

3.09 Public Safety and Security

Summary

This section describes the existing public safety and security resources in the Longmont corridor and estimates the effect of the proposed alternatives on transit station and vehicle safety, response times for public and emergency services, and safety at railroad crossings in the corridor.

Since the implementation of light rail transit (LRT) in the Denver metro area, crime on board vehicles and at transit stations has been statistically insignificant. The majority of offenses are non-violent crimes and include trespassing and disorderly conduct on transit vehicles, and theft and vandalism of automobiles at stations.

Crime in proposed transit alternatives in the Longmont corridor would be expected to be similar to that of existing transit service in the Denver metro area. Station area crime would be similar to that of existing park-n-Ride stations in the Longmont corridor. Crime at these stations is very low, with only one incident of theft among the three stations reported to RTD for years 2002 and 2003.

Higher train frequencies on the rail line and higher traffic volumes at rail crossings near station locations would create more opportunities for accidents at at-grade rail crossings. The following eight rail crossings may require additional crossing protection due to predicted high future traffic volumes:

- Valmont Road
- Jay Road
- 63rd Street
- Mineral Road
- Niwot Road
- Hover Street
- Ken Pratt Boulevard
- Main Street

Higher train frequencies would also affect emergency response times by causing more frequent delays at rail crossings. Only one crossing, Ken Pratt Boulevard, would experience substantial delays due to increased train frequency, and this crossing would undergo additional analysis to develop mitigation measures.

Affected Environment

This section summarizes existing RTD security measures and existing municipal and transit facility crime statistics. Public safety services in the corridor, including police, fire, and emergency medical service providers, are also described. Accident data at existing at-grade railroad crossings are examined.

Existing RTD Security Measures

RTD has a well-established program in place for ensuring the safety of its patrons and those indirectly impacted by their operations. The existing security system for LRT operations consists of a combination of internal and contracted staff. Security is provided on LRT vehicles 24 hours per day, 7 days per week. Officers provide security on the trains and inspect station areas during passenger loading and unloading.

The RTD security force works with local police to control crime at park-n-Ride facilities. Certain park-n-Ride facilities/stations and all LRT vehicles are equipped with video surveillance. Security forces are increased with every expansion of service.

Prior to the implementation of any new transit corridor, RTD convenes a Fire and Life Safety Committee comprised of representatives from local law enforcement and emergency services. This

committee assists in the development of an emergency plan for the corridor that contains contact numbers and strategies for emergency response/preparedness. Strategies include use of active warning devices such as gates, bells, and flashing lights for at-grade rail crossing safety.

RTD currently has design guidelines for station areas to reduce crime (RTD, 2005a). These guidelines include:

- Improvement of station area circulation elements (with color, texture, and sight distances) to increase patron safety and security
- Incorporation of well-lighted pedestrian walkways
- Elimination of dead ends, cross flows, and turns greater than 90 degrees
- Provision of shelter elements that allow for sufficient transparency for visual surveillance of the station area, which discourages vandalism and enhances patron safety
- Incorporation of adequate site distance and visibility along pedestrian routes
- Use of surveillance equipment for the monitoring of station areas, provided on an as-needed basis. Closed circuit television (CCTV) cameras would be visible to patrons, which evidence shows deters crime.
- Design of all public security systems for easy use by children, the disabled, and senior citizens

As part of this project, CCTV/video surveillance would be installed at all stations and would be operational on opening day. Video surveillance would be linked to RTD's Security Command Center for monitoring.

Station Area and Onboard Crime

Existing crime statistics provided the baseline against which the alternatives could be measured.

Table 3.09-1 summarizes reported crime statistics in 2005 for the Boulder and Longmont police departments. These statistics are organized according to standards used by the Federal Bureau of Investigation's Uniform Crime Reporting Program, a program that is used to standardize and track the reporting of crime. In general, areas of more intense urban uses experience higher crime. Evaluating the change in crime is important because the crime occurring in and around transit stations is similar to the crime of the surrounding area and more intense security measures can be implemented there, if necessary.

As shown in Table 3.09-1, the City of Boulder experienced lower crime rates compared to the City of Longmont, both in total numbers of crimes and relative to the population. Based on estimated populations, Boulder experienced nine crimes for every 1,000 people, while Longmont experienced 11 crimes for every 1,000 people (US Census, 2000).

TABLE 3.09-1
Reported Crime Statistics in Boulder and Longmont

Agency	Estimated Population	Total Crimes	Homicide	Rape	Robbery	Burglary	Auto Theft
City of Boulder Police Department	102,659 (2005)	879	0	42	34	551	252
City of Longmont Police Department	81,169 (2004 ¹)	929	0	80	41	516	292

¹ Year 2005 population estimate is not yet available from City of Longmont Police Department.

Sources: City of Boulder Police Department, 2006; City of Longmont Police Department, 2006

Armed and uniformed officers patrol transit vehicles and stations. These RTD officers work with local law enforcement agencies to control crime. Crime records for existing park-n-Ride locations in the Longmont corridor and current LRT vehicles were examined to assess the safety and security of transit patrons both at the stations and in the vehicles.

There are three existing park-n-Ride stations in the Longmont corridor: one each in Boulder, Niwot, and Longmont. These stations have very low incidents of reported crime, with only two incidents of theft among the three stations reported to RTD for years 2004 and 2005. Table 3.09-2 provides reported crime information for each park-n-Ride.

TABLE 3.09-2
Existing RTD park-n-Ride Crime Rates

park-n-Ride Location	Parking Spaces	2004		2005	
		Theft	Vandalism	Theft	Vandalism
Boulder: Broadway and 27th Way	59	0	0	0	0
Niwot: Niwot Road and Diagonal Highway	28	2	0	0	0
Longmont Depot: Main Street, south of 1st Avenue	101	0	0	0	0

Source: David Genova (RTD staff), Personal Communication

Reported crime on board light rail vehicles for 2004 and 2005 is displayed in Table 3.09-3. Disorderly conduct is the most common offense on transit vehicles. Crime potential on commuter rail vehicles is anticipated to be similar. Considering that as many as 40,000 trains would operate on a yearly basis, the potential for a crime to occur on a single train is less than 0.2 percent.

TABLE 3.09-3
Summary of Crime Statistics: Existing Light Rail Transit Reported Incidents Onboard Vehicles

Incidents Onboard Light Rail Vehicles	2002	2003	2004	2005
Alcohol offense	2	2	2	0
Arson	1	0	0	1
Assault	4	2	2	5
Disorderly conduct	10	32	11	5
Drug offense	1	1	3	0
Forgery/Counterfeit	15	4	0	0
Fraud	1	0	0	0
Sex offense	2	2	0	1
Theft	2	0	0	2
Transit-specific crime	4	2	2	1
Trespassing	13	13	1	0
Threats	2	5	7	5
Weapons offense	0	3	2	0
Vandalism	1	13	0	1
TOTAL	58	79	30	21

Source: RTD, 2006c

Public Services and Security

Police, fire, and emergency services are provided from agencies within Boulder County. A summary of existing public safety services is presented below. Throughout the Longmont corridor, the Colorado State Patrol provides emergency response services and traffic enforcement. The Boulder Regional Communications Center handles emergency dispatch services for most agencies in Boulder County, including the cities of Boulder and Longmont.

Police

The Boulder Police Department is headquartered at 1805 33rd Street. There are no stations near the Longmont corridor. The police department currently employs 176 officers. The Boulder County Sheriff's Office also provides policing services in the Longmont corridor and has 350 deputies and employees and 200 volunteers. The sheriff headquarters are located at 1777 6th Street in Longmont.

The Longmont Police Department is headquartered at the Longmont Safety and Justice Center at 225 Kimbark Street, one block east of Main Street on 3rd Avenue. This is approximately two blocks due north of the proposed rail alignment. Approximately 160 personnel are employed at the Longmont Police Department, of which 110 are uniformed officers.

Fire

Boulder Fire Station #6, located at 5145 North 63rd Street, provides fire protection and emergency medical services near the Longmont corridor.

The Longmont Fire Department employs 80 personnel and has five stations that provide fire, rescue, and emergency medical services. Three of these stations are near the project study area:

- #1 500 S. Pratt Parkway
- #3 1200 Lashley Street
- #5 617 Barberry Drive

The Mountain View Fire District provides fire, emergency medical, and rescue service to rural Longmont, Niwot, and other areas in unincorporated Boulder County. Station 1 at 9119 East County Line Road serves rural Longmont. Two volunteer fire stations serve Niwot. Station 4 is located near the intersection of Niwot Road and the Diagonal Highway, at 8500 Niwot Road. A smaller substation is located in downtown Niwot, at 301 Franklin Street.

Hospitals

There are no hospitals within the Longmont corridor. Hospital and ambulance services in Boulder and Longmont are provided by Boulder Community Hospital and University of Colorado Hospital in Boulder, and by Longmont United Hospital in Longmont.

Emergency Services

In addition to the rescue and emergency services provided by the fire departments and hospitals in the Longmont corridor, the Boulder Emergency Squad, an all-volunteer search and rescue organization, provides rescue and emergency services in the corridor. The organization operates through mutual-aid agreements with the Boulder County Sheriff's Office, other law enforcement agencies, local fire departments, and emergency medical providers. Volunteers provide specialized services including disaster evacuations, swiftwater and ice rescue and recovery, and extrication from vehicles, aircraft, and industrial facilities. (Boulder Emergency Squad, 2006).

At-Grade Railroad Crossings

There are a total of 23 existing at-grade crossings on the BNSF alignment in the Longmont corridor; these are described in Table 3.09-4. Approximately seven trains currently operate on a daily basis – usually three during the day and four at night. Seven of the public crossings do not have active warning devices such as lights or gates.

Since 1990, there have been 14 accidents at at-grade crossings in the corridor, with four injury accidents and no fatalities (see Table 3.09-4). Three crossings experienced more than one accident during this time: Monarch Road south of Niwot and Hover and Coffman streets in Longmont. There does not appear to be a correlation between traffic volumes, warning equipment, and accidents.

TABLE 3.09-4
BNSF Alignment At-Grade Public Crossing and Accident Inventory

Milepost	US DOT Crossing Number	Road Name	Crossing Type	Existing Equipment	Year	Accidents		
						Fatality	Injury	Accident but no Injury
27.82	-	Pearl Street	Public	Gates	2004	-	-	-
31.45	244818W	Valmont Road	Public	Lights and Gates/ Island	2004	-	1	-
32.04	244821E	N. 47th Street	Public	Lights and Gates/ Island	-	-	-	-
32.33	244822L	Independence	Public	Lights and Gates	-	-	-	-
33.25	244823T	Jay Road	Public	Lights and Gates/ Island	-	-	-	-
33.77	244824A	55th Street	Public	Crossbucks	-	-	-	-
35.29	244827V	63rd Street	Public	Lights and Gates/ Island	-	-	-	-
36.679	244831K	Mineral Road	Public	Lights and Gates	1991	-	-	1
					1992	-	-	1
					1992	-	-	1
					1995	-	-	1
37.2	244832S	Monarch Street	Public	Lights and Gates	1992	-	-	1
37.68	057133C	Martin Street	Public	Crossbucks	-	-	-	-
37.86	244833Y	Niwot Road	Public	Lights and Gates	1998	-	-	1
38.05	244834F	Main Street	Public	Lights and Gates	1992	-	-	1
39.172	244836U	83rd Street	Public	Lights and Gates	1991	-	1	-
39.842	244838H	Ogalalla Road	Public	Crossbucks	1994	-	-	1
40.65	244840J	Private	Private	Stop Sign	-	-	-	-
41.36	244842X	Hover Street	Public	Lights and Gates	1991	-	-	1
					1998	-	1	-
42.17	244844L	Sunset Street	Public	Lights and Gates	-	-	-	-
42.529	244845T	Ken Pratt Boulevard	Public	Lights and Gates	-	-	-	-
43.43	244846A	Terry Street	Public	Crossbucks	-	-	-	-
43.5	244847G	Coffman Street	Public	Crossbucks	1997	-	-	-
					2002	-	-	-
43.57	244849V	Main Street	Public	Lights and Gates	-	-	-	-
43.704	244850P	Emery Street	Public	Crossbucks	-	-	-	-
44.47	-	Sugar Mill Road	Public	Passive	-	-	-	-
TOTAL ACCIDENTS						0	4	10

Source: RTD, 2005b

Impact Evaluation

Impacts to public safety and security as a result of the proposed alternatives are discussed below. Appropriate mitigation measures are described at the end of the section.

Methodology

The impact analysis was based on information presented in the feasibility study, additional information collected in the affected environment analysis, and site visits to the corridor. Using this information, the following evaluation criteria were developed to consider impacts to onboard and station area safety, emergency service response times, and at-grade railroad crossing safety:

- Onboard and station area safety – compare projected onboard safety with existing conditions on LRT vehicles; compare crime rates in station areas to crime rates in surrounding areas and at existing park-n-Ride stations to determine potential for crime at each station
- Emergency service response times – estimate changes in response times due to new construction or service frequency
- At-grade railroad crossing safety – evaluate impacts due to increased service frequency and/or induced traffic volume growth

No-Build Alternative

Direct Impacts

There would be no increases in station area crime because no new transit service or stations would be provided under this alternative. There would be no onboard crime because there would be no rail transit service.

Emergency response times could increase under the No-Build Alternative because congestion on the Diagonal Highway would likely increase, decreasing travel speeds. Additional accidents would be expected to accompany increased congestion and would increase the demand for emergency services in the corridor.

Indirect Impacts

As the population grows in the Longmont corridor, crime statistics would also increase in absolute numbers.

The potential for increased numbers of accidents at railroad crossings would increase as more traffic travels into the corridor due to population and employment growth in the area. However, this accident potential would be lower than for the build alternatives because there would be no station locations causing high traffic volumes in concentrated areas.

Alternatives

The proposed Alternatives A and B would result in both direct and indirect impacts to safety in the corridor. Direct impacts would include the following:

- Crime potential onboard trains and at proposed station locations
- Impacts to emergency response times and additional demand for emergency services
- Changes in safety at at-grade railroad crossings

Indirect impacts would primarily stem from higher traffic volumes generated by induced development in the corridor (primarily around transit stations). These higher traffic volumes would impact railroad crossing safety above and beyond the direct impacts generated by the alternatives.

Direct Impacts

Rail Alignment

Onboard crime would be similar to existing transit crime statistics (see Table 3.09-3) and proportionate to increases in transit service. For example, as many as 40,000 trains currently operate on a yearly basis. There were 79 crimes reported onboard light rail vehicles in 2003. The risk of crime occurring on a single train in 2003 was less than 0.2 percent. The crime risk on the proposed commuter rail alignment from Boulder to Longmont would be similar.

Increased train frequency at at-grade railroad crossings would affect emergency response times. Emergency vehicles could be delayed at railroad crossings more often because of the increase in train movements from a current rate of 7 per day to a future rate of up to 82 per day. The Grade Crossing Analysis (RTD, 2006c) conducted for this project found that traffic operations would be substantially degraded at only one crossing location in the corridor, Ken Pratt Boulevard, due to delays from increased train frequency. This crossing would undergo additional evaluation and analysis in the next phase of this project.

As noted in Section 3.05, the Boulder Emergency Squad would be displaced under Alternative A because the proposed rail alignment would require acquisition of the property.

The higher frequency of trains would also impact safety at railroad crossings. Increased numbers of trains, coupled with the additional traffic generated by the station locations, would create more opportunities for accidents to occur at at-grade rail crossings. Nine crossings may require additional crossing protection due to predicted high future traffic volumes (RTD, 2006):

- Pearl Street
- Valmont Road
- Jay Road
- 63rd Street
- Mineral Road
- Niwot Road
- Hover Street
- Ken Pratt Boulevard
- Main Street

Station Areas

Available information suggests that transit stations are as safe as the surrounding commercial activity centers or anywhere that people congregate. Also, the observed frequency of crime at transit stations tends to mirror the crime of the surrounding area. The majority of these crimes are non-violent acts such as vandalism and theft.

Because Longmont has a slightly higher crime rate than Boulder (see Table 3.09-1), the proposed Longmont station locations would have a higher potential for exposure to crime than the Boulder station locations at 30th/Pearl Street (US 36 Corridor DEIS) and in Gunbarrel. However, actual reported crimes at existing park-n-Ride stations in the corridor indicate that the incidence of crime at all stations is very low, with only one crime among the three park-n-Rides reported to RTD for years 2002 and 2003 (see Table 3.09-2).

The proposed station locations would have no long-term effect on emergency response times.

Safety at railroad crossings could be degraded because the stations would generate slightly more traffic on streets crossing the rail line. Higher traffic volumes, coupled with increased train crossing frequency, would create more opportunities for accidents to occur at crossings than presently exist. Safety at most crossings would improve overall when crossings are outfitted with the minimum crossing protection measures required by RTD standards (gates and barrier curbs).

Layover/Storage Facilities

The proposed layover/storage facilities would be fenced to prevent public access. The proposed facilities would have no impact on public safety and security in the corridor.

Indirect Impacts

The build alternatives would be unlikely to induce additional population growth beyond current forecasts. Therefore, indirect impacts would be the same as those discussed under the No-Build Alternative. As the population grows in the study area, crime statistics would also increase in absolute numbers.

Transit stations may induce additional development in the surrounding areas, which would generate higher traffic volumes in those areas. These higher traffic volumes would create higher potential for accidents at at-grade railroad crossings.

Conceptual Mitigation

Table 3.09-5 summarizes proposed conceptual mitigation measures for public safety and security impacts.

TABLE 3.09-5
Proposed Conceptual Mitigation Measures – Public Safety and Security

Impact	Impact Type	Conceptual Mitigation Measures	
		Alternative A: Double Track to West	Alternative B: Double Track to East
Exposure to crime onboard transit vehicles and at stations	Operations (permanent)	RTD will continue to implement and follow existing security measures, outlined in the Affected Environment portion of this section	Same as Alternative A
Traffic delays at Ken Pratt Boulevard at-grade rail crossing due to higher train volume	Operations (permanent)	The at-grade rail crossing of Ken Pratt Boulevard will undergo additional evaluation and analysis to mitigate traffic delays at this crossing	Same as Alternative A
Acquisition of Boulder Emergency Squad under Alternative A	Operations (Permanent)	The facility will be relocated in compliance with the Uniform Relocation Assistance and Real Property Act of 1970 (Public Law 91-646, 84 Stat. 1894) as amended. See Section 3.4 Right-of-Way and Relocations for additional information on relocation procedures	No mitigation is required because there is no impact
Higher opportunity for accidents at at-grade rail crossings due to higher train volume	Operations (permanent)	RTD recommends installing active warning devices at all at-grade crossings. These devices could include gates, bells, lights, medians, and signage to alert both drivers and pedestrians of approaching commuter trains	Same as Alternative A

Source: Longmont Environmental Evaluation Team, 2006