

# Monterra Comprehensive Security Strategy

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# Monterra Comprehensive Security Strategy

## I. INTRODUCTION

The purpose of a community designed like Monterra is to provide a refuge from the stress of a busy life, traffic and unpredictable environment. A well-designed and run community can be the preferred place to spend time, relax, feel comfortable and less chaotic. A community where the residents *feel* like this is often the reason they chose their “home”, not just a convenient place to live. The costs for these living qualities are usually acceptable as long as these qualities are considered present and are a part of the collective perception of the residents. These values are the cornerstone of a healthy and secure community. Conversely, the excessive appearance of security evokes an undesirable living condition. An imbalance or loss of safety and security can erase the mood and spirit of an enjoyable community and shift the community into just a place to live.

The following examines the varied aspects of security and how it contributes to the function as well as the *feeling* of being safe. Both are vital and necessary. Perceiving this role completely and how it is interrelated provides decision makers the most efficient and effective approach towards security and increases the overall benefit to the community.

## II. CONCEPTUAL PERSPECTIVE

### Deterrent and Comfort

1. Direct Deterrents are highly visible and recognizable features commonly expected and known by the general public to increase safety. Examples are: Physical gates, common area lighting, uniformed guards, roving security, cameras and marked police units. These combine to establish and impact the level of deterrent. The direct elements are clearly the focus of most security plans and strategies, but are only effective when aligned with indirect elements in a healthy balance.
2. Indirect deterrents are those items that serve to send a message or communicate that this area is a risky target. Both types are vital and interdependent. Indirect deterrents include well maintained lush landscaping, absence of trash or debris of any kind, clean and freshly painted hard surfaces and buildings. All of which communicates that the overall property is regularly cared for and highly valued. Dedication to these conditions reduces vandalism and states effectively “this area is a risky target” reducing the willingness to commit crime.
  - a. Swift and consistent reaction to any maintenance items like graffiti, lighting outages, general trash or other damage communicates how “visible” and “observed” the community is, thus riskier as a target and a higher comfort to residents.
  - b. Guard interaction with residents is an indirect effect as well. Consistent and professional dialogue and demeanor demonstrates a professional and confidence building image. This is also a two-way interaction and residents that are patient and understanding tend to encourage greater professionalism from the guards. This interaction represents one of the only frequent and direct contact points with residents. It is a key opportunity to communicate a message of safety and security. Failing to do this well erodes many other

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valid and costly efforts of the community and Board of Supervisors. The same principle applies to all staff and contractor interactions.

All of the above deterrents communicate significant and equally valuable message of comfort and safety to the residents and visitors. **Safety** is not wholly a concrete item to be paid for and installed. It is a collection of all the elements that together create the overall comfort. Constructing and maintaining this perception is among the greatest responsibilities of the any community's leadership.

### III. SECURITY DETERRENT TOOL BOX:

#### **Human Sensing**

1. Residents – The eyes, ears, and familiarity of more than 1,000 residents is the greatest and most impactful element for security. A vigilant and responsive community that willingly contacts law enforcement, security, and management depending on the issue creates an invaluable web of input to protect the community. It is key to continually educate residents to contact the proper party when any issue is not right or out of the ordinary. One must call 911 when highly threatened or suspicious of an unusual activity. Secondly, calling the Broward Sheriff's Office general phone line when less urgent and there is a concern or a sense that something needs further inspection. Reporting all minor crimes helps. This action by residents carries into every aspect of security if any deviations from procedure are noticed and communicated. Any maintenance item that is not to standard also should be encouraged to be reported as they all are related. In some cases community activists over report issues and exaggerate conditions. Chasing false claims fosters apathetic culture and can be detrimental. A healthy state of shared vigilance is ideal.
2. Law Enforcement (BSO Shift) – The fact that Monterra has been established as a Patrol Zone is testament that Cooper City BSO feels the area merits a continuous presence and is a major benefit. The support that comes with a designated zone includes a dedicated investigative officer (Detective) and further supports the impactfulness of this feature. Officers assigned to the zone will develop stronger local knowledge and understand stronger ability to tailor their traditional tactics to the geography and nature of Monterra. The typical patrol zone-to-population ratio is closer to 5,000 units per zone. Monterra enjoys a 1,000 to 1 ratio, ostensibly unheard of coverage. Closure of a recent home burglary demonstrates an effective law enforcement presence. The following is a general overview of police work that is often misunderstood and is based on very general conditions and practices.
  - a. **Zone Coverage** – The term is actually like it sounds for any sports fans. Law enforcement places officers in distinct areas and they flex to the needs at any given time. Standards are based on FLDE and response time probabilities and performance. Incidents routinely pull 1-4 officers out of their zones to assist the other zones. Some incidents, understandably, are more complex and threatening to life safety and require every

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available officer. For example: Setting a perimeter to contain a person or vehicle completely distorts the zone system. Adjacent police jurisdictions, off-duty officers are called rarely but are available to react if the situation is severe enough. This model is effective nationally and has proven as an efficient and effective strategy.

- b. **Patrol Coverage**- As a result of typical shift and zone policy, an officer will have irregular patrols. Misconceptions of this reality are challenging to properly explain across a population. Patrolling the roadways, looking for threats to the residents will not be the only priority of a BSO shift patrol and on balance is not the prime purpose of marked police units. Law enforcement covers a wide range of issues and responds to these as directed. Some of the priorities, though vital to the city, may not be directly beneficial to the residents of Monterra. Lengthy traffic incidents and other activities the department concentrates on take priority and reduce the frequency an officer patrols throughout the community. This is counter to a generally held perception that officers are constantly rolling up and down all streets. Community service-aids and other programs free officers to increase their patrol rate. Monterra benefits from its zone size being small with a higher than average patrol frequency.
  - c. **Scheduling Reality** – Fully trained and equipped officers are a limited asset and can cost as much as \$250,000 annually to fund with all factors combined. These officers also have well derived and established personnel policies. They utilize vacation, sick time, court dates, and other flexible situations that in some instances may leave a zone absent for some period of time. Staffing strategy often prevents this, but zones are designed and managed to absorb the average attendance interruptions and are calculated across the entire city. Shift supervisors or adjacent zones often will “flex” their patrol to mitigate absences and do not drop below a minimum standard across a jurisdiction.
3. **Law Enforcement (Off-Duty Detail)** – A dedicated “detail” officer fills many gaps in a comprehensive security plan. This officer is off of their regular duty and hired on a contract basis at the needs and direction of the contractor. This officer follows department policy and can perform all actions of a regular officer, but is allowed to be managed in a variety of ways to increase effectiveness to the contractor. In fact, an off duty officer is often viewed as more impactful and concentrated than a shift officer because of several differences:
    - a. A prime benefit is the detail officer does not leave the community to react to needs of another zone or the other absentee issues discussed like a shift officer. In extreme and very rare cases, they would be activated to respond out of the area, but in this case the charge to the contractor is credited.
    - b. Officers on a detail can act as an officer in every capacity and can alert the shift officer and the adjacent zone officer instantly in most cases. A suspected or ill-intended person will avoid contact with marked/uniformed law enforcement. It is theorized the total

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response times for back-up officers when alerted by a “detail” officer are better than a 911 call routed via dispatch because of less steps and communication skill and equipment of all parties. Both methods are effective, but the communication among officers is more precise and effective than general citizenry.

- c. **Accountability and Oversight** - The off duty should be viewed as a program specialized to the needs of the community. The ideal situation is a very active patrol with its basis in *Community Oriented Policing* principles rather than a static detail where the officer remains in one place for visibility. Tools to accomplish this:
  - i. **Post Orders** – An active patrol requires its own specific guidelines and controls to prevent the appearance of inactivity and wastefulness. A written and approved list of expectations is necessary.
  - ii. A **login reporting system** allows for information (non criminal) to be logged and shared to all stakeholders. For example: A light pole is not working. The officer enters it in a log with location. Ideally, the logging system immediately emails the maintenance contractor and manager, accelerating the repair process. The web based documentation facilitates this as well as a recordation tool. Officers can send and share information issues, suspicions and store field contact information. This improves shift continuity which is often absent in typical off duty details.
  - iii. A **patrol tracking system** (GPS Tag based system is effective) documents the officer is indeed covering all areas of the community on each detail. Reports are reviewed by management and issues communicated to the supervisor. Officers repeatedly able to perform well can be designated for return or permanent duty.
  
4. **Roving Security (Unarmed Cart Based)** – Many of the features of accountability expressed above should and could be implemented to increase effectiveness of a security guard patrol via golf cart. The ability to act immediately and communicate to other law enforcement is lower in this approach however costs are considerably less and must be considered when balancing security impact with the budget.

## Electronic Sensing

1. **License Plate Capture** –The key benefit is a deterrent to ill-intended vehicle traffic. It is becoming common knowledge that plate cameras are used to assist law enforcement. The inbound car needs to know their tag is being captured. The value is to provide a usable data base allowing law enforcement ability to build cases against suspects, stolen vehicles, tags or other uses.

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Enhancements include connectivity to national data sharing systems. Greater storage and retrieval options and upscale software may be considered to strengthen usefulness. A passive relationship versus actively inviting Law Enforcement to review tags is recommended.

2. **Live Feed Cameras** when properly used can provide valuable input to incidents, theft deterrent and incident closure. The more remote the area the greater the value of camera systems. Essentially cameras are intended to be a force multiplier and prevents patrol resources from having to travel into remote and less visible areas too often.
3. **Audio Recording** – Gate guard interaction when recorded can benefit the security officer from false accusations as well as improve adherence to policy. It reduces resident and guard conflict escalation and allows simpler dispute resolution.
4. **Targeted Camera w/ analytics** - The modern high-tech camera is an extension and enhancement of human senses as well as a force multiplier. If properly located, managed, and operated it prevents excessive recording of video data that is difficult to review by reacting to actual valuable movements. It also may be combined with online software to alert guard/officers to imminent threats real time for positive and proactive resolution. A camera that initiates a field stop by an officer can prevent a potential crime that may have not have ever been detected in time to solve. It also increases the risk awareness of potential criminals shrinking the territory one can go unobserved.
5. **Motion devices** when combined with analytics from a camera can further enhance the effectiveness of extended sensing equipment and reduces the costs of multiple cameras.

## Physical Barriers

1. **Roadways** and limited vehicle entrances concentrate vehicle access to an observable location. Highly visible patrol and security features are more easily presented and effective.
2. **Walkways** – Paved paths concentrate pedestrian activity into visible well lit, safer, and less threatening environments. Unpaved walkways or preferred paths lead to damage to other community features such as fences. These areas are high risk to assist in crime and are undesirable due to lack of visibility. They are best reduced naturally with landscape buffers and fence combinations. They also benefit from remote sensory.
3. **Lakes and Canals** – Serve as natural barriers concentrating foot traffic but also create in-contiguous areas and are less accessible and visible. This risk is mitigated by remote camera and motion detection.

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4. **Fences** serve to prevent unwanted traffic and are largely effective unless they obstruct a desirable path or route inviting damage. Landscape and sensory equipment can be more strategically placed and combine to reduce damage and repair costs.
5. **Planted Easements** serve to naturally prevent unwanted foot and small vehicle traffic. Proper maintenance strategy to sustain impenetrable look and character is key. Oftentimes a more cosmetic and lower long-term cost solution than fencing.

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## IV. MONTERRA – CURRENT SECURITY ASSESSMENT

**Monterra Overview:** Geography is complex and provides numerous natural vulnerabilities and barriers which have been mitigated in the following manner:

**Fencing and Landscaping:** Per development order, city and county code, the perimeter and roadways of Monterra are either fenced, walled, or landscaped with generously wide buffers.

**Roadways and Walks:** Monterra roadways are generously designed and well landscaped. Walkways are placed in highly visible locations in a majority of traffic areas with few exceptions and lighting is well placed with noted exceptions.

### Remote Areas:

1. The FPL easement/linear park is a valuable passive recreation feature. It also poses remote, difficulty to observe the area that allows unobserved travel through the core of the community. It is well landscaped and fenced and marshy conditions limit its use outside of paved walkway.
2. Nature Preserves are fenced and of limited exposure to costly vandalism. They do allow for concealment and congregation.
3. Lake and Perimeter Easements: Several remote areas are created by the geometry of lakes, perimeter walls and fences, homes and preserve fence line. These conditions do not have prescribed paved walkways or lighting and allow for foot travel and concealment.

**Main Entry Gate:** Off of Pine Island both Estada and several communities on the east side require entry through a gate system both with a staffed entry point, barrier arm, and heavy iron gate.

1. Security Features: Live Feed Cameras - 2 per lane are placed to identify and or document vehicle traffic entry and exit. Vehicle tags are captured electronically and appear to be archived locally by manual retrieval. Camera visibility and impact are low – knowledge that the camera is documenting tags is low and understated.
2. Guard presence, via soft gate procedures allow inquiry and voluntary inspection of Identification/Drivers License. This data is recorded in an analog hand written format. Consistency of Guards dialogue and procedures is not fully observed or documented in post orders. Presently impact does not extend far beyond wearing of a similar non-descript uniform.
3. Overall Appearance: Staffed Gate is well designed, maintained, and adequate for desired deterrence.
4. Computer Systems: Current software provides camera and resident data independently. Online interaction and data search issues have been reported as problematic and worthy of greater analysis and upgrades.

### Remote Gates:

1. Security Features: Live Feed Cameras - 1 per lane are placed to identify and or document vehicle traffic entry and exit. Vehicle tags are captured electronically and appear to be archived locally

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by manual retrieval. Camera visibility and impact are low – knowledge that the camera is documenting tags is low and understated.

2. Guard presence; No Guards are posted though a small guard facility is located in the median.
3. Overall Appearance: Iron bar designed gates impact deterrence however monitoring capability is limited.
4. Computer Systems: Current software is Miami Management proprietary with a Proprietary Security Software which provides camera and resident data independently. Internet or phone are not fully available at remote sites. A proposal for a visitor call box may alter the analysis of the remote gates. This feature when installed may need fuller review of system wide capabilities and integration.

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## V. MONTERRA SECURITY – A WAY FORWARD

Every aspect of the current security envelope can be increased, improved, or enhanced in some fashion. To determine the best path, cost-benefit analysis or weighing each area and element with the benefit and impact, indirectly or directly is required. The relative costs for each upgrade in various scales are provided to initiate the analysis.

Human Sensing is an area of improvement that costs very little, but is the most difficult to establish on a permanent basis. It must be constant and culturally engrained. Guard policy review, training and retraining, resident educational programs, and communication strategies need to be devised and committed to perpetually.

Off Duty BSO Patrol – This added feature can be tailored and adjusted unlike many elements of security. Ramping up Off Duty as a reaction to incidents is effective, however proactive usage can serve to prevent incidents and establish a higher perception to residents and deterrent factor as a target.

Full Off Duty Patrol 24/7 is of course the most aggressive model. Some situations even choose multiple officers simultaneously. For this analysis one officer for the entire community is evaluated.

Cost Factors:

Option 1:

<b>24/7 Patrol Option</b>	<b>Hours per Week</b>	<b>Weekly Hrs</b>	<b>Rate Annually</b>
	168	8,736	\$ 349,440
<b>Set up, Software and Scheduling</b>			\$ 15,000
<b>Savings - Security Reduction</b>	168	8,736	\$ (115,315)
<b>Total</b>			<b>\$ 249,125</b>
<b>Cost Per Resident</b>			<b>\$ 226</b>

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Option 2:

<b>Security Budget and Schedule Planning</b>		Off Duty officer projected at \$40.00				
	<b>Night Sun-Wed</b>	<b>Night Thur-Sat</b>	<b>Day Sun-Wed</b>	<b>Day Thur-Sat</b>	<b>Rate Total Hrs</b>	<b>\$40.00 Cost</b>
<b>Weekly Hrs.</b>	12.00	15.00	12.00	9.00	48.00	\$ 1,920
<b>Yearly</b>	624	780	624	468	2,496	\$ 99,840
<b>Random Drop*</b>	156	-	156	156	468	\$ 18,720
	468	780	468	312	2,028	\$ 81,120
<b>Software and schedule coordination</b>					Support Costs	\$ 15,000
Savings For Security Reduction					2,028	\$ (26,770)
Schedule detail:					<b>Total</b>	<b>\$ 69,350</b>
Thurs & Fri Nights at 6-9pm and 9-1am					<b>Cost per resident</b>	<b>\$ 63</b>
Sat. Night 3pm-6pm, 6pm-9pm, 9pm-1am						
*(Random drop is a reduction of 3 weekly)						
Sun-Wed 3pm-6pm						

The two options presented demonstrate the range from full coverage to strategically schedule in line with highest incident/risk time slots. Balancing the need with the impact, the overall cost benefit of Option 2 is nearly as effective with enormous cost savings. The use of a random pattern increases saving with unpredictable elements. This combined with the BSO shift patrol and its random function lowers coverage risks significantly. Full reduction hour for hour of contracted unarmed security patrol may also be altered to provide optimal support. School drop off time zones may benefit from added staffing and this can be added easily with small cost factors.

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## Security System Up-Grades:

Presently Monterra utilizes a camera and gate array that is under-utilized potentially.

1. Staffing: Adding a guard at University Gate would extend human sensing capabilities and noted interactions with residents as discussed. These are significant preventative and perception elements. Costs annually for staffing is \$120,000. Equipment and operation requirements are roughly \$15,000 and annually \$5,000-6,000 for budget purposes. These estimates include computer and minimal integration levels. Operating with these minimums does effect overall impact to be considered.
2. Gate Camera upgrades: Gate Capture array is limited to one to two images at each entry lane. The effectiveness of this would be significantly more effective connecting driver and car from another angle. Correlating another view angle by adding approximately 8 cameras at Monterra Blvd. and 4 cameras at remote gates would balance this security weakness. One camera would be located to increase the appearance of tag reading which is not readily apparent to visitors. Costs typically are \$3,000 per camera however packaged with software and upgrading existing equipment will require full system analysis and effect decision planning. An annual budget of \$10,000 could allow for gradual implementation and allow for replacement and upgrades once completed in 3-5 years. This could be accelerated or revised when considering other cost factors and benefits. Guard focused cameras funded by the security company lowers supervisor work load, provides accountability and greater consistency.
3. Remote Sensing: The geometry of lakes, roads and FPL Easement expose Monterra to numerous areas invisible to patrol and vulnerable to easy access and escape factors. The goal of establishing Monterra as a hard or risky target as well as a safety factor for those enjoying these areas is highly valued.
  - a. Remote Camera systems are server based and assembled in an effective package combining motion sensors with intelligent cameral analytics. These are projected at \$35,000 per area for a dual system. This includes multiple pole mounted tamper proof systems. It is recommended that each package be introduced annually and when all areas are covered funds be dedicated to replacement. Technological obsolescence and life span is 3-5 years. Some locations do not need a dual system.
  - b. Costs exclude the reality of a remote setup infrastructure – this issue has a solution that is quite effective and economical. A privately owned home is partnered with and used to base electric and internet access. The packages are placed in optimal site with shortest possible power and network hubs hosted by a homeowner-CDD arrangement. The homeowner volunteers to fund power (minimal costs to them) and the CDD funds a static IP internet system. Effective separation of the CDD and resident service is fairly easy with modern router programming and partitions. Phone or cable costs are funded by the CDD. This arrangement is popular and far less expensive. New internet and electric costs for connecting without this approach can range \$20,000 to \$50,000 each making the program cost prohibitive to most communities. An annual CDD budget of \$50,000 would provide full coverage in 3-5 years and include operating costs. A diagram of areas to receive

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remote sensing package is available separately and would be installed in greatest impact priority.

- c. Privacy – remote cameras are programmed to black out limited views with sensitivity to community comfort. Security elements are also not immediately subject to Florida Sunshine laws. These issues when properly managed pose little negative.
4. Maintenance – Fencing, Landscape, Pressure Cleaning, and Lighting
  - a. Fencing and landscape buffers – areas identified as best suited for fencing and repairs to fencing should be budgeted. Generally, accurate estimates and areas have not been identified at this time. Commercial parcels also effect a majority of these areas and are incomplete.
  - b. Plant replacement is budgeted and has been partly deferred at the pace this report envisions. A full response and replacement estimate is approximately a \$50,000 increase compared to similarly size communities. Fertilization investment may serve to hold this estimate
  - c. Pressure Cleaning and touch up painting is being performed at appropriate levels for the age of the community. However, any vandalism or change in appearance must be met and corrected instantly.
  - d. Lighting is generally sufficient for roadways, however any dark paved areas would need lighting upgrades. Darker remote areas may benefit by increased lighting. Landscape lighting (up lighting and down lighting) instead of standard pedestrian lighting provides aesthetic impact as well as adequate ambient effects.
5. Budget – Included is a budget that characterizes an annual approach spreading the investment across each technology evenly with a capitalization over 3 and 4 years. At year 5, recapitalizing is likely. This strategy gains the greatest security increase each year and leaving a smaller vulnerability and does not leave one area unserved or exposed. This also prevents a full replacement cost spiking in a budget year. Annual program costs are shown should one area of need be chosen. Start-up costs for infrastructure are captured as best possible but purchasing items in different amounts or order can trigger costs variance. Any budget amount provided can be placed in a strategic plan to be optimized.
6. Cash Flow Advantage – this approach to programming a service adapts well to the fiscal timing and variability of a CDD. Costs for off-duty patrols are none-contractual and allow for quick alterations creating a funding source. Capital purchase timing can be adjusted throughout each year to match available funds.

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## CONSOLIDATED BUDGET

Security Budget Consolidated Costs		Year 1 & Annual	Total Program Capital Costs
<b>Off Duty Strategic Coverage</b>		<u>70,000</u>	<u>n/a</u>
<b>Remote Sensing Basic Infrastructure Software and Server/Support Camera Systems</b>		<u>12,500</u>	<u>7,500</u>
Location 1	Year 1	35,000	35,000
Location 2	Year 2		35,000
Location 3 & 4	Year 3		35,000
Location 5 & 6	Year 4		35,000
Total		<u>35,000</u>	<u>147,500</u>
<b>Gate Upgrades</b>			
Software Conversion/support		5,500	5,500
Main Gate		4,500	4,500
University Gate	Year 2		6,000
Resident Gate 1	Year 2		6,000
Resident Gate 2	Year 3		6,000
Misc. Upgrades			4,000
Total		<u>10,000</u>	<u>32,000</u>
<b>Total</b>		<u>127,500</u>	<u>187,000</u>

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## Optional Programs

### Guard Staffing Upgrade

University Gate	\$120,000
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<b>24/7 Off Duty BSO</b>	<b>\$250,000</b>
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