

Crime Prevention in Neighbourhoods

Carina Coetzer (MA Criminology) - *Crime Information Analysis Centre, South African Police Service*

1. Introduction

The link between the environment and crime is not new discovery. Some of the principles of design aimed at reducing the risk of crime, such as target hardening, have in the past been used to various extents in securing communities. Despite this, the employment of Crime Prevention Through Environmental Design (CPTED) as a strategy to combat crime is a fairly recent development in South Africa. As is the case elsewhere in the world, it is now commonly accepted that design plays an important role in reducing crime. Business premises, as well as residential neighbourhoods, are increasingly being developed or adapted with the reduction of the crime risk in mind. Property developers, government authorities, the SA Police Service (SAPS) and institutions like the Council for Scientific and Industrial Research (CSIR) and the Institute for Security Studies (ISS) are playing an important role in developing secure neighbourhoods, both in practice and through research. (Graf 2001)

One of the South African property developers involved, is Atterbury Property. In their development of the Woodlands Lifestyle Estate in Pretoria, they intended to create a secure residential neighbourhood by employing CPTED principles. The latter were furthermore integrated with considerations of health, the use of information technology and the achievement of harmony with the natural environment. This paper focuses on the development of a Crime Prevention Management System fulfilling the needs of the Lifestyle Estate neighbourhood. (Graf 2001)

2. Overview of crime trends in South Africa

Although sharp increases in the incidence of serious crime have been observed in South Africa since 1994, the ratios of a considerable number of serious crimes at present seem to be stabilising, albeit at high levels. Expressed as a ratio per 100 000 of the population, seven crime trends actually experienced decreases over the period 1994 - 2000, namely murder, attempted murder, housebreaking at business premises, stock-theft, the theft of motor vehicles, arson and driving under the influence of alcohol or drugs. Between 1999 and 2000 the most significant decreases were observed with regard to murder (- 11,06%), arson (- 13,5%) and theft of motor vehicle (- 5,5%), according to figure released by the Crime Information Analysis Centre (CIAC) of the SAPS during July 2001. The CIAC figures indicate that an additional seven crime trends stabilized between 1994 and 2000, namely rape, shoplifting, theft out of/from motor vehicles, commercial crime, malicious damage to property, illegal possession of firearms and drug related crime. (CIAC 2001)

Six crime trends experienced increases over the period under consideration, including common assault, assault with the intent to do grievous bodily harm and the category defined as "other thefts". In addition, housebreaking at residential premises increased by 3.4% between 1999 and 2000, with the most disturbing increases being observed with regard to the incidence of other robbery (18,5%) and robbery with aggravating circumstances (11,06%). The latter includes robberies at residential premises, which frequently hits the news headlines.

The high crime rates in South Africa have prompted a response from both government and the community at large. This has *inter alia* found expression in policy documents and guidelines like the White Paper on Safety and Security and the National Crime Prevention Strategy (NCPS).

The NCPS, published during 1996, also adopted the need for design interventions in order to reduce crime. Its second pillar focuses on crime prevention through environmental design and is perceived as fundamental to the broader approaches in crime prevention and management. The objective is to extend the employment of security based designs to residential buildings and shopping centres, ensuring that safety and crime prevention considerations are applied in the development of new and the upgrading of old structures, as well as creating awareness of environmental design as a means to reduce crime (Department of Correctional Services 1996: 67-68).

3. The development of enclosed neighbourhoods and security villages

Gated communities (enclosed neighbourhoods and security villages) are a growing phenomenon in South Africa, reflecting an attempt by members of the public and developers to counteract the high levels of crime described in paragraph 2 above. According to Landman (2000: 3) security villages can be defined as *'private developments where the entire area is developed by a (private) developer. These areas are physically walled or fenced off and usually have a security gate or controlled access point with / without a security guard. The roads in these developments are private, and in most of the cases, the management and the maintenance is [sic] done by a private management body'*.

Not all the security measures implemented by these gated communities have proven successful as a safeguard against crime. Factors such as inaccessibility of the gated communities to formal police patrols are detrimental to safety and can make these communities targets of crime. The communities involved also tend to think that physical barriers will keep criminals out, forgetting that community participation as an expression of social control is sometimes more beneficial than physical control (Rossouw 2001:6). Woodlands Lifestyle Estate was developed with this factor in mind. Money was therefore not only spent on security measures, but considerable consideration was given to the creation of the ideal lifestyle in a neighbourhood where social cohesion would develop naturally among the residents. This would enhance the formation of the principle of *"know thy neighbour and be safe"*, thereby furthering the possibility to establish territoriality.

4. Crime Prevention Management System at the Woodlands Lifestyle Estate

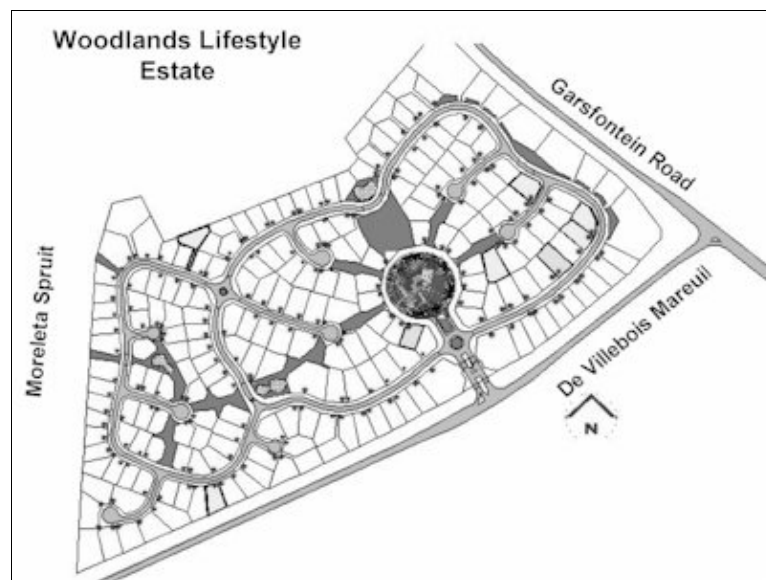
4.1 Background

Woodlands Lifestyle Estate is located in the Eastern suburbs of Pretoria, province of Gauteng. The Estate forms part of the new generation of neighbourhoods catering for the needs of the home owner while challenging the traditional theories regarding neighbourhood design. Woodlands Lifestyle Estate was chosen as a case study to illustrate the new trends in developing modern neighbourhoods in South Africa because the author has been involved in the development process from the beginning of the project. However, it has to be taken into consideration that Woodlands is not the only existing example of the new trend. Other security villages have also had great success with their crime prevention management systems. Eldopark, also situated in the suburbs of Pretoria, have, for example, not had a single crime reported within its boundaries to date.

The concept of a "Lifestyle Estate" was born when the property development team of Atterbury Property held a brainstorming session at the beginning of 1999 to discuss the type of neighbourhood

that would answer to the needs of today's home owners. The need to live in a secure residential environment was taken a step further through the creation of a neighbourhood in which families can follow a healthy lifestyle in a nature orientated neighbourhood equipped with state of the art information technology in order to keep them in touch with the rest of the globalizing world.

To achieve these goals, Atterbury Property called upon the assistance of experts in the fields of security, information technology, landscaping, health and fitness. Carina Coetzer, an environmental criminologist focusing on the employment of the physical environment in the prevention of crime, was called in to help design a Crime Prevention Management System for the Lifestyle Estate neighbourhood.



4.2 The development of security plan based on CPTED principles

The accepted principles associated with crime prevention through environmental design (CPTED) served as general guideline in the compilation of a security plan for Woodlands. These include the location of the neighbourhood, provision of opportunities for surveillance, visibility, territoriality, access routes and target hardening.

One of the characteristics of CPTED is that it cannot be generalised, although the guidelines provided generally remain valid in most situations. This characteristic means that every location requires a unique CPTED plan. A CPTED plan for the Woodlands Lifestyle Estate could only be drawn up after an in-depth study of the surrounding area's crime patterns and an analysis of the unique features characterising the neighbourhood. Relevant information about CPTED in residential neighbourhoods found in literature, on the Internet and through other media, as well as the expert opinions of security advisors, was gathered for this purpose.

4.3 Safety of a general residential neighbourhood

After working through the relevant information on the safeguarding of residential neighbourhoods based on CPTED principles, the following common factors, as summarised by Poyner (1983:26), were identified:

- Homogeneity.
(Residential neighbourhoods homogeneously developed for housing purposes and not catering for other uses, particularly commercial developments and the incorporation of vacant land.)
- Single-family housing.
(The building form is aimed at minimizing the number of units in any multi-family structure.)
- Limited accessibility.
(It is recommended that no main routes should pass through the neighbourhood or even skirt its boundaries.)
- Separation from commercial areas.
(Residential areas and commercial developments should be separated from one another as far as possible.)

The presence of the above factors in a residential neighbourhood was found to assist in lowering the crime rate. These factors were therefore kept in mind during the selection of the best site for the location of the Woodlands Lifestyle Estate, as well as in the design of its layout.

4.4 Crime analysis of the surrounding environment

Woodlands Lifestyle Estate is situated in an area which prior to its development already had a unique character and crime patterns. An analysis of crime patterns pertaining to the surrounding area aided the project team in drawing up a cost-effective and appropriate crime prevention management plan for the Estate.

The Estate is located within the Garsfontein policing precinct. The area covered by the Garsfontein policing precinct serves as an example of how modern suburbs will tend to develop in future. The suburbs involved have been designed to be self-sufficient, *inter alia* containing shopping malls, recreational facilities, emergency services and a number of security villages.

The crime situation in the immediately surrounding suburbs of Moreleta Park, Garsfontein and Pretorius Park were identified as the factor possibly having the biggest potential impact on the Estate.

Moreleta Park is situated to the west of Woodlands and forms part of the Garsfontein precinct. This suburb experiences fairly high rates of residential housebreaking and thefts. It is a relatively new neighbourhood characterized by continuous building activity. This attracts elements not found in an established and older neighbourhood to this suburb. The residents of Moreletta Park also tend to fall in a relatively high socio-economic class, making them ideal targets of potential crime, especially of a property related nature.

Garsfontein and Pretorius Park are situated north-east of Woodlands. As in the case of Moreletta Park, property related crimes tend to occurred far more frequently than violent crimes. Crimes most often reported are likewise residential housebreaking and theft, followed by the theft of motor vehicles and theft out of or from motor vehicles.

The area to the south of Woodlands is undeveloped open land bordering on the Rietvlei Dam Nature Reserve further to the south in the Lyttleton police precinct and Mooikloof in the Boschkoprand police precinct respectively. Both these areas have relatively low crime rates.

In summary, an analysis of the environment surrounding Woodlands Lifestyle Estate indicates that it borders on primarily middle and upper middle class residential areas also containing shopping malls and business premises. These suburbs suffer mainly from housebreaking, theft and other property related crimes like the theft of or from motor vehicles. This has led to the conclusion that a crime prevention plan for Woodlands primarily needs to focus on the prevention of burglary and other property related crimes and only secondarily on the prevention of violent crimes.

Despite information indicating the involvement of organised syndicates in some of this type of crime in South Africa and additional evidence pointing to some individuals deliberately seeking opportunities to burgle, burglary is generally regarded by researchers as an opportunistic crime (Poyner 1983:33). The most important way to prevent burglaries is to deny access to potential criminals in the first place. Securing the outer perimeters is therefore an effective way to deter would-be burglars.

4.5 Woodlands Lifestyle Estate security plan

The security plan for Woodlands Lifestyle Estate was drawn up by combining the insights concerning the characteristics involved in the securing of a residential neighbourhood pointed out by other research (see paragraph 4.3) with the results of an analysis of the surrounding neighbourhoods

The security assessment of Woodland Lifestyle Estate focused on the outside perimeter before working inwards to the core of the neighbourhood. This is the most economical way of securing an area. In view of the diverse ways in which the security guidelines provided by Woodlands Lifestyle Estate are likely to be interpreted and followed by residents, the best course of action seem to be to secure that area of the neighbourhood over which one has control (namely the outer perimeter and public spaces within the neighbourhood) to the fullest extent possible.

4.5.1 Securing the outer perimeter

Woodlands Lifestyle Estate is surrounded by two roads, one of which is a main road (Garsfontein Road) and the other a thoroughfare (De Villebois-Mareuil Road), the Pretoria East hospital and the Moreleta Park stream (spruit). The Woodlands Estate's boundaries are fenced off, leaving only one access point situated on De Villebois- Mareuil Road. This was done to ensure optimum access control.

4.5.2 Access to neighbourhood

The vehicle gate is wide and high enough to handle the type of traffic normally expected in a residential neighbourhood, including vehicles of the emergency services like fire engines. The gate can be operated manually or electrically. Residents use electronic access cards to open the gate, while visitors have to sign in at the guardhouse with a guard stationed on a permanent basis to exercise control over the gate. The guard has to see to it that only one vehicle gains access at a time and that the gate remains in working order (Atterbury Property 2000: 7).

During the first three years of its existence, extra care will be focused on the presence and activities of building contractors, while daily spot-checks are done to ensure that all non-residents are in possession of temporary permits (Atterbury Property 2000: 7). A Marshall has also been appointed to oversee all building activities on the Estate.

4.5.3 Perimeter wall

The wall facing Garsfontein and De Villebois-Mareuil Roads is a solid construction (two rows of bricks), cutting out noise and ensuring privacy. The wall has been built in such a manner as to avoid design features facilitating climbing and to eliminate access points. A fence facing the Moreletta Spruit is constructed of steel palisades, providing a feeling of openness and connection with the surrounding natural environment. The fence facing Moreletta Park is again a solid fence acting as a deterrent to the criminal element at present operating in this neighbourhood.

The perimeter wall around Woodlands is 2,1 metres tall. This height was chosen from a security point of view, as a fence of 1,8 metres can easily be bridged by intruders standing on a vehicle. In the same way they are enabled to throw stolen property across the fence. As a further safety precaution, electrified wires were installed inside the fence and extending over its top to increase the total height of the fence to 2,4 metres. This serves the dual purpose of scaring off potential intruders and physically frustrating those who do try to trespass. No trees or any structures are situated against or in the close proximity of the fence.

The perimeter wall is monitored by the security control centre (linked to a 24 hour reaction group) which alerts guards in case of any irregularities which might occur. The electrical wires are divided into zones and tampering with any of these zones are specifically indicated to the control room (Atterbury Property 2000: 7).

Care was taken to secure the fence below ground level to counter the effects of erosion or tunnelling. The fence is further protected against erosion damage by the provision of culverts or drainage pipes at natural drainage points. Where the openings are too large, they are protected by physical barriers to prevent access without impeding drainage.

4.5.4 Securing of inner neighbourhood

The instalment of CCTV cameras on the inner streets of the neighbourhood was considered as an option, but the possibility of infringing on the human rights and privacy of residents of the neighbourhood was expected to present difficulties. The use of guards to patrol the area inside the neighbourhood seemed more feasible. Means exist to control their movements and to ensure that they patrol the area as prescribed by the security plan. These guards are also instructed to patrol all the “green” areas in the neighbourhood. The number of security guards are determined by the funds allocated for security by the Woodlands Home Owners’ Association.

The security systems of the individual dwellings are left in the hands of the owners, leaving them to cater for their own needs. They are only bound to comply with the rules laid down by the property developers. The planners took security measures into account when they designed the public roads, parks and pavements inside the neighbourhood in order to make these secure as possible and adhering to CPTED principles as far as this was practically possible.

4.5.5 The Lifestyle Centre

The Lifestyle (Community) Centre was developed in a typical village style. A formal water feature between the entrance to Woodlands and the Lifestyle Centre adds to this village theme. The lifestyle centre is located in the middle of the neighbourhood. The main road splits in opposite ways before reaching the centre, although parking space is provided around the centre itself. The location of the Lifestyle Centre facilitates interaction among people, creating an opportunity for residents to

get to know one another and to develop a feeling of *esprit de corps*. Social events will also be organised at the centre to promote the principle of “*know thy neighbour and be safe*”.

The Lifestyle Centre further answers to the health and fitness philosophy advocated by Woodlands Lifestyle Estate through the provision of facilities like a gymnasium with a super circuit, a squash court, a BiODiQ Kiosk (where blood pressure, body fat, weight, etc. can be checked) and a training pool (Atterbury Property 2000: 3).

4.5.6 Woodlands Streetscape

The neighbourhood is designed in such a way as to provide further opportunities for a healthy lifestyle by incorporating an outdoor Lifestyle track. Well-lighted and paved pedestrian walkways form part of the Lifestyle track, employing wooden bridges to cross artificial streams running through ponds and the landscaped gardens populated with indigenous plants. These walkways run into the community green edged by trees, or find their way to either the Lifestyle Centre or the water feature near the entrance to the Estate. To enhance the theme of a natural environment, provision was made for a number of open spaces, which in association to the streets, the intersections and the main boulevard, integrate and compliment the architectural theme without impacting negatively on the adjoining Moreleta Spruit natural area (Atterbury Property 2000: 4, 8).

The pavements along the interior roads are illuminated and were constructed in such a way as to provide space for walking, jogging and running. The main roads take twists and turns in order to regulate and slow down the traffic, while the smaller roads splitting off from them end in *cul-de-sacs*. The latter enhance the opportunities for natural surveillance and encourage a feeling of territoriality among residents living in a particular street. The main intersections are differentiated from the rest of the main roads by changes in the texture of the road (switching from tar to bricks) as by being elevated above the normal street level.

4.5.7 Information Technology

Main services are located underground and every stand on the Estate is automatically connected to the computer network room in the Lifestyle Centre, allowing for fast access to the Internet supported by the underground optical fibre and copper backbone. In addition to the opportunity to access all digital information at high speed, a special website (www.lifestyle-estate.co.za) was also developed to supply information and provide an online map of Woodlands Lifestyle Estate (Atterbury Property 2000: 9). This website is currently used as a marketing tool, but after having served its function it will be converted into a managerial tool to be utilized by the Woodlands Home Owners Association (an association incorporated under **section (21)**) and the residents.

4.5.8 Architectural Style

The architectural style of Woodlands is based on the residential neighbourhoods of the American south-west coast, with low white picket fences facing the streets and abundant green areas observable from porches furnished with chairs, benches and potted plants. Home owners are contractually bound to a set of design guidelines complementing the overall architectural style and aimed at enforcing the feeling of territoriality in the Estate. (Atterbury Property 2000: 8)

Crime prevention model for Woodlands Lifestyle Estate*

1. Location

- Community in which neighbourhood is located is reasonably involved in the safeguarding of their environment.
- The Estate is situated among relatively well-off suburbs
- Residents are within reach of a variety of shopping complexes and outside recreational areas.
- The Estate is within easy reach of educational and medical facilities.

2. Image

- The Lifestyle Centre and other buildings are of sturdy construction employing good quality material and with a durable finish.
- The neighbourhood's communal areas, for example the swimming pool and greenery, are clean, neat and kept in good order. (This projects an image of residents caring for their environment and willing to act if anything goes wrong to visitors.)
- The premises are maintained in line with current standards.

3. Access control

- Only one access point to the neighbourhood exists.
- The entrance to the neighbourhood is supplied with mechanised booms and electronic control measures.
- A security guard mans the guardhouse to see to it that only one vehicle enters the neighbourhood through the gate at a time and that visitors are checked in.
- The physical barriers ensure that all the traffic pass through the entrance gate

4. Surveillance

4.1 *Passive surveillance*

- Neighbourhood is situated between two main roads providing a constant flow of traffic past it.
- The central part of the neighbourhood is surrounded by facilities which are open for business and leisure activities at different times. This ensures a constant flow of residents and members of the public through the area.
- Open areas like the green spaces and pedestrian routes provide an unobstructed view
- Public streets, most of the open ground and pedestrian routes are sufficiently illuminated at night.
- Pedestrian routes within the neighbourhood prohibit unobtrusive movement of strangers.

4.2 *Active surveillance*

- Security officers patrol the neighbourhood on a regular and irregular basis. (This also serves as a physical barrier.)

5. Territoriality

5.1 *Symbolic barriers*

- The walls and fences equipped with electrical wires enclosing the neighbourhood act as a deterrent to would-be intruders.
- Access control at the entrance to the neighbourhood prohibits uncontrolled movement into the complex.

5.2 *Physical barriers*

- The walls and fences equipped with electrical wires enclosing the neighbourhood are of sufficient height and sturdiness to keep most intruders out.
- The culverts and drainage points are secured.
- Very little or no parking is provided outside the neighbourhood's premises.
- Security personnel patrol the buildings and premises on a regular and irregular basis.

Crime prevention model for Woodlands Lifestyle Estate*

- The employment of a Marshall to oversee building activities during the initial stages of the project.
- Security measures taken to secure the Lifestyle Centre itself (as determined by the owners).
- Residents have to subscribe to the security measures prescribed by the developers.
- The layout of the inner streets and the employment of the *cul-de-sacs* diminish the number of possible getaway routes.
- The main roads take twists and turns in order to calm the traffic.

4.6 Maintenance of the Woodlands Lifestyle Estate Security System

“Crime prevention through environmental design can be preventive or interventionist. In other words, design principles can be applied at the initial design stage, anticipating potential problems, or implemented reactively as retrofit design changes once a problem has developed.. “ (Napier et al. 1998:40) Although the security of Woodlands Lifestyle Estate was a major concern during the initial planning and layout of the neighbourhood, the security plan will have to be updated frequently to address problems that might arise.

The maintenance of the security system is the responsibility of different stakeholders belonging to the Woodlands Lifestyle Estate Neighbourhood Watch . The latter is supposed to convene on a regular basis. The following main stakeholders are instrumental to the maintenance of the security system:

- The Chairperson of the Woodlands Lifestyle Estate Neighbourhood Watch acting as a representative of the Woodlands Home Owners Association.
- A representative of Garsfontein Police Station, for example their public relations officer.
- The Head of Security at Woodlands Lifestyle Estate.

Opportunity for inputs regarding the maintenance or improvement of security will be provided to all residents at the annual home owners meeting.

5. The HONC model

In order to meet the unique requirements of this new neighbourhood, Carina Coetzer assisted with the design of a new integrated model of crime prevention, integrating CPTED with recreational activities and environmental aesthetics to create a secure, and information-driven environment incorporating good surveillance. Called the “HONC” against crime, it includes the following elements:

- H = Health and fitness
- O = Online (information technology)
- N = Nature
- C = CPTED (Crime prevention through environmental design)

Research at Woodlands Lifestyle Estate has already commenced to establish the feasibility of the HONC crime prevention model. The main reason for the research is to determine whether or not the integration of different elements from various crime prevention strategies could be selectively integrated to develop a new approach to primary crime prevention in neighbourhoods.

6. The way forward

Woodlands Lifestyle Estate will over the next three years be compared to two other neighbourhoods in the Garsfontein police precinct in order to measure the success rate achieved through the implementation of HONC elements. The neighbourhoods serving as control groups will consist of a traditional open neighbourhood and another security village respectively.

7. Conclusion

The CSIR (Retief 2001:16), among others, does not consider gated communities as the best solution to the crime situation in South Africa, but for the time being these seem to present at least a solution to the problem. The normal public is not concerned with the long term implications of gated communities, but rather seek immediate solutions ensuring their well-being and security needs. In view of this, the author focuses on the development trends in vogue today to test whether they really make any difference to the incidence of crime. Wishing to achieve a crimeless society is probably totally unrealistic, but an effort to achieve a safer environment and decrease the occurrence of crime seem to be a worthwhile exercise. The HONC model is but one of the methods being tested to see whether it achieves the required results. Any suggestions, recommendations, advice or other assistance in this regard will be greatly appreciated and will receive serious attention, as the achievement of safety and security remains one of the most basic human needs.

BIBLIOGRAPHY

- Crime Information Analysis Centre. 2001. *Media Statement by the Minister for Safety & Security, Mr S V Tshwete, Cape Town.* http://www.saps.org.za/8_crimeinfo/bulletin/index.htm. (15 July 2001).
- Departments of Correctional Services, Defence, Intelligence, Justice, Safety and Security and Welfare. 1996. *National Crime Prevention Strategy.*
- Fischer, R.J. & Green, G. 1992. *Introduction to security.* Fifth edition. Boston: Butterworth-Heineman.
- Forrester, D. & Chatterton, M. 1988. *The Kirkholt burglary prevention project, Rochdale.* Crime Prevention Unit Paper 13. London: Home Office.
- Gardiner, R. 1978. *Design of safe neighborhoods.* Washington D.C.: GPO.
- Graf, K. 2001. *Crime Prevention in Neighbourhoods.* Personal interview. 16 August 2001.
- Landman, K. 2000. *Gated communities an international review.* Pretoria:CSIR.
- Napier, M., du Plessis, CPTED., Liebermann, S. Kruger, T., Shaw, M., Louw, A. & Oppler, S. 1998. *Environmental Design for Safer Communities. Environmental Design for Safer Communities in South Africa.* Draft CSIR publication.
- Poyner, B. 1983. *Design against crime. Beyond defensible space.* London: Butterworths.
- Redelinghuys, Senior Superintendent, Security Advisor: South African Police Service. 1999. Personal interview. 28 July, Pretoria.
- Retief, H. 2001. Veiligheid agter tralies en hekke. *Rapport*, 20 May:16.
- Rossouw, S. 2001. Living behind the barricades. *Mail and Guardian*, 12 – 18 January.
- Atterbury Property. 2000. *Woodlands Lifestyle Estate: A Better Place to Live.* Pretoria: AttProp.