

## **4.11 SECURITY AND SYSTEM SAFETY**

Security refers to the prevention of unlawful acts resulting in harm to persons or damage to property. In a broader sense, it also implies freedom from threats or uncertainty about the likelihood of threatening acts. Crime and antisocial behavior are potential problems in any public environment.

System Safety refers to the prevention of accidents to the riding public, employees, or others present at BART facilities, which include aerial structures, stations, tracks, pedestrian walkways, parking lots, parking structures, the bus transfer center, trains, and the trackway. Such accidents may be caused by events such as fires, faulty equipment, faulty software, inadequate procedures or training, improper boarding and alighting of the rail and bus vehicles, or improper passenger drop-off and loading. Fire and life safety considerations involve preventive design criteria and those that provide protection for people and property in the event an emergency should occur.

### **4.11.1 VTA AND OTHER TRANSIT FACILITIES**

Security and safety measures are already in place to serve current bus transit operations and related pedestrian activities near existing transit facilities and bus stops in the SVRTC. VTA's Protective Services provides security for VTA bus and light rail service and facilities in coordination with law enforcement activities of a Santa Clara County Sheriff unit and Securitas Security Services USA, Inc., a private security contractor, under contract to VTA.

### **4.11.2 BART FACILITIES**

#### **Security**

The BART Police Department provides police services for all BART facilities, stations and trains and is sworn to uphold federal, state, and local laws and the ordinances of the BART District. Police personnel are responsible for safeguarding the lives and property of BART patrons and employees, and protecting district property. BART police officers have the same powers of arrest as city police officers and county sheriff's deputies. As of September 2006, the department has 277 police personnel who include: 194 sworn police officers, and 83 civilian personnel.

The BART Police Department investigates all reported crimes that occur on BART property including transit-related crimes, auto burglaries, auto thefts, robberies, purse snatches, assaults, homicides, and any other felonies, misdemeanors, or infractions that occur within the BART District. The most common serious crimes involve burglaries and auto thefts. Incidents that require BART police attention usually occur in stations, on platforms, and in parking lots. Fewer incidents occur on BART trains. The BART police have an average response time to emergencies of 4 minutes, and an

average response time of 8 minutes to non-emergency calls. The BART Police Department is decentralized into geographical zones to increase patrol time and to improve community policing efforts. There are BART police facilities and field offices in Oakland, Concord, Walnut Creek, El Cerrito, Dublin/Pleasanton, Castro Valley, San Leandro, Hayward, San Francisco, Daly City, and Colma. With the extension to the San Francisco International Airport completed in June 2003, the BART police have additional facilities at the SFO, Millbrae, South San Francisco, and San Bruno stations.

Qualifications and training for BART police officers exceed the guidelines of the state's Commission on Peace Officer Standards and Training (POST), which certifies all California peace officers. In addition to meeting POST requirements, every BART police officer applicant must have at least 30 college-semester units. The majority of officers are assigned to the Patrol Bureau and are eligible for specialized assignments, including: field training officer; canine handler; criminal investigations; bicycle patrol; field evidence technician; personnel and training; crime analysis; traffic; anti-vandalism and special-enforcement teams. To prepare for major emergencies, critical incidents, and tactical call-outs, the department is a signatory to the Bay Area's mutual-aid pacts. Select officers receive training in special weapons and tactics, emergency rescues, crowd management, and hostage/crisis negotiations.

As part of BART's safety program, stations are patrolled by BART police and attended by BART personnel, including maintenance staff responsible for keeping the stations and other facilities clean and free of graffiti, which further enhances safety and security.

Aside from stations and parking areas, public access to BART's facilities and ROW is strictly controlled. Non-public areas within the BART system, which include the electrified rail alignment, train yard, and maintenance facilities, are securely fenced or are located on aerial structures or in subways that are inaccessible to the public. Wherever the alignment is at grade, warning signs are posted on the security fences adjacent to the tracks to prevent trespassing and to warn of the dangers of entering the track area containing the electrified third rail.

The BART Police Department is also responsible for participating in design review of new facilities to ensure consistency with security and safety standards. For example, public areas and parking lots are well illuminated and designed to avoid dark or remote passageways and other areas that cannot be readily viewed or patrolled. BART recognizes that designs that promote public use and activity also minimize criminal activity and increase the likelihood that people will observe and report potential criminal activities.

### **System Safety**

The BART System Safety Department is primarily responsible for ensuring that safety procedures are developed and implemented throughout the BART District. A key responsibility of the department is the implementation of BART's System Safety Program Plan, which states, "Safety is the major consideration in all [BART] operations including planning, design, construction, testing, and maintenance of the rail transit

system.” Implementation of the program includes the setting of safety goals and objectives, as well as hazard identification, reduction, and control throughout the system. The BART System Safety Department is also responsible for the monitoring of safety performance to identify any failures and deficiencies in the program, including accidents on BART property, and to implement corrective measures. Where it is determined that unsafe conditions exist, the manager of the Safety Department has the authority to interrupt or cease BART operations.

The BART System Safety Department is also responsible for implementation of BART's Emergency Plan, the authoritative procedure to be used in an emergency event. The plan establishes standard policies and procedures for the mobilization of BART and other public safety resources so that fast, controlled, and predictable responses can be made to various types of emergencies. Specific response procedures for a full range of foreseeable types of emergencies are addressed in the plan and include response procedures for train fires, derailments, injuries or deaths on the ROW, ROW intrusions, earthquakes (of varying intensities occurring at varying times), high winds, flooding, gas leaks and toxic spills, bomb threats, explosions, and hostage situations. In all cases, the Emergency Plan identifies the responsibilities of the involved persons and authorities (train operators, BART Central Control, BART police, the responding fire departments, etc.) and sets forth an operations plan for each type of emergency. The various operations plans address the initial fact finding and reporting procedures, communication requirements, evacuation and rescue procedures, emergency scene boundaries and restrictions, public information, and related factors.

In accordance with BART emergency procedures, local fire departments are the primary responders in the event of a fire within the BART system. Under an agreement with all affected fire departments for the existing system, the local fire department would assume overall command of any fire emergency scene, in cooperation with BART Central Control. Information on local fire departments within the SVRTC is provided in Section 4.3, Community Services and Facilities.

### **4.11.3 REGULATORY CONSIDERATIONS**

The BEP and SVRTP alternatives would be built in compliance with applicable codes and local planning requirements as described below.

#### **Applicable Codes**

The BART extension would be designed to comply with applicable codes for tunnel and station ventilation, and train and station circulation and exiting. These codes include:

- National Fire Protection Association (NFPA) 130 Fixed Guideway Transit Systems
- US Department of Transportation Subway Environmental Design Handbook, Volume 1
- CCR, Title 8, Industrial Relations Subchapter 20, Tunnel Safety

- Orders 20
- California Building Code, Chapter 4A, Section 414A-Fixed Guideway Transit Systems
- California Public Utilities Commission (CPUC) General Order 164-C
- BART System Safety Program Plan
- BART Design Criteria Facilities Standards, Rev 1.2
- National Fire Protection Association (NFPA) 101 Life Safety Code
- 28 CFR Part 36 ADA, Standards for Accessible Design

The BEP and SVRTP alternatives are also being designed to comply with the BART Facilities Standards (BFS). Developed by BART, the BFS describes and specifies design requirements for all new project designs. These standards are based on experience in operations and industry-wide best practices, and have been developed to provide a high level of security and safety in a cost-effective manner. BEP and SVRTP alternative features that do not comply with these standards can only be implemented after the full review and approval by BART.

A Safety Certification Program (SCP) has also been developed for the BEP and SVRTP alternatives to ensure that it is designed in compliance with the applicable safety and security design codes. The SCP requires that compliance be documented and applicable BEP or SVRTP alternative features and design characteristics itemized.

The provisions of BART's existing System Safety Program Plan also require active participation by the BART System Safety Department in the design of system extensions. A BART safety engineer, working with VTA and the local fire department personnel, will review contract drawings and specifications for compliance with the previously mentioned codes and criteria. This includes provisions of the codes, requirements, and guidelines listed above along with local fire department requirements. This is particularly critical for the tunnel segment emergency ventilation structures and emergency egress and ingress. In these cases, there are established emergency station and tunnel egress criteria that will be applied to the SVRTP Alternative. The System Safety Department will also monitor engineering testing and conduct safety technical audits of all new facilities and equipment to ensure that they meet applicable safety standards prior to passenger operation and that they continue to meet these standards while in operation.

As a part of the design review process, BART safety engineers will also review the security fencing design along the at-grade alignments, train storage areas and alongside transitions from subways to at-grade or aerial alignments. A secure ROW is of critical importance to BART because of the potential dangers associated with the electric third rail and the high frequency and speeds of trains. Similarly, BART safety engineers will review the design of station entrances, exits, platforms, and concourse

areas for pedestrian safety. The design of parking lots and bus/auto loading zones will also be reviewed for pedestrian, as well as vehicular, safety and for accessibility by emergency response vehicles. For security purposes, BART facilities standards will also be implemented for the BEP and SVRTP alternatives, including CCTV in stations and along the trackway (at tunnel portals), intrusion detection devices at wayside facilities, access control devices, and other security procedures.

The BEP and SVRTP alternatives would operate on exclusive trackage alongside but separate from the UPRR freight service between Warm Springs and the UPRR Milpitas Yard north of Calaveras Boulevard. At this point, UPRR freight service switches to the former Southern Pacific Line. Currently, UPRR is operating fewer than four freight trains per day on the segment between Warm Springs and Calaveras Boulevard. In addition, in this segment, the BART tracks would run adjacent to the UPRR Milpitas Yard lead track (a siding track) rather than alongside the mainline. Nonetheless, operations of BART and freight trains in this common corridor pose hazards for either mode in the rare event of train accidents (e.g., derailments). VTA and BART will undertake a common corridor safety and cost study to determine the most appropriate and cost-effective design treatments where BART would operate in close proximity with freight operations.

In accordance with CPUC General Order 164-C and the BART System Safety Program Plan, BART will certify the safety and security of the BEP and SVRTP alternatives to ensure that the design, construction and installation of equipment are systematically reviewed for compliance with safety and security requirements and to verify safety operational readiness of the system prior to the commencement of revenue service.

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