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## Keys to Successful Electronic Security

### in Multi-Unit Housing

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Security is now a primary factor in the success of housing complexes in urban settings and elsewhere. While the FBI does not separate single unit housing from apartments in tabulating federal crime statistics, even so municipal, anecdotal and private surveys indicate that a disproportionate amount of crime currently occurs in multiunit housing. This can occur because the general area deteriorated since the time the complex was built and advisable security enhancements did not keep pace with the problems. Or it may have developed that ownership became cash-poor and security was a line item easily reduced or cut in operational budgets. In such scenarios there can actually occur a reinforcing downward spiral affecting financial resources and tenant quality of life. Crime increases, 'bad actors' are not weeded out but proliferate, deterioration of the property accelerates, resources to right the operation in turn dry up as marketability suffers. In some cases local authorities have found it necessary to take control of subsidized and other housing due to the dangerous conditions.

The formula for a successful security



initiative is straightforward but also requires appropriate investments of money and time. Real life events consistently prove that required investments will compare favorably to just a single failure due to their absence. For example, legal information provider Nolo reports that the average landlord settlement for crimes such as rape and assault is \$600,000 and the average jury award is \$1.2 million. And as mentioned above, there is also a compound effect to failing security which over time can have even greater impact.

#### The main steps recommended for a robust security initiative are:

- Recognition of the role of security in the success of the housing complex

- A full site assessment of policies as well as physical and electronic security to avoid or abate crime
- Judicious but serious financial investment in the key elements of security recommendations
- Immediate exercise of new capabilities to abate crime and continuous use to maintain the desired level of security
- Constant maintenance of the security capability in place

In this article we will note some of the more relevant aspects of electronics security in an apartment, condominium, even dormitory setting. Attention to these factors are the key to effective security.

## Coordination with Community Police

Community police increasingly take a proactive role in security today. For example in critical urban areas they will actually request storeowners and other institutions to add public viewing cameras when they are aware of in-process surveillance projects. Good housing managers often reciprocate by requesting a review of their plans by local police and then incorporating their feedback as appropriate.

The author of this article has done design work for years with a housing rehab specialist who has a reputation for turning around housing complexes in some of the most blighted urban areas in the Northeast. His organization routinely brings in local law and drug enforcement representatives during the project design phase. More than once phrases such as “this spot right here is where the most frequent drug trafficking occurs in the city” have been uttered during walkthroughs of sites. Design steps are taken to mitigate or even eliminate this activity. In such applications we have included special onsite and remote access for police staff to support the most effective use of the surveillance investment.

## Controlled Entry

Most typically the entry point to multiunit housing is a lobby. In other complexes it may be a parking lot entrance and/or mangate. The ideal security at such locations is a combination of access control, possibly audio intercoms and also constant video surveillance. In this way credentials are needed for access which can be flexibly given and carefully restricted (i.e. in terms of staff and

vendors). Video surveillance identifies not only those who actually come and go but with what or with whom. Integrated intercom systems which maintain databases are preferred so as to identify which tenant or other interior station location gave access and when.

Increasingly cost effective license plate readers at entrances have also been used to good effect. One manager of subsidized housing uses the data for a variety of uses. One is to complete evidence that a member of a household who was listed as absent for reduced income claims was in fact living at the residence.



## Empowered Personal Responsibility

Where possible, enable the well-intentioned tenants – they still are in the overwhelming majority – to extend their ability to maintain safety. In the case of electronic security this may actually be written into the building code. For example in Massachusetts, building codes states (M.G.L. CMR 780 1008.1.8.8) “one of the doors of the main common entryway into every apartment house having more than three apartments shall be designed or equipped as to close automatically and lock automatically with a lock, including a lock with an electrically-operated striker mechanism, a self-closing door and associated equipment. Such associated equipment shall include an intercom system tied independently to each apartment and where from each apartment the electrically- operated striker mechanism can be released ; additionally, where the number of apartments in a given building, irrespective of fire/party wall separation, is ten or more apartments, a closed circuit security camera system

shall also be incorporated in such manner that from each apartment, apartment occupants can utilize their personal television sets to observe who is seeking entrance to the building...”

A problem for one developer and local police was that crime was so frequent they worried that a wide area camera such as described would enable resident drug dealers to monitor the lobby for advance warning of police raids. The ultimate solution – and one which authorities embraced - was the installation of video intercoms in each apartment with master stations also at the restricted lobby entrance. While the financial investment was greater than the code specification, this arrangement was very effective and became a signature feature of this developer. This design contributed to the attraction and success of his properties.

## Maintained Quality of Life and Aesthetics

A well designed blend of physical and electronic security can help insure a complemented solution such that cameras are only needed in the areas where they can ethically be placed. Examples of these locations are public areas such as exterior grounds, entrances, hallways, elevators and stairwells, laundry room, etc..

Security does not have to be overly intrusive or ugly in such public areas. For example, one developer decided not to overly illuminate certain exterior areas with a concentration of bedroom windows as this would deter from the living quality of the apartments. Instead cameras with integrated infrared illuminators supplemented by stand alone illuminators at other locations critical to be seen were used to augment the lighting for the surveillance system.

At the same site wall mounts were

recommended for exterior cameras to minimize exposure to direct sun and artificial light at various times of the day. Because standard camera mounting arms detracted from building aesthetics scone-like arms with aesthetically pleasing lines were installed in their place. Attention to such details for this construction project won local accolades and later contributed to a national HUD award.

The tenant population felt secure and found that the look and feel was attractive. The pleasing appearance helped reduce the occurrence of chronic and random vandalism so common in apartments.

### **Vandal Resistant Equipment and Selective Presence**

The spectrum of people involved in housing projects often dictate a higher level of vandal resistance than would be required in single unit housing or light commercial use. For example in surveillance this can range from IP66 rated cameras with polycarbonate bubbles to prison grade cameras which are rated for the caliber of bullet they can survive (hopefully this will not need to be a consideration for any site you may ever manage).

Rigorously concealed wiring, even the reduction of conduit in favor of full concealment, is an important design criteria. Another is the judicious placement of cameras. In some vintage camera installations it was felt that the higher the cameras the better, even if parking lots were viewed from rooftops of the 10th floor! The appreciation developed for the need to reduce height to enable face on recognition but not too low to permit tampering. One university prefers its camera to be placed such that the average person on a 2nd person's shoulder cannot easily reach. We often recommend a 12 to 16 foot above grade

height for such cameras.

In the Northeast and elsewhere housing is often multistory and the available inventory is sometimes from earlier designs where the back entrances are open porch stairwells or 'walkups'. These are generally challenging but important areas to monitor. For these applications we prefer a rugged version of specialty above horizon cameras. These cameras have newer generation drive mechanisms which actually retrack to the correct position if it was circumferentially pulled out of position. [This drive technology is now preferred by a number of other camera suppliers). At one site the camera was referred to as 'a tank' by the installers who experienced its heft. This heft as well as the locations guidelines above made it highly vandal resistant. It was the camera tenants most often commented on as they found its active movement imposing (again in a reassuring way to the well intentioned but as a deterrent for others). The management – who knew it was from Italy – called it 'the Ferrari camera' due to its aesthetic lines (reference the previous section as to why this is also a positive).

In many projects, management or ownership elects to let some public video be visible in the office area where tenants might mingle. This both assures the honest as well as reminds potential criminals that consequences are quite possible to bad behavior. [Public video monitors are used to similar effect in retail settings].

### **Integrated, Easily Available Data**

Surveillance, access control and related intercom technology are the major tools in apartment security. The time required to interface with all of these disparate systems may be a challenge for any enterprise and especially for housing management. A well designed system will make data available via one

user interface for all common operations. This focal point would most likely be the access control system graphical call up map and investigations initiated from key access control event logs and reports. A comprehensive design effort might also include video walls with preconfigured views to support various live monitoring and investigative activities. The design may also include email and text notification of events generated by filtering analytics or status changes. Maximum benefit can accrue if the system enables a number of client locations internally and offsite, even by PDA and smart phone.

### **Make the Investment Count**

We've discussed some of the key aspects of electronic security and experience has shown they can make a difference in the success of multiunit housing. Adoption of these represents a significant investment but returns will be realized both immediately and over the long term if the following occurs operationally:

- The equipment is vigorously used to stabilize difficult situations
- Security policies and equipment are continuously used and maintained

If implemented properly, the investment in the electronic and related security we have discussed will yield active dividends for ownership and quality of life for tenants. ■

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*The Setronics Technology Group is an industry-leading team of Engineers whose combined collective security experience exceeds more than 60 years for regional, national and international clients. The Group has designed thousands of integrated access control and video solutions spanning markets that include retail, healthcare, and education among others.*

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