The College Hill community, on the northern end of Cincinnati, is a neighborhood of about 17,000 people. The business district is about a half-mile long, concentrated along Hamilton Avenue—a main north-south artery. About a quarter mile west of Hamilton Avenue is Aiken High School, a Cincinnati public school with 1,400 students. The school serves students from all over the city, has a drop-out rate of 50 percent, and, academically, is one of the lowest performing schools in the area.

College Hill is one of eight neighborhoods served by the Cincinnati Police Division's District Five. District Five has a community-oriented police (COP) program, with a neighborhood officer assigned to each community. Before

Continued on page 2
generated more calls than any other location in its beat—287 calls during an eight-month period. The majority were for public intoxication, although assaults and disturbances greatly contributed to the call volume. Equally significant, Cowboys ranked at the top, or near the top, of the list of locations generating DWI arrests. From a police perspective, Cowboys presented a unique set of problems, given its sheer size and customer capacity. Our traditional response to these problems was to simply assign additional personnel or insert task forces to deal with specific outcomes, as opposed to dealing with the causes of the problems we encountered. While these traditional responses may have achieved some short-term success, they did not lead to the long-term solution we were seeking.

In December 1996 and January 1997, we convened several meetings with officers and supervisors who worked the beats impacted by Cowboys. The purpose was to determine the extent and scope of the problem, beyond what could be learned from a straightforward analysis of the data. In other words, we wanted to scan the problem from both an analytical, or data-driven approach, and an experiential, or anecdotal, approach. These meetings were very insightful and the results provided a more thorough analysis and a firm basis for our problem-solving efforts. Three significant problems that consistently required an inordinate amount of police resources were identified:

- a high number of assaults occurring at the club, both inside and in the parking lot;
- a high number of calls for police service to respond to both assaults and intoxicated persons; and
- the significant amount of time required to complete these calls.

An important component of our problem solving was the development of a partnership between the department and the club's management. Management's willingness to cooperate with the police to create a safe environment for their customers was critical to the program's overall success. Quite frankly, we are not sure how successful our efforts would have been without this level of cooperation.

In late January 1997, the police department met with Cowboys' management to develop a cooperative agreement to reduce demands on police service and provide a higher level of safety for club customers. This meeting resulted in five specific programs designed to meet these goals. The club's management agreed to the following steps:

- Create a database of patrons arrested at, or ejected from, the club. Customers entering the club must show identification and if their names are in the database they are not allowed to enter.

The problem-solving model helped us realize that the only effective way to deal with the problems outside the club was to deal with behavior inside the club.

- Give all people arrested at the club a criminal trespass warning and advise them not to return to the club.
- Provide more training to Cowboys beverage servers in how to recognize intoxicated patrons.
- Continually reinforce to their beverage servers that intoxicated customers are not to be served any more alcoholic beverages.
- Quickly identify patrons who have had too much to drink and ask them to stop consuming alcoholic beverages before any disturbance starts.

In turn, the police department provided the training needed to help beverage servers better recognize when patrons become intoxicated. We also agreed to be present when club personnel gave crimi-
1996, although reported crime had increased in the community, College Hill was the lowest crime area in District Five. Most complaints centered around the intersection of Cedar and Hamilton, where groups of teens loitered. The intersection was a constant source of fights, drug dealing complaints, and complaints of disrespectful teens intimidating and scaring customers away from businesses. Partly in response to these complaints, a second neighborhood officer was assigned to College Hill in early 1996. Due to staff changes, both neighborhood officers were newly assigned to the area.

In late 1996, crime in College Hill took a major and violent turn upward with a series of aggravated robberies aimed at local businesses. Within a six-month period, two of the three banks in the neighborhood were each robbed twice, a jewelry store and auto repair business were both robbed, and two customers leaving a local restaurant were robbed at gunpoint.

During the same period, teen gangs began using the community for crime-related initiation activities, including daytime residential burglaries and late-night forays down Hamilton Ave. to break store windows.

Local news coverage of the events, largely focusing on the gang angle, contributed to a feeling that the community was deteriorating rapidly, and that crime and violence were out of control. Some business people began talking openly about moving from the neighborhood.

In response, in early December 1996, District Five began providing an increased police presence in the neighborhood. The increased presence included additional patrol officers, heavy use of bike patrol, a decoy car parked in the business district, and increased foot patrol by the neighborhood officers.

In late December, the College Hill Business Association organized a community meeting to discuss the crime prob-

lem. Five of Cincinnati’s nine city council members, the city manager, District Five personnel (including the captain and district COP sergeant), and several hundred citizens attended the meeting.

The community's most pressing concerns were as follows:

Citizens were concerned about the business district's future viability. One of the twice-robbed banks had closed—a decision the bank's management insisted had been made in 1995. But a number of community members feared that crime had caused the closing and that other businesses were sure to follow.

Residents perceived the closing of a local business as a sign of increasing crime problems, and it added to their fear and concerns about the neighborhood.

- Open drug dealing and disorderly groups continued to cause problems at Cedar and Hamilton.
- Aiken High School students loitering in the business district intimidated customers and business people.
- The residents were concerned about police presence and response, particularly since College Hill was on the northern border of the city—the most distant area from the district police station.

Analysis

Analysis of the situation was helped enormously by district officers’ participation in a week-long problem-oriented policing training program in Kentucky in December 1996. Sergeant Howard Rahtz, the commander of the District Five COP unit, and Officer Bret Isaac, a District Five neighborhood officer, attended the training. As part of the training, Rahtz presented the College Hill problem for the training group to analyze and discuss. Their insights and contributions were included in the overall analysis.

Monthly crime reports, radio runs to the neighborhood (by hour and location) and drug arrest activity were analyzed. Rahtz and neighborhood officers Leroy Brazile and Richard Antwine walked the business district, interviewing business people and customers about their concerns and problems. District Five relief officers and investigators assigned to College Hill provided input via Beat Action Team (BAT) meetings organized by the COP unit.

The data indicated that Cedar and Hamilton was the main trouble spot in the neighborhood. Groups of teens and young adults gathered on all four corners, beginning after school hours. The crowds of teens used a bus stop and pay phone on the corner. Residents perceived these gatherings as drug-related. Previous action to block incoming calls to the phone did not noticeably change the situation.

Two bars at Cedar and Hamilton, Shaker's and Ken's Place, were focal points of late-night problems with crowds, fights and disorderly patrons leaving at closing time. The parking lot behind Shaker's bar was unlighted and officers responding to crowd problems were assaulted and had rocks and bottles thrown at them. In the morning, the sidewalks and streets were covered with broken bottles and trash left by the previous night's crowd.

There were also street-level drug sales occurring, again beginning in late afternoon, after school let out. Beat officers noted that many dealers and customers had been displaced from an adjoining neighborhood after intensive enforcement action there.

Both officers and citizens also identified teens on the street during the day as a problem. Suspects in the daytime burglaries were believed to be teen gang mem-

Continued on page 4
bers, and business people complained of
teenagers gathering in the business district
during school hours. Truant enforcement
by district officers was complicated by
two special programs at Aiken High
School: the Occupational Work
Evaluation (OWE) program and the 8
Plus program. The OWE students were
released from school to either work or
seek work, while the 8 Plus program
served teens who were 16 years old but
had not yet passed the eighth grade. Both
of these programs discharged students at
10:30 a.m. District officers jokingly
referred to the OWE program as "Out
Walking Everywhere."

Fear of crime, particularly in the busi-
ness district, was widespread. No arrests
were made in the aggravated robberies,
and this intensified the community's
belief that the suspects would continue to
prey on the neighborhood.

**Response**

**Fear of Crime.** The first response steps
were designed to stabilize the situation
and reduce fear of crime in the business
district. The neighborhood officers' hours
were staggered to cover the neighborhood
from 9 a.m. to 9 p.m., which covered the
open hours of almost all of the neighbor-
hood businesses. Neighborhood officers
visited each business to develop a list of
closing hours for each business, and both
relief and neighborhood officers increased
their presence at business closing times.
Business employees were instructed to
report any suspicious activity, and those
who felt particularly anxious were invited
call for a police escort.

This step had the additional benefit of
introducing the new neighborhood offi-
cers to the business owners. All the own-
ers received the officers' office and pager
numbers and were encouraged to call with
problems. In addition, neighborhood offi-
cers were instructed to provide more
detail in their monthly crime reports to
civic and business groups. For example,
many of the assaults reported involved
acquaintances, but without this detail,
many citizens assumed that the assaults
were random, stranger-to-stranger attacks.

One of the banks that had been robbed
twice hired an off-duty police officer for
security during bank hours. This security
detail, located in the center of the busi-
ness district, provided a sense of security
not only for the bank, but also for the
other businesses in the immediate area.

One of the most popular community
requests was for a police substation. The
business association took this on as a pro-
ject, raising money to support a substation
and finding a suitable location.

**Officers clarified the rules for
when students were allowed to
leave school early, and were
then able to step up their
truancy enforcement.**

**Cedar and Hamilton Intersection.** To
address officer safety concerns, one of the
first response steps in this area was to
relight the parking lot behind Shaker's.
This turned out to be expensive and com-
plicated. The lights were on 75-foot poles
and were owned by six different busi-
esses with buildings adjoining the lot. The 11
bulbs that needed to be replaced cost $30
each and an electrical service company
with a cherry picker was needed to install
them, at a cost of $500. In addition, the
businesses could not initially agree on a
formula for paying the monthly bill.
Ultimately, a local hardware store donated
the bulbs at cost. District Five brokered a
cost-sharing agreement for the monthly
bill, and the Cincinnati Fire Division
agreed to install the bulbs as a training
exercise.

Two other physical changes were
attempted. Armed with data on radio runs
and petitions from business owners, offi-
cers had the pay phone on the corner
removed. A similar attempt to have the
corner bus stop moved was not successful.

As improvements were made, Ken's
Place was clearly identified as the primary
source of late-night problems in the area.
After repeated conversations between
District Five and the owner, it became
apparent that the owner was either unable
or unwilling to control his patrons.

District Five then turned to the owner
of the building housing Ken's Place. After
each arrest or incident in and around
Ken's, officers contacted the landlord and
sent a follow-up letter. Within 60 days,
the landlord had seen enough and evicted
the bar owner.

**Teens on the Street.** The district had a
strong truancy enforcement effort in the
1995–96 school year. Truants were picked
up, given juvenile referrals that amounted
to a written warning, and returned to
school. After consultation with school
officials, the officers decided to strength-
en the effort in the 1996–97 school year.
The new policy called for a written warn-
ing on the first truant offense, a cite to
court requiring a parental appearance on
the second offense, and physical arrests
for any subsequent offenses.

Conversations with school board offi-
cials about the 8 Plus and OWE programs
helped to clarify enforcement options for
program participants. Teens in these pro-
grams were only to be released at 10:30
a.m. with a confirmed job or a confirmed
interview to attend. Dismissal at 10:30
based on a teen’s vague promise to look
for a job was minimized, and students
found loitering in the business district
under the pretense of seeking work were
from then on treated as truants.

Neighborhood officers concentrated on
the Cedar and Hamilton area during the
period immediately following school clos-
ing at 2:15 p.m. Surveillance from area
buildings led to several drug arrests, with
officers asking that those arrested be
barred from the area as a condition of
bond. Combined with increased foot
patrol, the increased patrol and surveil-
ance were meant to encourage teens to
move through the area rather than congre-
gate on the corners.
Assessment

Crime in College Hill, particularly violent crime, declined substantially during the first half of 1997. There were 63 robberies in College Hill in 1996, while there were only 14 robberies between Jan. 1 and June 30, 1997. Through June 30, Part I crime declined 9 percent and violent crime decreased 34 percent, compared with the same period in 1996.

In July 1997, there was a rash of robberies—six in a two-week period. Two suspects were identified, but there was not enough evidence to charge them. The robberies have, however, declined since that time. There was one robbery in late August and one in September, and arrests were made in both cases.

The only other offenses involving businesses so far in 1997 have been two broken windows. One was a criminal damaging, while the other involved patrons of Ken’s Place (before the business was closed) breaking a window of a neighboring business during a fight.

Based on informal surveys of business owners, the fear of crime is substantially reduced. This is partially attributable to the actual reduction in crime, but also to the belief that more police are patrolling the area. Even though the level of police presence has returned to approximately what it was before December 1996, the perception of more officers persists. This is partially due to the highly visible neighborhood officer foot patrol in the business district.

It is interesting that not a single business employee requested police escort services at closing time. The offer itself probably carried enough assurance of immediate police presence that the actual escort was not needed.

The situation at Cedar and Hamilton is much improved, based on radio runs and crime statistics as well as the reports of business owners. One shop owner who used to regularly observe open drug dealing now reports negligible activity. Some of the former drug dealers appear now and then, which the business owner faithfully reports, but none appear to be doing business in the area.

A barbecue restaurant is moving into the space formerly occupied by Ken’s. The owner has made substantial improvements to the storefront, improving and upgrading the physical appearance. A vacant building just to the north of the corner has been purchased by an NFL player with roots in the community. He intends to convert the space into a mini-mall with a variety of retail services.

Neighborhood improvements include an initial decline in violent crime, and the move of a reputable business into the space formally occupied by a troublesome night spot.

The College Hill police substation opened in June 1997 and is located 50 feet from the Cedar and Hamilton intersection. The business association covered all expenses of equipping the substation, and the space is donated. Residents are enthusiastic about the substation. One local businessman reported that a drug dealer who previously loitered in the area told him that the substation "scared them [the dealers] away."

During the day, the business district is empty of teenagers. District Five efforts to clarify the status of students in the 8 Plus and OWE programs have led to the school issuing fewer passes to these students, and a clear understanding that the passes do not constitute permission to hang out in the business district. Nearly every school day, the district fields a truant enforcement car. Arrests of truants in District Five exceed the total number of truant arrests in the other four city districts combined.

College Hill citizens are aware of the priority of truant enforcement, and will call the police when they observe children on the street who they believe should be in school. One such call in January 1997 led to the arrest of the teens doing the daytime burglaries as their gang initiation. These arrests cleared 10 offenses.

Whether the successes in College Hill can be sustained will be determined in part by the business district’s continued viability. The improvements thus far are obvious, but time will tell whether they are substantial enough to reverse the long-term decline.

From the police perspective, the most important elements for the future appear to be continued heavy truant enforcement and effective substation use. Changes in the school system or police division priorities could potentially reduce the emphasis on truancy. And the history of substations in Cincinnati is a pattern of heavy use initially, followed by a gradual decline in use, until only a few officers are using the space periodically. The community clearly anticipates that the substation will mean increased police presence, specifically at Cedar and Hamilton, with an officer on site most of the time. It will be up to District Five officers to maintain enough presence at the substation to sustain its effectiveness.
Back to Basics: Problem Solving Traps and Tips

Though the SARA model is clear and straightforward on paper, police problem solvers know that, when applying the model to a complex community problem, the steps aren’t always so easy. It is common for police problem solvers, no matter how well-intentioned, skilled and well-trained, to fall into some problem-solving “traps” that stall them in their efforts to solve community problems.

Scanning and Analysis Traps and Tips

The first two steps of the SARA model are the foundation of an effective problem-solving process, and there are several common traps that problem solvers encounter. Before discussing traps and tips, we’ll review the basics of each step.

During the scanning phase of the SARA model, officers identify neighborhood problems. Thorough problem identification usually stems from officer observations and police calls for service, crime analysis, and/or citizen observations and complaints. A problem is defined as two or more incidents that are similar in nature, capable of causing harm, and that the public expects the police to do something about.

The analysis phase involves collecting additional information from officers and community residents about the causes of the problem or problems identified. It is often helpful to gather information about what is happening before, during and after the identified problem occurs. Analysis requires examining when the problem occurs and for how long, and hypothesizing from that information why the problem occurs. Finally, before moving onto the response phase, problem solvers identify a goal for reducing or eliminating the problem or the harms caused by the problem, and identify resources, both within the police department and in the community, that may be available to respond to the problem. It is also helpful to examine previous responses to the problem, to see what has not worked in the past.

Tip #1: Before leaving the scanning stage of problem solving, make sure to talk to community residents about their concerns, and include those concerns on your list of identified problems. When you prioritize one problem to focus on, you may not necessarily select a citizen-identified problem, but those problems that are mentioned repeatedly or that appear to be linked to other problems are good candidates for the problem-solving approach.

Tip #2: Memorize the definition of a “problem,” you’ve identified an “incident.” In problem-oriented policing, officers concentrate on things that happen repeatedly. Isolated incidents, though they may require a police response, are not the basis of a problem-solving effort.

Tip #3: Make sure you have collected information about the WHO, WHAT,

WHERE, WHEN and WHY of the problem. You know you have enough information when you can describe the problem in enough detail that a stranger could go to the location and observe the problem exactly as you have described it.

Tip #4: You haven’t collected information from enough people and/or you didn’t follow up with them. Talking with community residents and business owners can be time-consuming and awkward for some officers. This may cause them to stop collecting information before they’ve properly identified the problem.

Tip #5: Time spent in these early stages will mean less time spent later on. Use the community as a resource to collect information. Make sure to set deadlines and opportunities for follow-up.

Tip #6: When determining why a problem occurs, you identify conditions that are too far-removed from the problem or too general for the police to address. For example, officers addressing a problem with disruptive youths could conclude that the problem is occurring because parents don’t discipline their kids, or because kids have no respect for adults. While these conclusions may be true in some sense, they are far-removed from the problem and much too broad for police officers to address effectively.

Tip #6: Focus on those conditions that are close in time and space to the problem. For example, disruptive kids who are
hanging out, vandalizing property, drinking in public, etc., may do so because there is no surveillance of the area where they hang out, residents are afraid to ask them to leave, and the corner liquor store sells them alcohol even though they are underage. These problems can be addressed with specific responses, while broader issues are too overwhelming to address with the problem-solving approach.

**Trap #7: Your explanation is too simple.** In general, if you've developed an explanation that seems too simple, it probably is. Community problems are usually complex. For example, it would likely be inaccurate to simply attribute regular drug-dealing in a public park to poor lighting. That may be one factor in creating the problem, but it is probably not the only one.

Tip #7: Don't stop at identifying one reason for the problem. The cause is probably a combination of several reasons.

**Trap #8: You set an unrealistic goal.** It may seem desirable to set a goal of completely eliminating the problem, but this may set you, and the community, up for failure and frustration.

Tip #8: Set goals to reduce problems or their harms, or to improve conditions. By setting realistic goals, you stand a better chance of succeeding.

### Response and Assessment Traps and Tips

The basic steps in the response stage are to brainstorm a list of response options, choose those that are most feasible given time and money constraints (i.e., conduct a cost/benefit analysis), set realistic goals for the response, determine how to measure the response's impact (i.e., What conditions will exist that will show that the response was effective?), and develop plans to handle problems that might come up during the response.

Once the response has been implemented, assessment begins. The first stage in a thorough assessment is to evaluate whether the response was implemented as planned—this type of assessment is often referred to as a "process evaluation." This step helps problem solvers see whether the effects of the response are due to the plan itself, or some failure to implement the plan as intended. The second stage of assessment is to see whether the response affected the problem as outlined in the goals—Did the response achieve what it was meant to achieve? During this phase, problem solvers compare the post-response situation to the situation identified in the scanning phase, using calls-for-service data as well as community and officer observation.

**Traps in the response stage involve setting unrealistic goals or rejecting all response options because they require too many resources to implement.**

**Trap #1: You attempt a brainstorming session with the community and it cannot get off the ground.** If the problem-solving effort truly involves all those affected by the problem, such as police, neighborhood residents and community organizations, the brainstorming group may include people who don’t know each other well. People may be intimidated or shy, and fail to speak up.

Tip #1: Start the discussion with some structure to help the group loosen up. Suggest that the group develop responses from each of three categories: 1) traditional responses, such as arrests or surveillance; 2) collaborative responses, which involve community members in such activities as tutoring or cleaning up public spaces; and 3) referrals to other agencies, such as asking the zoning department to address building code violations or the public works department to remove trash.

**Trap #2: Your cost/benefit analysis eliminates all of your response options.** Sometimes the costs (time and money) of each of your potential response options will be too high.

Tip #2: Scale down the extent of one or more options, or implement one piece of a multi-step response. For example, instead of deciding to arrest every youth engaged in vandalism or underage drinking in a particular area, focus on identifying and arresting those youths who are violating their probation by participating in these behaviors.

**Trap #3: Your goals are unrealistic.** Sometimes the easiest goal to set may be the most difficult goal to achieve. For example, it may be easy to set a goal of keeping teenagers away from the park because so many of them cause problems. But ridding a public space of all teenagers would be difficult to achieve—not to mention the additional problems it would cause for law-abiding teens and their families.

Tip #3: Be more realistic about what can be achieved. For example, it is more manageable to limit park access only for those kids causing trouble, or to make it harder for the kids to engage in problem behavior. This type of goal setting will reduce feelings of failure later on.

**Trap #4: You encounter resistance from outsiders when you implement your plan.** Once you start to act, your plan will come under the scrutiny of a wider range of people, both in the department and the community. These individuals may be critical of your efforts or attempt to stop them.

Tip #4: Involve as many people in planning the response as you think are likely to be affected by it. This type of troubleshooting is an essential part of any change process and can make the plan implementation go much more smoothly.

**Trap #5: Your assessment focuses only on those activities that are in the response plan, rather than on what happens to the problem.** A common mistake in assessment is to concentrate only on participation in the response. **Continued on page 8**
Problem Solving Quarterly Submission Guidelines

PERF invites submissions of articles describing successful problem-solving projects. Articles should discuss the four phases of the effort:

1. **Seaming**: Who was the problem? How and by whom was it identified?

2. **Assessment**: What methods, data and information sources were used to analyze the problem? What did the analysis reveal about the nature and extent of the problem? How was the community involved in analyzing the problem?

3. **Response**: What responses were considered? What responses were implemented, and how were they developed as a result of analysis? What was the goal of the response plan?

4. **Assessment**: What were the results? How were results evaluated, and for how long? Was the response goal accomplished? Are there any efforts underway to maintain or monitor the long-term results of the project?

**Send submissions to**

**Problem Solving Quarterly**

1120 Conn. Ave. NW
Suite 930
Washington, DC 20036
(202) 466-7820
Fax: (202) 466-7826

**TIPs and TIPS from page 7**

_effort—for example, how many arrests were made, how many materials were donated, or how many neighbors cleaned up the park. These assessments will not reveal whether the efforts actually reduced or eliminated the problem._

**Tip #5**: Make sure the assessment examines whether response goals were attained as a result of response activities.

**Trap #6**: Your calls-for-service data show an increase in the problem after you implement the plan, so you assume the response didn’t work.

**Tip #6**: It is common for calls to increase once residents begin paying attention to a problem, especially when police have invited them to participate in observing and responding to the problem. Use a variety of sources to measure impact, so that calls-for-service data can be viewed in light of other assessment data. A variety of sources will provide a complete picture of whether more calls for service indicate a worsening problem or an effective response.

**Trap #7**: You begin assessing the impact of the response and see no change. In the early stages of assessment, you may find that your goals have not been accomplished, although the situation appears headed in the right direction. Initial assessment data that shows little change may lead to frustration and a desire to give up or try another response.

**Tip #7**: It is important to remember that problems don’t disappear simply because someone has implemented a plan. Successful problem reduction takes time. Wait an adequate amount of time before making conclusions about the response’s impact.

**Trap #8**: Your problem comes back. Even with the best problem-solving plan and the best outcome, many problems recur. In some cases, chronic or difficult problems will re-emerge after the plan activities have dropped off.

**Tip #8**: Work with the community to maintain the response activities. Encourage citizens to be diligent about contacting you if the problem re-emerges, so that problems can be addressed promptly, before they become entrenched.

Have you faced additional problem-solving traps and developed ways to avoid or overcome them? If so, please let us know, and we’ll publish additional “Traps and Tips” in the future.

_Tips and Tricks were developed by PERF staff members and consultants as part of their development of problem-solving training materials for the Community Policing Consortium._

**New Program Evaluation Book Available**

Need more information about how to conduct research for your problem analysis? Want to know more about how to evaluate your problem-solving efforts using methods that will stand up to even the most critical scrutiny? PERF’s latest book, Police Program Evaluation, includes five chapters written by top researchers on how to evaluate a variety of police programs. Chapters cover the rationale for program evaluation, as well as specific guidance on how to evaluate tactical patrol, community policing, proactive investigations, and differential police response. The authors explain various evaluation models that police practitioners can apply to a variety of programs and tactics. This book (product #815) is available from PERF for $18.95 for PERF members, and $21 for nonmembers (plus shipping and handling). Other new PERF publications discuss policing a multicultural community, what makes neighborhood police teams effective, and a new way to measure police use of force. To order these or any other PERF publications, or to request a free publications catalog, call the toll-free PERF publications number: 1-888-202-4563.
Recognizing the problem’s persistence and the limitations of current security measures, the security coordinator contacted Constable Tom McKay of the Peel Regional Police Crime Prevention Services. McKay arranged for an on-site visit and statistical review of the property.

The environment allowed criminals easy access to all parking lots, and the lots were hidden from the sight of employees, allowing criminals to go about their work without being noticed.

Analysis

The site visit revealed an unusual set of circumstances that resulted in a property contrary to good crime prevention through environmental design (CPTED) planning. (See Figure 1.) A primary problem was the phased development and continual expansion of a "reverse frontage" property where the property's best source of natural surveillance—a large office-style administration building—was located on the property's south end, almost a full block away from the property's two main northern entry points. Compounding this problem were two massive, conventionally styled production and warehouse facilities located between the administration building and the two main entrances. These buildings completely blocked the administration building’s view of the entrance, and resulted in a very long and narrow central parking lot, which was also poorly overlooked by the administration building and the largely blank walls of the production and warehouse facilities.

These blank warehouse walls also resulted in an extremely anonymous environment opposite the two main driveway entrances. This, along with an extremely large gap in the perimeter fencing on the property’s north side, resulted in a property that was both easily and discreetly entered by offenders.

Once inside the property, offenders could follow the driveways to the central or west parking lots. The west parking lot was also poorly overlooked by the manufacturing facilities’ blank walls.

Anonymous and easy entry was also possible at a third eastern parking lot, which was not being used. This parking lot, which was associated with a vacant building next to the main lot’s northeast corner, could be directly entered from any one of its three unrestricted entrances. It became clear that the number of entrances far exceeded the need, and made it easier for trespassers to enter the property. Another factor contributing to an easily trespassed environment was the absence of activity at the property’s north end, due to the vacant building. The net impact of these factors was a property with a wide-open “back door” that both supported and, apparently, attracted criminals.

Response

A range of CPTED-style interventions were considered for this property. The primary goal was to develop a series of clearly marked transitional zones that would help better control and define the movement from public to private space.

A plan was developed to meet the identified needs and accommodate the coincident development of a new training center in the vacant building. The response plan had several components:

- the closing of the three external driveways to the new training center’s parking lot;
- the development of an internal roadway linking the training center and main parking lots;
- the extension of the 12-foot iron fence across the property’s northern perimeter;

Continued on page 10
The installation of controlled access card-reader gates at the entrances to the east and west employee lots;

- the establishment of a curb along the eastern boundary of the western warehouse lot and modification of the pedestrian ramp once used by a fleeing vehicle; and

- the establishment of a shipping/receiving and visitors gate house strategically located on the northwest corner of the landscaped area north of the central warehouse.

The project took place as a part of Astra’s general capital improvement plan, and was completed for $500,000 (Canadian). Approximately half of those funds paid for extending the 12-foot iron fence, installing the card readers, and removing/upgrading barbed wire fences.

Assessment

The net impact of the first five recommendations was the development of a clearly defined, access-controlled border, which not only limited external entry and escape routes but provided for the development of clearly marked transitional zones between the public roadway, the semiprivate central parking lot with visitor parking areas, and the private employees-only spaces in the east and west parking lots. (See Figure 2.)

The sixth recommendation (the visitors gate) was not implemented. This hampered the overall impact of the CPTED modifications, particularly due to the loss of natural surveillance potential in the west parking lot.

Notwithstanding this limitation, the CPTED improvements, complemented by the training center’s opening, helped develop an effective and efficient environment that significantly reduced criminal activity and better controlled its space.

During the first six months of 1995, when the CPTED assessment was being conducted, police were called to this location 14 times. The calls involved six reports of suspicious vehicles, two stolen autos, two thefts from vehicles and one mischief to auto resulting from an attempted entry.

Figure 1: Astra Facility Before CPTED Intervention
In the six months that followed, which was the first period after the CPTED intervention, calls for police service dropped by 85.7 percent with only a single occurrence in the lots—a motor vehicle hit and run.

This was followed in the next six months by two more occurrences, one of which involved the first motor vehicle theft in over a year. The theft, which occurred in the west parking lot, may have been facilitated by leaving the parking lot gate open during rush hour—a practice that has since been abandoned in favor of greater security.

Calls for service reached a post-intervention low of just one occurrence in the last six months of 1996. This occurrence, which was another car theft, featured a very determined thief who was observed circumventing the closed west parking lot gate by conspicuously driving up and over a curb, as well as over a section of lawn.

In response to this latest incident, a chain and bollard system has been installed in that area, and further improvements will come if the visitors gate plan ever materializes.

This 85.7 to 92.8 percent drop in criminal incidents since the intervention is even more notable, given that it occurred when the property’s guard service had been withdrawn, the number of employees had increased by 40 percent, and the annual rate of auto theft had increased in the region by 21.8 percent.

---

**Figure 2: Astra Facility After CPTED Intervention**
The Police Executive Research Forum (PERF) is a national professional association of law enforcement executives from large and midsized jurisdictions.

**Board of Directors**

President: Gil Kerlikowske  
Vice President: Dennis Nowicki  
Treasurer: Jerry Seders  
At-Large: William Fitraty  
At-Large: Thomas Frazier  
At-Large: Ellen Hanson  
At-Large: John Farrell  
Ex-Oficio: Barbara O’Brien

**Executive Director**

Chuck Wexler

*Problem Solving Quarterly*, published by PERF, seeks to foster exchange of information regarding problem-oriented policing. **Editor:** Ellen Dollar.

---

**Subscribe to Problem Solving Quarterly**

Individual subscription: $251/year  
Agency subscription: $80/year*

**Call PERF’s toll-free order line at (888) 202-4563 to subscribe.**

* Agency subscription includes permission to photocopy as many copies as are needed to distribute throughout the agency.

---

**Problem Solving Quarterly**  
1120 Connecticut Ave. NW  
Suite 930  
Washington, DC 20036