

Protecting the Executive Home

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Threat Risk Assessment: This article is intended to give owners of executive homes, an outline of practical security measures they can include pre-construction to ensure their families safety and security 24/7, post construction. Owners of any executive home should either conduct their own threat risk assessment and security survey or hire a security professional to do it for them. Any large well maintained home located in a neighborhood with other similar homes will be regularly evaluated by professional and amateur burglars as a potential target. Persons who have been involved in disputes with the owners may also regularly conduct cursory drive by evaluations of the home's security measures. The person who is conducting your threat risk assessment \ security survey needs to be aware of any previous threats so she or he can make specific recommendations appropriate to your specific threat level. For example a home where there have been no threats may only need more robust protective hardware such as Medico deadbolts to replace weak inexpensive "builders" hardware installed when the house was finished and metal doors to replace weak wood stile & rail aka 6 panel doors. Alternatively a home where there have been ongoing threats may require the forgoing and at least one safe room per floor and a modern intrusion alarm system monitored by a Central Station with a ULC AA rating and exterior video surveillance cameras.

Alarm System : (a) Overview: A professionally installed intrusion alarm system monitored by a ULC certified central station is recommended for this home . Be aware that the American Society for Industrial Security, Criminal Research in Security Perspective (CRISP) conducted analysis of commercial premises with and without intrusion alarm systems found that the premises with well designed and properly designed alarm systems were 4.58 times less likely to be burglarized. This homes intrusion alarm

system panels and zone list are to be installed in a room with a robust metal door, a dead bolt lock and metal strike box to prevent the dead bolt from prying or being released from the door frame by attacking it with axes etcetera. Criminals want to know as much as possible about your alarm system before burglarizing your house. Denying criminals access to your alarm system components and your zone list are among the first steps to protecting your home. All exterior doors including any from a second floor terrace or balcony, any sliding glass doors to a deck, and the door to the house from the garage all require concealed alarm contacts. The door to the garage from the house requires an optical viewer so the owners can conduct a cursory threat risk assessment before entering the garage from the house. It is expected that some tools maybe stored in the garage. However at tools such as axes, sledge hammers, crow bars etcetera must be kept in a secure metal cabinet that can be locked. Most tool cabinets come with a relatively weak lockset. It should be supplemented by a robust metal hasp and a secure padlock such as ABUS Granite. Any exterior pedestrian door to the garage and the garage overhead door also require alarm contacts. Experienced burglars may try to pry open a 2 car garage door at one end without setting of the alarm. Floor mounted alarm contacts are recommended for both ends of two or three car overhead garages doors. Alarm system key pads\control units are recommended for the master bedroom, the kitchen and any other areas where the family spends a lot of time such as a main floor family room or a basement gym or billiard room.

(b) Glass Protection: All grade level windows, accessible 2nd floor windows and basement windows that open are to be equipped with alarm contacts,& glass break sensors. Vulnerable windows that do not open such as side lights beside the front or back doors require glass break sensors and window film. If there is a glass door from the house to a heated pool it requires alarm contacts and a glass break detector. If this door has no metal framing we recommend installing it. This door if its glass pane is equipped with window film the glass will remain in one piece when attacked. If there is no metal framing it becomes basically a moveable drape. One reputable supplier of clear burglary resistant window film is Ontario Window Film Contact Greg Russell 416 717 0500 or email grussell@ontariowindowfilm.com Window film should also be considered

for any sensitive glass such as side lights beside any entrance door, very vulnerable basement windows especially if they are obscured by shrubs , vulnerable sliding glass doors located on ground level or an easily access terrace.

Exterior Recommendations:

- (i) **Civic Address Numbers:** To encourage the reporting of crime in progress and fast emergency service response, large back lit 10 inch/ 200mm tall dark colored numbers on a light colored background are required. Ideally one set should be located on the house in a location where they can be easily seen from the street, one smaller set on any pedestrian gate and one other on any vehicle gate. The numbers on the house should be illuminated. The other two sets should be constructed from or be painted with photoluminescent material. In addition to encourage accurate reporting of a crime in progress at the back of the house an illuminated set of numbers mounted above any hedge or other vision barrier should be installed at the back of the house. Note: These numbers should be illuminated but not so brightly as to disturb the neighbors.
- (ii) **Fencing:** Ideally the entire perimeter should be fenced with see through fencing such as modular wrought iron at least 5 feet or 1.5 meters tall or taller. Board fencing or high stone walls are not recommended as they provide criminals with “cover” while they burglarize a point of entry to the house. A study completed by B.B. Brown PhD clearly indicated that house burglars prefer targets with no fences and no visible house numbers.
- (iii) **Gates:** They will be required at least at one pedestrian and one vehicle entrance points. Ideally both should be located where they can be easily observed from within the house.
- (iv) **(a)The Pedestrian Gate:** It should be equipped with an intercom, an electric strike or magnetic lock controlled from a control panel located in the kitchen or other frequently used

area such as a main floor family room, a keypad or card reader for access, an intercom for initial screening & one video surveillance camera to evaluate unknown visitors. This gate will also require alarm contacts to advise the occupants if/when the gate has been forced open.

(b) **Vehicle Gate:** Ideally there should only be 1 vehicle entrance and it should be secured with an electric wrought iron gate. It can be equipped with a card reader or PIN pad for access. To ensure fast emergency service access the gate should be equipped with a sonic opener. When a responding police car, fire truck or ambulance arrives its driver can sound two quick bursts of the siren and the gate will open. Wrought iron gates are available from Taimco 120 Ridgeway Drive, Mississauga. Electronic openers are widely available and an internet search will be required to find a reputable dealer. Ideally a pole mounted intercom should be installed outside the gates in an area ideally where the incoming vehicle can stop without obscuring traffic.

© **Hostile Vegetation:** (AKA shrubs with Thorns) This is an excellent strategy to improve protection of grade level windows, basement windows and to deter potential burglars from accessing exterior climbing aids. It also can be used to improve the deterrence value of a perimeter fence. Some possible species are available from local landscape gardeners or from

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Exterior Video Surveillance: All exterior and garage cameras must be equipped with video motion detection. When ever there is motion in that cameras field of vision its image immediately pops up either on all TV screens through out the house or only designated screens such as those in the family room, kitchen and the master bedroom. Exterior cameras are to be positioned so they are NOT invading the neighbors privacy or recording their comings or goings.

Attached Garage: ii) Attached Garage: Most executive homes have an attached garage. Vehicle thieves find the garages of these homes to be attractive targets because they know that they likely contain one or more of the upscale vehicles they already have waiting buyers for. The attached garage also presents a risk to the executive home itself because of the following:

(a) Pedestrian Door to the House: In older homes this hollow door is often made of 2 layers of easy to break ¼ inch plywood approximately 25 mm apart. It should be replaced by a ULC fire rated metal door. Also in older homes the door to the garage is often equipped only with a weak key in knob lock set. It should be replaced with a Medico or Multi-Lock (preferable but very expensive) dead bolt installed with a metal strike box. In addition this door requires an optical viewer so any one going into the garage can conduct a cursory threat risk assessment before entering the garage.

Depending on the perceived threat level consider having a switch for the garage interior lights installed inside the house near the door to the garage. This will enable persons going to the garage after dark to turn the lights on before entering the garage.

(b) Pedestrian Door or Doors to the Exterior : There maybe more than one. In some older homes these hollow core door or doors are often made of 2 layers of easy to break ¼ inch plywood. In many other locations these 6 panel doors consist of a series of horizontal 2x4's or 2X6's with weak ¼ inch panels that can be easily knocked in. These style and rail doors should be replaced by ULC fire rated metal doors. Also in older homes the door or doors to the exterior are often equipped only with a weak key in knob lock set. It should be replaced with a Medico or Multi-Lock (preferable but expensive) dead bolt also installed with a metal strike box.

(c) Exterior Windows: About 1/2 of executive homes we have reviewed have garages with exterior windows usually at grade level . If these windows open they require alarm contacts and 2 or possibly more glass break sensors especially if there are windows in both exterior doors. Any garage windows that do not open require glass break sensors. **Note:** If these are crank casement windows CONSIDER removing the cranks and storing them in the house when not in use.

To improve exterior security plant hostile vegetation such as Russian Olive under these windows. Their sharp thorns may deter thieves from entering the garage via a window. Note: Windows in the garage overhead door are acceptable provided they are installed in the upper portion of the overhead door and are constructed from security rated Plexiglass.

Note: Wired glass should not be considered for any grade level windows as it has NO SECURITY RATING. It has also been involved in a number of lawsuits arising out of incidents where a person fell and put their arm through a wired glass window and suffered more severe injuries when they pulled it out.

- (d)Overhead Door:** It requires metal alarm contacts at either end to ensure the door cannot be pried open at one end while the alarm contacts at the other end remain in constant contact thereby preventing an alarm.
- (e)Overhead Door Remote Opener:** Once your vehicle is in the garage either power down the overhead door opener or use its LOCK switch feature to turn off power to its motor.
- (f) Faraday Bag:** Ideally your vehicle keys and its remote should be placed safely in a FARADAY bag when not in use. If your home has a safe, placing both sets of keys in it should also be considered.
- (g)Tools :** Do not make life easy for the thief. Any tools such as axes, crow bars, sledge hammers etcetera should not be kept in the garage unless they are secured in a robust tool chest with metal doors and ideally two key alike pad locks. The most secure padlocks are ABUS GRANITE BUT THEY ARE EXPENSIVE .

Safe Rooms: In the event of a burglar alarm while home or other threat, ideally any executive home should have one safe room on every floor. The master bedroom will be equipped as a safe room. Its equipment should include the following:

- (i)** A house key securely attached to a “light stick”. When the Police, and/or corporate security arrive after dark the light

stick is activated and it and the attached key are thrown to the Police , so they can easily and quickly gain access to the house.

(ii) A duress signal flag such a very large and bright yellow banner that when hung out a window and when seen by the pre-briefed neighbors means **"Send Police Now"**. A very loud air horn is also recommended to summon assistance if phone lines have been cut . Neighbors should also be briefed on it and requested to call 911 and request police if they hear it.

(iii) At least one charged cellular phone and a land line phone in case the bandits have a cellular phone jammer or take a landline phone off the hook.

(iv) An intrusion alarm system control panel.

(v) **Light switches for all exterior lights**

(vi) A monitor for all on site VS cameras Note: a hidden VS camera is recommended for the hallway outside the master bedroom so the owners can ensure that all criminals have left before they leave the master bedroom.

(vii) A tall chest of drawers on wheels filled with books that can be wheeled into place behind the master bedroom door. Its contents will slow down any bullets that come into contact with it.

(viii) A dry chemical or CO2 fire extinguisher that can be sprayed into the eyes of an incoming assailant.

(ix) A first aid kit with the necessary bandages, tourniquet , hemostatic dressings etcetera to treat gunshot or knife wounds and a small supply of any prescription drugs used by anyone likely to take shelter in this room.

Safe Room Construction:

- (a) **Door Frame:** Folded 14 gauge sheet metal.
- (b) **Door:** Folded 16 gauge sheet metal door with non-removable hinge pins and welded in stiffeners. Both the above items are available from Rivett Architectural Hardware in Kingston, ON.
- (c) **Door Lock:** The Multi-Lock dead bolt is recommended for the master bedroom door. It is extremely secure because the bolt has two ball bearings that when the bolt is in the locked position rise up and drop down into recesses in its metal strike box. NB: This highly effective dead bolt is also recommended for the front door, back door, door to the garage from the house and any additional exterior door not mentioned here.
- (d) **Supplementary Door Lock:** A low cost method of making forced entry to the safe room more difficult and time consuming is the Door Club as pictured below. The brass version costs approximately \$115.00 Cdn. It is installed at the bottom of the door and increases its



resistance to forced entry

- (e) **Walls:** In Canada the most common method of re-enforcing safe room walls is $\frac{3}{4}$ inch plywood and adding additional vertical joists or struts. Where when there is a perceived threat of gunfire directed into the master bedroom the US company armcore.com sells a

bullet resistant sheet rock\dry wall in 4 feet by 8 feet sheets. It is expensive but meets ULC 752 standard for bullet resistance. Expanded metal mesh is also a less expensive option and is not as effective at slowing down or stopping bullets.

Conclusion: Executive homes do require additional expenditures and significant amounts of the owner's time to properly protect them. Be aware neighbors are a very valuable as they can observe and report any usual suspicious activity to you, or in your absence the local police and/or your security company.