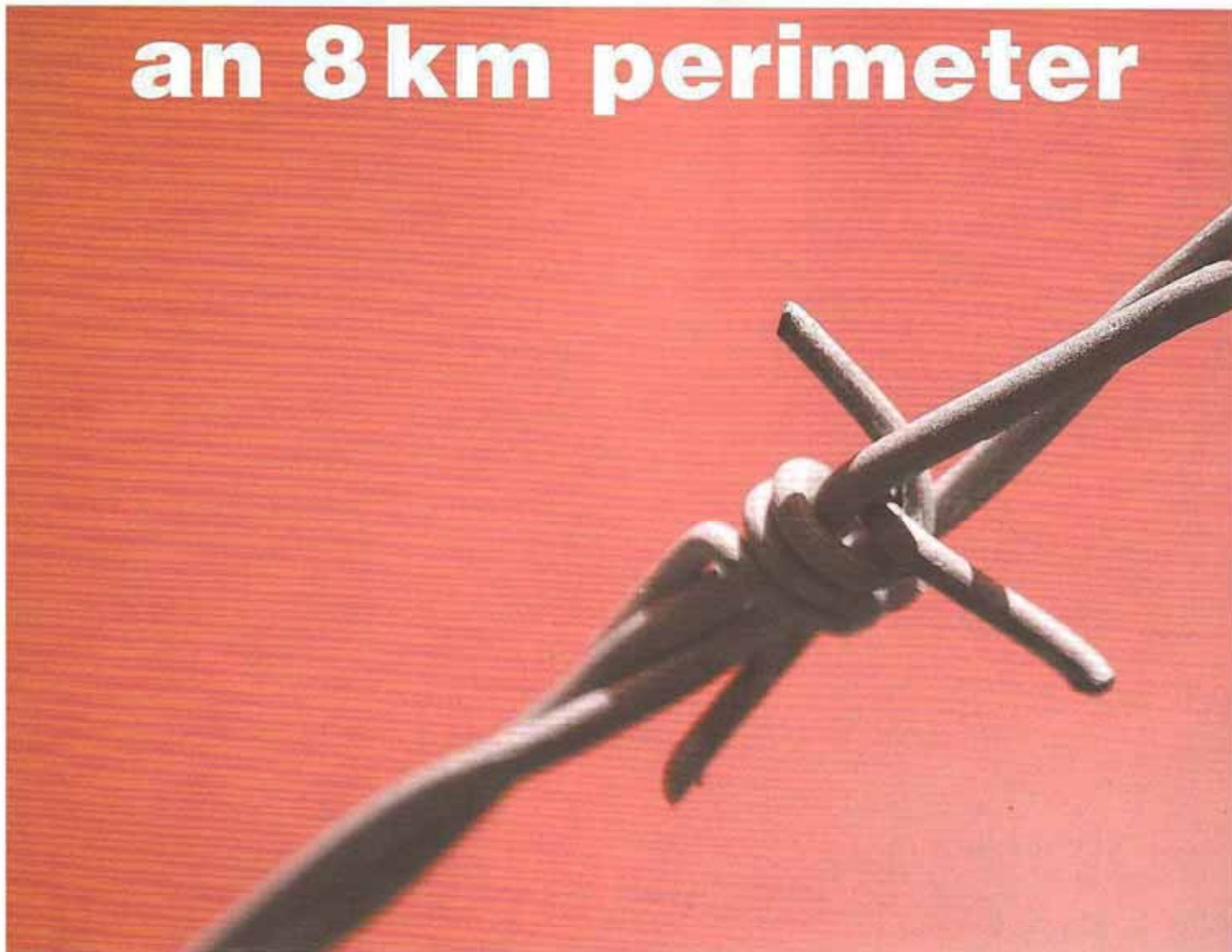


# Securing an 8 km perimeter



Transforming Xanadu from a natural paradise into a safe paradise required the latest in video and imaging technologies

**X**anadu Estate is a R2,1 billion eco park development situated 18 minutes from Pretoria and Sandton at the foot of the Magaliesberg Mountains. Xanadu offers a blend of rich heritage, pristine vistas, indigenous fauna and flora and the tranquil lifestyle of the unspoiled Swartspruit Valley.

The estate consists of 680 residential stands and sites for approximately 200 townhouses and 196 Lifestyle Village Units for the over 50s, and assisted living units with frail care, with spectacular views of the mountains, to both the north and

south. Each phase of the 7-year development is sensitive to the preservation of the area's wetland ecosystem.

Executive director of the Xanadu project, Andries Bezuidenhout, explained that the estate is to be developed in seven phases over a 7-year period. "Our plans include the creation of more lakes and islands where the aquatic birds of the area can nest and breed. Traffic on the Hartbeespoort Dam has disturbed these birds and we are hoping that these lakes will prevent them from leaving the area forever. Carefully planned walkways through

these areas will enable the residents to appreciate the abundant bird life with minimum impact. These lakes also act as bio-filter to improve the quality of water feeding the Hartbeespoort Dam".

Keeping the fauna and flora secure is not the only security issue the developers had to worry about. Their goal was to create a secure estate for residents while not disrupting the eco friendly nature of the area and avoiding light pollution.

Xanadu Eco-Park is surrounded by 8 kilometres of indigenous bush. The South Eastern perimeter borders an informal

settlement. The park had unsuccessfully used traditional methods of security, such as electric fencing, CCD high speed dome cameras, solar power, etc. These methods proved inadequate and insufficient resulting in occasional breaches of their perimeter. Intruders also tampered with the electric fencing to attempt access to the estate. The high speed dome cameras were inoperable at night due to inadequate lighting resulting in security personnel having to physically locate the cause of each and every alarm.

The only solution to keeping with the eco friendly nature of the estate while ensuring the safety of the residents was to deploy a system that would function equally well day and night, with no additional lighting required. A system that would alert control room operators to any breach of the perimeter and inform them of where the intrusion was located. The perimeter in question is approximately 8 km in length and surrounded by indigenous bush. For this reason the management chose an intelligent video analytics system combined with thermal cameras.

*C3 Shared Services*, specialists in the design and implementation of high-end

perimeter security solutions and military grade intrusion detection systems was the company of choice. The solution implemented allowed Xanadu to keep its natural appeal, yet allowing control room operators to observe the entire perimeter during day, or at night with no lighting.

A combination of two military grade technologies were selected, namely thermal imaging cameras (OPGAL) and intelligent video (ioimage). The advantages were that the perimeter security system could now detect intruders in pitch black darkness at distances of up to 350 metres and enable the control room operators to make the correct and speedy decision to alert a designated armed response team to the area where the intrusion was detected.

Control room operators are aware of and view the location of every alarm or intrusion from video analytic or physical barrier system and are able to make the necessary decision to send a response team to the location. With the previous conventional method, the control room operators were unaware of the location of



the intrusion or the cause of the alarm until actually arriving on the scene. The technology had to be proved as it was cutting edge and was therefore costly, however, with the successes achieved and thefts prevented the system is paying for itself, as a result Xanadu embarked on a second phase to complete its perimeter protection, again with C3.

C3 designed, the system while also assisting in the training and implementation of the final solution, thus offering Xanadu not just a security system but a working solution.

*For details contact C3 Shared Services.*