. The spiral staircase is due to be altered to a straight up/down staircase. There are no intruder detection systems covering these 'external stairs'. It is also planned to have balcony stairs between the ground floor playroom area to the first floor roof terrace, and internal stairs between the ground floor hall area and the mezzanine deck; this totals three staircases.

21. Mail. It is not known where and how the mail will be delivered. Security of mail needs to be considered particularly when the Premises is left unoccupied. Depending on where the front lockable gate/entrance is will determine where the mailbox for normal mail will be positioned. If the mailbox is by Fitzroy Road, the mailbox needs to be secure from both sides as it is possible for an intruder to 'hop' over the neighbouring wall and intercept the mail if unsecured; also if the front gates are left open. If positioned by the front door, it should not interfere with the operation of the front door, nor the alarm system.

22. Rubbish/Waste. There is an area allocated for bins storage – an area to house 2x wheelie bins. Currently there is no area on the main road allocated for temporary waste for Fitzroy Yard. Camden Council is increasing its recycling capability and therefore storage should cope with both normal and recycle waste. A system should be in place to empty the rubbish bins in the main street (Fitzroy Road) on the days the Council collect waste, usually on separate days for recycle waste and normal waste. There should also be an outdoor tap with hose to clean bins in the storage area, and drainage for the waste.

23. Air Conditioning. Air conditioning units should be planned for interior rooms. It is possible for assailants to use air conditioning units as a method to gas a property putting its occupants to sleep before breaking and entering a property to burgle. Air conditioning units should be isolated by room with a waste/outlet pipe discreetly into the drainage or the ground without open to neighbours.

24. Central Heating. It is assumed that the Premises will have central heating. If run on gas, it is important to have a gas shut off valve that is secure from tamper.

25. Utility Meters. It is assumed that there will be electricity and gas meters and possible a water meter.

26. Security Systems.

- a. Intruder Detection. The alarm system should be able to cope with the several zone settings to that the right zones are set for each event (at home day, at home night, party, holiday, weekend, etc). Each sensor can be programmed for specific settings depending on whether the Premises are occupied or not.

b. Fire.

(1) Fire Equipment. The Premises is relatively a large residential property. Due to its restricted access, it is worth having a comprehensive fire fighting equipment to cope with fire. Fire hydrants need to be accessible. It is worth having a fire hose in the external courtyard and a fire pump near the swimming pool. Fire equipment should include sensors to alert of fire/smoke to its occupants and the emergency services, equipment to contain a small fire, and equipment to allow occupants to vacate the Premises should the fire become uncontrollable.

(2) Fire Escapes. The only exit is via the front driveway. There do not appear to be emergency exits on the proposed plans. Fire fighting equipment should also be considered.

c. CCTV. A CCTV system should be incorporated that complements the intruder detection system. It should have day/night capability and be able to record 24/7. The system needs to cover a matrix of entry routes in, natural holding areas for intruders, and cover high value items in the Premises. It is a decision for the owner whether they would like coverage in all rooms, but often it is not necessary, particularly if the intruder detection system covers those areas.

d. Intercom System. An internal intercom system in the Premises can provide a number of advantages:

- (1) it allows normal communication for occupants between rooms via telephones;
- (2) it allows the owner to find staff via telephone speakers;
- (3) a tannoy speaker (public-address system) on the roof can deter intruders attempting entry;
- (4) and combined with the door entry system it is useful to converse with visitors at the front gate and front door.

27. Security Room. A security focal point provides a focus for security systems. It is very common to find properties with security systems spread all over a property rather than having a focal point where at least one slave of each system are all collocated. This makes it far easier to manage; also on occasions when parties are being held and external security guards are employed, security guards can effectively manage the system without intruding into the owner's bedrooms and front rooms.

28. Emergency Lighting. Emergency lighting can be easily incorporated into the Premises, and it can easily complement the mood lighting. If set up correctly, emergency light switches can override the normal settings to turn lights up to a higher level thereby providing sufficient illumination for the occupants to deal with an intruder.

29. Windows.

a. External.

(1) French Windows. There are French window/doors that lead to the two external balconies. The balconies are adjacent to neighbouring properties and easy for someone to walk onto. The windows are vulnerable to break-in.

(2) Roof Skylights. There are three roof skylights that are planned to be removed. The type of wire-glass used is strong (seen below) but still possible to break. There are planned 8x roof-lights for the first floor. They are usually vulnerable to break-in and should be made of material to withstand a hammer.



Roof area to West to be recovered



Roof skylights to be removed and reformed

b. Internal. There are a series of sliding windows on the first floor that overlook the external courtyard. The main vulnerability is from the roof eaves to the SE. There are windows planned in the lounge, dining room, breakfast room, playroom, games room, and the first floor bedrooms.



Facing N to mezzanine deck



Facing SE to first floor windows

30. Doors. The doors that lead to external areas of the Premises should be robust and withstand a forced entry. Internal doors should be lockable.

31. Rooms. A matrix of sensors should cover the whole house. Certain rooms can be designed to become strong rooms (by design, in the event of an intruder in the Premises, the rooms can provide protection to the owners/occupants as well as being able to contain an intruder until the emergency services arrive).

32. Strong Rooms. Strong Rooms are designed to preserve the lives of the occupants from intruders while emergency support arrives. The Strong Room system needs to be designed with the following considerations:

a. Security. Intruders unable to harm or interfere with the occupants.

b. Occupants Welfare. To keep the occupants as comfortable and stable as possible with provision for food, water, first aid, hazards such as fire, blankets (for winter), pay-as-you-go mobile telephone and charger, oxygen and air.

c. Emergency Support. Ability to contact the emergency services, maintain communication, verify emergency services staff when they arrive, and allow emergency staff entry into the property.

33. Valuables. Certain valuables, such as paintings, jewellery, information and computers, keys, codes to locks and alarms, should be made secure.

34. Safes. Safes provide an easy method of securing valuables.

a. Main Safes. It is worth having more than one main safe.

(1) The main safe has the owner's valuables (documents, currency, jewellery, etc), and should be of sufficient material to withstand unauthorised entry for at least two hours – and be set in the floor/wall so that it cannot be easily extracted.

(2) The purpose of a dummy safe is to provide a means of giving an intruder perceived valuables while preserving the lives of the occupants under detention/threat. An empty dummy safe is not sufficient; a second/dummy safe should contain inexpensive costume jewellery, unimportant documents, old watches – there could also be a tracking device included that can trace the whereabouts of the intruder after he has fled.

b. Bedroom Safes.

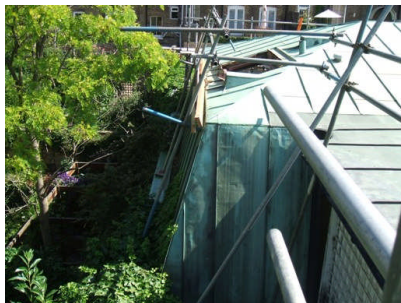
(1) Easy to use safes in each bedroom provide residents and visitors a useful means of securing their own personal valuables including passport, wallets, keys, jewellery, laptop computers, etc. A safe that is designed to hold a laptop is usually of sufficient size to cater for most requirements.

(2) An easy to use/change 4-code combination lock akin to hotel safes make it user friendly, particularly for visitors. This facility is particularly useful when having large parties where house guests can feel more secure and when the Premises is more vulnerable.

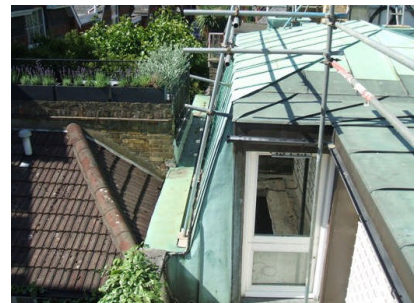
35. Roof of the Building. The roof is relatively flat, easy to access and to walk across. Security measures need to be implemented to deter and detect intruders.



Flat roof facing East



Low pitched roof facing NE



Low pitched roof facing SW



Roof eaves facing SE

36. Communications.

- a. Telephone Network. It is advised to have all communication cables securely installed from the junction box in the main road into the Premises.
- b. Internet. Networks should be password protected.

37. Power. UPS (Uninterrupted Power Supply). It is advised to install a UPS in the plant room. There are various models on the market. London does not have a history of long power-cuts. Therefore a smaller UPS that maintains power to vital areas such as door entry, alarms, CCTV, communications, some lighting, timers, etc, is useful. It provides power continuity, it deters intruders and maintains security vigilance, and it prevents the necessity of having to reset various electronic instruments. It is worth having an 'audible' and 'luminous/light' alarm that sounds/lights when a power-cut occurs in order for the owner to turn off non essential items during the power-cut, thus reducing the load on the UPS. Instructions on its use should be clearly written and attached next to the UPS.

SECTION FOUR – ASSESSMENT & RECOMMENDATIONS

38. Aim. The aim is to provide advice on the security of Premises, to identify and provide provision for securing the most valuable assets, and to provide advice on a secure and safe environment for the owner, occupants and guests.

39. Road Entrance.

a. Assessment. The approach to the front entrance is vulnerable from its neighbours. Without a road entrance gate, the whole entrance more vulnerable; it makes it far more difficult to access this property with a road entrance gate. The owner may wish to keep the roller shutter gate open most of the time but close it when, for example, on holiday. Lighting at night would overcome the darkness from the overhanging trees.

b. Recommendations.

(1) Gate. There are two main options:

(a) Electronic Remotely Controlled. To place a road entrance gate, electronically remote controlled, at the front of the drive way to prevent people, children, animals onto the driveway. If a roller shutter type is used, replace the concrete beam across the front (see below); this will hide and secure a down roller shutter. [If normal steel gates are used, it would be possible to view from the road down the driveway to the front door]. Whichever system is used, gates need to open upwards due to the narrow width of the driveway. Control would be via the CCTV intercom and remote controlled devices in the vehicles or carried by the owner; however a code keypad would alleviate any concern of carrying such equipment. A trip sensor needs to be fitted in order for the roller shutter not to close on to a car; the roller shutter can be set to 1 of 2 settings – manual open/close, timer open/close.

(b) Key Control Box. If the owner wants to only use this gate when the Premises is empty for long periods of time (eg holiday), then the keypad system can be replaced with a simpler key control box that it not linked into any remote device nor the main house system. These control boxes can be fitted by the road entrance either side of the roller shutter. If a bar gate is used, then only one control box is needed as one can use the key through the gate.

(c) Key Fob. It is possible to have a key fob that can control the road entrance shutter, the front entrance shutter, and the front door, all electronically without having to use keys. They come in various designs depending on the owner's preference and style of use.



"Gordon Fraser Gallery Limited"
concrete sign



Gate shutter in line with building wall upwards

(2) CCTV & CCTV Intercom. See later.

(3) Wall. Heighten height of wall by three feet both sides. For the neighbours, it will reduce noise in their gardens.

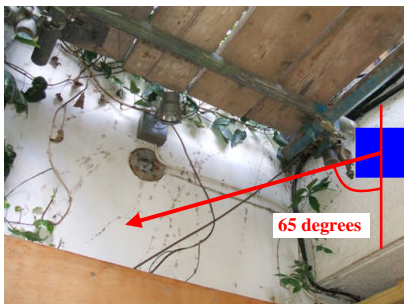


(4) Door. Block up door way, or make it into a functional fire exit linked into the alarm system.



Door to neighbour right of front door

(5) Lighting. Install mood lighting at front door entrance and along drive way, able to turn up high in emergencies. Place an emergency light (ie brighter light) above the front gate looking down driveway at 65 degrees to provide light against an intruder, with switch at front door – light to be discrete rather than an obvious security light.



Example of position of light

(6) Alarm Sensor. Position an alarm sensor above the bar/roll shutter – set to Perimeter setting. Place anti-bird needles above/on top. See Annex C.

40. Front Entrance (Existing Entrance Gate).

a. CCTV. See later.

b. Front Entrance. The front door needs to be made of a robust material that can withstand an axe and a sledge hammer. As the door is used like a garage door, a roll shutter or swing gates controlled electronically can be used – a solid effect door/gate provides more privacy than a bar door/gate. The electronic remote keypad needs to operate two frequencies; one for the main entrance and one for the exiting entrance gate (see Road Entrance Gate). A code keypad to be placed on the exterior with CCTV intercom as per Road Entrance Gate.

41. Car Parking. Install a battery recharger unit (in bins/storage) in event of a flat battery. They are available in a portable briefcase/box type format/design.

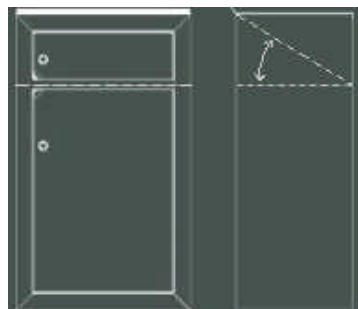
42. Stairs. Place a trip sensor across each of the stair wells. Set the external stairwells (2 and 3) to a separate zone setting.

43. Mail. A mail box should be fitted at the road entrance and/or the front entrance. It needs to be secure and collected by authorised persons only; mail should not be allowed to drop on the floor. The mail box needs to be of sufficient design and dimensions to hold up to four weeks worth of mail without over-spilling and large enough to deposit a letter of approximately A4 size one inch thick parcel. A recess can be made in the wall, a letter box to cover the recess and a door on the inside of the property; alternatively letter boxes can be purchased on the open market.

a. Example. Postopak® POP 06 is made as a combined mail and parcel box equipped with two compartments, the upper holding 45 litres for mail and the lower holding 160 litres for parcels. This model can receive large parcels up to 400x400x600mm. By lifting the front edge of the bottom compartment the entire box is converted into an extra large mailbox, holding, in total, 200 litres of mail. This solution will allow the owner to stay away for longer periods without having to have someone empty the mailbox.



Postopak POP 06



Diagram

The letter box can be recessed into the wall
Smaller models are available by Postopak

44. Rubbish/Waste.

a. Recommendations. Identify/allocate/confirm area for rubbish in main road for disposal/waste collection. Ensure enough storage for both recycle and normal waste and system to carry bags to main road. Install a tap in the utility area with long hose (able to wash area, drive, cars, etc). Install drain for waste water (same as rain water). Purchase a shredder for all documents to be shredded.

45. Air Conditioning.

- a. Recommendations. Install air conditioning units that operate independently of each other rather than having a fully integrated system. If a fully integrated system is used, ensure that inflow/outflow pipes are not vulnerable to tamper.

46. Central Heating.

- a. Recommendation. If run on gas, have a gas shut off valve that is secure from tamper.

47. Utility Meters.

- a. Assessment. Utility meter readers visit at various times of the day/week/month. Poor siting of a meter hinders security of the Premises as meter readers are then permitted in the house.

- b. Recommendation. Site all meters in the area of the front entrance accessible to read the meter. Preferably positioned in a recess that has toughened glass covering it with a cover – meter reader opens up cover to read meter but cannot tamper with meter.

48. Security Systems. It is recommended that an alarm company conducts a site survey in the near future; recommended suppliers are at Annex A. The system recommended can be accessed remotely via a laptop. This can control the CCTV, intruder, access control and fire alarm systems.

- a. Security Room or AV Room. The rack should be able to house the following equipment:

- (1) CCTV. DVR, 750G hard drive, monitor, keyboard & mouse.
- (2) Intruder Alarm. Central control panel to modular output units and sensors.
- (3) Fire. Fire control panel.

- b. Intruder Detection. Install an intruder alarm. See Annex C for layout and settings. There are other sensors that can be useful, some will be easier to specify when the building is more complete and for other areas where internal layout is more formalised; eg pressure pads/mats. The following sensors are suggested in the respective locations:

- (1) Control Units. 1x front entrance, 1x front door, 1x master bedroom/dressing room (ability to disable audio), 1x flat, 1x security room (ie where the CCTV monitors will be).
- (2) Key Fobs. Key fobs to set/unset the alarm system. One for each vehicle, one for owner/s, and spares in the safe.
- (3) Passive Infra Red (PIRs) Movement Detector. 4x bedrooms, 1x mezzanine deck, 1x dressing room, 1x kitchen, 1x breakfast room, 1x playroom, 1x pool, 1x lounge, 1x dining room, 1x hallway, 1x games room, 1x flat, stairs 3.
- (4) Magnetic Door Contacts.

- (a) Ground Floor. 1x front entrance gate (with extra delay timer, eg 5 minute delay to sound alarm), 1x front door, 1x boiler room door, 1x AV room door, 1x bins/storage (TBC), 1x room with safe in, 1x utility room door; [total 7x door contacts].
- (b) First Floor. 1x flat door, 2x 'bedroom 4' door to roof terraces, 1x 'bedroom 3' door to roof terrace, 1x 'bedroom 2' door to landing, 1x 'master bedroom/dressing room' door to landing, 1x 'landing/mezzanine' door to roof terrace, 1x 'stair 2' doors to roof terrace; [total 8x door contacts].
- (c) Total = 15x door contacts (approx).
- (5) Vibration Detectors. One per external window.
- (6) Acoustic Break Glass Detectors. In liaison with Hart, recommendation from alarm company.
- (7) Fire Detectors. In liaison with Hart, recommendation from alarm company.
- (8) PIR Outdoor Detectors. In liaison with Hart, recommendation from alarm company.
- (9) Guard-wire. Possibly across concrete road entrance beam. Across 3x garden walls and across roof eaves SE of roof. (If guard-wire not chosen, to place microwave detectors instead). In liaison with Hart, recommendation from alarm company.
- (10) Microwave Detection. Approx 8x roof (2 detectors required per beam = 4x beams).
- (11) Redwall/Redwide External Detectors. 1x external courtyard. (Pool area TBC – either normal PIR or external).
- (12) Panic Buttons. 4x bedrooms, 1x kitchen, 1x breakfast room, 1x pool, 1x lounge, 1x games room, 1x flat.
- (13) Zone Settings. To be drafted up after second fix.

c. Fire. Class A extinguishers (triangle Δ) are used for ordinary combustibles such as cloth, wood, rubber and many plastics. Class B extinguishers (square □) are used for flammable liquid fires such as oil, gasoline, paints, lacquers, grease, and solvents. Class C extinguishers (circle ○) are used for electrical fires such as in wiring, fuse boxes, energized electrical equipment and other electrical sources. Class D extinguishers (star ⬠) are used for metal fires such as magnesium, titanium and sodium.

- (1) Recommendation.
 - (a) Install fire hose in external courtyard.
 - (b) Install fire hydrant linked to swimming pool and placed in front entrance/vehicle turntable area.
 - (c) Fire equipment to include:

- i. Fire Extinguishers. Can use latest modern light 2kg fire extinguishers that have same effect.
 - (i) Dry Powder. 6kg dry powder fire extinguisher in each bedroom, kitchen, lounge, playroom, games room, flat, main utility, total = 10.
 - (ii) Carbon Dioxide. Boiler room, AV room, bins/storage area, total = 3.
 - ii. Fire Blanket. Fire blanket in the kitchen and flat, total = 2.
 - iii. Fire Escapes.
 - (i) Ladders. Position an emergency ladder in the garden/bench storage high enough and capable of scaling the wall both ways – ie aluminium ladder to go up and a rope ladder (with fixing points) for the other side. Position emergency ladders for the first floor balcony areas.
 - (ii) Exit. If the roof eaves are decided to be blocked up, then incorporate an emergency exit/door in it.
 - iv. Smoke Sensors. Install smoke sensors in each room where there is a fire place, the kitchen, boiler room, AV room, pool plant, games room, flat, lounge, outside the sauna, total = 11 (approx).
 - v. Water Sprays. Ceiling mounted emergency fire units (TBC from client).
 - vi. Alarm. Audio alarm and light alarm system in courtyard that lights up the sector that the fire is in.
- d. CCTV Recommendation. Install a CCTV system with day/night capability, DVR to record up to 16x channels, monitor and ability to view CCTV on normal TV AV channels. Directional cameras in the following location:
- (1) Inside road entrance – facing SE down driveway.
 - (2) Outside front entrance – facing NW up driveway.
 - (3) Inside front entrance – facing NE to vehicle turntable, parking area, and external courtyard.
 - (4) Garden wall – facing SW towards house and roof terrace.
 - (5) Garden wall – facing SE towards house and roof terrace.
 - (6) Chimney – on chimney facing ENE viewing roof tops.
 - (7) Pool Area – overlooking pool and void to pool.
 - (8) Courtyard – facing N towards front door.

(9) Door Entry Systems (see intercom systems below) – small CCTV & monitors for each control panel.

e. Intercom System Recommendation.

(1) Internal Communications. To install a tannoy system (ie speakers) that can be used remotely (eg via laptop of security provider) to call intruders on site and communicate with.

(a) Option A. Install a telephone network in various rooms of the house with internal dialling capability and also a tannoy loud speaker capability.

(b) Option B. An internal intercom system in the Premises can provide a number of advantages:

- i. it allows normal communication for occupants between rooms via telephones;
- ii. it allows the owner to find staff via telephone speakers;
- iii. a tannoy speaker (public-address system) on the roof can deter intruders attempting entry;
- iv. and combined with the door entry system it is useful to converse with visitors at the front gate and front door.

(2) Door Entry & Intercom. Install a video/audio intercom between the road/front entrance with intercom control panels and mini-TV screen in the house to allow garage gates to open. Video to be recorded on 16x channel DVR when depressed. Intercom panels to be located at:

(a) Exterior (call button, camera, keypad). Road entrance, front entrance.

(b) Interior (mini-TV, audio, control panel). Security focal point room, kitchen, master bedroom, hallway, landing, flat.

(c) Notes. Different codes can be allocated for family, staff, etc, to maximise control. Coded keypads are effective as they can be placed anywhere and still remain secure even during large parties where guests cannot open the front gates involuntarily. Each code can be turned on/off as required; eg turned on for example '1234' for a party and then turned off afterwards. There should be two codes, one for the road entrance gate, the other for the front entrance gate – both gates can be opened from the same modular keypads and keyfobs.

49. Security Room.

a. Assessment. There are several places that the security focal point can be: boiler room, AV room, bins/storage area, utility room or flat. The flat is ideal if there is a live-in security guard. However, if there is not, and for normal family living, the bins/storage area is probably most appropriate – when hiring security for parties etc, guards can be localised to the driveway parking area while able to monitor the CCTV. The flat screen monitor should

have an extension lead/box so that it can be mounted on the parking wall and viewed from there – alternatively, it can be permanently mounted here and therefore used more often with an option to view the CCTV cameras on TVs around the house (using AV channels).

b. Recommendation. Choose and site a security focal point. Install an alarm intruder control panel, CCTV monitor, CCTV control panel & camera joystick, DVR, fire alarm control panel, telephone (for emergencies), set of written SOPs/plans/diagrams/instructions, and panic button. Have combination lock on door (see below for simple lock); if using electric keypad, link it to the alarm system, and consider (if applicable) battery consumption/lifespan.



Examples of a simple combination door lock that does not rely on electricity



Examples of electronic key pads

Transponder

50. Emergency Lighting Recommendation. By turning on one switch, all emergency lights are turned on. Depending on which mood lighting system is used will confirm override capability of mood lighting scheme. Install emergency lighting circuits with lights in the following locations:

- a. Roof.
- b. Garden.
- c. External Courtyard & parking area.
- d. Balconies.
- e. Driveway.

51. Windows.

a. External Exterior French Windows & Skylights. Instead of double glazed or normal window glass, insert toughened or laminated safety glass (7-11 mm thick) in the window frames. Toughened glass can withstand a sledge hammer/axe, and certain types of ball ammunition (eg 9 mm pistol rounds). The glass is layers of laminated sheets that is not visible to the normal observer; it comes in various thicknesses (up to 50 mm thick).

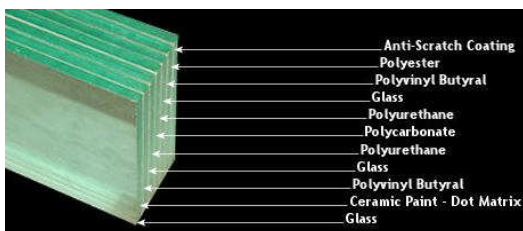


Illustration of toughened glass



Rounds fired at building



Effect of rounds fired at car

b. Internal Exterior Windows.

(1) Glass. Install “laminated safety glass” (thinner than toughened glass, See Annex B). Ensure that the windows can be fully closed and locked as well as partially closed and locked, to allow ventilation but not allowing a person through the gap.

(2) Privacy. Install blinds/curtains across the first floor mezzanine – these can be electrically controlled. Alternatively, for a more minimal approach, use glass that can be tinted or frosted at the touch of a button. The less expensive option is to cover the glass with tinted film (see Annex A for a supplier).

52. Doors. Make the doors of a sturdy material that cannot be easily kicked in. Place hinge bolts in the hinge of the doors (see below). Install normal sturdy mortice locks on the bedroom doors and the flat door, the games room, AV room, both utility rooms, boiler room, WCs, front door (if made of glass an appropriate lock designed for the task); if the strong room approach is adopted, then have either two additional bolts (top & bottom) and/or a bar across the back of the door on those respective rooms.

a. Locks and Hinge Bolts. ‘Hinge bolts’ should be placed in the hinge side of the door that fits into the door frame; these are relatively inexpensive and easy to fit.



Example of hinge bolts (around £5 for a pair)

b. Roll Shutter. Roll shutters can be placed discreetly over the external doors and windows. Doors/windows to cover include doors that lead onto a terrace (flat, bedrooms 1, 3 & 4 = 7 shutters) with control inside the room except for the flat where a key/code control is required on the outside. Also install a roll shutter at the road entrance gate.



53. Strong Rooms. Design various rooms to have the characteristics of a “Strong Room” that can either protect the owner/occupants and/or contain intruders. Rooms that naturally can be reinforced and made into stronger rooms are: bedrooms 1, 2, 3, 4, flat, games room, AV room, both utility rooms, and both downstairs WCs. Each room allocated for this task needs to have a panic button in it, and ideally a telephone and front gate control panel to open the front gate for the emergency services.

a. Equipment. The following is a list of items that should be kept in each location in a dedicated bag: food (nutrition bars), water bottles, small first aid kit.

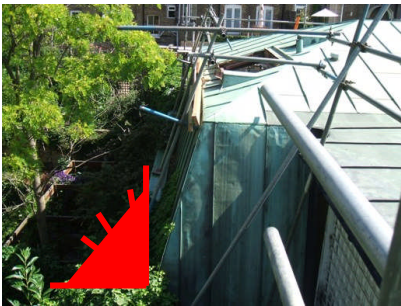
54. Valuables. Install alarm sensors on valuable fixtures and chattels (eg pictures).

55. Safes.

a. Main Safes. Install 2x safes, 1x safe and 1x dummy safe. Place a tracking device in main safe. Place non-valuable items in dummy safe (inexpensive costume jewellery, unimportant documents, old watches, tracking device). Ensure codes for both safes are different.

b. Bedroom Safes. Install laptop safes (with a code lock) in each bedroom, total = 4 safes. Perhaps 2x laptop safes in master bedroom (one for ladies and one for gents).

56. Roof of the Building. Also see alarm matrix at Annex C. Install bar fence either side of the terrace balconies. Install a screen across the roof eaves – if this is not possible, place a safety bar across and cover with an alarm sensor and CCTV camera.



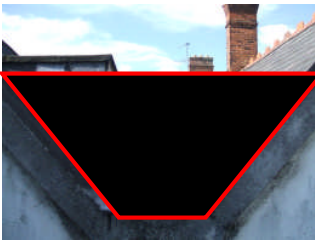
Low pitched roof facing NE



Low pitched roof facing SW



Example of Fence



Roof eaves facing SE



Roof on SW corner



Roof facing SE

57. Communications.

a. Telephone Network. Secure communication cables from the junction box in the main road into the Premises.

b. Internet. Use password protection on networks.

58. Power. Install a UPS in the boiler room. Install an alarm system to alert occupants of a power cut; occupants then to turn off non-essential items. Fix a set of instructions on/next to the UPS.

SUMMARY OF RECOMMENDATIONS

59. The most critical areas to concentrate on are:

- a. A fully integrated intruder alarm system, CCTV camera system, and fire alarm that is easy to use. Therefore, to conduct a site survey by Chubb Alarm as soon as possible.
- b. Perimeter security.
- c. Correct use of materials for exterior doors and windows.
- d. 2x large safes & bedroom laptop safes.

SECTION FIVE – CONCLUSION

60. The recommendations given provide advice on how to improve the security. It provides proactive measures as well as measures to analyse information should an incident occur. If shortcuts are made, then the overall strategy could be compromised.

61. The layout does not naturally lend itself to be secure; however, intelligent use of modern equipment and sensible procedures will enhance, deter and detect unwanted intruders.

62. Hart will be conducting two site visits during/after completion of the works to ensure security aspects are completed to a high standard.

63. When security measures are implemented, it is important to recognise that threats change. There may be areas that require further attention once the recommendations have been implemented; security is an ongoing phenomena and it is important that security provides a safe haven against its most likely threats.

64. If there is anything unclear, confusing or misleading in the report, please contact Hart Security for clarification. If plans change, security recommendations may be affected so it is recommended to confer with Hart Security.

Hugh Martin
Hart Security Ltd

31 July 2006

ANNEX A
TO FITZROY YARD REPORT
DATED 31 JUL 06

SUPPLIERS DETAILS

Intruder Alarm, CCTV, Fire Alarms Systems:

Chubb Electronic Security Limited
Chubb House, Staines Road West, Sunbury-on-Thames, Middlesex, TW16 7XY
T: 01932 738742
F: 01932 785353
W: www.chubb.co.uk

Chubb Electronic Security:

D: 01932 738742 – James Botting, Sales
M: 07920 287063 – James Botting, Sales

Chubb Fire:

D: 01932 785588
M: 07860 152246

Roll Shutters:

Chubb Electronic Security Limited
Chubb House, Staines Road West, Sunbury-on-Thames, Middlesex, TW16 7XY
T: 01932 738742
F: 01932 785353
W: www.chubb.co.uk

Hörmann (UK) Limited

Gee Road
Coalville
Leicestershire
LE67 4JW
T: 01530 513000
F: 01530 513001
E: info@hormann.co.uk
W: www.hormann.co.uk

Able Shutter Services Limited

Able House, Chalgrove Road, Tottenham, London, N17 0JJ
T: 020 8885 5332
F: 020 8885 6786
W: www.able-shutters.co.uk

Mail Box/Letter Box:

Postopak
T: +45 76 96 19 60
E: info@postopak.dk
W: www.postopak.dk

Toughened Glass:

Adams Glass
T: 0800 581500/581511
F: 0800 6940150

Tinted Glass:

Instrument Glass (speak to Brian)
236-258 Alma Road, Ponders End, Enfield, Middlesex, EN3 7BB
T: 020 8804 5824
W: www.instrumentglasses.com

Film on Glass:

Filmshield UK Ltd
28 Invincible Drive, Armstrong Industrial Park, Newcastle Upon Tyne, NE4 7HX
T: 0191 298 3000
F: 0191 298 3446

Mayfair House
14-18 Heddon Street, Mayfair, London, W1B 4DA
T: 020 7494 3008

E: sales@filmshield.com
W: www.filmshield.com

British Blind and Shutter Association:

British Blind and Shutter Association
42 Heath Street, Tamworth, Staffordshire, B79 7JH
T: 01827 52337
F: 01827 310827
E: info@bbsa.org.uk
www.bbsa.org.uk

Blinds:

Putney Blinds

4 Thornsett Road, London, SW18 4EN

T: 020 8874 6001

F: 020 8874 6229

E: sales.3@putneyblinds.co.uk

ANNEX B
TO FITZROY YARD REPORT
DATED 31 JUL 06

TOUGHENED & LAMINATED SAFETY GLASS

1. There are three main types of toughened glass:
 - a. Laminated Safety Glass – stops a hammer smashing it, but glass will crack.
 - b. Anti Bandit Glass – stops a more determined entry.
 - c. Bullet Resistant Glass – stops a pistol round, glass will crack.
2. Depending on size of glass, thickness can vary too – as specified by minimum standards of British Safety Standards. For example, the French window/doors could have 4.4, 6.4, 8.8, 10.8, 11.5 or 18.8 mm thick glass to comply with BSS depending on size of pane.
3. The thinner the glass, the less expensive it is. For example, the price of one piece of thick glass, size 3 metres x 2.5 metres is:
 - a. Laminated Safety Glass – 10.8 mm thick = £1800 + VAT.
 - b. Anti Bandit Glass – 11.5 mm thick = £2600 + VAT.
 - c. Bullet Resistant Glass – 11.5 mm thick = £3700 + VAT
4. Notes:
 - a. Toughened glass is float-passed through a heat process which tempers the glass making it toughened glass. This does not mean it is unbreakable but is up to five times stronger than normal glass, however it will break under stress and disintegrate in to small granules.
 - b. Laminated safety glass is manufactured in various thicknesses for domestic and commercial use, is perfectly clear to look through, and when broken it will hold together and not collapse. Thicker laminated glass is used by banks, shops and any location where safety and security are paramount.

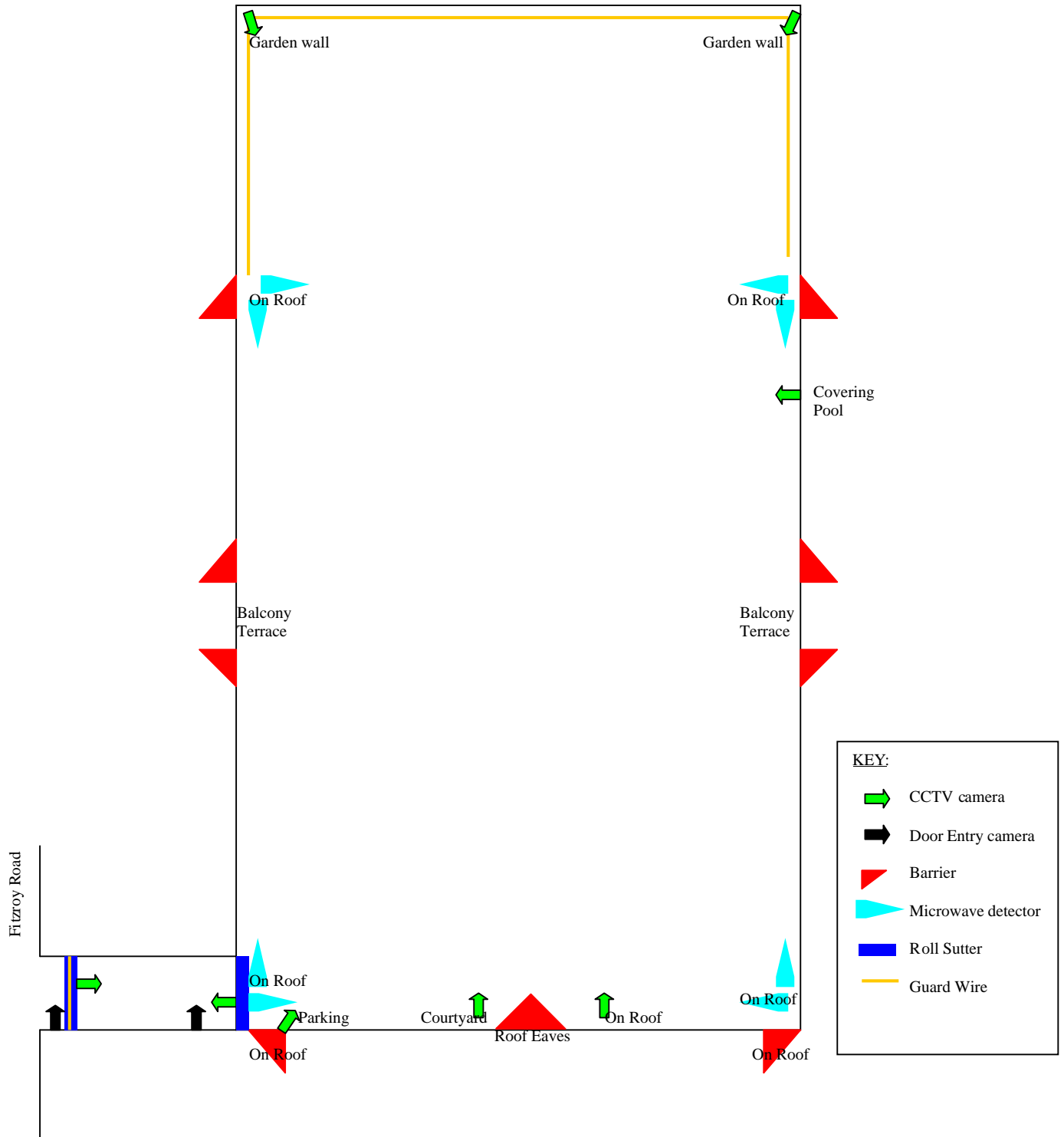
ANNEX C
TO FITZROY YARD REPORT
DATED 31 JUL 06

INTRUDER ALARM AND CCTV LAYOUT
DRAFT – PENDING ALARM COMPANY SITE SURVEY

Room/Area	Door Entry Monitor	Door Entry CCTV Panel	Intruder Control Panel	Intruder Modular Panel	PIR Sensor	Door Contact	Microwave Detection	Panic Button	Viper Sensors	Acoustic Break Glass	External PIR Detectors	Guard Wire	Redwall/Red wire	CCTV Camera	CCTV Monitor	DVR	Fire Control Panel	Fire Equipment
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)	(s)
Ground Floor																		
Road Entrance		1										1		1				
Front Entrance		1		1		1								1				1
Front Door (TBC)				1		1												
Hallway	1				1				4	4								
Courtyard											1			1				1
Parking Area																		
Bins/Storage						(1)												1
Boiler room						1												2
WC 1																		
WC 2																		
Utility 1 (main)				1		1												1
Utility 2 (small)																		
Kitchen	1				1			1	?	?								3
Breakfast/Eating					1			1	?	?								
Dining Room					1				1	1								
Lounge					1			1	2	2								2
Games Room					1			1	2+	2+								2
AV Room (Security Room)	1		1		1	1		1							1	1	1	2
Sauna																		1
Pool					1			1			(1)			(1)				1
Pool Plant																		1
Playroom									?	?								1
Garden area														2				1
Room with safes in						1												
First Floor																		
Master Bedroom	1			(1)	1			1	2	2								1
Roof Terrace & Stairs 2					1	1			1	1								
Dressing Room				1	1	1			1	1								
Bedroom 2 Ensuite					1	1		1	2	2								1
Bedroom 3					1	1		1	1	1								1
Bathroom																		
Bedroom 4 Ensuite					1	2		1	3	3								1
Mezzanine Deck	1				1	1			2+	2+								
Roof Terrace & Stairs 3					1													
Flat	1			1	1	1		1	2	2								3
Miscellaneous																		
Boundary Wall												4						
Roof							8							1				1
Key Fobs x5																		

ANNEX D
TO FITZROY YARD REPORT
DATED 31 JUL 06

SKETCH PLAN OF PERIMETER SECURITY MEASURES



ANNEX E
TO FITZROY YARD REPORT
DATED 31 JUL 06

SECURITY ADDITIONS IF ADJACENT PROPERTY PURCHASED

1. The dynamics of security of Fitzroy Yard changes if the adjacent property is purchased and is incorporated into the design and functional infrastructure of both properties.

2. Vulnerabilities:

a. Side door to adjacent property to SW.

(1) Concern. Neighbours will have right of way through drive and therefore they and their guests are able to enter Premises easily.

(2) Recommendation. To purchase right of way.



Right of Way door to adjacent property



Right of Way route from door to road

b. Road and front entrance.

(1) Concern. Entrance is more open and easier to enter.

(2) Recommendation. Use the road entrance roll shutter and shut it every time. However, the right of way owners have right of way and are likely to request access. They will therefore require the code to open/close.



Area to right for proposed parking



Roll shutter to enhance security

c. Parking.

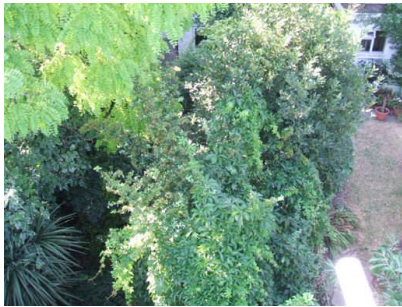
(1) Concern. Location and area to park cars, including those guests. Security of front entrance door and how to manage this.

(2) Recommendation. Create an effective double cordon between the house and the street; ie: roll shutter gate and road entrance is outer cordon; and the secure front entrance and secure doors to either properties are the inner cordon.

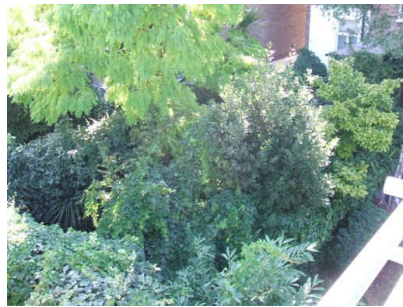
d. Walls/Trees.

(1) Concern. The walls are relatively easy to scale/climb over. The trees reduce lux levels to the driveway.

(2) Recommendation. Prune the trees back and prevent/reduce overhang into/out of the garden area and driveway. Ensure/enhance the security integrity of the perimeter wall on both sides.



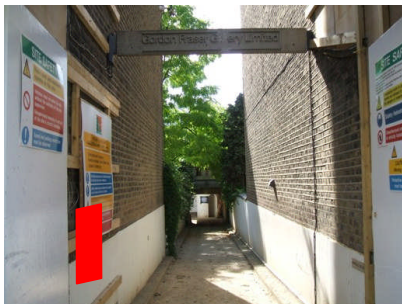
Tree foliage



e. Post/Mail.

(1) Concern. Mail needs to be secure, particularly when the owner is away (eg holiday).

(2) Recommendation. Site a mail box in the wall of the adjacent property that is now owned by the owner, and ensure that property title deeds reflect rights for Fitzroy Yard to use mail box in the wall of the adjacent property.



Recommended mail box location in front of shutter/gate with access to street

f. Occupants of Adjacent Property.

(1) Concern. If the adjacent property is to be occupied by tenants, then security measures need to be incorporated to facilitate staff, tenants, and other users of the Fitzroy Road property.

(2) Recommendation. To ensure integrity of basement/ground floor of Fitzroy Road so that it does not compromise security of Fitzroy Yard. Ensure security of the overall building of Fitzroy Road complements security of Fitzroy Yard.

g. Staff.

(1) Concern. If a caretaker is employed to look after Fitzroy Yard, the caretaker and partner could have full control of the property.

(2) Recommendation. Conduct a background screening of key staff employees.

3. Summary of Annex D. If the Fitzroy Road property is purchased, it is recommended to conduct a security survey/assessment to combine the two properties together with the aim of achieving a practical solution and effective secure environment.