



SINGLE-FAMILY RESIDENCE SECURITY SURVEY REFERENCE MATERIAL AND ASSESSMENT FORM

SDPD Crime Prevention

April 29, 2016

This paper contains reference material for the various elements of a single-family residence security survey. The section numbers correspond to the areas of assessment in the form that is included at the end of this paper. They are: (1) doors and gates, (2) windows and other openings, (3) lighting and utilities, (4) landscaping, (5) premises identification, (6) garages, (7) property condition, and (8) security measures. The section letters correspond to the specific items assessed in the attached survey form. Items that need attention should be checked and corrective measures suggested.

This material deals with the physical elements of the residence, not personal safety and security of the residents at home. Prevention tips for the latter are in a paper entitled *Personal Safety and Security* that can be opened on the Prevention Tips page of the SDPD website at www.sandiego.gov/police/services/prevention/tips. Tips for home security are in the paper with that title. These tips would be used in suggesting ways to correct security weaknesses identified in the survey.

This material is designed primarily for use by a homeowner or tenant. It can also be used by the SDPD Community Relations Officer (CRO) in your area, who can be called to do the survey and security assessment at no cost. In this case the officer should do the following to prepare for the survey. Information should be reviewed for the past two years.

- Read the reports of past crimes at your address.
- Review the past calls for service from your address.
- Look at past crimes and arrests in the immediate area, e.g., within 0.25 miles of your address.

The officer should also ask the following questions.

- Why did you call to request a survey? Usually this will be because of a recent crime, e.g., a burglary.
- Who else works regularly in and around the home? This may be a gardener, maid, nanny, pest controller, etc.
- What contract work has been done recently? This may be carpeting, window cleaning, remodeling, etc.
- How many people reside in the home?
- Who has keys, alarm codes, etc?
- Do you have a burglar alarm? Surveillance cameras?

SDPD division addresses and phone numbers are listed below.

Central	2501 Imperial Ave. SD 92102	(619) 744-9500
Eastern	9225 Aero Dr. SD 92123	(858) 495-7900
Mid-City	4310 Landis St. SD 92105	(619) 516-3000
Northeastern	13396 Salmon River Rd. SD 92129	(858) 538-8000
Northern	4275 Eastgate Mall SD 92037	(858) 552-1700
Northwestern	12592 El Camino Real SD 92130	(858) 523-7000
Southeastern	7222 Skyline Dr. SD 92114	(619) 527-3500
Southern	1120 27th St. SD 92154	(619) 424-0400
Western	5215 Gaines St. SD 92110	(619) 692-4800

REFERENCE MATERIAL

1. DOORS AND GATES

a. Single Door Construction

Single-swing wooden doors are either of solid or hollow core construction. All exterior doors should be solid, at least 1-3/4 inches thick, and have a deadbolt lock.

b. Double Doors

Double doors should have flush bolts installed at the top and bottom of the inactive door. These offer additional security because intruders cannot easily get them unlocked when the door is properly secured. The bolts should be made of steel and have a throw of at least 1 inch.

c. Deadbolt Locks

Doorknob locks offer no security. Burglars can easily defeat them. All exterior doors and interior doors to garages should have an additional high-quality deadbolt lock.

Deadbolt locks are of two basic types, single-and double-cylinder. The former has a thumb turn on the inside. The latter requires a key to lock or unlock the door from either side. Deadbolts should have the following characteristics:

- Throw of at least 1 inch
- Free-spinning and tapered or angled outer edge of the cylinder guard to make it difficult for a burglar to twist off the lock
- Solid brass, bronze, or steel exterior
- Steel rods or bolts at least 1/4-inch in diameter connecting the exterior of the lock to the inside part
- 5-pin tumbler system locking mechanism
- Changeable locking cores
- Resistant to “bumping”

d. Other Door Hardware

Peepholes with a wide-angle (180 deg) viewer should be installed in exterior doors to allow persons at the door to be identified without them knowing they are being observed.

Hinges should be located on the interior side. Doors with exterior hinges can be a problem if their pins can easily be removed. Then the door can be opened from the outside. Pins can be secured in various ways, depending on the construction of the door and frame. One way to secure pins in solid wood doors and frames is as follows:

- Drill a 1/2-inch deep hole in the side of the door just above the hinge.
- Insert a 1-inch screw or nail in the hole and leave 1/2 inch protruding.
- Close the door until the screw or nail contacts the frame.
- Drill a 1/2-inch deep hole in the frame at this point. The screw or nail will fit into this hole when the door is closed to secure the door.

Strikes are the metal plates that are attached to the doorframe or jamb to receive the latch or bolt throw. They should be of heavy-duty construction and installed with at least 4 screws that are 3 to 4 inches long and anchored securely into a wall stud. Otherwise, they become a weak link in door security.

e. Door Frames

Frames for wooden doors are usually made of soft wood. Where locks and hinges are fairly strong, a wood frame is relatively weak, which makes it easy for a burglar to kick in the door. A door in a steel frame can't be kicked in.

Nor can a door in a wooden frame that has a steel reinforcing device mounted on the lock side of the frame providing it extends well above and below the strike plate.

f. Sliding-Glass Doors

Exterior sliding-glass patio-type doors must be secured to prevent both horizontal and vertical movement. Deadbolt locks provide the greatest security. Secondary locking devices include the following:

- Pins in the upper track that extend downward through the inner door frame and into the outer door frame
- Thumbscrew-type locks mounted on the top or bottom track
- Wooden or metal dowel placed snugly in the lower track to prevent horizontal movement
- Metal strip or a few metal screws in the track above the door to prevent vertical movement.

Without a security screen door described below, a sliding-glass door can be left partially open for ventilation if a child cannot squeeze through the opening and a thumbscrew-type secondary lock is mounted on the top track. If the width of the sliding part of the door is greater than 3 feet, a thumbscrew-type lock can be mounted on the bottom track where a person cannot reach through the opening to unscrew it. A dowel should not be placed in the lower track because a person can reach through the opening with a tool to pry it out of the lower track.

g. Security Screen Doors

Security screen doors should have the following features so they cannot be broken through or pried open:

- Four-sided, stainless-steel frame
- Frame secured to home
- Steel mesh that cannot be cut with a knife
- Mesh secured to frame to resist dynamic impacts
- Rust and corrosion resistant
- Passed Australian Standards (AS) knife shear, dynamic impact, jimmy, and salt spray tests
- Multi-point locking
- Deadbolt lock with key that can only be duplicated by its manufacturer

An advantage of security screen doors is that swinging, double, and sliding-glass doors can safely be left open for ventilation.

h. Side-Yard Gates

Because side or back entries are the most common access points for burglars, it is important that side-yard gates be installed and kept locked at all times. The gates and adjacent fencing should be at least 6 feet high.

Because side or back entries are the most common access points for burglars, it is important that side-yard gates be installed and kept locked at all times. The gates and adjacent fencing should be at least 6 feet high. The best way to lock the gate is with a shielded padlock with a shackle that is difficult to cut with a bolt cutter. Wrought-iron gates that are opened on the inside by a lever arm or knob should have shields on the gates and the adjacent fencing to prevent a person from reaching in to open them. These shields can be solid plastic or metal, or open metal mesh. Gates with lever-arm locks should also have a cylindrical shield around the inside arm that prevents a person from opening the gate by inserting anything through, over, or under the gate that can be used to rotate the arm, e.g., a thin wire with a hook at one end. Gates with locks that have beveled latches should also have a latch guard to prevent a person from inserting a thin piece of metal or anything else between the frame and the gate to push in the latch. The guard should be centered on the latch and extend at least 12 inches above and below it. A deadbolt lock would not have this problem, nor would a gate with a padlock.

2. WINDOWS AND OTHER OPENINGS

a. Secondary Locking Devices

Windows should have secondary locking devices for use when they are closed or partially open for ventilation unless they have security grilles, bars, or screens.

Double-hung sash windows can be secured by drilling holes that angle downward through the top corners of the bottom window into the bottom corners of the top window on both sides of the window, and placing eyebolts or nails in the holes to prevent the window from being opened.

Louvre windows are difficult to secure because the individual panes can easily be removed. This can be made more difficult by applying a two-part epoxy resin to glue the panes together. However, it is much better to replace this type of window with solid glass or some other type of ventilating window.

Casement windows can be secured with key-locking latches. Make sure that the protrusion on the window that the lock is attached to is made of steel and not worn, and the window closes properly and is not bowed or warped.

Sliding-glass windows can be secured by the secondary locking devices described in Sec. 1f for sliding-glass doors.

b. Viewing Windows

Viewing windows in an entry door or near the lock side of an entry door are usually made of double-pane glass, which shatters easily when hit with a sharp object. These windows should be made of a burglar-resistant material that meets Underwriters Laboratories (UL) 972 standards. These materials will not shatter easily even after repeated blows. They will make it difficult for a burglar to break a hole in the window and then reach in to unlock the door.

c. Second Story Windows

These should also be kept locked and have secondary locking devices. And ladders should not be left outside for burglars to use.

d. Grilles, Bars, and Security Screens

Grilles and bars provide excellent security as long as the retaining bolts cannot be removed from the outside. However, grilles and bars on windows in sleeping rooms and emergency escape or rescue windows in basements must meet Fire Code requirements for release mechanisms to permit escape from the inside in case of a fire.

Window security screens should have the following features so they cannot be broken through or pried open:

- Four-sided, stainless-steel frame
- Frame secured to home
- Steel mesh that cannot be cut with a knife
- Mesh secured to frame to resist dynamic impacts
- Rust and corrosion resistant
- Passed Australian Standards (AS) knife shear, dynamic impact, jimmy, and salt spray tests

e. Other Openings

Pet doors, crawl spaces, ventilation windows, and other openings should also be secured. Make sure that window air conditioners are installed securely and cannot easily be removed from the outside. And mail slots in doors should be sealed if a coat hanger, other device, or a hand can be inserted and used to open the door.

3. LIGHTING AND UTILITIES

a. Exterior Lighting at Night

Uniform four-corner exterior lighting is important, particularly where there are dark areas around the residence. Floodlights installed under eaves can illuminate these areas and expose a person next to the house. Timers or photoelectric cells can be used to turn lights on at dusk and off at dawn. And motion sensors can be used to turn lights on when any motion is detected. Streetlights or lights from adjoining properties should not be relied on for lighting the property at night. It is also important that burnt-out bulbs are replaced promptly, wire covers be installed over lights to protect them from vandals, and lights directed so they don't shine into the eyes of passing motorists or police patrols.

b. Electric Power

Because appliances, lights, and security systems work on electric power it is important that measures be taken to prevent its disruption and provide a source of backup power in the event of a power failure. Exterior circuit breakers should be installed in sturdy metal cabinets that are locked with hidden-shackle or shielded padlocks.

c. Telephone Lines

Telephone lines should also be hardened so they cannot be easily cut. Exterior boxes that contain lines should be sturdy metal and have a hidden-shackle or shielded padlock.

4. LANDSCAPING

a. Denying Hiding Places

Well-trimmed landscaping deters criminals by denying hiding places and allowing good visibility on the property. Canopies of mature trees should be maintained at least 8 feet above the ground. Bushes should be trimmed to less than 3 feet except where privacy or environmental noise mitigation is a primary concern, or where higher plants would not block any windows, lighting, or provide hiding places. For example, higher bushes or trees with lower canopies could be planted next to a blank wall or the side of a home.

b. Defensive Plants

Locate plants with prickly leaves or thorns like bougainvillea and natal plum below windows and along fences as barriers to control access.

c. Tree Trimming

Trees should be trimmed so that limbs do not provide access to roofs and second-story windows, or a means of getting over fences and walls.

5. PREMISES IDENTIFICATION

a. Visible Address Numbers

Good premises identification is needed to enable the police, fire, and other service providers to find a residence quickly in an emergency. Address numbers must be on a contrasting background and located above the doorway or in a position where they are plainly visible and legible from either direction of approach from the street fronting the property. They must be at least 4 inches high on individual dwellings and duplexes. And they should also be lighted so they can be seen at night.

b. Optional Curb or Mailbox Numbers

Numbers on curbs or mailboxes are not permitted to be the sole means of residence identification. Numbers painted on curbs should be located near driveways where they are not likely to be blocked by parked vehicles.

6. GARAGES

a. Vehicle Parking

The best way for you to prevent crimes involving their vehicles is to keep them in your garage. However, too often people use their garages for storage or other things and park their vehicles on their driveways or on the street where criminals have easy access to them. This is a violation of San Diego Municipal Code Sec. 142.0510(a) which states that "Required *off-street parking spaces* ... shall be used only for parking operable vehicles."

b. Door Hardware

Electric garage door openers are generally effective in securing garage doors. A multi-frequency opener should be used to prevent the door from being opened by other radio signals.

Hardened steel hinges, hasps, and padlocks should be used to secure lifting garage doors. Padlock characteristics are listed in Sec. 1.f. Additional security can be provided by installing *cane bolts* or *sliding hasps* on the inside of the door. The door should also be mounted so that the bottom cannot be lifted up to enable someone to crawl in.

The *emergency release latch* is closed when the door is operated remotely. When the red rope that is attached to the latch is pulled, the latch is opened and the door is disconnected from its opener. Then the door can be opened and closed manually. If a burglar can insert a wedge between the top of the door and the frame to create a gap through which a coat-hanger wire can be inserted, as is usually possible with sectional doors, the wire can be hooked around the latch and pulled to open it and disconnect the door from its opener. Then the burglar can open the door manually and enter the garage. This can be prevented by using a plastic zip tie to secure the latch to the garage door carriage. The latch can still be opened by pulling hard on the red rope to break the tie. If the latch cannot be hooked by a wire, it can be opened by hooking the red handle on the release rope and pulling it. This can be prevented simply by removing the handle. The rope can still be pulled from inside the garage to open the latch. Note that it is usually not possible for a burglar to create a gap for a wire on the top of one-piece, up-and-over or roller doors.

c. Garage Door Windows

Windows should be made of unbreakable glass or a plastic that burglars cannot easily break and reach in or insert a wire to pull the emergency release handle and thereby open the door. The windows should also provide one-way visibility from the inside so a burglar cannot see into the garage.

d. Deadbolt Lock on Door to Home Interior

The door from the garage to the home interior should also have a deadbolt lock. This provides additional home security.

7. PROPERTY CONDITION

The residence and its yard should be kept in good condition. Criminals are attracted to property in poor condition because it shows that the owners or tenants don't care about it.

a. No Graffiti

Graffiti should be removed as soon as possible after it is found. This will discourage further vandalism. The graffiti should be covered with matching paint so a "canvas" is not left for the vandals. While prompt graffiti removal helps to deter further vandalism, any graffiti on the property should be photographed before it is painted

over or otherwise removed. Also, pick up (without leaving fingerprints) and save discarded paint cans, etc. The photographs and any other evidence should be given to the investigating law enforcement officers.

Hardware or paint stores should be consulted regarding the best products for removing various types of graffiti from specific surfaces without damaging the surface. Extreme care should be used in applying special graffiti removal products like MEK (Methyl Ethyl Ketone) or "Graffiti Remover" on glass or unpainted surfaces.

To facilitate graffiti removal, graffiti-resistant paint or an anti-graffiti coating should be used on any surfaces that have been or might be vandalized. The San Diego Park and Recreation Dept. specifies the use of anti-graffiti materials manufactured by Monopole Inc. Four coats are applied. The first is Aquaseal ME12 (Item 5200). The second is Permashield Base (Item 6100). The third and fourth are Permashield Premium (Item 5600 for matte finish or Item 5650 for gloss finish). Additional protection can be obtained by planting vines, bushes, etc. along walls and the sides of the buildings. They cover areas that might otherwise be vandalized.

b. No Trash, Junk, Weeds, Inoperable Vehicles, Etc.

Keep property free of trash, junk, weeds, leaves, dismantled or inoperative vehicles, and other things that indicate neglect. Also remove loose rocks and other objects that could be used to vandalize your property.

c. Property in Good Repair

Replace or repair broken windows, screens, lights, fences, and gate locks.

d. Property Borders

Well-built fences, walls, and gates are the first line of defense against criminals. The permissible heights and locations of various types of fences are specified in the San Diego Municipal Code. Sharp pointed fencing, i.e., fencing with spikes or a barbed- or concertina-wire topping, is not permitted in residential areas. Unless privacy and noise reduction are needed, open chain link or ornamental metal fences are preferred because they do not block visibility into the property and are less susceptible to graffiti. Chain link fencing should have its bottom secured with tension wire or galvanized pipe, or embedded in concrete to prevent it from being lifted up to enable a person to crawl in. Fences, walls, and gates should be at least 6 feet high.

e. Clean Alley

Crime often occurs in alleys because they lack natural surveillance. The chances of crime in alleys can be reduced by the following measures:

- Lighted at night
- Yard walls and fences at least 6 feet high
- Anti-graffiti paint or coatings on walls, fences, and garage doors
- Locks on back-yard gates that cannot be opened by someone reaching through or over the gate
- Locks on garage doors
- No landscaping that obstructs clear lines of sight
- No alcoves that provide hiding places
- Signs prohibiting vehicle parking, trespassing, littering, etc.
- Visible home address numbers
- Free of trash, graffiti, etc.

8. SECURITY MEASURES

a. Burglar Alarm

A good alarm system can help deter burglars and detect break-ins. A basic system has sensors attached to all doors, windows, and other openings to detect entries. Sensors attached to windows can also detect glass breakage. Sensors can also be installed inside a home to detect motion or entry of certain rooms. The alarm should sound

outside as well as inside the business. Alarm systems usually have batteries for backup power. Batteries need to be checked periodically and replaced if bad.

The telephone line that sends the alarm signal to the alarm company should be hardened so it cannot be cut or if it is cut, the system would generate an alarm at the alarm company. If the telephone line is contained in a box on the outside of the building, the box should be made of sturdy metal and locked with a hidden-shackle or shielded padlock. Alternatively, the alarm system should have a wireless backup that would send the alarm if the telephone wire is cut.

Even if an alarm system fails to deter a burglary it may limit the time a burglar will spend in the home and thereby reduce the number of valuables taken. Burglars will want to be gone before the police arrive. An exception to this is when the burglars enter the home without leaving any signs of a force entry. They could assume that the officers responding to the alarm call will not have a means of entering the home and they will just check for signs of a forced entry and leave the scene if they don't find any. The burglars would then continue collecting valuables and leave when it is safe to do so. To prevent this, procedures are needed to ensure that someone responds to all calls so the officers can be let in to investigate.

b. Dogs

In most cases dogs act as a psychological deterrent and can be an excellent supplement to a security system provided the dog can be relied on to give warning when warning is needed. Dogs can scare a stranger away by either barking or looking fierce. Outside dogs should be kept in a fenced area with a good lock on the gate. But remember that dogs can be lured away, poisoned, killed, or even stolen. And the owner risks liability if the dog attacks an innocent person.

c. Cameras

Burglars may be deterred from breaking into your home if they know that their actions will be recorded on a camera system. And if they do break in and camera imagery is available to the alarm company, the police response may be faster and the burglars caught before they can escape. Systems that used to cost thousands of dollars now cost hundreds of dollars and are relatively easy to install. For example, a homeowner can now buy four cameras and a four-channel DVR for a low as \$300. A basic four-camera system could cover the approaches to your home from the street and the doors and windows a burglar might break in through. Signs should simply state that CAMERAS ARE ON THE PREMISES or SURVEILLANCE IS IN PROGRESS.

Cameras can be wired or wireless. Imagery can be recorded at specific times, when motion is detected, or when an alarm is triggered. And it can be viewed on a home or remote monitor, or on a web-enabled mobile device. With remote monitoring, a secure, password-protected Internet link should be provided to transmit the imagery. And if Internet Protocol (IP) cameras are used, they should have built-in servers. Any system that is installed should be able to provide high-quality, digital imagery of suspicious persons and activities for use by the SDPD in investigating crimes.

d. Safes

Safes can be standing or mounted in floors or walls. Standing safes should be securely anchored to the floor. The back should be against a wall so it will not be accessible. Floor safes should be located where they can be concealed.

e. Smart Home System

Home automation systems and smart phones are now available to let you make your home a smart home. With them you can control your home's lighting, air conditioning, appliances, and security and entertainment systems from almost anywhere. Because these systems are either Internet or Wi-Fi-enabled, they are vulnerable to hackers who might steal personal information, turn off your alarm systems, or play pranks. So make sure the alarm dealers and installers of your system take appropriate precautions to make your system secure. They should include strong passwords, firewalls, encrypted communications, secure communications with your smart phone, etc.

SINGLE-FAMILY RESIDENCE SECURITY SURVEY FORM

Resident's name, phone number, and e-mail address _____

Address _____

Check items that need attention and suggest corrective measures on the space on the right or on a separate page.

1. DOORS AND GATES

- a. Solid-core construction exterior doors
- b. Flush bolts on double doors
- c. Deadbolt locks
- d. Other door hardware (peepholes, hinges, etc.)
- e. Door frames
- f. Sliding-glass doors secured by locking device
- g. Security screen doors
- h. Side-yard gates with locks

2. WINDOWS AND OTHER OPENINGS

- a. Secondary locking devices
- b. Viewing windows
- c. Second story windows
- d. Grilles, bars, and security screens
- e. Other openings

3. LIGHTING AND UTILITIES

- a. Exterior lighting at night
- b. Electric power
- c. Telephone lines

4. LANDSCAPING

- a. No hiding places. Tree canopies trimmed to at least 8 ft. and shrubs trimmed to less than 3 ft.
- b. Defensive plants
- c. Trees trimmed to deny access to second story

5. PREMISES IDENTIFICATION

- a. Address number at least 4 in. high, visible from the street, and lighted at night
- b. Optional curb or mailbox numbers

6. GARAGES

- a. Parking space used for vehicles, not for other uses
- b. Secure door hardware
- c. Unbreakable door windows
- d. Deadbolt lock on door to home interior

7. PROPERTY CONDITION

- a. No graffiti
- b. No trash, junk, weeds, inoperable vehicles, etc.
- c. No broken, windows, fences, gates, etc.
- d. Property borders defined by fences, walls, gates, and landscaping
- e. Clean alley

8. SECURITY MEASURES

- a. Burglar alarm
- b. Dogs
- c. Cameras
- d. Safes
- e. Smart home system