



SKYTRAIN SECURITY

Analysis, Clarity and Action

For years, discussions have been ongoing concerning security issues on SkyTrain. These discussions have revealed significant gaps between public perceptions and incident statistics as well as between public expectations and TransLink's policies or practices. To date, there has only been modest progress toward closing these gaps and, consequently, toward resolving the issues that negatively affect the public's feeling of personal security on the system and its confidence that TransLink is responding appropriately and effectively.

Over the past few months, two studies have focused on bringing more clarity to the factors driving the public's concerns and, based on a better understanding of those factors, creating strategies to improve security, *and the sense of security*, on SkyTrain. Rather than dwelling on 'perception vs. reality' or on 'myth-popping,' one study drilled much more deeply into the issues to discover the fundamentals behind the public's apprehensions. Another involved an analysis of crime and disorder to determine environments and events that signalled insecure conditions to the public.

While certain combinations of crime and disorder clearly heightened the public's feeling of insecurity, others did not. For example, the SkyTrain station judged to be the 'safest' in the public survey had, in fact, one of the highest rates of reported crime in its surrounding area. The 'public' was by no means homogenous in its reaction to certain conditions at or near SkyTrain stations. There were variances according to age and sex based on individuals' assessment of their ability to manage situations. As a result, some stations judged to be among the 'top ten' least safe on the system also appeared on the top ten list of those thought to be the safest.

Analyzed together, the public survey and the crime/disorder study yield strategic directions that are complementary: they satisfy the public's desire for security and address the factors that are known to exist.

Analysis

In summer of 2008, the South Coast British Columbia Transportation Authority Police Service ("Transit Police") undertook an analysis of existing statistics on crime in Metro Vancouver, gathering information from data supplied by the jurisdictional police departments (JPD's). The *LMD SkyTrain Analysis Pilot Project* and the *Lower Mainland SkyTrain Analysis Report* examined criminal activity in the areas surrounding SkyTrain stations.

Data were collected from the Vancouver Police, the New Westminster Police Service, the Burnaby, Surrey and Richmond RCMP detachments as well as the North Vancouver RCMP (for SeaBus terminal data). The former used data gathered over a 28-day period: July 15 – August 11, 2007 and plotted offences generally in the municipalities included in the review, noting those that occurred within 250 metres of a SkyTrain station. The latter study looked at incidents within 100 metres of SkyTrain stations over the year ending April 30, 2008.

There was no attempt to confirm or refute a causal relationship between SkyTrain and crime, but rather to describe the distribution of crime in the areas surrounding the stations. The gathering and analysis of the data will continue over time, developing a "before and after" picture both for the existing SkyTrain system and the Canada Line, due to enter service in the fall of 2009. As that picture comes into focus, it will be possible to measure changes in the nature and extent of crime around the existing system and, as importantly, in areas that will soon host new Canada Line stations.

At the same time, as the police statistics were collected, TransLink conducted two parallel research projects to understand the public's perception of safety and security related to the SkyTrain system.

TransLink's Online Advisory Panel (www.translinklistens.bc.ca) gathered input from 2,700 local residents (of the 6,000 Panel participants) who chose to respond to the "TransLink Listens' survey. The other was data gathered from TransLink's ongoing daily customer service tracking research, a traditional telephone survey of Metro Vancouver residents.

Clarity – Public opinion on Security issues

Starting with the opinion research, findings from the Online Advisory Panel members and the respondents to the telephone survey were similar, although the TransLink Listen panellists tended to be more critical of TransLink's performance due to their greater interest in transportation issues.

TransLink's ongoing customer service tracking research at the time reported that "safety from crime onboard the train" received a 7.3 rating and "safety from crime inside the station" received a 7.1. However, on-line advisors gave a score of 6.2 out of 10 for their feeling of personal security when taking SkyTrain. TransLink's performance management system sets 7/10 as the level below which remedial action is required, and because such a large group of people -- 2,700 -- provided an overall rating that fell below standard, work began to develop a greater understanding of the factors behind this result.

Who has the most concerns about personal security?

Residents of **Surrey, Langley, North Delta and White Rock** are significantly more likely to be concerned for their safety and security on SkyTrain than those along other parts of the system. **Females** are more likely than males to be security conscious, particularly at night, and so are **people who ride SkyTrain infrequently**, possibly because they report a lower awareness of the safety and security features on SkyTrain and in stations.

Younger people (16-24 age range) are **less** likely than others to be concerned for their safety on the system: they're also more likely than the general populace to believe that SkyTrain personnel – SkyTrain Attendants (STAs) and Transit Police – have become more visible in the past two years and to support having armed police on the system.

Safest and least safe stations

Respondents identified five stations as being perceived as “safest”: **Waterfront, Burrard, Metrotown, Granville and Stadium**. They also named the five stations where they felt least safe: **Surrey Central, New Westminster, Broadway, Main Street-Science World and Metrotown**.

The main reasons cited for the feeling of security were:

1. Lots of people around (53%)
2. No ‘unsavoury people’ (defined as loiterers, panhandlers, drug users, etc.) (19%)
3. Visible security (18%)
4. Good ‘sight lines’ (12%)
5. Safe neighbourhood (9%)

The four safest stations also happen to be the top four stations in terms of passenger volume. According to the report, **“Contributing most to feelings of station security is the presence of lots of people. Increasing the presence of SkyTrain staff and reducing the number of loiterers, panhandlers and drug users in and around stations are the most common suggestions for enhancing security.”**

The perceptions of what constitutes a ‘safe neighbourhood’ may be driven more by what the Transit Police refer to as ‘signal conditions’ versus actual crime statistics. As noted later in this paper, an analysis of crime statistics in Metro Vancouver finds that the neighbourhood around the Waterfront Station has the highest level of crime of all areas adjacent to SkyTrain stations. However, the perception of security at that location may have more to do with the relative absence of ‘unsavoury people.’

Responses to the question of what should be done to make the least safe stations more secure indicate the main factors driving insecurity:

1. More transit staff/police (42%)
2. Removal of unsavoury people (38%)

These were followed in order of preference by: improved lighting, having stores within stations, closed circuit TV monitoring and turnstiles.

Of the stations perceived to be the least secure, “riders stated that both inside the stations and the surrounding neighbourhoods are equally unsafe.” Those familiar with a given area were also likely to identify a nearby station as unsafe and further, to classify the surrounding area as also being unsafe. Thus, residents of Surrey, North Delta, White Rock and Langley were most likely to cite the **Surrey Central** and **King George** stations as the first and second “least safe” stations respectively and to comment that they didn’t feel safe in the area as a whole. Similarly, residents in Burnaby and New Westminster were more likely to list New Westminster station – and its surrounding area – as the least safe.

What else are people afraid of?

The TransLink Listens survey revealed that high levels of insecurity exist in a number of locations. **Forty-two per cent** of respondents said they had avoided SkyTrain at night at some point in the past, the same percentage that reported avoiding bank machines or walking in downtown Vancouver. The greatest security concern at night is underground parking lots, avoided by **52%**.

People reported they avoid SkyTrain at night because ‘there are so few people onboard,’ or because “unsavoury people” (drug dealers, panhandlers, and so forth) were present.

Responsibility for security

TransLink asked respondents for their views on where responsibility rests to address security concerns at or near SkyTrain stations. Expectations of how this responsibility should be shared vary according to location. Not surprisingly, 92 per cent of respondents said SkyTrain/TransLink had total or primary responsibility for security inside stations.

Elsewhere, people felt that the responsibility was shared:

- Immediately outside the station
 - TransLink totally responsible (17%)
 - TransLink mostly responsible (31%)
 - Others (52%)

- Public walkways approaching SkyTrain
 - TransLink totally responsible (12%)
 - TransLink mostly responsible (24%)
 - Others (64%)

More than half of respondents (56%) say the local police shares responsibility for security both in the immediate vicinity and on the walkways. Interestingly, on the question of who is responsible for security inside the station, passengers themselves were second-most-identified group, with 41% saying that customers have a personal responsibility for their own safety. (The percentages add up to more than 100 because multiple answers were accepted.)

If passengers are to contribute meaningfully to their own security as suggested, the survey results indicate that they will need help in properly fulfilling this role. Questions on awareness of the safety and security features on the SkyTrain system show that almost a quarter (24%) of respondents said they did not know of any features they could use in the event of an emergency or threat to their personal safety. A total of 58% mentioned emergency phones or intercoms, but only 22% specifically mentioned intercoms or phones on the trains, and 16% mentioned them in stations. Just over a third (37%) mentioned the yellow “silent alarm” strips on the trains. Only 20% mentioned TransLink personnel or police in any way as being “available” to them.

Clarity – Crime Statistics and Analysis

The South Coast British Columbia Transportation Authority Police Service (Transit Police) used data supplied by the jurisdictional police departments to develop a clearer picture of reported incidents at or around existing SkyTrain stations. In the interest of tracking the impact of the new Canada Line, a similar analysis was done to establish base line data for the locations around the future stations.

Data were collected from the Vancouver Police, the New Westminster Police Service, the Burnaby, Surrey and Richmond RCMP detachments as well as the North Vancouver RCMP (for SeaBus North terminal data). The study looked at a 28-day period: July 15 – August 11, 2007 and plotted offences generally in the municipalities included in the review, noting those that occurred within 250 metres of a SkyTrain station. A further study looked at incidents within 100m of stations over the year ending April 30, 2008.

During the 28-day period of the pilot project, there were 24,328 incidents reported in “SkyTrain communities” (Vancouver, Burnaby, New Westminster & Surrey). Of that total, 11% occurred within 250m’s of a SkyTrain station.

JURISDICTION	TOTAL INCIDENTS	NUMBER WITHIN 250m OF A STATION
Vancouver	9,164	1,064 (12%)
Burnaby	4,789	579 (12%)
Surrey	8,456	360 (4%)

The data for New Westminister was not included because of a geographic anomaly. With five SkyTrain stations located within a relatively small community, a 250m radius around the stations covers a larger percentage of the city’s land area. Conversely, Surrey, with four SkyTrain stations clustered in a small segment of a very large community in terms of land area, reported a small percentage of total incidents within 250m of a station.

Focusing on the incident types reported within the 250m radius, they represented the following percentage of the overall total:

- **Crimes Against the Person – 10%**
- **Property crimes – 8%**
- **CDSA (Controlled Drug and Substances Act) offences – 16%**

Based on these findings, it appears that only drug-related offences are over-represented in areas within 250m of a station (16% drug related vs. 11% of crime overall). There is evidence that this has been a stubborn issue that existed in some locations well prior to the arrival of the SkyTrain line. The Expo Line follows the old Interurban rail line from Downtown Vancouver through to the Whalley area of Surrey. Police and media records indicate that the drug trade had been thriving near the Broadway and Commercial intersection, along Columbia Street and in Whalley for decades prior to the Expo Line being built. Currently, the 250m radius around some stations includes methadone clinics, needle exchanges and other services to drug-dependent people.

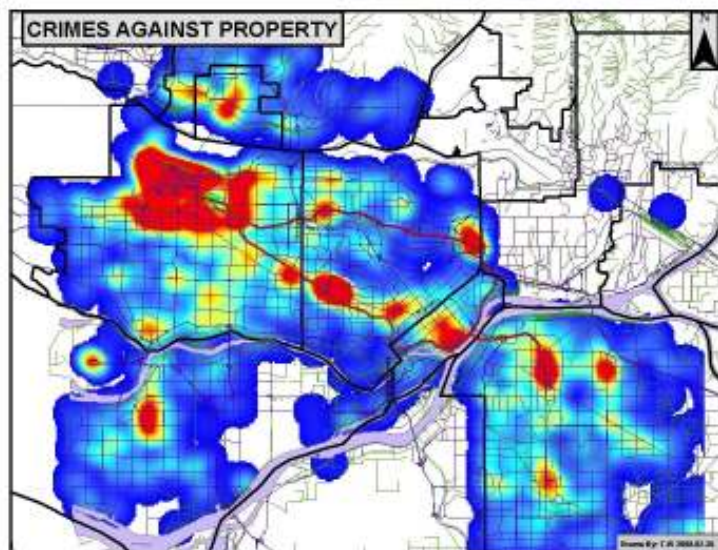
These factors, added to issues of graffiti and litter, plus the presence of certain business activities that tend to attract a clientele perceived as ‘unsavoury’ send signals to the public that increase their level of apprehension, even in the absence of hard data on crime incidents. As such, it is not surprising that The TransLink Listens survey found people tended to feel safer at stations with a combination of high passenger volume and a more “genteel” aspect.

Waterfront, Burrard, Metrotown and Granville are in the top four in terms of passenger boardings and perception of security. Yet Granville recorded the highest number of incidents – 2052 – of all, while Main Street, which was #4 on the list of stations where respondents felt least safe, had one of the lower rates per 100,000 boardings – 9.03 – **11th lowest of all 33 stations**. Similarly, Broadway-Commercial came third in the list of least safe stations, but its rate per 100,000 boardings was 15.85, around the same as Granville’s (11.78). Waterfront, rated safest of all, had the highest rate per 100,000 boardings – 50.32.

Metrotown made the top five in both “safest” and “least safe” stations – an example of differences in perception of what constitutes an insecure environment. Its incident count is #8 (810) and rate per 100,000 (9.25) ranked 20th.

Taking the public surveys and overlaying the results of the crime analysis produces strong evidence of a disconnect between feelings of insecurity and the reported levels of crime. One exception is **Surrey Central**, where the reality and perception are in focus. The station is ranked least safe of all, and is #2 in incident rate: 30.52 per 100,000 boardings, reflecting conditions in a neighbourhood that is undergoing significant and positive transformation, but remains under stress.

The Transit Police study also plotted locations of all crimes within the study area, and produced density maps, showing the concentration of crimes. The map shows concentrations of offences at points along the SkyTrain system where the population itself is concentrated, including some of the largest of Metro Vancouver’s major regional town centres.



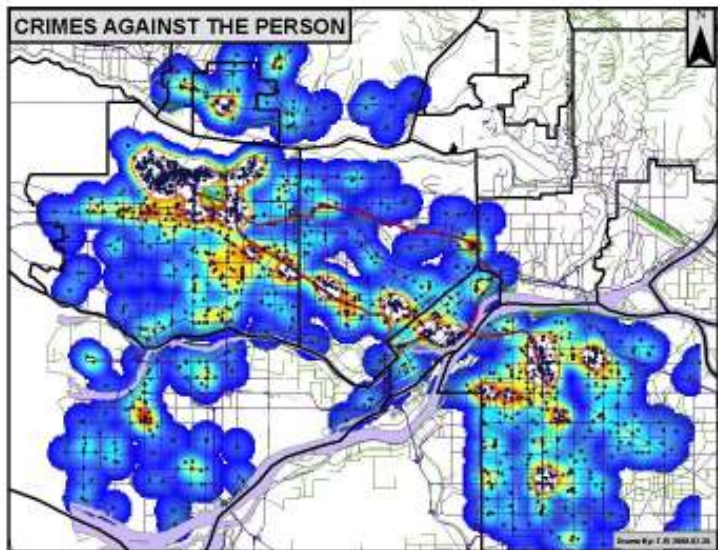
The police crime data do not capture whether or not a material link exists between an incident and a SkyTrain station in the area.

However, not all crime ‘hot spots’ coincide with SkyTrain stations and not all SkyTrain stations are in the centre of hot spots. It is particularly intriguing to note the ‘hot spot’ that currently exists along the future Canada Line corridor in Richmond.

Action – Satisfying the public’s needs – Addressing the issues

The 28-day Transit Police pilot project looked at statistics within 250m of the sites of future Canada Line stations in Richmond. It found that 6% of the incidents in that city occurred within that zone, a larger percentage than reported near Surrey’s existing stations (4%).

This raises the question of whether the crime profile near Richmond’s future stations will worsen or whether there are measures that can be taken to mitigate or even improve the situation.



Further analysis of the current environment along No. 3 Road will determine whether or not there are ‘signal conditions’ that can be managed before and after the Canada Line stations open for service. For example, municipal zoning and business licensing processes can prevent certain types of operations from setting up shop near the future stations. These would include cheque cashing services, adult video stores, pawn brokers and some types of fast food outlets. The municipality would also want to consider the possible impact of permitting services for drug dependent people to locate along this corridor.

Additionally, TransLink and the City of Richmond have been working on streetscape design along No. 3 Road to promote an efficient but comfortable environment that will attract people to the area at more hours of the day. Lighting, cycling infrastructure, street furniture, artwork and other amenities, as well as a reasonably visible presence by police or other security personnel can establish a ‘tone’ for the area that contributes to a greater feeling of security.

Similar initiatives might produce these results for existing stations, and TransLink’s partnership with the federal government and Metro Vancouver on the ‘Transit Village’ projects at Broadway, Edmunds and Surrey Central will be a good test of this concept.

A human presence

Of all the measures believed by the public to be effective in improving their sense of security on SkyTrain and in the areas around rapid transit stations and bus loops, nothing is seen to be more effective than a human presence, be it transit staff, police or simply other people.

The TransLink Listens survey found a strong majority (61%) of those who believe the visibility of SkyTrain/TransLink personnel is low said they wanted to see a full-time station manager on site, many suggesting that this be in place at all 33 SkyTrain stations. Even more popular (64% support) is the idea of a uniformed attendant to check fares, render first aid and assist passengers.

The Transit Police study finds that stations where there is a high level of crime within a 250m radius are in areas where conditions exist that are perceived by the public as contributing to their insecurity. Drug dealing and the presence of drug users, nightclubs, parole offices, shopping malls and low income housing are cited.

It is clear that these conditions exist at some SkyTrain stations, but not at all of them. There are areas where there are no ‘crime attractants’ and very little criminal activity within the 250m buffer zone. **Lake City, Sperling and Rupert Stations** each posted single-digit incident counts during the study period. **29th Avenue** and **Nanaimo**, for all the publicity surrounding incidents in those areas in early 2007, were 8th and 13th lowest, respectively (6th and 9th lowest in incidents per 100,000 boardings).

When resources are finite, strategies to deploy transit staff and police officers should tend to focus on locations where there are issues with disorder or crime, *and* where the public firmly believes that their visible presence is necessary, regardless of available incident data.

The Transit Police analysis, coupled with the TransLink Listens and customer tracking surveys, offers a direction for staffing, policing and partnership strategies with municipal governments, community organizations, social service agencies and jurisdictional police that is based on addressing conditions that contribute to public insecurity and on providing reassurance at locations where people, for whatever reason, feel insecure.

TransLink is engaged with other agencies in planning ‘transit oriented’ streets and corridors are addressing environmental designs to promote and improve pedestrian travel and cycling, providing for the presence of more people in the areas around key transit stations.

Next steps

It is important that the SkyTrain system be safe, and also be *seen* to be safe, and the *LMD SkyTrain Analysis Pilot Project* provides baseline data for the entire system as well as the areas around the sites of future Canada Line stations. Along with the TransLink Listens survey, we are obtaining much-needed information for taking the most appropriate action.

SkyTrain has identified 44 actions that have or will contribute to improving security on the system. Some of these initiatives are in progress or already in place, notably improved lighting, a better video system for monitoring stations and new communications systems that will allow for more effective contact with passengers. A number of projects are being co-funded through the federal government's 'Transit Secure' program that will focus on target hardening the system against terrorism but will have spin-off benefits that, while unseen by the public, will address real and specific issues.

One Transit Secure initiative will build on past campaigns to more directly involve and empower transit passengers to contribute to security on the system. It will involve a public information/marketing campaign founded on the 'See It – Say It' program that began running on transit systems in the US shortly after 9/11, in which transit customers are asked to be vigilant and to alert transit staff if they see something unusual or threatening. SkyTrain is planning a major new program, SkyWatch, for introduction in 2009 that will mobilize passengers with text messaging capabilities on their mobile devices.

More immediately, new SkyTrain staff deployment strategies will flow out of the analyses to provide a more visible presence at times and places the public most wants to have transit staff available. However, based on the analysis, there are clearly locations where a more constant presence of staff and or police are not required based on incident data and are not expected by the public.

The Transit Police under new Chief Officer Ward Clapham will employ tactics to provide visible coverage intended to reassure the public at key times and places. Transit Police are also involved with jurisdictional police forces in projects that are targeting the drug trade that exists at certain locations along the SkyTrain corridor. This initiative has resulted in an 83 per cent increase in drug-related arrests by Transit Police so far in 2008 over 2007.

A concerted effort by the Transit Police to create more awareness of their enforcement activities through media releases is delivering an effective message that the transit system is becoming a more hostile environment for those involved in crime or disorder.

More research will be undertaken, as well, using the Transit Police report for baseline data on the entire system as well as the areas around the sites of future Canada Line stations. Combined with ongoing information-gathering by TransLink's market research department – including TransLink Listens – future studies will provide firm facts on which to base the best, most balanced, way of addressing public concerns regarding safety and security.

There is clearly a need to better inform the public on the people and systems that are available to assist them on SkyTrain, given the relative lack of awareness uncovered in the surveys. An information campaign will raise awareness of the roles and responsibilities of staff involved in safety and security on transit, and of the communications systems in place that people can use to summon assistance. One of the 44 SkyTrain initiatives will improve the public's awareness of intercoms and platform telephones.

The survey asked what people thought would make the stations safer. Well over one third (38%) responded that removing "unsavoury" people – panhandlers, drug dealers, etc. – would improve security, while more than two in five (42%) called for increasing the number of SkyTrain Attendants or other identifiable transit staff. Although there have been ongoing calls for the installation of turnstiles to address SkyTrain-related crime and disorder, only 7% of respondents listed them as a preferred measure.

The impact of turnstiles on security may be better understood with a review of the factors that most contribute to feelings of insecurity. Actual crime on SkyTrain is relatively low compared to rates in the community, and as was observed in the case of Waterfront Station, which was judged to be the safest on the line in spite of having the highest crime rates in the surrounding area, crime levels are not necessarily the major factor influencing security.

However, the presence of 'unsavoury people' appears to have a much larger influence on feelings of insecurity, and if the installation of turnstiles or gates takes place (as is currently being studied as part of a new Smart Card fare system) TransLink will have the opportunity to track their impacts on the public's perception of security.

Regarding other measures to improve the sense of security at SkyTrain stations, 39% of respondents "strongly support" issuing whistles to women, as in the Whistle Blower Campaign developed by the Collingwood Community Policing Centre and co-sponsored by TransLink, SkyTrain, Transit Police and Vancouver Police. More than two in five – 42% -- support a program such as SafeWalk, in which neighbourhood volunteers make themselves available to escort people home from SkyTrain stations at night, while 44% support the use of police dogs (black Labradors, trained to sniff out contraband) on the SkyTrain system.

All three of these programs have been initiated, to some degree, in the past year and a half. The Whistle Blower Campaign has proven phenomenally successful both in effectiveness and in the way people *perceive* it to be effective. Nearly two thousand whistles have been issued since it was implemented in June 2007, with more people – mostly women and seniors – asking for them and reports of crime in the area declining sharply. Police dogs are currently being tested by Transit Police with results and recommendations schedule to be presented to the Police Board and TransLink in early 2009. However, the SafeWalk program, also initiated by Collingwood CPC, failed to get off the ground when no volunteers responded when 2,000 leaflets were distributed, door-to-door, in the area.

This indicates how necessary it is for a community to get behind such initiatives. Despite the success of the Whistle Blower Campaign, no other community group, be it a policing centre or a neighbourhood association, has stepped forward to take on similar projects in other parts of Metro Vancouver. So while 41% of the respondents to the TransLink Listens survey indicated that citizens have a responsibility for their own security, getting people to embrace that responsibility is another matter.

Final Observations

The fact that security on transit, specifically on SkyTrain, has been a high profile issue, coupled with demands for better transit services generally, reflects the public's desire to make more and better use of the transit system.

Remedies for security-related issues will have a major impact on transit's share of trips in Metro Vancouver by making the system more attractive during the off-peak periods, when there is significant capacity available. Coupled with other transportation demand management programs that promote 'time-shifting' for commuter trips through flexible work hours and other measures, a more secure transit system could have a significant impact on traffic congestion, air quality and livability in the region.

Consistently, the biggest factor driving feelings of insecurity was the presence of 'unsavoury' people on the system or around the stations. Setting aside the variables involved in applying this definition, the presence of people with any variety of medical, psychological or social disadvantages near transit facilities or elsewhere in the community signals the need for a broad response based on compassion for their situation as well as care for the security and wellbeing of others. The transit system has a role to play in this response by virtue of the fact that a measurable percentage of its 'captive' ridership (over 30 per cent of transit riders do not have ready access to any other form of transportation) is comprised of people in this group.

Police agencies, including the Transit Police, are looking to participate in this ‘broader response’ through partnerships that look beyond the legal system to remedy these issues, on a person-by-person basis if necessary to intervene when an individual is in stress.

Finally, the saying ‘perception is reality’ applies in the case of transit security. TransLink, its operating companies and the Transit Police have the challenge of providing what was earlier referred to as ‘complementary programs’ – initiatives that address the factors known to exist that may or may not drive perceptions, and strategies or tactics that directly address the perceptions themselves.

These studies were conducted to provide a prescription for action, not just a situational analysis. From the analyses of the public opinion surveys and the crime-related statistics, a number of themes emerge that are already reflected in current and recently-completed projects and that will be the foundation for future actions, some of which will take place immediately.

These themes will revolve around:

- **Reassurance**: staff deployment strategies to make them more visible to transit customers and people in communities around major transit hubs, proof of the presence of people who are looking out for their wellbeing.
- **Engagement**: programs that involve the public in contributing to a safe and secure environment, and systems that provide actions for people to take if they encounter a threatening situation.
- **Infrastructure**: improvements to facilities and systems, with examples including streetscape improvements, SkyTrain station lighting upgrades, better video surveillance, higher visibility platform telephones and more retail outlets to create ‘people traffic’ and reduce the sense of isolation.
- **Interventions**: partnerships that mobilize agencies capable of providing the broader response needed by people intercepted on the transit system in the communities around stations that clearly need assistance. People will also see further references to ‘signal conditions’ such as graffiti, litter, etc. as issues contributing to the feeling of disorder and insecurity, and consequently needing targeted interventions by the community.