EXHIBIT A

MAP OF SCHOOL SITES WITHIN 0.3 MILES OF EXPO LIGHT RAIL LINE

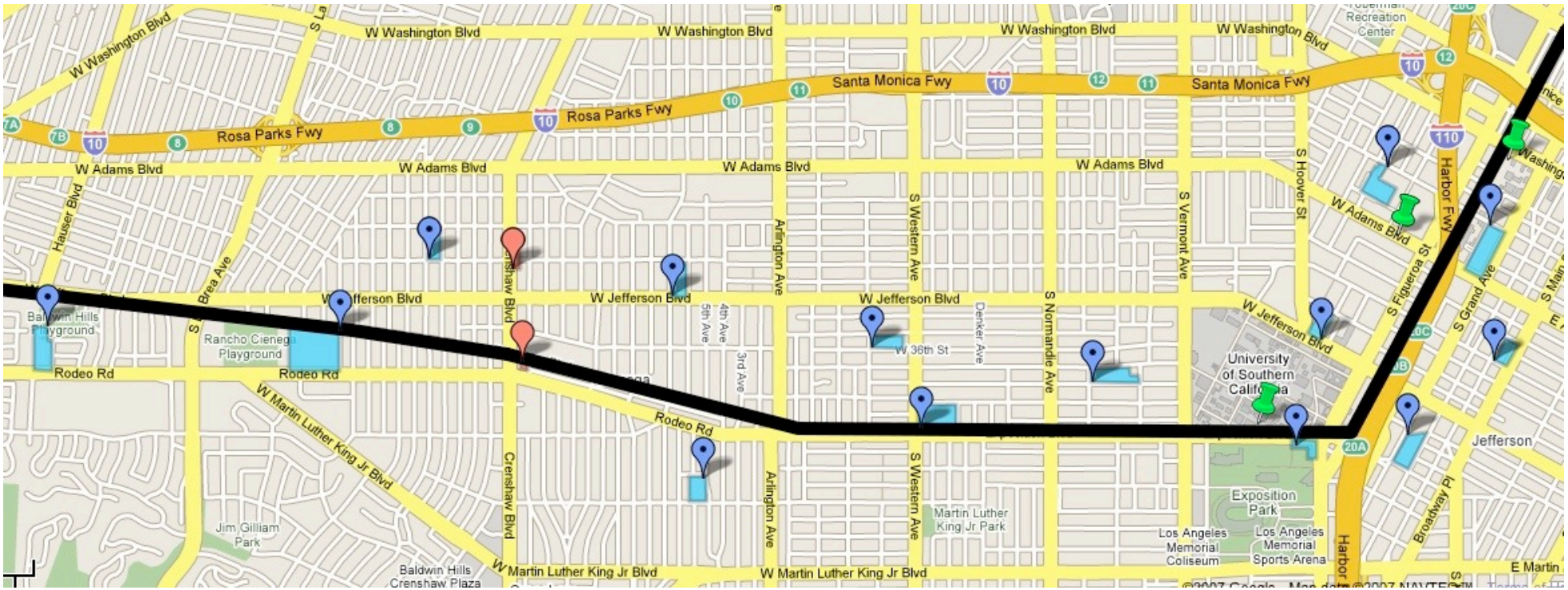
EXPO COMMUNITIES UNITED

SCHOOL SITES WITHIN 0.3 MILES OF EXPO LIGHT RAIL LINE

= LAUSD Schools: Lanterman Special Education School, Dorsey HS, Orthopedic Medical HS, Foshay Learning Center, Ted Alexander ES, Adams MS, Clinton MS, Bright ES, Weemes ES, Baldwin Hills ES, Virginia Road ES, 6th Avenue ES, & 32nd Street Magnet

= Private Elementary & Secondary Schools: Al-Madinah School, West Angelus School, & Turning Point School (off map)

= Universities & Colleges: USC, LA Trade Tech College, & Mount St. Marys College



To zoom into the map and view the crossings over satellite images, go to the following web address:

http://maps.google.com/maps/ms?ie=UTF8&hl=en&msa=0&msid=103975155675344153156.00043de0b1d37893a3e95&z=13&om=1

EXHIBIT B

EXPOSITION METRO LINE CONSTRUCTION AUTHORITY'S RESPONSE TO RCES' PROTEST FOR THE TRADE TECH DRIVEWAYS IN WHICH 4 MINUTE HEADWAYS ARE STATED

EXPO'S RESPONSE TO RCES' PROTEST for the Trade Tech Driveways 3/23/07

The Rail Crossing Engineering Section (RCES) of the California Public Utilities Commission (PUC) protested the Application (#07-01-017) of the Exposition Metro Line Construction Authority regarding the authority for construction of a two-track at-grade crossing for the Expo Light Rail Transit across the Los Angeles Trade Technical College's eight (8) driveways based on several grounds. The following are Expo Authority's response to each of the six grounds:

Ground No. 1: Hazard Analysis provided by Expo did not convincingly demonstrate that all eight driveways need to remain open into the crossings.

Response: Trade Tech's major argument for keeping all the driveways open is that each driveway leads to a unique and different class room. Although there is physical connection between classrooms inside the building, the classes close their roll-down doors when conducting their separate classes, and do not want to have vehicles from one class drive thru another class because of disruption and it's not safe. Furthermore, closing the driveways today will affect the planned Program expansion on the campus, and affect the flexibility in utilizing these class rooms. Trade Tech's justification for keeping each driveway, door-by-door, is as follows:

Dwy. 1 (Machine Shop/Welding): There's an extensive and elaborate crane set-up within this Machine Shop/Welding building. There needs to be access for 18-20 foot flat bed trucks for delivery of materials, including scrap metal. It's typically done with a dual axel truck, and the loading bay has a set-back from the curb to allow trucks to park off the street and sidewalk. It is also possible to have 40 foot semi-trailer making deliveries using this driveway. The delivery is infrequent, and usually no more than once a week. However, the Shop arranges for their delivery, and the delivery is always coordinate with the Shop manager. This driveway is also used for receiving liquid oxygen and other gas deliveries, which are also coordinated. The gas trucks must be able to enter this driveway and park next to the building wall. This delivery is also infrequent, and no more than once a week.

Dwy. 2 (Exit Dwy.): When the oxygen and other gas deliveries are made, the trucks must park next to the building where they hook-up to the gas lines. So, the EXIT driveway is used to allow the dual axel trucks to go forward, rather than having to back-up. Once again, this driveway may be used no more than once a week.

Dwy. 3 (Motorcycle Technology): This driveway leads to not just one class room but several smaller class rooms, including diesel engine, motorcycle engine, rear-end, and alternative fuel classes. Currently some students are allowed to bring-in their personal cars and Sports Utilitity Vehicles (SUVs) when pre-arranged, but typically the driveway is closed.

Dwy. 4 (Collision Repair): There are about 30 bays in the Body Shop, and students are able to bring-in their vehicles for repair. Body repair takes a long time, so

even thought there are many bays, typically no more than half dozen cars and SUVs would enter and exit this driveway on a daily basis. However, some of the vehicles are not able to be driven, so a tow truck would need to bring-in the vehicles.

Dwy. 5 (Automotive Technology): There are about 30 bays here as well. Auto repair also take a long time, so even though there are many bays, typically no more than a half dozen cars and SUVs belonging to students that would enter and exit this driveway on a daily basis. This driveway also leads to parking spaces in the back where vehicles to be repaired or repaired vehicles could be stored, and in the past vacant spaces were used as student parking, as well as parking for the shop teachers. Trade Tech informed Expo that they no longer allow student parking here. Once again, some of these vehicles do not run, so the vehicles would be brought to the Shop by a tow truck.

Dwy. 6 (Consumer Assistance): This is a general public use driveway. The State's Consumer Affairs allows for vehicles to be brought here when they are protesting smog check results. The public must make an appointment, and up to 8 appointments are set daily, but usually only about half of the public show-up based on field observations and discussions with Trade Tech. These vehicles are generally cars and SUVs.

Dwy. 7 (Diesel Technology/Central Delivery): This driveway is currently not in use and the area is under construction. However, this driveway will be reconstructed and widened to be the central delivery driveway for the campus. It will also be access to the Diesel Technology shops. Therefore, there will be more traffic here in the future than today. It is forecasted that more than 40 to 50 trucks per day will be using this driveway. Most of the trucks will be dual axel vehicles, such as FED EX , UPS and US Mail trucks. However, 40 foot trucks may also use this driveway.

Dwy. 8 (Parking Lot): This driveway will lead to the existing roof top parking area above the Auto Shop classrooms. The existing access to the roof top parking is being relocated to Flower Street. This driveway will be signalized with the standard traffic signals. The parking lot has 400 spaces and with a turnover of these spaces throughout the day, about 1200 student automobiles are expected to enter and exit this driveway.

Ground No. 2: The application fails to provide necessary information such as the number and frequency of the trains that will use the eight crossings.

Response: Metro plans to have the following train schedules: 4 minute services for peak periods, 10 minute service for mid-day, and 20 minute services for early morning and night time. Therefore, a total of about 240 trains per day (both directions) will be crossing these eight crossings.

Ground No. 3: The application fails to provide necessary information such as expected vehicular traffic volumes at the eight crossings. The application fails to identify the type of traffic using each of the crossings.

Response: As noted above, typically no more than 40 automobiles per day will be crossing six of the driveways, while there will be about 80 to 100 dual-axel trucks crossing the delivery driveway, and about 2400 automobiles will be crossing the signalized driveway to the roof top parking per day. About once a week, a dual axel truck would be using the Metal Shop/Welding driveway (Dwy. 1) and EXITing at driveway 2. Among the rest of the 4 driveways, Consumer Affairs driveway (Dwy. 6) would have general public traffic, while all other driveways will only have students and teacher vehicles, and occasional tow trucks. In terms of pedestrians accessing these facilities, about 10 students in total were observed using Driveways 3, 4, and 5 or the doors next to these driveways during a typical day. The are Shop doors adjacent to the roll-up garage doors at each of the three Driveways 3, 4 and 5. There were no other pedestrian activities observed among the other driveways.

Ground No. 4: The application indicates that the driveways are 16 feet to 28 feet deep, including the sidewalk. But the application fails to describe the type of vehicular traffic using each driveway. Therefore, RCES cannot evaluate the sufficiency of the storage space for the type of vehicle using each crossing.

Response: It should be noted that the current 15 foot sidewalk will be reduced to 10 feet when the Light Rail is constructed. LADOT intends to install signs that read "Do Not Stop on Tracks." However, there is sufficient depths in the driveways to accommodate at least one car length of storage in front of the roll-up garage doors, as described below:

Dwy. 1 has a covered loading area that's about 15 feet deep, beyond the 25 feet of distance from the street to the building, so the total storage area is about 40 feet in depth. Currently dual axel flat bed trucks that are about 28 to 30 feet long use this driveway.

Dwy. 2 is only used as an exit driveway during various gas deliveries, and there is no garage door opposite the driveway. The trucks are typically dual axel and no more than 28 to 30 feet long, and park parallel to the building. The total depth between the street and building is about 25 feet, including the 10 width for the sidewalk.

Dwy. 3 is 25 feet deep, including the sidewalk. Only student cars and SUVs use this driveway. Occasionally a tow truck would use this driveway. The width of the garage doorway is 12 feet.

Dwy. 4 is 25 feet deep, including the sidewalk. Students and teachers only use this driveway with their cars and SUVs. Occasionally a tow truck would use this driveway. The width of this garage doorway is 16 feet.

Dwy. 5 is 22 feet deep, including the sidewalk. Students only use this driveway. Occasionally a tow truck will use this driveway. The width of this garage doorway is 15 feet.

Dwy. 6 is about 14 feet deep, including the sidewalk. Since this driveway is open to the public, it's usually kept open all day long to accept cars and SUVs. The width of this garage doorway in 12 feet.

Dwy. 7 is 10 feet deep, which is the width of the sidewalk. Since this is the main delivery for the campus, Trade Tech intends to keep the gate open during the hours of 6 AM to 7 PM daily. The new driveway will be about 35 feet wide.

Dwy. 8 leads to a ramp that goes to the roof top parking, and the ramp is about 400 feet long. This is a signalized intersection, and access to the ramp as well egress from the ramp is going to be controlled by standard traffic signals that will have Green, Yellow and Red Arrows.

Ground No. 5: The application does not include provisions for traffic signals to control vehicular movement from the driveways on Flower Street. Once a vehicle is stopped on the tracks there is no active signal proposed to inform the driver of an approaching train. This is a significant safety concern.

Response: LADOT will be installing active TRAIN LED signs and NO LEFT TURN LED Symbols at all the entrances to the driveway, and active TRAIN LED signs coming out of the driveways. LADOT will also be installing static signs in both directions indicating to drivers not to stop on the tracks, as well as signs to say look both ways. LADOT has also created a storage area beyond the tracks for vehicles exiting the driveways. It is intended to allow vehicles to store and wait for gaps in traffic if drivers did not wait to enter Flower Street behind the tracks as signed. LADOT also pointed out that since the Active TRAIN LED signs are mounted on poles in the 4 foot island beyond the tracks, it is going to be visible if vehicles happen to stop on the tracks. What's significant to note is that since Flower Street is a one way street in the southbound direction, traffic is heavy during the evening peak hours between 4 PM and 7 PM. Morning traffic is around 300 vehicles per hour (vph) between Washington Boulevard and Adams Boulevard. During the mid-day it's about 500 (vph) and increases to about 800 vph around 3 PM. It peaks between 5 and 6 PM with about 1800 vph with a daily total volume of around 16,000. LADOT intends to allow curb parking most of the day, so there will be two moving lanes and a left-turn lane. During the evening peak period parking will be restricted, so there will be three (3) thru lanes and a left-turn lane on Flower Street.

All the Trade Tech driveways are not very active after 2:30 PM, with the exception that students arrive for evening classes using driveway number 8 between 5 and 6 PM. It is anticipated that the delivery traffic during the 3 to 6 PM period would be less than 10

trucks. The parking lot driveway traffic is estimated to be about 400 during the same 3 to 6 PM period and primarily heavy during the 5 to 6 PM period.

Ground No. 6: The proposed crossings create redundant crossings in close proximity to each other. The Expo Authority fails to consider the possible closure or consolidation of adjacent driveways with lower traffic volumes

Response: Trade Tech's position is that each driveway serves a unique classroom and can not be closed. Consolidation is also difficult, because the installation an access roadway connecting the driveways is only feasible between driveways 1 and 3. At other locations, is not possible to install a roadway that can accommodate vehicular turn movements and provide a safe passage for pedestrians

#########

EXHIBIT C

EMAIL CHAIN OF DAMIEN GOODMON'S REQUEST FOR TRAFFIC COUNT DATA FROM THORPE, OLSON, SANDBERG & MATTES

Gmail by Google BETA

Damien Goodmon <damienwg@gmail.com>

Traffic Count data for 2 intersections

Damien Goodmon <damienwg@gmail.com> **Sat, Nov 17, 2007 at 9:55 PM**
To: "Sandberg, Joel (expo)" <JSandberg@exporail.net>
Cc: "Thorpe, Rick" <RThorpe@exporail.net>, "Olson, Eric" <EOlson@exporail.net>, Jeff Rabin <jeff.rabin@latimes.com>, "Mattes, Martin" <mmattes@nossaman.com>, Clint Simmons <csimmons@successnet.net>, Carol Tucker <ctliteracy@aol.com>, "Gonzalez, Gabriela" <GGonzalez@exporail.net>

Mr. Sandberg,

I am disappointed that the Expo Authority does not have any traffic counts for the following intersections:

Wisconsin/Exposition
Catalina/Exposition
Budlong/Exposition
La Salle/Exposition
Harvard Blvd/Exposition
2nd Ave/Exposition
3rd Ave/Exposition

And only has years old traffic count for other intersections, or lacks pedestrian traffic counts and even more intersections. Regardless, I am grateful for receiving the traffic counts, which are available to you.

I will attempt to obtain the necessary information through LADOT. If new traffic counts are made available to the Expo Authority, I would greatly appreciate being sent those as well.

Thank you,
Damien Goodmon
damienwg@gmail.com
323.845.2003

On Nov 16, 2007 5:16 PM, Sandberg, Joel (expo) <JSandberg@exporail.net > wrote:

> Mr. Goodmon,
>
> Attached is a traffic count sheet for the 23rd Street/Flower Street intersection. This is the only count sheet located in the Expo Authority Project files that pertains to any of the intersections included in your request of November 9th, other than those count sheets already transmitted to you. The City of Los Angeles Department of Transportation (LADOT) periodically performs traffic counts at intersections within the City. You may be able to obtain traffic counts for the other intersections on your list by submitting a request directly to LADOT.
>
> Joel Sandberg
>
> ---
>
> **From:** Damien Goodmon [mailto:damienwg@gmail.com]
> **Sent:** Friday, November 16, 2007 2:46 PM

To: Sandberg, Joel (expo)
Cc: Thorpe, Rick; Olson, Eric; Jeff Rabin; Mattes, Martin; Clint Simmons; Carol Tucker; Gonzalez, Gabriela

Subject: Re: Traffic Count data for 2 intersections

Mr. Sandberg,

I'm checking to see if the counts for the other intersections will be able to be supplied by the close of business today?

Thank you,
Damien Goodmon
damienwg@gmail.com
323.845.2003

On Nov 14, 2007 5:28 AM, Damien Goodmon <damienwg@gmail.com> wrote:

Mr. Sandberg,

Thank you. I understand you can only provide the data which you have at your disposal, however, my concern is, possibly to no fault of the Authority, a lot of the counts appear to be taken during non-school days, and/or lack pedestrian counts. So, who at LADOT do I direct my inquiries for traffic count data in general?

I will await data from the other intersections.

Thank you,

Damien Goodmon
damienwg@gmail.com
323.845.2003

On Nov 13, 2007 4:53 PM, Sandberg, Joel (expo) < JSandberg@exporail.net> wrote:

Mr. Goodmon,

As promised on Friday, attached are electronic copies of the traffic count sheets transmitted to FFP by LADOT on 10/23/07.

These count sheets do not include seven of the intersections listed in your attached request transmitted on Friday, November 9th, at 4:30 pm. We have initiated a search of the Expo Authority files for traffic count sheets for those intersections and expect to transmit any count sheets located pertaining to those seven intersections tomorrow or Thursday as indicated in my attached email.

Joel Sandberg

From: Damien Goodmon [mailto: damienwg@gmail.com]
Sent: Sunday, November 11, 2007 1:44 PM

To: Sandberg, Joel (expo)
Cc: Thorpe, Rick; Olson, Eric; Jeff Rabin; Mattes, Martin; Clint Simmons; Carol Tucker; Mark Jolles; Gonzalez, Gabriela
Subject: Re: Traffic Count data for 2 intersections

Mr. Sandberg,

Thank you. I await the data.

Damien Goodmon
damienwg@gmail.com
323.845.2003

On Nov 9, 2007 5:11 PM, Sandberg, Joel (expo) < JSandberg@exporail.net> wrote:

Mr. Goodmon,

The preliminary list I have of the traffic count data recently received by FFP from LADOT includes some but not all the intersections you have listed in your requests. I do not currently have electronic versions of these count sheets to transmit but should be able to transmit them all to you on our next work day, which is Tuesday, November 13th, following the Veteran's Day Holiday on Monday. We will have to initiate a search for the most recent count data for the additional intersections you have requested that are not included in the recent counts received from FFP. It may take until Wednesday or Thursday to complete that search and transmit any relevant counts located.

Joel Sandberg

From: Damien Goodmon [mailto: damienwg@gmail.com]
Sent: Friday, November 09, 2007 4:30 PM
To: Sandberg, Joel (expo)
Cc: Thorpe, Rick; Olson, Eric; Jeff Rabin; Mattes, Martin; Clint Simmons; Carol Tucker; Mark Jolles; Gonzalez, Gabriela
Subject: Re: Traffic Count data for 2 intersections

Mr. Sandberg,

Thank you for your timely response. I would appreciate the more recent data.

Indeed, if it is possible I'd greatly appreciate the most up to date traffic counts for all of the intersections. Most of the information I have is from 2003.

Additionally, I have no counts for the following streets:

23rd Street/Flower
Exposition/Flower Street
Wisconsin/Exposition
Catalina/Exposition
Budlong/Exposition
La Salle/Exposition
Harvard Blvd/Exposition
2nd Ave/Exposition
3rd Ave/Exposition

For these streets I'll take the most recent data, but would like to see all of the updated traffic data if possible. Please let me know when it is possible for me to receive that information.

Thank you again for your timely response,
Damien Goodmon
damienwg@gmail.com
323.845.2003

On Nov 9, 2007 12:48 PM, Sandberg, Joel (expo) < JSandberg@exporail.net> wrote:

Mr. Goodmon,

I just learned that our Design-Build Contractor, FFP, has received more recent traffic count data from LADOT that might include the intersections cited in your attached request. If you are seeking more recent count data, let me know and I will check the counts received by FFP and forward any that are relevant to your request.

Joel Sandberg

From: Damien Goodmon [mailto: damienwg@gmail.com]
Sent: Thursday, November 08, 2007 7:35 AM
To: Thorpe, Rick; Sandberg, Joel (expo); Olson, Eric
Cc: Jeff Rabin; Mattes, Martin; Clint Simmons; Carol Tucker; Mark Jolles; Gonzalez, Gabriela
Subject: Traffic Count data for 2 intersections

Gentlemen,

Please respond by close of business tomorrow, Friday, November 9, with the traffic count sheet

from 2006 or sooner for the intersections of:

-Figueroa Street and Exposition Blvd
-Jefferson Blvd and National Blvd

If the data cannot be provided by that time, please respond with a date by which I can expect it.

Thank you so much,
Damien Goodmon
damienwg@gmail.com
323.845.2003

BCC: The community

EXHIBIT D

ARTICLES COVERING TWO RECENT BLUE LINE FATALITIES DUE TO REPORTED JAYWALKING, AND ONE RECENT BLUE LINE FATALITY DUE TO REPORTED FENCE HOPING

Blue Line Train Kills Teenager in Crosswalk

By Kurt Streeter
Times Staff Writer
November 23 2002

A 16-year-old girl was killed Friday when she was struck by a Blue Line train on a street just south of downtown Los Angeles.

The accident raises the death toll to 61 on the light railway since it opened in 1990. The 22-mile line connecting downtown with Long Beach has many stretches that run among cars and pedestrians on busy streets. It has the worst fatal accident rate among light-rail lines in California and is among the deadliest railways in the nation, according to Federal Transit Administration statistics.

Witnesses told police the girl was in a crosswalk when she was hit about 7:30 a.m. by a southbound train near a station platform in the 700 block of East Washington Boulevard, said LAPD Sgt. Kevin Custard.

The witnesses said the girl, whose name was being withheld pending notification of her family, was crossing the street against a pedestrian red-light signal.

"She apparently was rushing across the street, even though she didn't have a signal to go," Custard said. "The train hit her and ran her over."

She was pronounced dead at the scene by Los Angeles Fire Department officials.

Full service on the Blue Line was stopped for about two hours, an MTA spokesman said.

The Blue Line carries about 62,000 riders daily, making it one of the busiest light-rail lines in the nation.

The article above was printed in the Los Angeles Times November 23, 2002 edition.

Blue Line Train Involved in Fatality

20-year-old Female Run Over

LOS ANGELES
Apr. 14, 2007

(KABC-TV) - A young woman was fatally run over by a Blue Line train on the south side of downtown Saturday, a fire official said.

Paramedics were sent to the 1800 block of South San Pedro Street at 12:28 p.m., said Los Angeles city fire spokesperson d'Lisa Davies.

The Long Beach-bound light-rail train was unable to stop before striking 20-year-old Maxmiliana Gomez. The Blue Line driver stated that a group of three -- two males and Gomez -- attempted to run across the tracks in front of the train. The young woman was unsuccessful in her attempt and she was declared dead at the scene.

"Maxi Force Airbags" were used to extricate the body from underneath the train, which took an hour.

The accident delayed service on the downtown-to-Long-Beach line.

Nov 27, 2007 1:47 am US/Pacific

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Man, 27, Killed By Metro Blue Line Train

FLORENCE, Calif. (CBS) — A 27-year-old man who climbed over a fence onto Metro Blue Line tracks was fatally struck by a southbound train, authorities said.

The accident occurred at 6:13 p.m. Monday, north of the Florence Station just south of Gage Avenue in unincorporated Florence, said Metropolitan Transportation Authority Senior Communications Representative Rick Jager.

The area was fenced, but the man climbed over the fence, he said.

Trains were still running "because we are able to single track through the area," Jager said.

The man's body was still on scene, awaiting the arrival of representatives of the Los Angeles County Department of Coroner, he said.

Passengers wait for a Metro Rail Blue Line train. (File)
AP

Los Angeles News

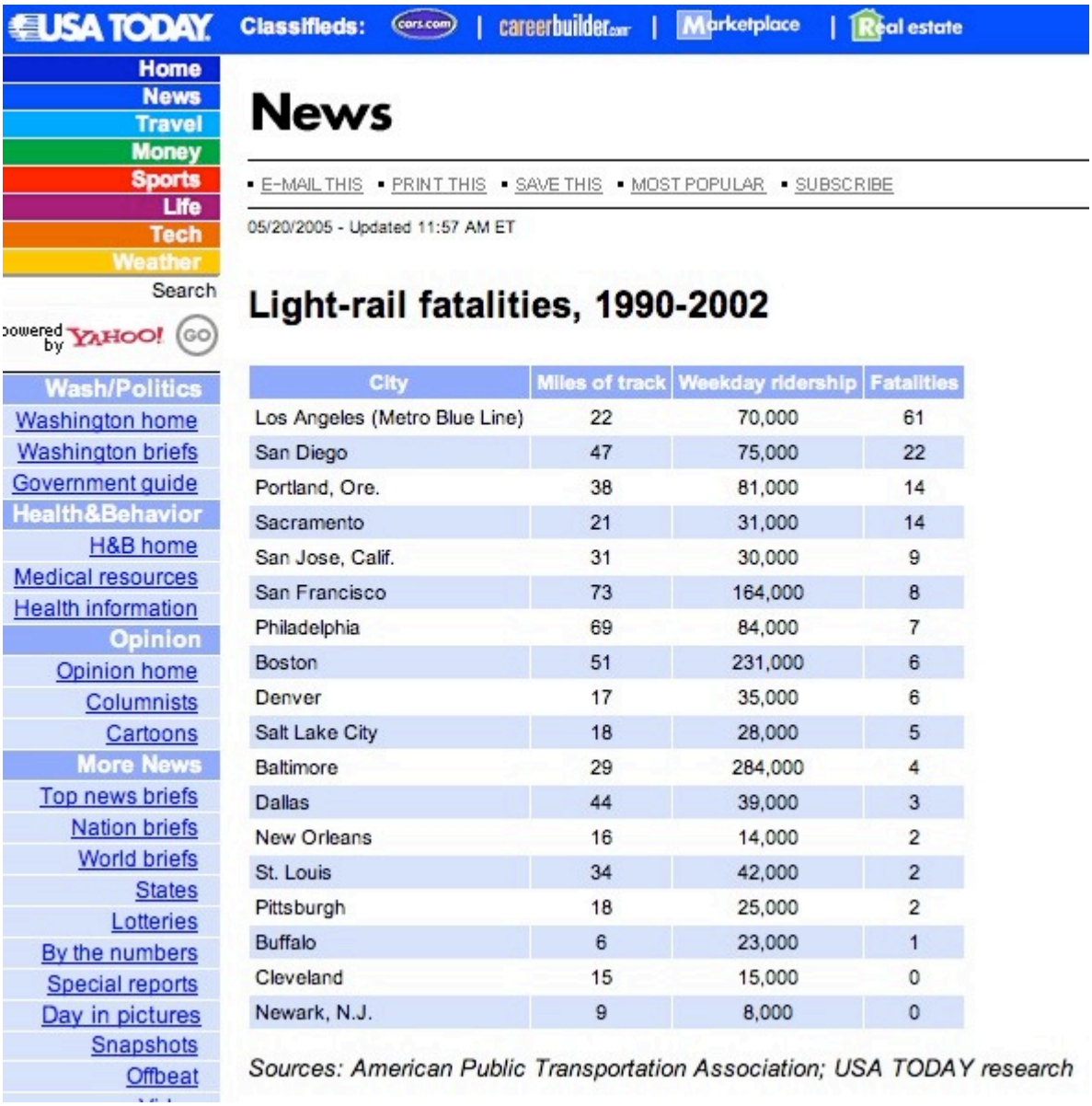
- Fisherman Pleads Guilty To Stabbing Sea Lion
- Real Estate Developer Hands USC $17M
- 2 Females Rob Reseda, Northridge 7-Eleven Stores
- Pursuit Suspect Surrenders After Crashing Vehicle

The above article was available as of December 19, 2007 at the following web address:

http://cbs2.com/local/train.kills.man.2.596413.html

EXHIBIT E

AMERICAN PUBLIC TRANSPORTATION ASSSOCIATION STATISTICS ON LIGHT RAIL FATALITIES FROM 1990-2002 AS PROVIDED THROUGH USA TODAY



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Government guide
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Health information
Opinion
Opinion home
Columnists
Cartoons
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Day in pictures
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05/20/2005 - Updated 11:57 AM ET

Light-rail fatalities, 1990-2002

City	Miles of track	Weekday ridership	Fatalities
Los Angeles (Metro Blue Line)	22	70,000	61
San Diego	47	75,000	22
Portland, Ore.	38	81,000	14
Sacramento	21	31,000	14
San Jose, Calif.	31	30,000	9
San Francisco	73	164,000	8
Philadelphia	69	84,000	7
Boston	51	231,000	6
Denver	17	35,000	6
Salt Lake City	18	28,000	5
Baltimore	29	284,000	4
Dallas	44	39,000	3
New Orleans	16	14,000	2
St. Louis	34	42,000	2
Pittsburgh	18	25,000	2
Buffalo	6	23,000	1
Cleveland	15	15,000	0
Newark, N.J.	9	8,000	0

Sources: American Public Transportation Association; USA TODAY research

The above table of light-rail fatalities provided by the American Public Transportation Association, through USA Today research, was featured in the USA Today article, "Blue Line takes a troubled route," by Martin Kasindorf (1/7/2003). The table was available as of December 19, 2007 at the following web address: http://www.usatoday.com/news/2003-01-07-rail-fatalities.htm

The article was available as of December 19, 2007 at the following web address: http://www.usatoday.com/news/nation/2003-01-06-blue-line-usat_x.htm

EXHIBIT F

MTA'S EVALUATION OF THE CURRENT GRADE CROSSING SAFETY IMPROVEMENT PROGRAM OF THE METRO BLUE LINE AS PREPARED BY BOOZ-ALLEN HAMILTON INC.

Metropolitan
Transportation
Authority

One Gateway Plaza
Los Angeles, CA
90012-2952

November 6. 1998

TO: BOARD OF DIRECTORS

FROM: ALLAN LIPSKY
DEPUTY CEO

SUBJECT: METRO BLUE LINE GRADE CROSSING SAFETY IMPROVEMENT PROGRAM EVALUATION FINAL REPORT

Please find attached the Booz-Allen & Hamilton's Metro Blue Line report covering the evaluation of the current Grade Crossing Safety Improvement program which will be presented at the November Committee and Board meetings.

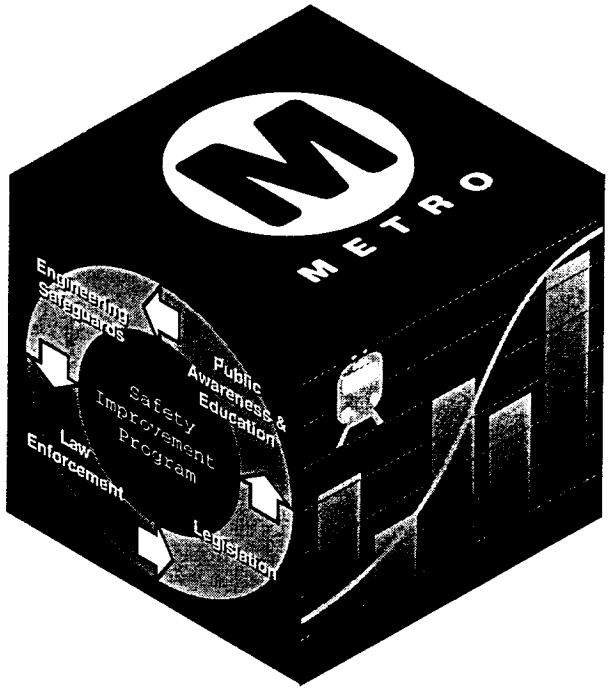
Attachment

Final Report

presented to the

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

Evaluation of the Current Grade Crossing Safety Improvement Program of the Metro Blue Line



prepared by

BOOZ·ALLEN & HAMILTON INC.
Los Angeles, California

November 2, 1998

PREFACE

This study was performed by a team comprised of individuals from several private and governmental agencies including:

- Los Angeles County Metropolitan Transportation Authority (Client)
- Booz·Allen & Hamilton Inc.
- Los Angeles County Sheriff's Department
- Los Angeles Police Department
- U.S. Public Technologies LLC.

The findings and recommendations in this report reflect the best judgment of the participants based on the information available to them. Best efforts were made during the study to ensure that the study is comprehensive and systematic. However, Booz·Allen cannot warrant or guarantee that every possible hazard associated with the Metro Blue Line Grade Crossing Safety has been identified.

The Client is solely responsible for the achievement of its intended results, and for the use made and results obtained from the services rendered by Booz·Allen & Hamilton Inc.

EXECUTIVE SUMMARY

In 1993, the Los Angeles County Metropolitan Transportation Authority (MTA) established the Metro Blue Line (MBL) Grade Crossing Safety Improvement Program. This program was established to evaluate and implement various means to discourage or prevent illegal movements by vehicles and pedestrians at grade crossings. There are four elements of the MBL Grade Crossing Safety Improvement Program:

- Engineering Safeguards
- Public Outreach and Education
- Traffic Enforcement
- Legislation.

On September 28, 1998, The MTA commissioned Booz·Allen & Hamilton Inc. to conduct an evaluation of the effectiveness of the past and current Grade Crossing Safety Program. The purpose of this project is to evaluate the four elements of the program, identify areas that need improvement, and provide the MTA with a proposed path forward for strengthening the program. This report documents the findings from this study.

Engineering Safeguards—During the past five years, the MTA has become a national leader for implementing innovative technologies and methods for improving grade crossing safety. To evaluate the effectiveness of the existing and proposed engineering safeguards, Booz·Allen documented the safeguards at each MBL grade crossing and performed a risk assessment of each crossing. This reports identifies several design improvements for the MBL which include:

- Pursuing the elimination of the grade crossing at 18th Street/I-10 freeway on-ramp
- Expanding the photo enforcement in Los Angeles and Long Beach
- Reviewing the signs, signals, and pavement markings along the entire alignment with respect to reducing automobile driver confusion
- Improving the maintenance of safeguards already in place.

Public Outreach and Education—To determine the effectiveness of the MBL public outreach and education program, Booz·Allen conducted interviews with various school administrators and public agency representatives. Based on the review, this element of the grade crossing program needs to be more consistently implemented. Booz·Allen recommends that a written plan be prepared which defines a formal outreach program to include child, adult, and professional services education programs. This report provides an outline for a proposed cost-effective public outreach and education plan.

Traffic Enforcement—The Los Angeles Sheriff's Department (LASD) recently concluded negotiations to extend the MBL security contract. Under the new contract

extension, several provisions have been added to enhance grade crossing safety including the addition of eight motorcycle officers. In addition, interviews with LASD management indicate that the Sheriff's Department is interested in providing the MTA with a full range of security services and many items at no additional cost to the MTA. This report discusses these services and provides recommendations for traffic enforcement improvements including:

- Identifying areas of the MBL that require further enforcement (e.g., pedestrian grade crossing enforcement)
- Inviting LASD participation in engineering design review and public outreach planning meetings.

Legislation—Since 1993, two pieces of legislation have been passed to improve grade crossing safety:

- Rail Traffic Safety Act (AB1035, Archie-Hudson, 1993) – A comprehensive law which provides the framework for grade crossing safety.
- Rail Traffic Enforcement Act (SB1802, Rosenthal, 1994) – Authorized the use of photo enforcement system for citing grade crossing violators.

Booz·Allen reviewed a large range of proposed legislation for grade crossing safety. Based on this review, Booz·Allen recommends that the MTA pursue legislation to:

- Increase the fine for the first violation from $104 to $271
- Allocate a portion of the traffic penalties collected to the MTA grade crossing program.

TABLE OF CONTENTS

1.0 INTRODUCTION

The Los Angeles Metro Blue Line (MBL) is a 22-mile light rail line that operates through three cities and unincorporated areas of Los Angeles County, running from downtown Los Angeles to the City of Long Beach. The MBL began revenue service in July, 1990 and has a current average ridership of 45,000 passengers per day.

The MBL has two modes of operation:

- Cab Signal Mode
- Street Running Mode.

For approximately 12 miles, MBL trains operate on their own right-of-way under Automatic Train Protection. Operators control train operations with speeds governed by cab and wayside signals. Over this portion of the alignment, MBL trains travel at speeds up to 55 miles per hour and traverse past 28 at-grade street crossings. Over the remaining 10 miles, trains are controlled by operators on street running segments in downtown Los Angeles and Long Beach. In these segments, trains are operated according to street traffic signals, traffic conditions, and train control "T" signals. There are more than 75 grade crossings in the street running portion of the line.

1.1 GRADE CROSSING SAFETY OVERSIGHT

The California Public Utilities Commission (CPUC) is responsible for state safety oversight over transit properties in California. The CPUC has mandated speeds in the street running portion of the line be limited to 35 miles per hour. The MTA has established a speed limit of 55 miles per hour in the cab signal portion of the alignment.

1.2 SCOPE OF THE MBL GRADE CROSSING EVALUATION

The scope of this report is to provide an overview and evaluation of the MBL Grade Crossing Safety Program. Specifically, this report will discuss the following areas:

- Engineering Safeguards
- Public Education and Outreach
- Traffic Enforcement
- Legislation
- Impact of Future Construction Projects.

1.3 REVIEW OF ACCIDENT DATA

From July 1990 through June 1998, there have been 402 accidents and 39 fatalities on the MBL. Of the 402 accidents:

- 18.2% have been the result of train/pedestrians accidents.
- 51.2% have been the result of trains colliding with vehicles making left hand turns.
- 9.2% have been the result of trains colliding with vehicles driving around the crossing gates.
- 21.4% have been the result of trains colliding with vehicles other than making left turns or running gates.

Statistically, from the beginning of MBL revenue operations, the train versus vehicle accident rate has decreased from 5 accidents per 100,000 miles in 1980 to 2 accidents per 100,000 miles in 1997. The train versus pedestrian accident rate has not changed throughout the history of the MBL at 1 accident per 100,000 train miles. Comparing these rates with other light rail systems (e.g., Sacramento Regional Transit District, San Diego Trolley, and Santa Clara County Transportation Agency), the MBL has one of the highest accident rates.

1.4 WHAT MAKES THE METRO BLUE DIFFERENT FROM OTHER LIGHT RAIL SYSTEMS?

One aspect of this study is to analyze those factors that may contribute to the MBL's high accident rate as compared to other light rail systems. There are several factors that contribute to the accident rate including:

1. The MBL travels through a high population density area with a diverse varied social-economic community. The high density results in increased pedestrian and automobile traffic as compared to other transit properties. In addition, the communities through which the MBL travels requires special attention to language and literacy issues when disseminating public outreach and education information.

2. The MBL traverses through an industrial center of Los Angeles. The industrial center results in increased trucking and shipping traffic near the MBL. The increased truck traffic results in increased driver frustration due to slower street traffic speeds. This frustration may result in increased crossing gate running and illegal left turns.

3. The MBL shares its right-of-way with a busy freight railroad. The MBL shares its right-of-way with the Union Pacific (UP) Railroad. The freight railroad traffic also likely contributes to driver frustration and increased gate running.

In addition, the freight railroad also contributes to a factor known as the "second train phenomenon". This phenomenon is caused by a freight train passing a crossing and the crossing gates remaining in the lowered position. Automobile drivers believe the gates are broken and proceed to drive around the gates. The vehicle then collides with a light rail train coming from the opposite direction.

4. The MBL has one of the highest ridership counts for light rail lines in the Country. This factor is perhaps the most important contributor to the grade crossing accident rate. The high ridership results in increased pedestrian traffic near stations as compared to other light rail systems. In addition, although MTA Operations does not allow high passenger loads dictate safe operations, there is pressure to maintain travel times and headway schedule requirements (e.g., passenger trip from Los Angeles to Long Beach in less than one hour).

The culmination of the factors noted above result in a complicated situation that cannot be solved by a single solution, but rather requires a well-organized grade crossing program.

1.5 THE MBL GRADE CROSSING SAFETY PROGRAM

In 1993, The Los Angeles County Metropolitan Transportation Authority (MTA) established the Metro Blue Line Grade Crossing Program. The Grade Crossing Program consist of four elements:

- Engineering Safeguards
- Law Enforcement
- Public Outreach and Education
- Legislation.

The remaining chapters of this report discuss the four elements of the MBL grade crossing program noted above.

2.0 ENGINEERING SAFEGUARDS

An engineering safeguard can be defined as a physical device that has the potential to reduce rail crossing accidents and fatalities. In general, safeguards can include: crossing elimination, passive traffic control devices, active traffic control devices, site and operational improvements, crossing surface improvements, and grade separations. Because of the renewed interest in developing light rail transit systems, the USDOT's Grade Crossing Safety Task Force has recognized that light rail transit crossings require continuing attention. Safety concerns are raised because these light rail transit systems operate in shared rights-of-way with motorists and pedestrians.

The American Association of State Highway and Transportation Officials (AASHTO) provides guidance to the highway community on highway design in the form of recommended thresholds for critical dimensions regarding grade crossings. The Federal Highway Administration (FHWA) provides further guidance in the Manual on Uniform Traffic Control Devices (MUTCD) in the form of national standards for traffic control devices at highway-rail crossing. These standards and guidelines have been based largely on practices within the railroad industry.

The existing MUTCD standards do not address the unique hazards associated with light rail grade crossings in street running alignments (i.e., shared right-of-way), nor are there any guidelines for interconnected signals for light rail and traffic signals. The Institute of Transportation Engineers (ITE) developed recommended practices for preemption of traffic signals at or near railroad grade crossings, however these ITE guidelines are relevant to light rail only when automatic gates are used. It should be recognized, however, that light rail street operation is governed by the state vehicle code. Signals for light rail in street operations are a part of and governed by standard traffic vehicle signal systems. Through the Transit Cooperative Research Program (TCRP), the Federal Transit Administration (FTA) has funded an effort to draft a new chapter for the MUTCD titled "Traffic Control Systems for Light Rail-Highway Grade Crossings." A new revision of the MUTCD, including the chapter on light rail grade crossings, is expected out soon.

The FHWA also publishes the Railroad-Highway Grade Crossing Handbook, which offers general guidance for making physical and operational improvements to grade crossings. However, similar to the previously mentioned guidelines, it does not specifically address light rail grade crossings. As a result, there is an effort to update the Railroad-Highway Grade Crossing Handbook, which is expected to be ready for distribution sometime in the near future.

Specific guidance on light rail street running grade crossing engineering safeguards is receiving a lot of much deserved attention. The documents cited above have been used as guidance for light rail grade crossing safety. In California,

jurisdiction of grade crossings resides with the California Public Utilities Commission (CPUC). Each transit authority must abide by the California Public Utilities Code General Orders. The CPUC has the authority at public grade crossings related to improvements, cost allocations, and closing.

Improvements and addition of engineering safeguards are part of the MTA's Los Angeles Metro Blue Line Grade Crossing Improvement Program. As part of the evaluation of this program, Booz·Allen has performed a comprehensive review of the engineering safeguards incorporated along the MBL. This section describes Booz·Allen's Evaluation Methodology, the MBL's Photo Enforcement Program, current Engineering Safeguards System Description, Vehicle Related Changes, and Recommendations.

2.1 EVALUATION METHODOLOGY

In order to assess the engineering safeguards incorporated along the MBL, Booz·Allen first catalogued the safeguards used at each crossing by conducting a field investigation. This was accomplished by physically visiting each grade crossing, taking an inventory of the existing safeguards, and documenting them with digital and traditional 35mm-film pictures.

Booz·Allen then reviewed and analyzed current and proposed projects on engineering design changes using the catalogue information and statistical data. The project that revealed the most dramatic results was the Photo Enforcement Program. This Program was reviewed in detail, and the results are presented in the next section, Photo Enforcement Program. Additional design changes, such as train "ditch" lights and pedestrian "strobe" lights, were also reviewed and analyzed. The results of this review are presented in the Vehicle Related Changes section.

A cost/benefit analysis was then performed by Booz·Allen to identify the most cost/risk-effective safeguards to implement at each grade crossing. This was accomplished by first assessing the current level of safety at each grade crossing using a modified Military Standard (MIL-STD) 882C approach. In this approach, Booz·Allen conducted a field investigation in which each grade crossing was individually assessed by several Booz·Allen safety engineers. This included a visual inspection of each grade crossing, as well as a review of the safeguards and statistical data.

The modified MIL-STD 882C approach utilized a rating system in which each grade crossing was assigned a relative value (i.e., category) for accident severity, hazard cause frequency, and accident trigger probability for a realistic worst case scenario. The accident severity refers to the consequence of a realistic worst case scenario should a hazard become a reality. The hazard cause frequency refers to the frequency that a hazard exists in which a realistic worst case scenario can occur. The accident trigger

probability refers to existence of an initiating event that will trigger the occurrence of a realistic worst case scenario.

Once the current level of safety at each grade crossing was established, the plausibility of implementing safeguards that have not been implemented at that grade crossing was evaluated. This was accomplished by applying a cost/risk-benefit analysis. In this analysis, the safety of each grade crossing is re-assessed after fictitiously adding the safeguard being evaluated. The improvement in safety after adding the safeguard is the risk-benefit achieved. This risk-benefit is then divided by the cost of implementing the safeguard. This ratio then becomes the cost/risk-benefit ratio. The higher the cost/risk-benefit ratio, the more cost-effective the safeguard.

Based on the cost/risk-benefit ratio, the safeguards that are not currently implemented at each grade crossing can be prioritized. The prioritization of the safeguards, as well as Booz·Allen's professional engineering judgment, is the basis of the Recommendations section. The detailed inventory of the currently existing safeguards for each grade crossing, as well as the prioritization of the safeguards not existing at each grade crossing.

2.2 MBL GRADE SEPARATION/STREET CLOSURES

Grade crossing hazards arise from the fact that light rail vehicles share right-of-way with automobiles and pedestrians. To completely eliminate these hazards, two potential solutions exist: provide grade separation of the rail alignment from the city streets or close city street that cross the light rail guideway. This design solution for grade separation would require one of two choices:

- Elevate the guideway on a dedicated structure
- Submerge the guideway into a tunnel or trench.

During the construction of the MBL, these options were evaluated and in some cases were adopted. Although technically feasible, the cost estimates for these options were identified to be in the several hundred million dollar range. Therefore, these options were ruled out as viable alternatives for the entire alignment. One grade separation project at Imperial Highway is planned and financed with construction scheduled in 1999.

2.3 PHOTO ENFORCEMENT PROGRAM

The photo enforcement system installed on the MBL uses high-resolution cameras to photograph motorists driving under or around lowered crossing gates. Each camera is mounted in a bullet-resistant cabinet 12 feet above the intersection. The camera shutter is triggered by vehicles that cross over inductive loop detectors installed in the

crossing area after crossing gates have started lowering or are already in the lowered position. Two photographs of the vehicle are taken as the basis for issuing a citation. The date and time are superimposed on each photograph, in addition to the vehicle speed and elapsed time in seconds since the red lights activated. Exhibit 2-4 shows a sign warning drivers of the photo enforcement program.

Exhibit 2-4. Photo Enforcement Warning Sign

The MTA photo enforcement program is managed under MTA Contract Number MC025. U.S. Public Technologies LLC, Traffic Services Group, is responsible for the daily activities associated with the photo-enforcement program including:

- Collecting, and processing film
- Screening photographs for citations
- Delivering citations to courts.

2.3.1 Photo Enforcement Installation

Currently, the MTA operate and rotate ten cameras in 33 cabinets installed at 17 grade crossings along the MBL. The seventeen photo enforcement installations are located at the following grade crossings:

• 20th Street	• 24th street	• 41st Street
• Vernon Avenue	• 48th Street	• 55th Street
• Century Blvd.	• 103rd Street	• 119th Street
• El Segundo Blvd.	• 130th Street	• Stockwell Street
• Elm Street	• Compton Blvd.	• Myrrh Street
• Alondra Blvd.	• Greenleaf Blvd.	

In addition to the existing installations, the MTA Board of Directors approved the purchase of equipment for six additional installations (see September 1998 Board Meeting Minutes). These new locations are:

• 18th/Flower	• Venice/Flower	• Grand/Washington
• San Pedro/Washington	• Los Angeles/ Washington	• Wilmington/ Willowbrook

2.3.2 Photo Enforcement Use by Other Transit Properties

The MTA is the first transit property to implement a photo-enforcement program for grade crossing safety in the U.S. No other transit properties have implemented a photo enforcement program. Metrolink, the Los Angeles area commuter rail system, is conducting a photo enforcement demonstration program in the city of Glendale, California. In addition, the city of Beverly Hills is currently using the photo enforcement program to monitor intersections for red light running by automobiles. It is expected that this application of photo enforcement will grow significantly in the near future.

2.3.3 Citation Issuance Rate

Currently, the responsibility for issuing citations is divided between the Los Angeles Sheriff's Department (LASD) and U.S. Public Technologies (USPT) LLC. From a legal point of view, not all photographs taken at grade crossings can become citations. For example, if the vehicle has no front license plate, the vehicle has glare on the windshield, or the driver is obstructed in the photograph, a citation cannot be issued. To help ensure that all citations can be prosecuted, the LASD has worked with USPT to establish criteria for selecting which photographs receive citations. To date, 42.7% of all photographs taken by the system have resulted in issuing a citation.

2.4 ENGINEERING SAFEGUARDS SYSTEM DESCRIPTION

Engineering safeguards can be divided into six basic categories: crossing elimination, passive traffic control devices, active traffic control devices, site and operational improvements, crossing surface improvements, and grade separations.

2.4.1 Elimination

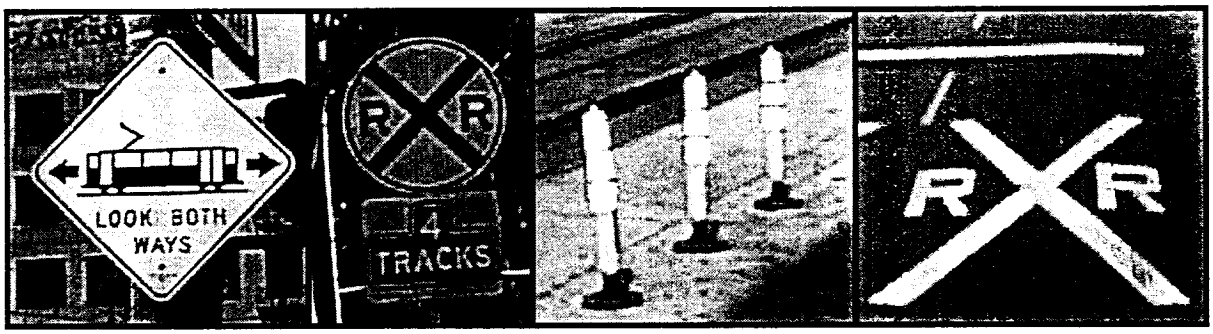
Elimination is the first safeguard that should always be considered for a railroad-highway at-grade crossing. There are several different methods of elimination, including: grade separation, closing the crossing to highway traffic, and closing the crossing to railroad traffic through the abandonment or relocation of the rail line. The highest level of crossing safety is provided by elimination because the point of intersection between highway and railroad is removed. However, the effects that

elimination may have on operations may be beneficial or adverse, depending on the situation. The primary benefits of elimination are safety and perhaps operational, offset by construction and operational costs.[1]

2.4.2 Passive Traffic Control Devices

Passive traffic control devices provide guidance, static messages of warning, and in some instances, mandatory action for the driver. The main purpose of passive traffic control devices is to identify and direct attention to the location of a crossing in order to permit drivers and pedestrians to take appropriate action. These devices consist of regulatory, warning, and guide signs, and supplemental pavement markings. They are considered to be basic devices and are incorporated into the design of and used in conjunction with active traffic control devices. It is required by federal law that, as a minimum, each State provide signs at all crossings.[2] Exhibit 2-5 shows some examples of passive traffic control devices utilized along the MBL.

Exhibit 2-5. Passive Traffic Control Devices Used Along MBL



2.4.3 Active Traffic Control Devices

Active traffic control devices give warning of the approach or presence of a train. They are typically activated by the passage of a train over a detection circuit in the track. Passive traffic control devices, such as signs and paving markings, are used to supplement active traffic control devices. Active traffic control devices can include flashing light signals, both post-mounted and cantilevered, automatic gates, bells, highway traffic signals, and active advance warning devices.[3] Exhibit 2-6 shows an example of active traffic control devices utilized along the MBL.

In November, 1998, the MTA plans to release a Request for Proposal (RFP) to install new fiber optic train signs intended to provide better active indication to vehicle drivers that a train is approaching. If the implementation of these signs is successful,

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[1] *Railroad-Highway Grade Crossing Handbook*, U.S. Department of Transportation, Federal Highway Administration, FHWA-TS-86-215, September 1986.

[2] *Ibid.*

[3] *Ibid. 1*

these signs should be installed throughout the street running portions of Los Angeles and Long Beach.

Exhibit 2-6. Active Traffic Control Devices Used Along MBL

2.4.4 Site and Operational Improvements

Site and operational improvements, in addition to the installation of traffic control systems, can contribute greatly to safety of railroad-highway grade crossings. Site and operational improvements can be divided into six categories: sight distances, geometrics, illumination, safety barriers, flagging, and miscellaneous.[1]

2.4.5 Crossing Surfaces

Crossing surfaces are the materials on which the tires of a vehicle crossing a railroad-highway grade crossing roll across. These surfaces can be constructed of a number of different types of materials. The different types of crossing surfaces include: unconsolidated, asphalt, wood plank, sectional treated timber, precast concrete slabs, continuous concrete pavement, steel sections, rubber panels, and high density polyethylene modules.[2] Exhibit 2-7 shows examples of crossing surfaces utilized along the MBL.

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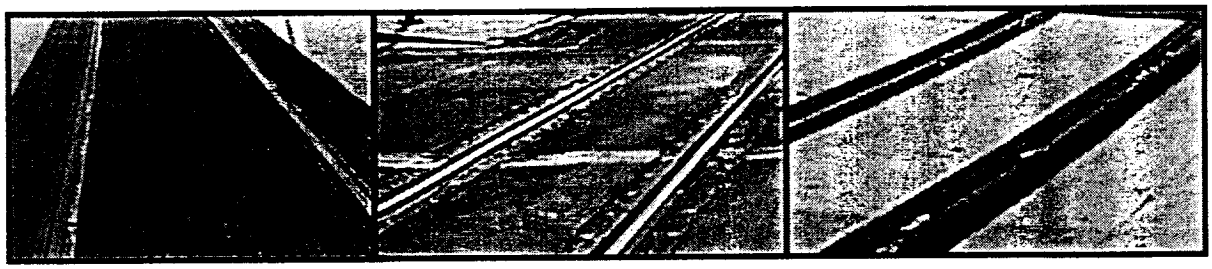
[1] *Ibid. 1*

[2] *Ibid. 1*

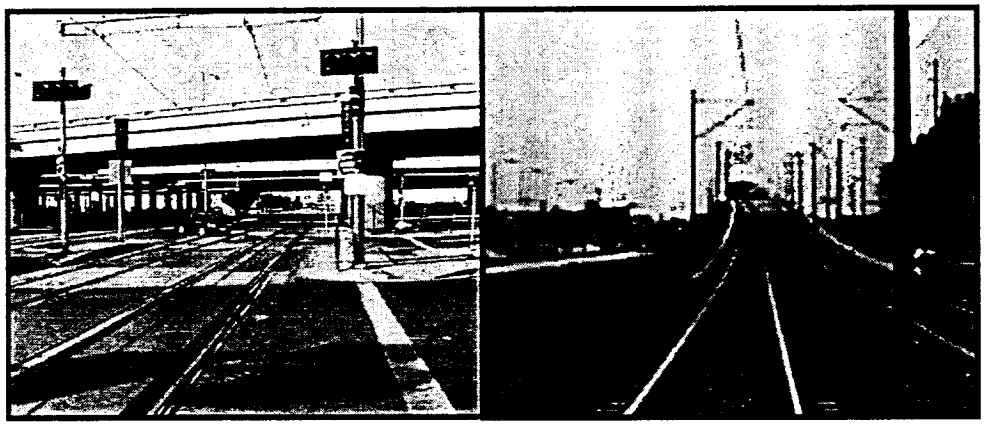
Exhibit 2-7. Crossing Surfaces Used Along MBL



2.4.6 Grade Separation Structures

Grade separated crossings involve a bridge or highway structure over the railroad tracks, or vice versa. Alternative engineering decisions must be made as these structures age, become damaged, or are no longer needed because of changes in highway or railroad alignment or use. These decisions can include: upgrading the existing structure to new construction standards, replacing the existing structure, removing the structure leaving an at-grade crossing, and closing the crossing and removing the structure.[1] Exhibit 2-8 shows examples of grade separations along the MBL.

Exhibit 2-8. Grade Separations Along MBL



2.5 VEHICLE RELATED CHANGES TO IMPROVE GRADE CROSSING SAFETY

In an effort to make vehicles more visible to automobiles and pedestrians, MTA Operations has been investigating enhancements to the CPUC requirement for light rail vehicle headlights. Specifically, two changes have been investigated:

- "Train ditch lights" proposed to provide additional lighting along the train sides

[1] *Ibid. 1*

- Alternating Railroad Car "ARC" lights activate alternately flashing headlights when the train gong or horn is activated.

Exhibit 2-9 shows a demonstration of the "ARC" lights.

Exhibit 2-9. MBL Vehicle with ARC Lights Under Test

2.5.1 ARC Lights

ARC lights are defined as the installation of headlights operated in alternating flashing mode. According to a study performed by the Federal Railroad Administration (FRA), Conrail Freight Railroad and Caltrain Commuter Railroad reduced the accident rate by 79.9% and 61.7% respectively. It was not clear if the reduction in grade crossing accidents was due to the novelty of the new system and may be temporary.

Since many of the MBL accidents have occurred in the evening hours, any design changes that may improve train visibility should be investigated and evaluated. Booz·Allen supports the ARC light demonstration program and would recommend that the program be expanded to include the entire fleet.

2.5.2 Train Ditch Lights

Train ditch lights consists of two lights, illuminated in a steady burn mode, used to provide additional visual warning to drivers and pedestrians. These lights are normally installed at the lower front sides of the train's front car. According to a study performed by the FRA, steady burn ditch lights afford the observer an opportunity to fix his or her attention on a point source to help determine the rate of a train approach. However, the study also indicates that the flashing ARC light system provides a better method to deliver additional visual warning.

At this time, Booz·Allen would recommend against conducting a demonstration of the train ditch lights until the completion of the ARC light demonstration.

2.6 RELOCATION OF LIGHT RAIL "T" SIGNALS

In the street running portions of the MBL, "T" signals govern MBL operations. The location of the "T" signals has been identified by the MTA to cause automobile driver confusion. Under a soon-to-be-released Request for Proposal, the "T" signals will be relocated so as to reduce driver confusion. If this program is shown to be successful, it should be incorporated throughout the MBL. In addition, it is recommended that the entire alignment be reviewed with respect to signs and reducing driver confusion.

2.7 PEDESTRIAN GATES

Pedestrian gates are devices used near stations to provide a barrier between pedestrians and the train right-of-way. Two types of pedestrian gates have been or are planned to be implemented along the MBL:

- Calgary swing gates
- Pedestrian crossing arm gates.

2.7.1 Calgary Swing Gates

Calgary swing gates are usually installed at station entrance/exit locations where normal egress from the stations requires passengers to cross the light rail tracks. The purpose of the Calgary swing gates is to make passengers stop to open the gate before walking across the tracks. The stopping motion helps to make passengers aware that they are about to cross train tracks and to make them aware of the train location.

Calgary swing gates have been successfully implemented at the Imperial Station. This application should be used as a model and applied to other stations with similar station design features (e.g., Wardlow and Willow Stations).

2.7.2 Pedestrian Crossing Arm Gates

Pedestrian crossing arm gates are nearly identical to standard automatic traffic gates. The purpose of pedestrian gates is to provide a barrier between the pedestrian path and the tracks when a train is approaching. The pedestrian arm gates will be activated at the same time that the vehicle gates are activated.

Under a Request for Proposal (RFP) soon to be released by the MTA, pedestrian crossing arm gates will be installed and demonstrated along the MBL. Based on the

success of this installation, these type of gates could be installed at many locations along the alignment.

2.8 SAFEGUARD MAINTENANCE

During the course of this review, many safeguards were found to be in disrepair. The computer model which catalogues the MBL safeguards also identifies those safeguards that need maintenance. The safeguards that need repair include:

- Missing flexible delineators
- Fading pavement striping
- Missing signs.

2.9 EXTREMELY HAZARDOUS GRADE CROSSINGS

During the review of MBL grade crossings, the 18th Street/I-10 on-ramp crossing was noted to be a hazardous crossing. Based on a review of the accident statistics, interviews with MTA Operations, and an on-site survey, it is recommended that the MTA pursue obtaining permission to close this crossing. Since the on-ramp is not MTA's property, this task may not be possible.

2.10 FLOWER STREET DRIVEWAYS

As a part of this evaluation, the driveways along Flower Street were evaluated with respect to adequacy of engineering safeguards. During the design of the grade crossings along Flower Street, it was decided to provide drivers turning left into the driveways with active "No Left Turn" signs. These sign illuminate when trains are approaching. In addition, since the traffic crossing the right-of-way from the driveways was expected to minimal, only passive signs and pavement markings were provided at the driveway exits onto Flower. Based on this review, no further action is required for the Flower Street driveways.

2.11 RECOMMENDATIONS

As a result of Booz·Allen's evaluation of the engineering safeguards utilized along the MBL, several general recommendations arose. They are as follows:

- Pursue the elimination of the grade crossing at 18th Street/I-10 freeway on-ramp
- Expand the photo enforcement in Los Angeles and Long Beach
- Review the signs along the entire alignment with respect to enhancing warning to pedestrian and motor vehicle drivers without creating confusion stemming from sign multiplicity
- Add medians or flexible delineators where applicable
- Improve the maintenance of safeguards already in place
- Install additional Calgary swing gates where applicable
- Install pedestrian arm gates at high-density pedestrian crossings.
- Install fiber optic train signs in Los Angeles and Long Beach street running portions of the alignment
- Enhance pedestrian access across the right-of-way by improving fencing, striping, and increasing refuge areas where possible.

3.0 EDUCATION

One of the four elements of the MBL Grade Crossing Safety Program is education and public outreach. This element requires that the MTA inform the public of the hazards that exist to both pedestrian and vehicular traffic when crossing the MBL right-of-way. For approximately four years, the MTA implemented a proactive approach to MBL grade crossing safety education, however, in 1997 the program was relaxed and implemented in a reactive manner. Although the benefits of the MBL grade crossing safety education program are not quantifiable, it is a critical component in the reduction of grade crossing accident causal factors[1,2,3] and aides in improving the effectiveness of other aspects of the MBL grade crossing program (e.g., engineering safeguards, traffic enforcement).

To evaluate the effectiveness of the present MBL outreach program, Booz·Allen interviewed several internal and external parties that interface with the public outreach program. The internal interviews considered a comprehensive collection of inputs from MTA representative staff affiliated with the MBL grade crossing education program. During the internal interview process, the MTA upper management of the program was considered to be reactive; implementing action towards education programs only after an accident had occurred. The lack of MTA commitment to a proactive program was considered to be a major downfall of the overall MBL grade crossing safety program. Additionally, these MTA staff stated that MTA decision-makers have neglected the socio-demographic diversity of the MBL alignment and its inclusion into the public outreach program. These factors include: predominant languages, income, literacy, age, culture, and perception of the MTA.

External interviews were conducted with several local representatives associated with the MBL population centers (i.e., Los Angeles City, Los Angeles County, Compton, Carson, and Long Beach) along the MBL alignment. Exhibit 3-1 lists the community groups interviewed by Booz·Allen.

Exhibit 3-1. External Groups Interviewed

• Schools (Nursery, Elementary, Junior, High Schools) • Libraries	• Emergency Response Personnel • Local Churches • Community Groups	• Businesses • Malls • Senior Centers

[1] *DOT: Rail-Highway Grade Crossing Safety Act of 1994.*

[2] *DOT: Operation Life Saver, "Always Expect a Train"*

[3] *DOT: Grade Crossing Safety Task Force, 1996*

The findings from these interviews indicate that the majority of the public groups knew of an existing MBL safety education and outreach program. However, an overwhelming amount of the people had not seen or heard of new educational materials or programs for over a year.

It was also found that the public remains uninformed regarding several critical MBL related issues, including:

- MBL train stopping ability (i.e., underestimate braking distance), hence, the risk based behavior that the train will stop with similar braking distance as another automobile.
- Public understanding of the MBL grade crossing stop duration (i.e., less than a minute) similar to that of freight railroads (i.e., possibly more than 15-25 minutes), therefore, drivers have a tendency to "race the train."
- Perceptual illusion known as conspicuity, in which people perceive larger objects appear to be moving slowly[1].

Overall, interviews with the public found the MBL grade crossing education and outreach program, once proactive, is presently reactive and inattentive of the connected communities.

3.1 PAST EDUCATION PROGRAMS

In the past, the MTA has implemented educational outreach programs based on several pieces of legislation and recommended industry practices as summarized in Exhibit 3-2.

Exhibit 3-2. Legislation/Recommended Requiring Education Programs

Program	Intent
Rail Transit Safety Act, California Assembly Bill 1035	Requirement of California DMV Driver Books
Department of Transportation and Operation Lifesaver: "Always Expect a Train" (1994)	Applying multi-media and bilingual education
Department of Transportation: "Cross with Care, Don't Put Your Life on the Line" (1995)	Use of radio, television, printed advertisements to reach high volume of drivers.
FRA, FHWA, FTA, and NHTSA: Rail-Highway Grade Crossing Safety Act (1994)	Expand public outreach and Operation Lifesaver
Department of Transportation: Grade Crossing Safety Task Force (1996)	Education of light rail transit crossings and traffic control measures

[1] *Leibowitz, H., W., Grade Crossing Accidents and Human Factors Engineering, American Scientist, Volume 73, 1985.*

During the period when the MTA had an on-going outreach program, the surrounding communities had a continuous influx of informative MBL safety material. In addition, MTA representatives and trained Operation Lifesaver staff gave presentations to schools, community groups, and transportation dependent organizations (e.g., school bus operators, chemical transportation, etc.). Since inception, several MTA grade crossing efforts have come to fruition, including:

-
- Operation Lifesaver "Trooper on the Train"
- School based safety programs "Travis the Owl"
- Safety Placemat Game, to promote safety in restaurants
- Public outreach and presentations at community centers (i.e., libraries)
- Ongoing meetings with businesses along rail lines
- MBL Adult Safety Outreach Campaign
- Public tour programs to bring a "hands-on" approach to train safety/hazards.
-

Past MBL educational programs are considered effective, in terms of public attentiveness and education content. Furthermore, the past educational programs have been identified by Operation Lifesaver as an exemplary program to be used as a model by other transit properties.

3.2 PRESENT EDUCATION PROGRAMS

Present MBL grade crossing safety educational programs are based on printed medium, such as flyers, banners, and signage. These materials are prepared by the MTA Marketing Department with the input and concurrence of the Safety Department. Since the Marketing Department has experienced fluctuations in staffing and funding, the public outreach program also experienced such fluctuations. Present and soon-to-be-released outreach programs include:

- Large banners at intersections
- Variable Message Signs (VMS), "Tracks Means Trains"
- California Drivers Handbook for DMV that addresses hazards associated with light rail systems
- "Take One," a hand-out on the train for passenger education
- Signage created by Los Angeles Sheriff and MTA Marketing Departments; warning of grade crossing dangers for drivers
- "Safety Guy," a soon-to-be-realeased cartoon character to educated youths.

Presently, the Marketing Department has budgeted for a one-third full-time equivalent to be staffed specifically for safety signage on buses and rail. In the past, the

MTA has not directed a specific budget designated for safety related material, therefore, this is a significant increase compared to years past.

3.3 RECOMMENDATIONS

While the MTA once had a robust award winning public outreach and education program, it has not been consistently implemented over time. During the interview process, an overwhelming majority of people had not seen any community outreach in over a year. Booz·Allen has analyzed the results of the surveys and has devised a strategy for rejuvenating MTA's safety outreach program, outlined below. The program depends upon four major components: schools, communities, businesses, and commuters.

Booz·Allen strongly urges the MTA to prepare a written public outreach and education plan, managed by the Safety Department. This plan should address the organization, activities, and schedule for conducting public outreach and education. It should identify clearly stated goals and objectives and should be audited internally to ensure the programs are being performed. The following sections provide a guide for preparing a public outreach and education plan.

3.3.1 Objective

Redesign and implement a public safety awareness program as an integral component of MTA's outreach programs provided to communities, businesses, commuters, and city governments who are affected by the MBL grade crossings.

3.3.2 Description

With grade crossings along several population centers, the MTA needs to address the needs and concerns of residents/businesses/commuters in these cities. Continuous community outreach that includes timely information and targeted updates will help to decrease the number of vehicular and pedestrian accidents. This outreach must include a public safety education component. The public education component would include raising community awareness of potential safety issues and prevention guidelines relating to grade crossings and empower residents/businesses/commuters to engage in safe behavior around these zones. Methods of outreach would include a systematic implementation of school presentations, curriculum, parent/teacher advocacy, resident/business/commuter updates, personal business contacts, and community event representation. We would suggest creating a safety follow-up and awareness evaluation mechanism, and also follow-up program updates for MTA Safety representatives and project staff.

3.3.3 Goals

- Refamiliarize residents /businesses/commuters with safety awareness program - how MBL affects them
- Enable safe travel from home to school and business
- Raise awareness about how to live/work near at-grade crossing without incident
- Empower residents/businesses/commuters to take responsibility for their safety by engaging in safe behavior around at-grade crossings.

3.4 COMMUNITY OUTREACH METHODS

For each of the following methods, MTA must gain input from teachers, students, parents, businesses and commuters in the design of the public outreach program. Each of these groups will provide insight into how to best reach each audience, and will empower each group to work in partnership with MTA to ensure program success.

3.4.1 Schools

- Conduct public safety education quarterly
  - Elementary, Middle, and High
  - Safety Mascot
  - Safety Art Contests (Essays, Art, Photojournalism).

3.4.2 Communities

- Maintain high visibility at community meetings, events, and neighborhood sites (Farmer's Market, church gatherings, Safety Fairs, neighborhood celebrations)
- Radio and Television Public Service Announcements
- At-Home Gatherings.

3.4.3 Businesses

- Utilize presentations to raise awareness of at-grade crossing safety tips
- Prepare flyers for customers
- Presence at Chamber of Commerce events.

3.4.4 Commuters

- Provide periodic notifications to commuters regarding safety tips and safety messages
  - grocery bag notices
  - public service announcements
  - flyers in neighborhood businesses.

3.4.5 Targeted Community Safety Issues

- Pedestrian Access - Help residents and students understand the importance of adhering to at-grade crossing signals. Help them identify safe ways of crossing grades.
- Traffic/commuter issues - Keep the community informed of traffic access, potential traffic congestion around grade crossings, and promote safety around grade crossings to reduce the potential for car accidents and pedestrian missteps.
- Business - Working with businesses/customers to reduce aggravation and inconvenience when trying to park or enter and exit businesses around grade crossings.
- Grade Crossing Zones - Aggressively inform about safety precautions needed around grade crossings. The goal is to eliminate the potential for accidents with safety programs, obvious signage and signals, and weekly safety record checks to identify problem areas/times and determine effectiveness of safety awareness program.

3.5 ADDITIONAL PROGRAMS

Booz·Allen evaluated the possibilities of a Crossing Guard Program specifically directed to grade crossings. Presently, the program does not exist and based on staffing requirements and potential safety improvements, Booz·Allen does not recommend this program at this time.

4.0 TRAFFIC ENFORCEMENT

4.1 DESCRIPTION OF TRAFFIC ENFORCEMENT PROGRAMS

Traffic enforcement enhances grade crossing safety by relying on the premises that

- Traffic laws can prevent accidents
- Most drivers and pedestrians will obey traffic laws
- General public does not wish to receive traffic citations.

In addition to general traffic law enforcement activities, law enforcement agencies can employ a combination of proactive and reactive approaches to enhance traffic enforcement:

- Proactive Approach-Law enforcement agency deploys Peace Officers prominently at locations to act both as a deterrent to would-be violators and to issue citations to violators. This approach is generally more effective in preventing accidents but requires dedicated officers for traffic enforcement.
-
- Reactive Approach-Following an accident, a rash of violations, or request from MTA, the law enforcement agency deploys a significant number of Officers to the specified location to show a large police presence. This approach also includes special programs designed to reduce traffic violations.

4.2 ANALYSIS OF PAST AND CURRENT SAFETY/TRAFFIC ENFORCEMENT PROGRAMS

Prior to November 1997, the MTA Police Department oversaw the law enforcement activities the MBL. Due to the elimination of the MTA Police Department, the Los Angeles Sheriff Department (LASD) Transit Services Bureau (TSB) has the primary responsibility for law enforcement along the MBL on a contracting arrangement. The Five-year contract between LASD and MTA commenced on November 1997, with annual enhancement changes effect every July of the year. Generally, the contract specifies the number of LASD Deputies to support the MTA bus operation, the Metro Green Line and the MBL. The commander of the LASD TSB has the responsibility to assign the appropriate number of deputies to MBL.

During the first contract year (Nov. 1997 through June 1998), the TSB assigned approximately 86 sworn personnel to the MBL. Although there was no dedicated traffic enforcement team to enforce grade crossing, traffic enforcement was provided by Deputies traveling between stations. Furthermore, since MBL operates through the Cities of Los Angeles, Compton and Long Beach, and unincorporated areas of Los Angeles Counties, other police agencies also provide traffic enforcement along the MBL as part of their regular law enforcement activities. These municipality police agencies include:

- The Los Angeles Police Department (LAPD)
- The Long Beach Police Department
- The Compton Police Department
- California Highway Patrol.

In the second year contract (effective July 1998 through June 1999), the TSB has augmented the contract with the following enhancements:

- Eight additional Deputies on motorcycles dedicated to traffic enforcement
- Seven Deputies will be on bicycle
- A database that captures all transit crime statistics and traffic citations issued by other police departments along the MBL.

The following exhibit summarizes the past and current MBL law enforcement programs:

MBL Law Enforcement Activities	LASD 92 to 94	MTA Police 94 to 97	LASD TSB 11/97 to 6/98	LASD TSB 7/98 to Present
Law Enforcement and Crime Investigation	√	√	√	√
Dedicated Traffic Enforcement	√	*	**	√
Photo Enforcement	Testing Phase	√	√	√
Bicycle Patrol				√
Centralized Transit Crime and Traffic Citations Database				√
Notes: *Limited to one vehicle. **Traffic enforcement was provided when Deputies travelled between stations.				

4.3 EVALUATION OF LASD SPECIAL ENFORCEMENT PROPOSALS

Due to the enhancements of the contract extension, the proposed LASD Special Enforcement Programs are obsolete. Therefore, the analysis of three LASD proposals are not included in this report. The eight motorcycle-Deputies will be dedicated to traffic enforcement on a full-time basis.

4.4 ANALYSIS OF DAILY DEPLOYMENT OF OFFICERS

Because of the vast area covered by the MBL corridor and with less than 90 sworn personnel to provide law enforcement for the MBL, the police presence is limited and the majority of the force is devoted to patrol and crime investigation onboard and at stations. Additional police agencies will also respond in time of need and provide back-up of calls.

With an addition of eight motorcycle Deputies working two shifts per day in the current contract year, an average of two deputies will be available at any given time of the day covering the 22 miles corridor with 104 grade crossings. Since the motorcycle Deputies are likely to work in pairs for officer safety, this deployment will not be adequate to provide traffic enforcement without supplement from the crime control teams and Police Officers from the police departments along the MBL. Since it is not likely that the motorcycle Deputies will patrol the area well within the cities of Long Beach and Los Angeles (the terminus of the MBL), the motorcycle Deputies can focus their efforts at areas that do not have lower police presence and at the unincorporated areas. The LASD also apply a multiplier effect, if needed, to obtain additional support from nearby stations.

The bicycle and the motorcycle teams are effective in contacting pedestrians at the grade crossings because of their mobility and low-profile presence. Since the Bicycle team is very versatile as Deputies can travel between stations along the MBL corridor using patrol vehicles equipped with bicycle racks and on-board MBL trains.

4.5 RECOMMENDATIONS FOR LAW ENFORCEMENT IMPROVEMENTS

The deployment of Deputies requires a delicate balance between crime control and traffic enforcement since both elements are important to the success of the MBL. Based on the limitation of resources, the following recommendations are considered to be cost-effective and feasible:

- TSB should deploy dedicated grade crossing traffic enforcement teams to focus on pedestrian safety. This can be implemented by increase the size of the bicycle team since the Bicycle Deputies can also perform crime

patrol and can move form station to station using special equipped vehicles or bicycle racks on the back of Police vehicles.

- TSB should evaluate the appropriate mix of Motorcycle Deputies (Traffic) and additional patrol Deputies providing general law enforcement.

- TSB should provide input to engineering and education program during their early stages of development.

- TSB should establish liaison with the Police Departments along the MBL corridor. Currently, there is no single source for grade crossing traffic enforcement activity. This can be achieved through the development of the Centralized Transit Crime and Traffic Citations Database already being prepared by the LASD. A coordinated deployment of police force to effect traffic enforcement at the grade crossing can greatly enhance the effect of proactive and reactive traffic enforcement.

- The MTA should monitor the Vehicle Driver Education Booklet prepared by the Department of Motor Vehicles to ensure grade crossing safety is adequately discussed.

5.0 LEGISLATION

The fourth element of the MBL Grade Crossing Safety Program is legislation. Since 1993, the MTA has successfully sponsored bills to increase penalties for grade crossing violations and enable the use of automated enforcement systems. Additional legislation is needed to support further improvements in grade crossing safety. This section reviews past legislative efforts, existing penalty assessments and distributions, and recommendations for future activities.

5.1 PAST LEGISLATIVE EFFORTS

Two pieces of legislation form the cornerstone of the MTA's legislative program. The Rail Transit Safety Act, introduced by Assembly Member Archie-Hudson in 1993 as AB 1035, increased the penalties for violating grade crossing laws. In the following year, the Rail Transit Safety Enforcement Act (SB 1802 Rosenthal) authorized the use of photo enforcement systems for identifying grade crossing violators. The main provisions of these two acts are summarized in Exhibit 5-1.

Exhibit 5-1. Existing Grade Crossing Safety Legislation

RAIL TRANSIT SAFETY ACT	RAIL TRANSIT SAFETY ENFORCEMENT ACT
• For first violation, courts may order traffic school attendance and/or payment of an additional $100 (maximum) fine. • For subsequent violations, courts shall order a $200 additional fine and attendance of traffic school. • County rail commissions may provide educational materials to traffic schools. • Trespassing on county rail authority property is a misdemeanor. • The Dept. of Motor Vehicles shall include language regarding rail transit safety in the California Driver's Handbook.	• Drivers approaching a rail transit grade crossing must stop at least 15 feet from the nearest rail and shall not proceed until safe to do so. • No driver shall proceed through, around or under any railroad or rail transit crossing gate while the gate is closed. • Railroad and rail transit grade crossings may be equipped with an automated rail crossing enforcement system if the system is identified by signs clearly indicating its presence. • Only a government agency, in cooperation with a law enforcement agency, may operate an automated rail crossing enforcement system.

5.2 PENALTIES FOR GRADE CROSSING VIOLATIONS

Violations of traffic laws related to grade crossings usually result in a monetary penalty and, for moving violations, the recording of a point on the violator's driving record. The monetary penalty consists of a base fine and additional assessments. The base fine for traffic infractions are either specified in the California Vehicle Code or set by the Judicial Council of California in accordance with guidelines contained in the Vehicle Code. For every $10 of the base fine or fraction thereof, the Penal Code

authorizes $10 in state penalties and $7 in county penalties to be levied and collected by the court. Furthermore, in Los Angeles and other jurisdictions, a $1 fee is added for the night court system. The penalty schedule for the most common infractions cited at MBL grade crossings is listed in Exhibit 5-2.

Exhibit 5-2. Penalty Schedule for Traffic Infractions at Grade Crossings First Violation, Non-construction Zone

VEH. CODE SECTION	OFFENSE	BASE FINE	STATE PENALTY	COUNTY PENALTY	NIGHT COURT	TOTAL PENALTY
21453(c)	Left turn on red arrow	$100	$100	$70	$1	$271
22451(a)(c)	Failure to stop for train signals, closed gates	$35	$40	$28	$1	$104
21461.5	Pedestrian failure to obey signs, signals	$20	$20	$14	$1	$55

The penalty money collected by the court is distributed to various state, county, and local governments in accordance with a formula established by statute. The base fine is allocated to the county treasury if the citation occurred outside of city limits; otherwise, it is divided between the city and county. The state penalty is deposited into the State Penalty Fund where it is distributed to various programs prescribed in the Penal Code, including crime victim restitution, driver training penalty assessment, peace officer training, and victim-witness assistance. Similarly, the county penalty is deposited into various funds specified by resolutions adopted by the board of supervisors. Some of these funds are earmarked to support court construction, jail and detention center construction, forensic laboratory construction, and implementation of automated DNA and fingerprint identification systems. None of the penalties collected for traffic infractions in Los Angeles County is allocated to the MTA for its rail programs.

5.3 RECOMMENDATIONS

To improve the effectiveness of the Grade Crossing Safety Program, Booz·Allen recommends that MTA pursue the following courses of action:

- Increase the penalty for grade crossing violations
- Allocate a portion of the penalty collected for grade crossing violations through the photo enforcement program to MTA for rail safety programs.

Each of these recommendations is discussed further in the following sections.

5.3.1 Increase the Penalty for Grade Crossing Violations

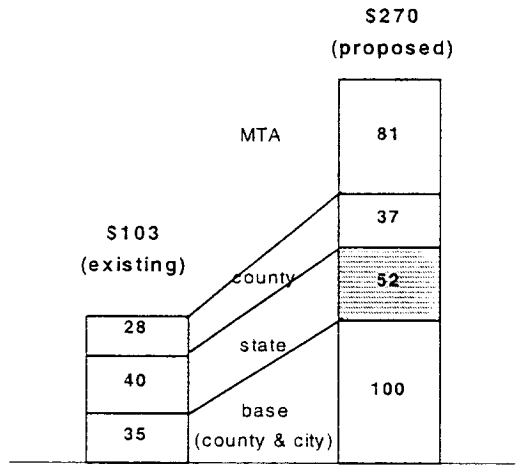
The Vehicle Code generally establishes higher fines for traffic violations with the potential for injury or death. For example, the total penalty for running a red light,

failing to yield to emergency vehicles, or failing to use child passenger restraints is $271. Passing a school bus with flashing signals carries a penalty of $406. In view of the possible consequences of ignoring train warning signals or driving around lowered gates, the present penalty of $104 does not serve as a sufficient deterrent to this behavior or appropriately signal the seriousness of the infraction. Therefore, Booz·Allen recommends that MTA support legislation to increase the base fine for the first violation of rail grade crossing laws to $100, resulting in a total penalty of $271.

5.3.2 Allocate Portion of Photo Enforcement Penalties to Fund Rail Safety

To help finance rail safety programs, MTA should seek legislation to change the formula for distributing the penalties collected from grade crossing infractions through the photo enforcement program. Under this proposal, 30% of the total penalty would be remitted to the rail authority where the violation occurred. The base fine would then be distributed to the county and city, and the remainder would be allocated in accordance with existing law: for every $17 of the penalty, $10 would go to the state, and $7 to the county. If the penalty is increased to $271 from $104, the state and county/city would receive more funding under this proposal than they would with the current formula, and the MTA would receive $81 per citation (see Exhibit 5-3) to help expand the photo enforcement program and/or fund educational efforts.

Exhibit 5-3. Penalty Allocation



Note: A $1 night court fee is added to these penalties.

By limiting the change to violations collected through photo enforcement only, the costs to administer the revised distribution schedule would be reduced. For the first seven months of 1998, 1,584 photo enforcement citations were issued by the LASD for an average of 226 citations per month. Assuming this average holds true for the remainder of the year and given a collection rate of 90%, the MTA would have received approximately $200,000 in additional revenues in 1998.

As part of AB 1035 (Archie-Hudson, 1993), language was proposed to allocate a portion of grade crossing fines to county rail commissions, but the Dept. of Finance found this provision to impose additional administrative costs on the county treasurer (to track and allocate the funds) which could not be recovered through the increased penalty. While the issue must be analyzed further, Booz·Allen does not believe that this problem would apply to the current proposal due to 1) limitation of the program to

photo enforcement penalties only, and 2) the higher penalty funding allocated to the city and county. Since 1993, similar "set aside" provisions have been enacted. Examples of these provisions appear in the Penal Code—high occupancy vehicle lane fines (§1463.26), failure to show proof of insurance (§1463.22) and red light running (§1463.11), just to name a few.

5.3.3 Other Proposals Considered

In addition to the two recommendations described above, Booz·Allen also considered proposals to require mandatory traffic school and/or community service for first-time violators. However, judges already have the discretion to impose these penalties, and Booz·Allen believes that raising the fine would be a more effective deterrent. Moreover, Booz·Allen considered a proposal to hold the registered owner of a vehicle responsible for grade crossing violations caught by photo enforcement. This proposal would increase the number of citations issued by eliminating the need to clearly photograph the driver for identification purposes, since the registered owner would be held liable by default. A major drawback, though, is that the infraction would have to be treated as a non-moving violation (no points assigned) since the registered owner may not have been the person who actually committed the offense. Furthermore, it would be difficult to justify a fine increase under these circumstances.

6.0 IMPACTS OF FUTURE CONSTRUCTION PROJECTS

It is important to analyze and prepare for construction projects that impact MBL grade crossing safety. Two projects likely to have direct impact are:

- The Alameda Corridor construction
- Three car train operations on the MBL.

This section of the report will discuss each of these projects, identifying the salient issues, and making recommendations where appropriate.

6.1 METRO BLUE LINE THREE CAR TRAIN OPERATIONS AND CORRESPONDING PLATFORM EXTENSIONS

The Los Angeles Metro Blue Line (MBL) is a 22 mile light rail transit system that runs from downtown Los Angeles' 7th & Metro Red Line station to Long Beach. The MBL has approximately 100 grade crossings, which may be affected to varying degrees by the platform extensions necessary to accommodate three car train operations.

6.1.1 Design

Although all the platforms must be extended to accommodate three car trains, the original design allowed for this contingency. Wherever possible, the platforms will be extended away from the existing grade crossings, thereby minimizing impact to these grade crossings. However, in street-running territory, some platforms must be extended from both ends, due to the fact that grade crossings are already located at both ends of the platform.

6.1.2 Construction

The majority of the platform extension work will be performed at night, between the hours of 9:30 p.m., and 3:30 a.m., with the more involved activities scheduled during non-revenue hours, between midnight and 3:30 a.m. In limited instances, work will be performed during revenue service off peak hours, between 9:30 a.m. and 3:30 p.m.

6.2 ALAMEDA CORRIDOR CONSTRUCTION

6.2.1 Design

The Alameda corridor will replace four single track routes currently used by the Burlington Northern Santa Fe and the Union Pacific Railroad companies into the ports of Los Angeles and Long Beach with a double- tracked, grade-separated line. A significant feature of the project is a ten mile long trench that is planned adjacent to the traffic lanes of Alameda Street, extending from Route 91 in Compton to 25th Street in Los Angeles.

Currently, trains up to 1.5 miles in length must compete for the single track line sections while negotiating many of the 200 grade crossings, which limit the average speed along these lines to approximately 20 mph. Although the Alameda Corridor project is in its design and early construction stages, the route could possibly handle up to 100 trains daily, while eliminating grade crossings by virtue of the grade-separated design.

6.2.2 Impacts

The existing grade crossings along Alameda Street would be converted into overpasses that would span the trench. While the end result of the project would be total separation of freight operations from vehicular traffic, the construction period may affect MBL grade crossing safety. The MBL tracks that run adjacent to Union Pacific tracks could see an increase in freight traffic due to Alameda Corridor construction, which might affect traffic patterns at the grade crossings along the line.

Also, as the Alameda Corridor construction progresses, Alameda Street grade crossings will be taken out of service while their spans are being built. This characteristic of the construction will remain fluid throughout the project, which will affect traffic patterns and driving routes in the area for commuters, students, and emergency services, to name a few.

6.3 RECOMMENDATIONS

There will be impacts on traffic in the area of the MBL due to the projects discussed above, and perhaps the best way to ease the congestion is to provide information. Pretending that these significant construction projects undertaken coincident with MBL revenue service would not significantly impact the people who live, work, and study in these areas would be a mistake. Timely and accurate information relative to the MBL platform extensions and the Alameda Corridor construction is perhaps the best way to enable those whose lives will be most impacted by these projects to make informed decisions. We recommend a liaison officer, who

would remain in touch with key individuals associated with the projects, to ensure the information is accurate, timely, widely disseminated, and routinely updated.

The grade crossing information can be promulgated in any of several ways:

- The Internet - The MTA already does a great job with the development and maintenance of its internet web site, and the addition of a link, routinely updated, provides a good source of information.
- Newspapers - The Los Angeles Times publishes road closures, construction, etc. that will affect traffic, on an as needed basis, in the Metro section. This information is usually included in the Community News briefs, on pages B2 and B3, often with illustrations. Perhaps a weekly update of the projects is appropriate; also, the local newspapers should not be overlooked.
- Signing - The orange signs with black lettering used to alert drivers to conditions that alter normal traffic patterns, including road closures, etc. should be employed in advance of grade crossings that are currently affected. Further, the grade crossings that will be affected in the near future should have signing that informs drivers when construction will commence.
- Community Outreach - Industry experience holds that residents can more readily accept disruption when prepared in advance.
- Public Service Announcements – Radio and television public service announcements should be used to announce traffic disruptions.

7.0 RECOMMENDATIONS

Exhibit 7-1 summarizes Booz·Allen's recommendations for improving the Metro Blue Line Grade Crossing Safety Improvement Program.

Exhibit 7-1. Recommendations

Engineering Safeguards	
1	Expand the photo enforcement program to include the following grade crossings: • Los Angeles Street/Washington Blvd. • Venice Blvd/Flower Street • Grand Avenue/Washington Blvd. • San Pedro Street/Washington Blvd. • 18th Street/Flower Street • Wilmington/Willowbrook • 20th Street in Long Beach • 3rd/Pacific in Long Beach.
2	Investigate the feasibility of closing the 18th Street on-ramp to the I-10 freeway.
3	Conduct a systematic review of the signs installed along the right-of-way.
4	Continue with on-going demonstration project; Train ARC lights and Four Quadrant crossing gates.
5	Complete and evaluate safety enhancements identified in Contract C0360: • Fiber optic signs • Relocation of "T" signals • Installation of pedestrian crossing gates.
6	Improve maintenance of existing safeguards in place.
7	Install swing gates and pedestrian crossing gates where appropriate.
8	Complete the grade separation project planned for Imperial Highway.
Public Outreach and Education	
9	Prepare a written Public Outreach and Education Plan that identifies organization, activities, and schedule for performing outreach activities. It is recommended that the Safety Department manage this program.
10	Perform annual audit of the Public Outreach and Education Program.
Traffic Enforcement	
11	MTA should discuss with LASD deploying teams to focus on pedestrian safety.
12	MTA should allow LASD to participate in engineering and education program review meetings.
Legislation	
13	Prepare legislation to increase the fine for first grade crossing violation to $271.

14	Prepare legislation to allocate photo enforcement penalties to fund rail safety programs.
Impact of Future Projects	
15	Establish an MTA liaison responsible for coordinating public notification of grade crossing closures.

Due to the time constraints to prepare this report, detailed cost estimates are not available. The following cost estimates are provided as seen in Exhibit 7-2.

Exhibit 7-2. Cost Estimate, Rough Order Magnitude

Recommendation	Cost per Crossing
Pedestrian crossing arm gates	$20,000
Calgary swing gates	$15,000
Photo enforcement	$75,000
Closing the 18th Street on-ramp to the I-10 freeway	TBD
Train ARC lights	TBD
Four Quadrant crossing gates	$100,000
Prepare a written Public Outreach and Education Plan	$40,000

EXHIBIT G

COMMISSIONER TIMOTHY SIMON'S OPEN LETTER TO LAWMAKERS RE: PROCEEDING AND COMMISSIONER SIMON'S CHIEF OF STAFF MARZIA ZAFAR EMAIL DISCUSSION IDENTIFYING THE SOURCE OF THE CONCERN REGARDING THE TIME CONSUMING PROCESS

California Public Utilities Commission Commissioner Timothy Simon's Letter to Elected Officials regarding their "concern with the CPUC's time consuming process of approving [the Expo Line] applications."
Available at: www.FixExpo.org or
http://www.cpuc.ca.gov/static/aboutcpuc/commissioners/06simon/speeches/expo+line.htm

Open Letter To Lawmakers Regarding The Exposition Metro Line Proceeding

August 14, 2007

To: Senator Sheila James Kuehl
Senator Mark Ridley-Thomas
Assembly Member Mike Davis
Assembly Member Curren Price
Council Member Bernard C. Parks
Council Member Jan Perry
Council Member Herb J. Wesson, Jr.

I have received inquiries from many of you about the applications filed with the California Public Utilities Commission (CPUC) pursuant to PUC Code Section 1701 requesting authority to construct rail crossings along the Exposition Boulevard Corridor Light Rail Transit Line (herein Expo Line). Many of you have expressed concern with the CPUC's time consuming process of approving these applications. As the assigned Commissioner to this proceeding, I have been diligent in advancing this case. Hopefully, this transmittal will clear any confusion surrounding this proceeding.

From my review of this case, Expo Authority filed a series of 10 formal applications requesting authority to construct a total of 38 rail crossings along the new Expo Line. The last of two of these applications were filed in May 2007, and shortly thereafter the 10 applications were consolidated into a single proceeding to expedite the processing time and efforts (please see ALJ Koss' Ruling May 24, 2007 at http://www.cpuc.ca.gov).

During the course of this proceeding, we have found that all participating parties realize the importance, scope, and impact of the Expo Line project. As you may know, all 10 of the applications in this proceeding were protested by a community neighborhood coalition, Expo Communities United (ECU). In addition to ECU, two other neighborhood groups (Neighbors for Smart Rail and Save Leimert Neighborhood Coalition), and a transit rider group (Friends 4 Expo Transit), have also participated actively in workshops and hearings. Concurrently, because the proposed line will run adjacent to several schools (including Dorsey High School, the Forshay Learning Center, and the Los Angeles Trade and Technical College), representatives from the Los Angeles Unified School District and L.A. Trade Tech have also participated through written letters and/or workshops and the prehearing conference.

The due process rules governing our proceedings were established by statute (e.g., SB 960 signed into law in 1996). These rules provide that any party may protest a formal application within 30 days of it appearing on the Commission's Daily Calendar, and also provide the applicant another 10 days to formally reply to the protest. Expo Authority, in compliance with these rules, filed the last of its formal replies on July 13, 2007. In order to expedite the process, on July 23, 2007 we issued a Ruling ordering a mediation conference (please see ALJ Koss' Ruling at http://www.cpuc.ca.gov). The purpose of the mediation conference is to allow the applicant and the protestant, ECU, an opportunity to discuss a settlement on all or some of the issues in dispute. This conference is taking place this week. In this case, similar to all high priority cases, we must balance the clear public need for the project with the clear due process rights of the parties, including but not limited to the various community based organizations and maintaining the highest level of public safety possible.

You can be assured that I am fully aware of the legitimate public need for a speedy resolution. In this regard, I have asked all of our staff including, but not limited to Administrative Law Judge Koss, to expedite this process. Again, I consider this of the highest priority.

Finally, in conjunction with the Office of Council Member Bernard C. Parks, we are planning a meeting in Los Angeles that will include interested elected parties. I anticipate that this will foster greater communication and cooperation. On behalf of the California Public Utilities Commission, I would like to thank each of you for your active voice and leadership in this proceeding.

If you have any additional questions or concerns I encourage you to contact my office.

Gmail
Damien Goodmon <damienwg@gmail.com>

Community Petitions for Underground Expo Line

Damien Goodmon <damienwg@gmail.com> Mon, Nov 19, 2007 at 7:14 PM
To: "Zafar, Marzia" <zaf@cpuc.ca.gov>
Cc: john.fisher@lacity.org, george.chen@lacity.org, norm.ross@propositiona.org, csimmons@successnet.net, mjolles@pacbell.net, eolson@exporail.net, rthorpe@exporail.net, cmasonheller@yahoo.com, "Berdge, Patrick S." <PSB@cpuc.ca.gov>, jguzman@nossaman.com, mmattes@nossaman.com, lark@chc-inc.org, jeff.rabin@latimes.com, millerjo@metro.net, khawaniv@metro.net, ctliteracy@aol.com, glenn.striegler@lausd.net, laurie.newman@sen.ca.gov, lheller@hellerandedwards.com, darrell@dclarke.org, "Gregory, Georgetta" <gg1@cpuc.ca.gov>, "Pereyra, Jose" <jfp@cpuc.ca.gov>, "Petrossian, Vahak" <vap@cpuc.ca.gov>, "Koss, Kenneth L." <KLK@cpuc.ca.gov>, "Cooke, Michelle" <MLC@cpuc.ca.gov>, "Clark, Richard W." <rwc@cpuc.ca.gov>, "Laya, Virginia"<vdl@cpuc.ca.gov>, "Gilbert, Daren S." <dar@cpuc.ca.gov>, "Hunter, Delaney" <dlh@cpuc.ca.gov>
Ms. Zafar:

Please don't take or allow your boss to take our criticism of this process personally. We share concerns about the process, like Senator Kuehl and Councilman Parks, though for completely different reasons.

Your clarification is greatly appreciated.

Have a Happy Thanksgiving.

Sincerely,
Damien Goodmon
damienwg@gmail.com
323.845.2003

BCC: The Community & Los Angeles Press Outlets

On Nov 19, 2007 7:04 PM, Zafar, Marzia <zaf@cpuc.ca.gov> wrote:

Sen Keuhl and B Parks - that makes two and i believe the English language allows us to use the word 'many' when referring to more than one. Please stop emailing. For the love of all things, please use your energy wisely. I will not respond again no matter how much you bait me or use my Commissioners name in vain.

-----Original Message-----
From: "Damien Goodmon" <damienwg@gmail.com>
To: "Zafar, Marzia" < zaf@cpuc.ca.gov>
Cc: "john.fisher@lacity.org" <john.fisher@lacity.org>;" george.chen@lacity.org" <george.chen@lacity.org>; "norm.ross@propositiona.org " <norm.ross@propositiona.org>; "csimmons@successnet.net" < csimmons@successnet.net>; "mjolles@pacbell.net" <mjolles@pacbell.net>; "eolson@exporail.net " <eolson@exporail.net>; "rthorpe@exporail.net" <rthorpe@exporail.net >; "cmasonheller@yahoo.com" <cmasonheller@yahoo.com>; "Berdge, Patrick S." < PSB@cpuc.ca.gov>; "jguzman@nossaman.com" <jguzman@nossaman.com>; "mmattes@nossaman.com " <mmattes@nossaman.com>; "lark@chc-inc.org" <lark@chc-inc.org>; " jeff.rabin@latimes.com" <jeff.rabin@latimes.com>; "millerjo@metro.net" <millerjo@metro.net >; "khawaniv@metro.net" <khawaniv@metro.net>; "ctliteracy@aol.com" < ctliteracy@aol.com>; "glenn.striegler@lausd.net" <glenn.striegler@lausd.net >; "laurie.newman@sen.ca.gov" <laurie.newman@sen.ca.gov>; " lheller@hellerandedwards.com" <lheller@hellerandedwards.com>; "darrell@dclarke.org" < darrell@dclarke.org>; "Gregory, Georgetta" <gg1@cpuc.ca.gov>; "Pereyra, Jose" <jfp@cpuc.ca.gov>; "Petrossian, Vahak" < vap@cpuc.ca.gov>; "Koss, Kenneth L." <KLK@cpuc.ca.gov>; "Cooke, Michelle" <MLC@cpuc.ca.gov >; "Clark, Richard W." <rwc@cpuc.ca.gov>; "Laya, Virginia"

<vdl@cpuc.ca.gov>; "Gilbert, Daren S." < dar@cpuc.ca.gov>; "Hunter, Delaney" <dlh@cpuc.ca.gov>
Sent: 11/19/2007 6:46 PM
Subject: Re: FW: Community Petitions for Underground Expo Line

Forgive my misunderstanding of the letter:

"I have received inquiries from many of you about the applications filed with the California Public Utilities Commission (CPUC) pursuant to PUC Code Section 1701 requesting authority to construct rail crossings along the Exposition Boulevard Corridor Light Rail Transit Line (herein Expo Line). Many of you have expressed concern with the CPUC's time consuming process of approving these applications."

My understanding of English grammar has led me to believe that if it were just one legislator concerned with the time consuming process, the sentence would have read: "*One* of you *has* expressed concern with the CPUC's time consuming process..."

So perhaps in the interest of clearing your Commissioners' name, and clarity you can identify the "many" legislators "concerned with the CPUC's time consuming process of approving these applications."

The community and press eagerly await.

Thank you again.

Damien Goodmon
damienwg@gmail.com
323.845.2003

on behalf of Expo Communities United

BCC: The Los Angeles Press Outlets and the community

On Nov 19, 2007 6:27 PM, Zafar, Marzia < zaf@cpuc.ca.gov> wrote:

> For the record Comm Simon has not communicated with Mr Parry or Mr Wesson.
> He spoke with Mr Parks about procedure (i.e. The timing of a decision)
> and not content which you seem to do so often and that's what triggers ex
> parte communication which I have explained to you twice so far. The letter
> was addressed to all lawmakers because we didn't want to exclude one and if
> you read the letter you'll find that it is about procedure.
> I do not want to continue this dialogue, but wanted to clear my
> Commissioners name.
>
> -----Original Message-----
> From: "Damien Goodmon" < damienwg@gmail.com>
> To: "Zafar, Marzia" <ZAF@cpuc.ca.gov>
> Cc: "john.fisher@lacity.org " <john.fisher@lacity.org>; "
> george.chen@lacity.org" <george.chen@lacity.org >; "
> norm.ross@propositiona.org" <norm.ross@propositiona.org>; "
> csimmons@successnet.net" <csimmons@successnet.net>; "mjolles@pacbell.net"
> < mjolles@pacbell.net>; "eolson@exporail.net" <eolson@exporail.net>; "
> rthorpe@exporail.net" <rthorpe@exporail.net>; "cmasonheller@yahoo.com" <

> cmasonheller@yahoo.com>; "Berdge, Patrick S." <PSB@cpuc.ca.gov>; "
> jguzman@nossaman.com" < jguzman@nossaman.com>; "mmattes@nossaman.com" <
> mmattes@nossaman.com>; " lark@chc-inc.org" <lark@chc-inc.org>; "
> jeff.rabin@latimes.com" < jeff.rabin@latimes.com>; "millerjo@metro.net" <
> millerjo@metro.net>; " khawaniv@metro.net" <khawaniv@metro.net>; "
> ctliteracy@aol.com" <ctliteracy@aol.com >; "glenn.striegler@lausd.net" <
> glenn.striegler@lausd.net>; " laurie.newman@sen.ca.gov" <
> laurie.newman@sen.ca.gov>; "lheller@hellerandedwards.com" <
> lheller@hellerandedwards.com>; "darrell@dclarke.org" <darrell@dclarke.org >;
> "Gregory, Georgetta" <gg1@cpuc.ca.gov>; "Pereyra, Jose" <jfp@cpuc.ca.gov>;
> "Petrossian, Vahak" < vap@cpuc.ca.gov>; "Koss, Kenneth L." <KLK@cpuc.ca.gov>;
> "Cooke, Michelle" < MLC@cpuc.ca.gov>; "Clark, Richard W." <rwc@cpuc.ca.gov>;
> "Laya, Virginia" <vdl@cpuc.ca.gov>; "Gilbert, Daren S." < dar@cpuc.ca.gov>;
> "Hunter, Delaney" <dlh@cpuc.ca.gov>
> Sent: 11/19/2007 5:49 PM
> Subject: Re: FW: Community Petitions for Underground Expo Line
>
> Ms. Zafar:
>
> Thank you for that emphatic clarification. Since your communication,
> Judge
> Koss answered the question as to how such material evidence should be
> entered into the record through a 3-minute monotone phone conversation.
>
> Please do understand we have as firm an understanding of the Rules of
> Practice and Procedure as laypersons can. I believe other courts have
> entities that are assigned to represent communities such as ours, but alas
> our request for legal assistance by the Commission has been denied and we
> have been unsuccessful in convincing RCES and consumer advocates office
> that
> the lives of the thousands of South LA kids around the track are as
> endangered as the lives of the 20 Mount Washington kids, who they defended
> at Avenue 45 in the Pasadena Blue Line case. Being without legal
> background, we will inevitably misstep and need more clarifications, but
> we
> are capable of understanding messages delivered in lowercase font without
> exclamation points.
>
> Just one clarification: To ensure equal time is provided ECU, when did the
> three Expo Line Construction Authority board members (Jan Perry, Bernard
> Parks, and Herb
> Wesson<
> http://www.cpuc.ca.gov/PUC/aboutus/Commissioners/06Simon/speeches/expoline.htm
> >)
> make their request to speak to the Commissioner about the proceeding, and
> when and how much time were they provided? And where does one find the
> Notices of Ex Parte Communication to find out what they talked about,
> because I just looked on the PUC website and could not find them.
>
> Thank you again.
>
> Sincerely,
> Damien Goodmon
> damienwg@gmail.com

> 323.845.2003
>
> on behalf of Expo Communities United
>
> BCC: Los Angeles Press Outlets & The Community
>
> On Nov 19, 2007 2:03 PM, Zafar, Marzia < ZAF@cpuc.ca.gov> wrote:
>
> > My point is that you or anyone else cannot communicate with a
> > Commissioner UNLESS a three-day advance notice is given and the
> Commissioner
> > has accepted your communication!!!!!!!
> > if you are going to participate in our process you must respect not only
> > the process but the rules that come with it.
> >
> > Marzia
> >
> > ----------
> > *From:* Damien Goodmon [mailto:damienwg@gmail.com]
> > *Sent:* Monday, November 19, 2007 1:48 PM
> > *To:* Zafar, Marzia
> > *Cc:* john.fisher@lacity.org; george.chen@lacity.org;
> > norm.ross@propositiona.org; csimmons@successnet.net; mjolles@pacbell.net
> ;
> > eolson@exporail.net; rthorpe@exporail.net ; cmasonheller@yahoo.com;
> Berdge,
> > Patrick S.; jguzman@nossaman.com; mmattes@nossaman.com ; lark@chc-inc.org
> ;
> > jeff.rabin@latimes.com; millerjo@metro.net; khawaniv@metro.net;
> > ctliteracy@aol.com; glenn.striegler@lausd.net; laurie.newman@sen.ca.gov ;
> > lheller@hellerandedwards.com; darrell@dclarke.org; Gregory, Georgetta;
> > Pereyra, Jose; Petrossian, Vahak; Koss, Kenneth L.; Cooke, Michelle;
> Clark,
> > Richard W.; Laya, Virginia;Gilbert, Daren S.; Hunter, Delaney
> > *Subject:* Re: FW: Community Petitions for Underground Expo Line
> >
> > Ms. Zafar:
> >
> > The text of the petition is included in the communication to show
> exactly
> > how the 2651 citizens' opinions are of material value. I apologize for
> > sounding patronizing, but I suggest you reread the text to understand
> the
> > specific references to safety ("grave safety risk"), and talk to your
> > engineers to understand how train horns, bells, whistles, overpasses,
> sound
> > walls, street closures and crossing gates are related to safety of
> crossings
> > and thereby of relevance to this proceeding and not something that is to
> be
> > deflected solely to our local officials. Though thank you for the
> > suggestion on how and where to devote my energy.
> >
> > To whose attention, and how are the petitions, which are of relevance to

> > the proceeding to be delivered and entered into the record? Copies are
> en
> > route to your office. If you'd like to throw them away in the interest
> of
> > the Commissioner's time I suppose that is your decision. Just please
> direct
> > them to the location that they can be sent to be entered into the
> record.
> >
> > The truncated email list is an oversight that apparently several parties
> > in this proceeding have made and has been corrected (the CCs constitute
> the
> > updated and complete service list - myself excluded). We make mistakes
> as
> > we are not lawyers and do not have the resources for a lawyer. Our
> request
> > for the Commission to pay for a lawyer of our choosing has been
> rejected.
> > And Mr. Jolles' in the past (when he was representing ECU) was
> unsuccessful
> > in getting RCES and the PUC consumer advocates office to show the same
> > concern for the safety of the thousands of South LA kids who are
> expected to
> > walk across the Expo Line tracks in this case, as they showed for the
> safety
> > of the 20 Mount Washington kids who were to cross the Avenue 45 tracks
> in
> > the Pasadena Blue Line case.
> >
> > Thank you again for the communication,
> > Damien Goodmon
> > damienwg@gmail.com
> > 323.845.2003
> >
> > on behalf of Expo Communities United
> >
> > On Nov 19, 2007 1:08 PM, Zafar, Marzia < ZAF@cpuc.ca.gov> wrote:
> >
> > > Mr. Goodmon,
> > >
> > > I apologize for sounding harsh, but please abide by the rules. This
> > > proceeding requires that when you communicate with Comm Simon that you
> give
> > > other parties 3 days notice. I do not want my Commissioner to be
> subject to
> > > equal time meetings as he has over 100 other cases to preside over.
> Equal
> > > time means that if he meets with you or communicates with you then he
> has to
> > > afford the same opportunity to everyone else, and I would like to
> remind you
> > > again that this is not his only case. He has spent a considerable
> amount of
> > > time on this issue and I think you should devote your energy to your

> local
> > > officials who also have a say in this matter. The PUC does not have
> > > jurisdiction over whether the Expo Line should be built or not rather
> our
> > > jurisdiction lies over the safety of the crossings.
> > >
> > > additionally, any comments you may have on this issue, please ensure
> > > that all parties have seen your comments and have a FAIR opportunity
> to
> > > respond to your comments!
> > >
> > > I am going to delete your email from his in-box so he does not become
> > > subject to equal time. Please respect the record that has been
> established
> > > for this case.
> > >
> > > Marzia
> > > Marzia Zafar - Chief of Staff to CPUC Commissioner Timothy Simon -
> > > Zaf@cpuc.ca.gov - 415-703-1997
> > > ----------
> > > *From:* Koss, Kenneth L.
> > > *Sent:* Monday, November 19, 2007 12:45 PM
> > > *To:* Zafar, Marzia
> > > *Subject:* FW: Community Petitions for Underground Expo Line
> > >
> > >
> > >
> > >
> > > ----------
> > >
> > > *From:* Damien Goodmon [mailto:damienwg@gmail.com]
> > > *Sent:* Monday, November 19, 2007 12:40 PM
> > > *To:* Simon, Timothy A.; Clint Simmons; Colleen Mason Heller; Carol
> > > Tucker; Gilbert, Daren S.; Darrell Clarke; Hunter, Delaney; Gregory,
> > > Georgetta; glenn.striegler@lausd.net; jeff.rabin@latimes.com; Pereyra,
> > > Jose; jguzman@nossaman.com; khawaniv@metro.net; Koss, Kenneth L.;
> > > lark@chc-inc.org; laurie.newman@sen.ca.gov;
> lheller@hellerandedwards.com;
> > > millerjo@metro.net; mjolles@pacbell.net; mmattes@nossaman.com;
> > > norm.ross@propositiona.org; Berdge, Patrick S.; Petrossian, Vahak;
> Laya,
> > > Virginia
> > > *Subject:* Community Petitions for Underground Expo Line
> > >
> > > Commissioner Simon & Judge Koss:
> > >
> > > This email is to inform you of a material supplement to the public
> > > opinion element of the practicability standard established by the
> California
> > > Public Utilities Commission.
> > >
> > > Community groups have collected 2651 signatures to date for the
> > > following petition:
> > >

> > > "We recognize the *substantial environmental impact* of the light rail
> > > Expo Line project, which will operate all hours of the day, and will
> impact
> > > the South LA communities it passes through frequently and consistently
> for
> > > generations. We recognize the *grave safety risk* that the currently
> > > proposed median-running design and at-grade (street level) crossings
> of the
> > > Expo Line poses to motorists and pedestrians, *particularly our
> > > children, the elderly and disabled* . We recognize that with train
> > > horns, bells, whistles, overpasses, sound walls, street closures and
> > > crossing gates come *noise, blight, division, traffic congestion, *and
> *obstructed
> > > access to emergency services* . Further, we recognize that an
> *UNDERGROUND
> > > Expo Line through South LA eliminates these and other adverse
> environmental
> > > impacts, and produces a higher return on the large public
> investment*through increased ridership, reduced travel times, reduced annual
> operating
> > > cost, and increased capacity for spurs. Therefore, we *TAXPAYERS* and
> *CONCERNED
> > > CITIZENS* call upon the Federal Transit Administration, California
> > > Public Utilities Commission, MTA Board Members, the Expo Line
> Construction
> > > Authority and elected representatives to *begin building the Expo Line
> > > UNDERGROUND through South LA as far as the existing $640 million
> budget will
> > > allow, while simultaneously working together to bring more investment
> > > through annual government budgets & new resources *like Prop 1B and
> Prop
> > > 1C to complete phase 1 to Culver City." (emphasis not added)
> > >
> > > The signatures were collected primarily along the Exposition Blvd
> > > corridor and adjacent communities from Vermont/Exposition Blvd to La
> > > Cienega/Jefferson over roughly 4 weekends, and display support from
> people
> > > who live, work, attend church, visit, commute, and have children and
> family
> > > members of students at schools within close proximity of the proposed
> Expo
> > > Line.
> > >
> > > The hard copy of the petitions will be sent for hand delivery to
> > > Commissioner Simon's office. A Notice of Ex Parte Communication will
> be
> > > sent to the entire service list and by hand delivery to Commissioner
> Simon
> > > and Judge Koss by the close of business today.
> > >
> > > Damien Goodmon
> > > damienwg@gmail.com
> > > 323.845.2003
> > >

> > > on behalf of Expo Communities United
> > >
> >
> >
>